

Patty Lyons'



KNITTING
BAG OF
TRICKS

Over **70** Sanity
Saving Hacks for
Better Knitting

With illustrations by
Franklin Habit

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To David, who makes all things possible.

Words of Wisdom

—
“KNITTING
is the saving
of”
life”

Virginia Woolf



PREFACE

How (and Why) to Use This Book

What you're holding in your hands is not a learn-how-to-knit book. You won't find instructions for basic skills, like casting on or making increases, presented in an orderly sequence to take you from novice to master. In this book, I'm assuming that you've already figured out the basic skills you'll need to knit something. (And just in case you need a refresher, I've included a how-to section for some of the more advanced techniques in the back.)

Instead of a “how” book, I've written a “why” book. It's not a “why do we knit book,” but a “why do we knit the way we do” book. Once we understand the WHY we can figure the HOW to do it better!

For over a decade, I've been traveling around the country teaching knitting tricks and preaching the gospel of focusing on the why — not the how. Over the years, knitters have frequently asked me to put all the tricks in one book. (I'll try, but most likely by the time this goes to press, more tricks will have been discovered.)

I suggest that you read the book in order the first time through, from start to finish. Certain ideas build one upon the other and this will allow you to get the most from each trick. After that, I hope you'll keep it in your knitting bag and grab it anytime you want a quick refresher. Or you can flip through it in a spare moment, turning to the sections that appeal to you. However you use the book, I hope that it helps you knit better.

Words of Wisdom

—

FIGHT

FOR THE

WHY

AND BECOME A

BETTER

KNITTER !



INTRODUCTION

A Knitter's Book of Why Not

I am a self-taught knitter. Allow me to elaborate: I am a self-taught knitter who has done everything wrong and lived to tell the tale. When I first sat down to write this introduction, I realized it sounded a bit like I was introducing myself at a 12-step meeting. "Hello, my name is Patty, I am a self-taught knitter." But I think there's value in revealing how I got here and how this book came to be.

When I started knitting, I didn't always know the "right" way to do something. Sometimes I couldn't find an answer, so I made up a way. Often, when I later learned the "right way," I discovered I liked my way better. And sometimes I realized that other knitters arrived at the same solutions, working it out on their needles. For me, knitting presents countless opportunities to do things better (or easier!), and so for nearly as long as I've been knitting, I've been unventing tricks.

UNventions

An "**UN**vention," a word coined by Elizabeth Zimmermann, is something that you discover on your own while knitting. This book contains some of my favorite tricks as well as many of my own unventions, meaning nobody taught them to me and I didn't read about them in a book. I figured them out on my own needles. I don't feel comfortable saying I "invented" them since there are millions of knitters all over the world also figuring things out on their own needles. Invariably, different knitters in different places and times unvent similar solutions to tricky knitting problems. And one knitter's unvention will sometimes be built on a previous discovery. That's my favorite thing about knitting: it's a living, ever-evolving craft.

Some of the the tricks will make the end product look better, but many of them just make something easier to do. In other words, I genuinely believe that laziness is the true mother of invention.

Under no circumstance do I believe the tricks in this book are the **only** way to do things, or even the **best** way (if there is such a thing). They are just my way. My hope, gentle readers, is that in addition to having one or two “Ah-ha” moments, you will find your own ways to do things better by asking “why not.” In that respect, this is not just a knitting why book, but rather a knitting why-not book.

Right now, you may be wondering how I went from self-taught knitter to knitting teacher. Simply put, I did it by screwing up everything I possibly could; being alone without any other knitters to help me (there weren't knitting blogs and YouTube tutorials back then); and having to figure out solutions all by myself. Through that journey I discovered three fundamental truths that forever changed the way I knit:

- 1** Every mistake in knitting is an advanced knitting technique you didn't mean to use at that particular time.
- 2** There is a conspiracy of silence among knitters.
- 3** It's not you, it's them — it's the stitches' fault.

FUNDAMENTAL TRUTH #1:

Every mistake in knitting is an advanced knitting technique you didn't mean to use at that particular time.

When I was a new knitter, I used to think I made way too many mistakes. Now I understand that all those mistakes I made were just me being VERY advanced. Trying to knit rib and I forgot to move my yarn into position before inserting my needle, and I made accidental yarn overs — look at me knitting lace! Those times I changed directions in the middle of the row — who knew I could short row? I wasn't missing the stitch and accidentally working into the row below — I was doing brioche.

The chances are that you're doing this, too. Slow down. Before you rip out your mistakes, really look at them. Figure out why you did what you did. Consider if your way is better or if it can be used somewhere else in your knitting. Learn from your mistakes. You might find your mistakes lead you to a better way to build a mouse trap.

FUNDAMENTAL TRUTH #2:

There is a conspiracy of silence among knitters.

One of the hardest things for me when I first started knitting was getting used to the conspiracy of silence that I encountered. Knitters pretend certain things in knitting just work or that they are easy to do, when sometimes NEITHER is true. One day you believe that everyone but you can close that last short row in the round without that little gap, or bind off without that weird loop at the end, or knit a tiny swatch with a garter border and have it predict your gauge without making you want to stab needles in your project like it was a voodoo doll. They all just pretend that everything's fine, nothing to see here, show's over, keep moving. When the truth is ...

FUNDAMENTAL TRUTH #3:

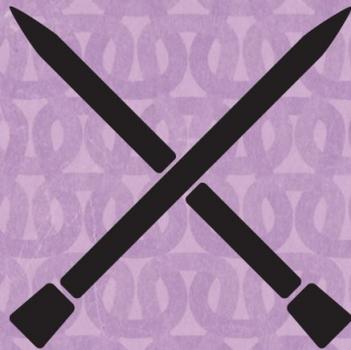
It's not you – it's them.

That's right. Ninety-nine percent of the time it's not your fault; it's the stitches' fault. Often, there's something about the stitch's anatomy that causes the problem, but no one has ever explained that to you (see conspiracy of silence, above). The pattern tells you to bind off loosely. The pattern doesn't tell you why that's harder than it sounds, or why you're being set up to fail. Instead, you try to bind off loosely, can't do it, then blame yourself for not being a good-enough knitter. That's where this book comes in. Here we will break knitting techniques down and bust some myths, always exploring not only the "why" of knitting, but also the "why not."

So grab some yarn and needles, pour yourself your favorite beverage, and let's play with our knitting!



Words of Wisdom



MAKE YOUR
STITCHES
BE YOUR

(RHYMES WITH STITCHES)



CHAPTER 1 — FUNDAMENTAL TRUTHS OF KNITTING

Before We Begin: Truths Your Mother Never Told You

Before we bring on the parade of tricks, it's helpful to discuss a few important basics. We can't change something until we understand how it's built.

Knits and Purls and All That Jazz

Let's start at the very beginning because, as Julie Andrews tells us, that's a very good place to start. Nope, I don't mean with the cast-on. I'm talking about the primordial ooze of knitting: what is a knit stitch and what is a purl stitch.

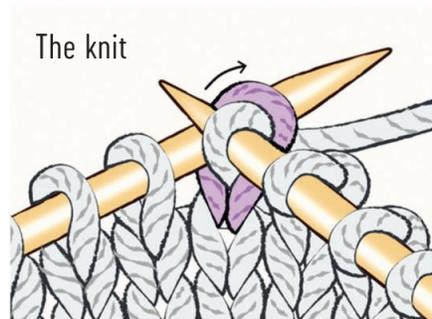
At its most fundamental, a knit stitch is a loop pulled through a loop. A purl stitch is a loop pushed through a loop. And as Rabbi Hillel might've said, "All the rest is commentary." (Google it, it's a good story.) Once you realize this fundamental truth, you see your knitting in a whole new way, and learning more complex techniques becomes much simpler.

I truly wish someone had laid it out that simply for me when I first learned to knit. My grandmother taught me the knit and the purl stitch when I was a kid, but I put knitting away for years and didn't come back to it until I was in my 20s. Then a friend taught me in what I call the "like this" method. You know, "You put your needle in here like this, you wrap the yarn around here like this, then you pull it through here like this."

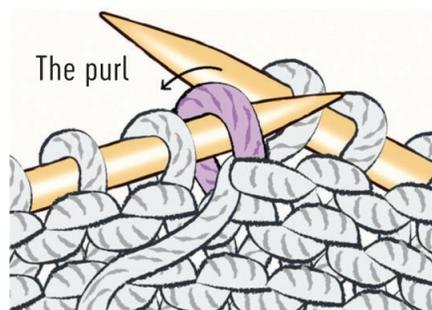
The problem with the “like this, like this, like this” style of teaching is I had no idea what I was actually doing. I didn’t see that the needle is nothing more than a tool to reach from the front or from the back, through a loop, to push or pull a new loop through. Think of it like a hand reaching through a loop to grab the yarn — heck, that’s what arm knitting is! I also didn’t see that the only difference between a knit and a purl is what happens to the head of the stitch of the row below. Let’s take a closer look.

Stitch Anatomy: The Naked Truth

When we knit, we insert our needle front to back to PULL a new loop through, and the head of the stitch of the row below pushes to the back. The arrow to the right shows the head of the stitch moving to the back.

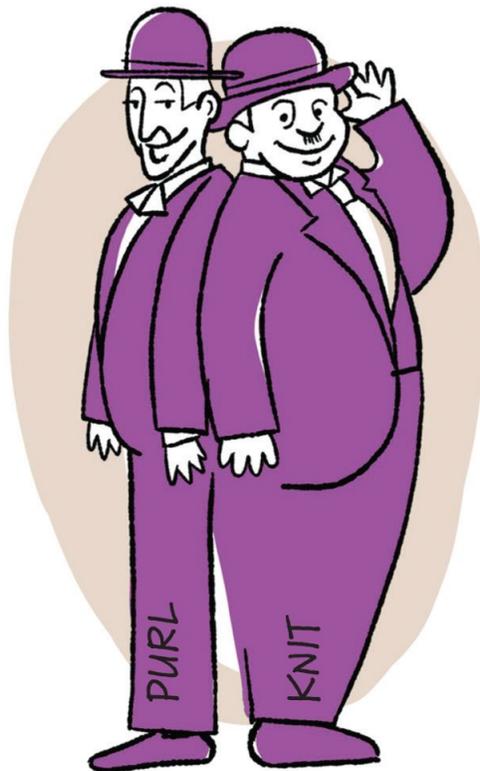


When we purl, we insert our needle back to front to PUSH a new loop through, and the head of the stitch of the row below pushes to the front (and becomes the purl bump around the neck of the new stitch). The arrow to the right shows the head of the stitch moving to the front.



Understanding the purl bump was my first baby step in seeing that it's not me, it's them. For a long time, I'd wondered why my stockinette stitch always curled. What was I doing wrong? Once I understood the way the knit stitch and the purl stitch worked, I realized it had nothing to do with the way I knitted and everything to do with the structure of the stitches.

Stockinette stitch is the Laurel and Hardy of fabrics. The knit stitch is wide and short (a bit top-heavy, like that person who consistently skips leg day at the gym), while the purl is tall and thin. That means, and I know this sounds wacky, that with stockinette you have a fabric that is wider on the public side (the knits) than the private side (the purls). When all the purl bumps are pulling to the same side of the work, your fabric will curl.



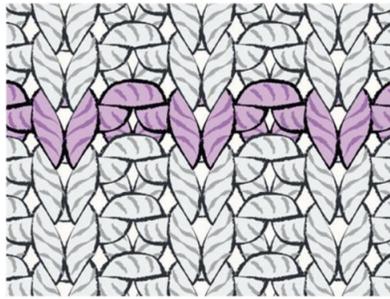
That's why that stockinette scarf I so proudly knit when I was new immediately became a stockinette tube. I told everyone I did that on purpose. I lied.

Now, if you Google “how to stop stockinette from curling,” you will find many helpful blogs and YouTube videos with suggestions on how to fix that, but here is the real answer to how to stop your stockinette from curling: you can’t. THEY ARE ALL LIES, LIES I TELL YOU!

That being said, the purl bump is an amazing creature and understanding what it does to your fabric will help you control your stitches.

RIBBING: COLUMNS OF PURLS

When purls are stacked vertically, they recede and the fabric stretches horizontally, like ribbing. This makes sense, knowing that the knit is wider than the purl.

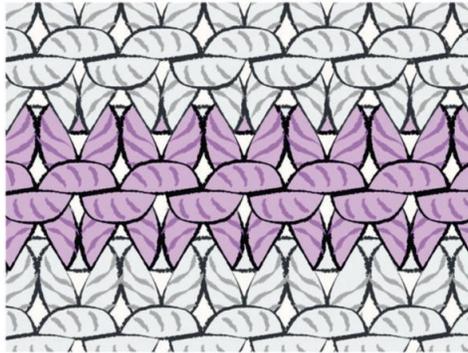


Visualize three friends lying on the beach, two pals on either side of the middle person who naturally sinks into the sand when squeezed between the broad shoulders of their friends.

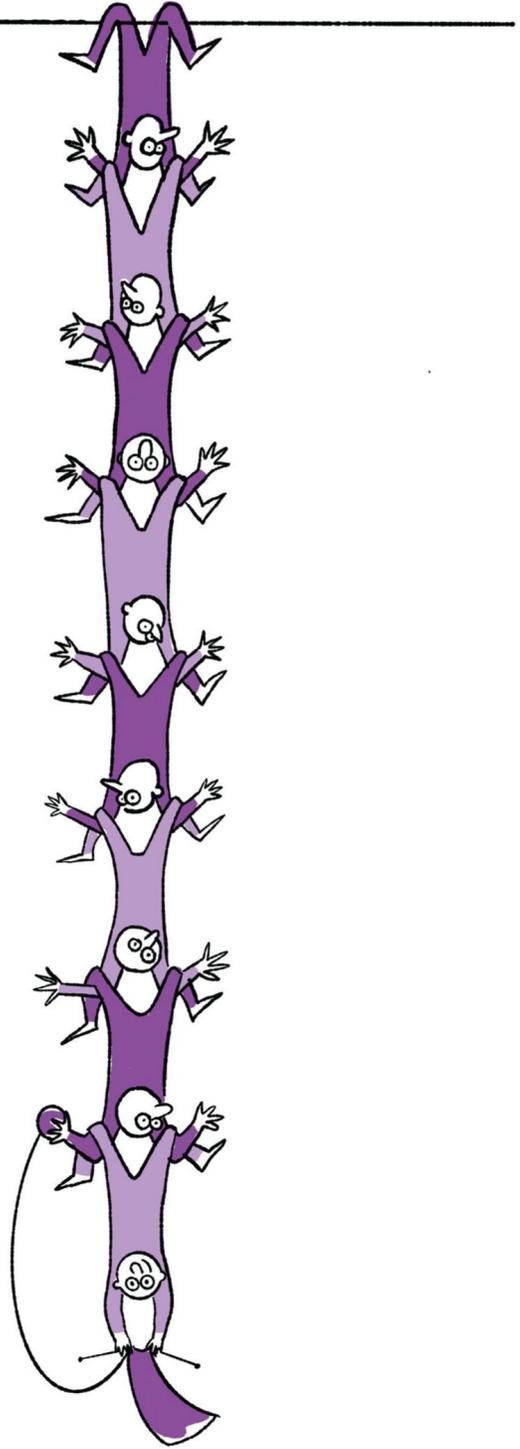


GARTER STITCH: ROWS OF PURLS

When purl bumps are stacked horizontally, they stick out and the fabric stretches vertically, like garter. Wait a minute, you are saying, I thought purl bumps were the skinny stitches! It's true that garter stitch can create a compressed fabric when it's worked for only a few rows, like a garter hem; however, garter will stretch out with gravity when it's worked for many rows.

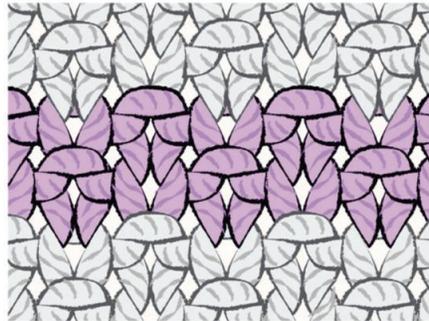


Visualize a pair of Cirque du Soleil acrobats, with one sitting on the shoulders of another, nice and compact. Now visualize eight acrobats stacked hanging from the high wire, legs hooked around shoulders, and see what gravity can do.



SEED (MOSS) STITCH: EQUAL NUMBERS OF KNITS AND PURLS

Now think about fabrics that have knits and purls evenly distributed across the fabric, like seed stitch, moss, or even basketweave. When knit and purl bumps are distributed in equal amounts on the face of the fabric, the fabric lies flat. The knit's tendency to stretch wide and the purl's tendency to pull upward balance each other out and the fabric stretches equally horizontally, vertically, and diagonally. This creates a stable fabric.



Now that we know what a knit is and what a purl is, we know everything there is to know about our knitting, right? Not so fast. We also need to know *how* we are knitting or purling. In class I often ask for a show of hands for who is an Eastern knitter (a few hands), a show of hands for who is a combination knitter (a few hands), a show of hands for who is a Western knitter (a few hands), a show of hands for who has absolutely no idea what I'm talking about (a LOT of hands). We'll talk about this in a moment.

Remember, we can't change the way we make our stitches if we don't know HOW we are making our stitches. Time to look at ...

How Our Stitches Are Built

Of all the fundamental truths about knitting, here's a biggie that no one talks about. It's the foundation of every knitting trick in this book. It is this simple fact: where we put the needle and how we wrap the yarn are totally unconnected.

As a self-taught knitter, I had to fight through a lot of mistakes to learn the truth about how our stitches were built. I was taught that where I put my needle (through the front loop) and how I wrapped the yarn (under for the knit, over for the purl) were one inextricably connected move — “like this, like this, like this.”

This is simply not true.

In addition, sometimes I would twist my stitches, but I didn't know how or why. I spent a lot of time ripping out. That's because we can't fix something if we don't understand how it's built.

Before we can truly take control of our stitches, we need to understand these two separate steps:

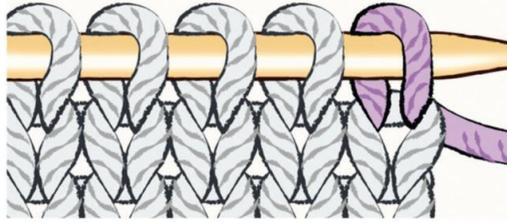
- 1** Where we put our needle: inserting our needle in the **existing** stitch.
- 2** How we wrap our yarn: the direction we wrap our yarn around the needle to pull the yarn through to create our **new** stitch.

STEP #1:

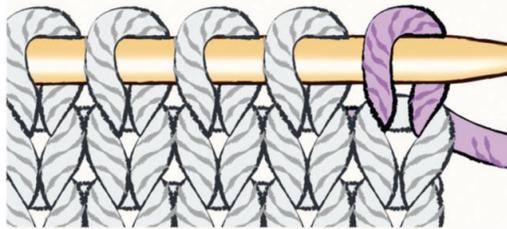
Where We Put Our Needle: To Twist or Not to Twist

When our stitches are complete and off our needle, our fabric lies flat, but when those stitches are on the needle, they straddle the needle with one leg in front and one in the back.

Leading leg in the front



Leading leg in the back



The leg that is closest to the tip of the needle is in the lead, so it's often called the leading leg. The leg that is farther away is called the trailing leg.

Think of your stitches like a bow-legged cowboy straddling a tiny horse, with one leg in front and one in back.



Where we put our needle determines if we twist our previously made stitch or leave it open. When we put our needle into the trailing leg, we bring what was to the left over to the right and, like an American driving in the UK, bad things happen and we twist the stitch.

Let's look at what happens if we knit through the front loop when our stitch sits with the leading leg in the back: we twist the stitch. If we want to leave our stitch open, no matter how it sits on the needle, we must put the needle into the leading leg. In simpler terms, we put the needle "in the hole."



Here our stitch is sitting with the leading leg in the back, so the needle goes into the back loop, into the hole. What starts to the right stays to the right and the stitch stays open. Look at that loop on the needle, and like an acrobat leaping through a ring of fire, go right through the hole and you won't get burned!



Once I understood the importance of the leading leg, I knew how to avoid twisting a stitch if I had it on the needle *backward* (or rather, backward to me). What I didn't know was what made it sit on the needle one way or another. More important, I didn't know that the way I learned to knit and purl was not the only way.

There was a missing piece of the puzzle that I didn't have yet. I didn't know it was the direction in which I wrapped my yarn that controlled how the stitch sat on the needle — that is, until I met Marina.

ALL ROADS LEAD TO ROME

(OR THERE'S MORE THAN ONE WAY TO KNIT A STITCH)

This was not something I ever thought about until I made the mistake of referring to a knitter's stitches as being **backward** and was corrected by a wonderful Russian knitter named Marina.

I was working at a yarn store at the time, and a knitter came in to get help. She had ripped out her knitting and put it back on the needle, and all her stitches were sitting with their leading legs in the back. Since I had never seen stitches that looked different than from mine, I incorrectly assumed she had reversed her stitches when she put them back on the needle. Little did I know the world that was about to open for me.

I offered what I thought was a helpful bit of **expert** (ha!) advice when I told her she didn't have to flip the stitches around to fix them, but as she knit the next row, she could just work into the back loop to **fix** her stitches. She looked at me like I had two heads and said, "Right, that's how you knit." I said, "Oh, you know that trick." More confused than ever, she asked, "The trick of knitting?" I dug myself in even deeper when I explained that all her stitches were sitting backward on her needle. Finally, another knitter who had been listening to this whole embarrassing exchange blurted out in frustration: "They are not backward; they are backward to you."

This was when Marina showed me how she knit and I began to truly understand the power of the leading leg and what controls it.

Which brings us to Step 2...

STEP #2:

How We Wrap Our Yarn, Sitting Pretty

You see, Marina wrapped her yarn around the needle differently than I did. Her stitches were not backward, they were backward to me. How we wrap our yarn affects the new stitch we are creating. We can wrap our yarn going **under** then around the working needle, or we can wrap our yarn by going **over** then around the working needle. Which direction you choose determines how the new stitch sits on the needle for the next row.

Think about Steps 1 and 2 and you'll see that where we put our needle (Step 1) affects our NOW — meaning do we work into the trailing leg and twist that stitch or work into the leading leg to leave it open (or as Marina so simply put it, “put the needle in the hole”). The direction we wrap our yarn (Step 2) affects our FUTURE, meaning it determines how the new stitch sits on the needle for the next row.

How you wrap the yarn will affect how your stitch looks when it's sitting on the needle. However, if that stitch is worked correctly (not twisted), it will look the same once it's off the needle. Marina's knitting and my knitting looked exactly the same even though we had created the stitches differently.

Shocking conclusion (insert dramatic music here): there is more than one way to make a stitch.

Eastern, Western, or Combination: The Direction You Travel

When knitters talk about different ways to knit, they often think of knitting styles. You might have heard terms like *Continental* or *English*; these are knitting styles. A knitting style is different from a knitting method. Since knitters love to create multiple names for the same thing, this can get confusing. Continental knitting (holding the yarn in your left hand) is also called picking or German knitting. English knitting (holding the yarn in your right hand) is also called throwing, and in some old knitting books, American!

There are other knitting styles that involve the yarn going over your neck or around a knitting pin. I first heard this called Portuguese

knitting. Many years ago a student from Bosnia saw me knitting with my yarn around my neck and she said that was how she knit as well. I asked her what she called her knitting style (since I had heard it called so many different things – Peruvian, Andean, Portuguese) and she said “I call it knitting.”

No matter what you call these, a knitting style is different from a knitting method. A knitting style has to do with which hand does what, but a knitting method is about the actual construction of the stitch, including where you put your needle and how you wrap your yarn. I’m going to focus on knitting methods, rather than styles, since knitting methods affect the make-up of the stitches.

Knitting Methods

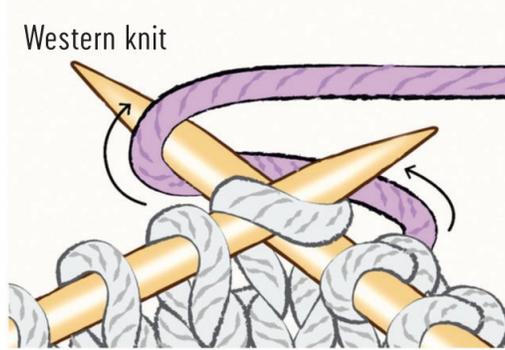
There are three different methods of knitting: Western, Eastern, and Combination. Look at these three factors to determine what knitting method someone is using:

- How the stitch is mounted on the needle;
- Which leg of the stitch the needle enters; and
- In which direction the yarn is wrapped.

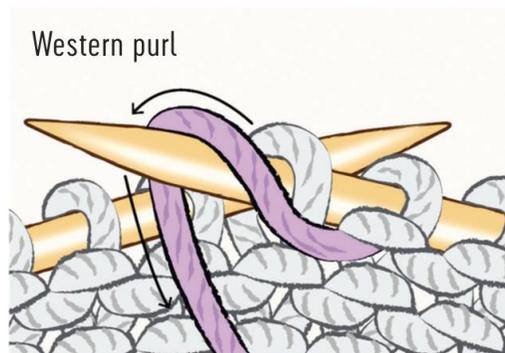
KNITTING METHODS AT A GLANCE

WESTERN

A Western knitter’s stitches sit with the leading leg in the front. The stitch face — the hole which the needle enters — is facing left. This is called a Western mount.



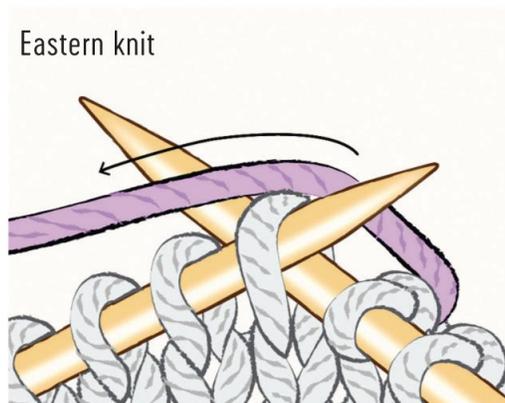
Knit stitch = work in front loop, enter from left, wrap yarn under needle



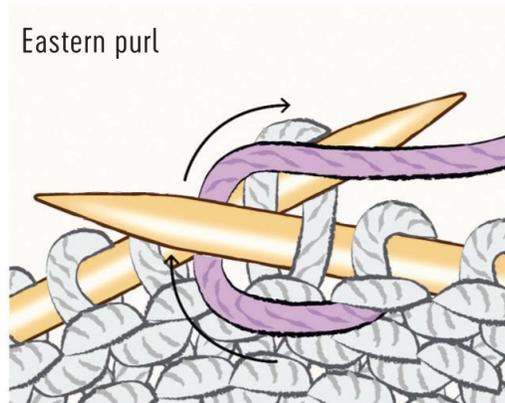
Purl stitch = work in front loop, enter from right, wrap yarn over needle

EASTERN

An Eastern knitter's stitches sit with the leading leg in the back. The stitch face — the hole — is facing right. This is called an Eastern mount.



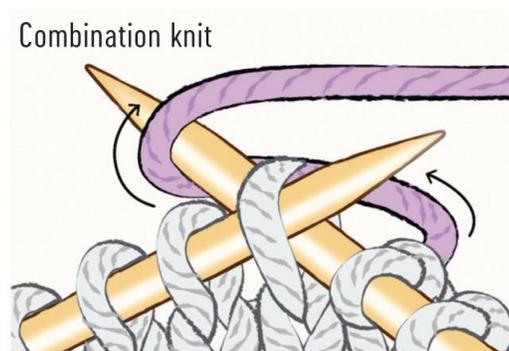
Knit stitch = work in back loop, enter from right, wrap yarn over needle



Purl stitch = work in back loop, enter from left, wrap yarn under needle

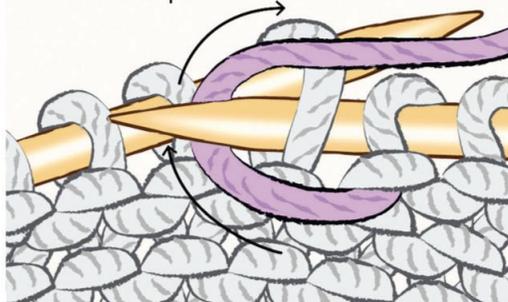
COMBINATION

A Combination knitter, as the name implies, combines these two methods. The knit stitches sit with the leading leg in the back (Eastern mount), while the purl stitches sit with the leading leg in the front (Western mount). To knit, the needle enters the back loop, but the working yarn is wrapped under the needle. Wrapping the yarn under the needle for the knit will reseal the stitch for the next row with its leading leg in the front (Western). To purl, the needle enters the front loop, with the working yarn wrapped under the needle.



Knit stitch = work in back loop, enter from right, wrap yarn under needle

Combination purl



Purl stitch = work in front loop, enter from right, wrap yarn under needle

Once we understand the different methods of knitting, we can control everything about our stitches. Standard knitting instructions are written for a Western stitch mount. However, you'll see as you knit along with the tricks in this book that we will often be wrapping our yarn "the wrong way" or putting our needle "where it's not supposed to go." Just remember, we aren't going to worry about doing things the "right" way, but a better way.

Now that we've figured out how we are knitting, we're ready to dive headfirst into our project, right? Not quite. We just learned how stitches are made and structured — and how your stitches are structured can affect the accuracy of your gauge. Now you didn't really think we weren't going to talk about gauge, did you?

Words of Wisdom

—

IF YOU **DON'T**
HAVE TIME TO
SWATCH



SAVE TIME TO
RIP OUT
YOUR SWEATER!



CHAPTER 2 — GAUGE

The G-Word (or the Lying Liar Who Lies to You)

I'll never forget standing on line at a conference behind two students talking about what classes they were taking. One knitter said, "I'm taking a class on how to make gauge work." Her friend rolled her eyes and said, "Ah, the class nobody wants and everyone needs." Yep, that pretty much sums it up. But we're all grown-ups here, so let's talk about the elephant in the room, the fly in the ointment, the kill to your buzz: gauge.

Tiny Sweaters to Giant Hats

As a self-taught knitter, my path to understanding gauge was a long and winding road littered with ill-fitting sweaters and giant hats. I swung from one ridiculous extreme to another. I went from thinking gauge was an interesting FYI that I did nothing to control to believing I could use any yarn as long as I used the right needle.

The biggest complaint I hear about swatching is "What's the point when my swatch gauge is always different from my finished sweater gauge?" In other words, knitters are convinced that their swatches lie. Do they? Do they **really**? Or do we lie to ourselves? Before we explore **how** to make a truthful swatch, we need to discuss **why** we swatch (hint: it's not what you think).

The Miracle Mop of Swatching

Late-night television used to be full of “easy fixes to hard problems” and — spoiler alert — none of them ever worked. I have heard every “you just” method of swatching in the book, but there is no shortcut. And why would we want one? This is knitting! This is the fun part: getting to know your yarn and your stitch pattern. Can you imagine a chef creating a recipe but not wanting to *waste time* tasting the ingredients? So much has been said about why a knitter must swatch, but the focus is always on the wrong *why*.

Before we bust the cycle of lies so we can get a truthful gauge, we need to understand **why** we swatch. Are you sitting down? It’s not to match gauge. Wait, before you run to the store to get a refund on this book, hear me out. The purpose of knitting a swatch is not to **match** gauge, it’s to make a fabric you like and to **know** its gauge.

The math needed to adjust for your gauge is easy; knitting an entire sweater out of the wrong fabric is not. A sewer would never walk into a fabric store with a pattern for their crisp linen suit and see the drapey, slinky silk and think, “Yes, I will make my crisp linen suit from you.” They would know it’s the wrong fabric. What we knitters sometimes forget in our desire to just cast on and knit is that interlocking loops of yarn build a fabric. When we swatch, we are making a fabric sample to make sure it works with the stitch pattern, has the desired drape, and is stable enough for a sweater. It is not a pass/fail test to see if you can match the magic number listed in the pattern.

Instead of playing match game, I prefer to think of swatching like dating your yarn. It’s playing the field a bit before settling down. It’s also playing matchmaker: Yarn, meet pattern. Pattern, meet yarn. Is it a match? Try reversing the order of swatching. Instead of picking a project and then swatching, swatch to pick your project. So while you’re in the blush of new love, go home, crack out those stitch dictionaries and play. Swatch with no goal in mind. Find out if that yarn likes cables, lace, color work. Swatch to find out what project it wants to be!

Remember, not all yarn wants to be all fabrics. When it comes to a sweater fabric, if you can see through it or you can stick your finger between the stitches, it's probably not a stable enough fabric for a sweater. On the other hand, if your sweater can take a bullet or stand up on its own with nobody inside it, that might not be great either.

The bottom line: your swatch should be an accurate predictor of the fabric you are going to make and the gauge you are going to get. Your swatch should be the same as if you cut a big square of fabric right out of your sweater.

So now that we've gotten to the bottom of why we swatch, let's face our fear and examine some of the most common swatching mistakes.

SWATCHING SNAFUS: DENIAL IS NOT JUST A RIVER IN EGYPT

Before we get into the measuring and the math, let's uncover the most common swatching lies. Let me hear an "Amen!" if you read one that applies to you.

-
- **We don't cast on enough stitches.** Because going back and forth over a small number of stitches is pretty much the same as knitting a human-sized garment, right?
 - **We only knit a few inches.** This is also known as the old "it looks close enough so I'll stop now" technique.
 - **We stretch the swatch or squinch it up to the gauge we need.** The equivalent of holding your breath when you put on a pair of 10-year-old jeans and telling yourself they fit — as long as you don't move or exhale.
 - **We don't bother washing our swatch.** Um ... are you planning on blocking your sweater? Or washing it?
 - **We don't factor in gravity.** Also known as the sweater that fit you like a dream for 45 minutes and then started to grow ...
 - **We leave the stitches on the needle to measure.** Unless you are Carol Burnett in the *Gone with the Wind* skit (Google it), that's not going to work.
-

If any of this sounds painfully familiar, fear not gentle reader. The truth will set you free.

The Truth Is Out There (Or Make Your Swatch Be Your Best Friend)

We don't need a swatch that lies to us. We need our swatch to be our best friend. You know, the one who says, "Yes, yes, those pants do make your butt look big." We need it to tell us the truth, even if it's

not what we want to hear. Here are my simple steps to avoid the swatch denial trap.

HOW TO MAKE YOUR SWATCH

Cast on enough stitches.

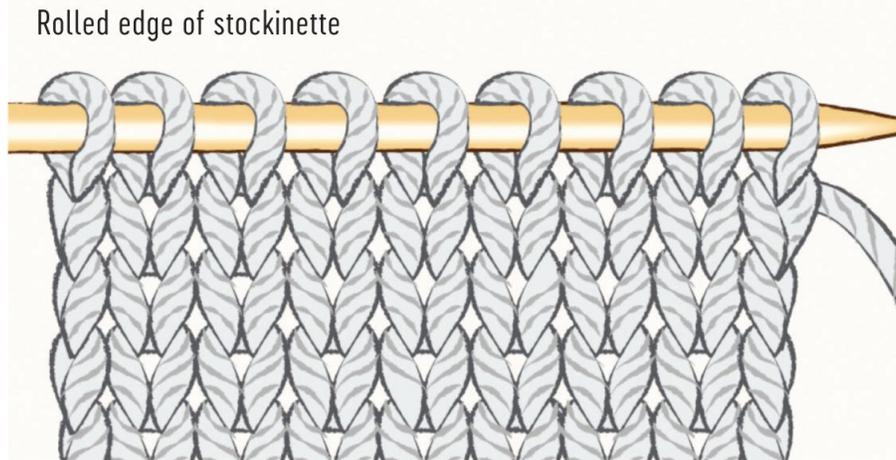
We need to have enough stitches on our needle for two reasons: (1) so we can knit naturally, instead of going back and forth on a tiny swatch; and (2) so we create enough fabric to measure the swatch properly, staying away from the distorted edge stitches. For finer yarns (24 to 32 stitches per 4in/10cm), you can cast on about 6in/15cm worth of stitches, but for heavier yarns, since they have fewer stitches per inch, a swatch of 8–10in/20–25cm is a good range.

Work enough rows.

Remember when we were beginner knitters, and we cast on until we had 8in/20cm of stitches on our needle, because we wanted an 8in/20cm scarf, then after knitting for a while realize we have a 12in/30cm wide shawl? We need to knit a long enough section so that our stitches can relax and, most importantly, so we can relax into our natural style of knitting.

WHY NOT CAST ON ONLY THE NUMBER OF STITCHES FOR YOUR GAUGE?

I'm sure you've heard this one: If your desired gauge is 20 stitches over 4in/10cm, then just cast on 20 stitches and measure it, changing needle size until the swatch is 4in/10cm square. The problem with this is your edge stitch has a totally different anatomy. The first stitch of flat knitting is the only time your yarn leaves one stitch (the last stitch of the row) then doubles back and goes back in the same loop it just came out of, causing it to roll to the back. This will skew your measurements.



*I can hear you muttering under your breath, “That’s why I add a nice wide garter border, so the swatch lies flat.”
Hold on, we’re getting there ...*

Swatch the type of stitches needed.

For a stockinette swatch, use plain stockinette — no border. If the edges' rolling really bothers you, skip the top and bottom rows of garter and just use a couple of garter stitches at the edge, or better yet, a bit of seed stitch (moss stitch) since it has the same gauge as stockinette. If you are swatching a pattern stitch, like cable or lace, where the pattern lists the gauge by the width of the full repeat, add

a bit of stockinette or seed stitch (moss stitch) on either side of your repeats.

WHY CAN'T I ADD A WIDE GARTER BORDER TO STOP THE ROLLING?

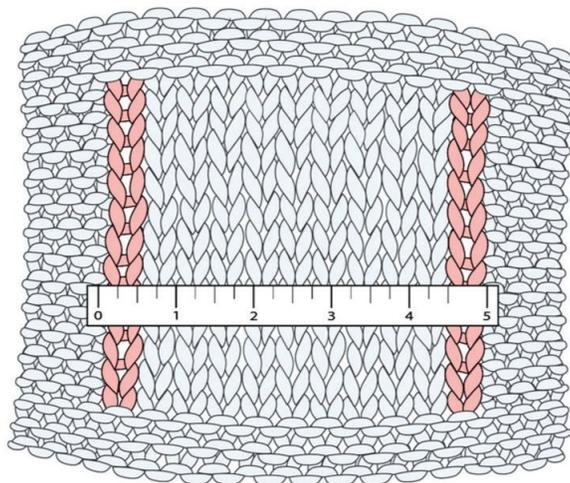
This is one of those bad swatching practices that just won't die. It features a dangerous formula:

a small swatch + a large garter border + stretching in blocking = a lying swatch.

Do you have any idea what garter stitch (knitting every row) does to a tiny swatch? Garter stitch has a tighter row gauge than stockinette. Remember the Cirque du Soleil acrobats and what we learned about garter? Because the garter pulls in the sides of your swatch, it can distort the fabric, making measuring row gauge pretty tricky.

But what about stitch gauge? Why can't we just measure from the purl bump on one edge to the purl bump on the other edge? We can't measure gauge like this because those knit stitches next to the garter edge are a different size than the stitches in the middle of your swatch. The reason: the extra yarn used when you move your yarn from back to front in the transition between the knit and the purl (we're going to dig into this more when we fix our ribbing). So measuring from purl bump to purl bump will get a gauge that is a lie.

Wide garter border distorts gauge



Knit the swatch the way you'll knit the project.

That means more than just using the same needle size. It means using the same EVERYTHING. Did you know that needle material can affect your gauge? (Fun fact: you can often change your row gauge by keeping your needle size but changing needle material.)

Less tangible things can affect gauge as well. In my gauge class, I tell students that I used to swatch on the subway, because that is where I did most of my knitting. If you only knit in the evening with a glass of wine, watching TV, then pour yourself a lovely chardonnay and sit down in the evening to swatch. If you get a few rows done every morning after pouring a cup of coffee down your throat and fighting with your kid, put on a pot of coffee, pick a fight, and cast on for your swatch.

Maybe someday, instead of merely listing the needle size “to achieve gauge,” patterns will say, “knitter was using a circular needle with 4in/10cm interchangeable tips. Needle material was surgical stainless steel. Knitter was a Continental knitter, who purled backward and had just had a huge fight with her mom.”

HOW TO MEASURE YOUR SWATCH

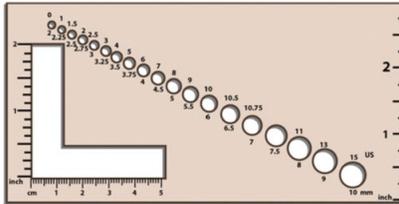
Now that you have a nice big section of knitting, you can get your true gauge. You want to measure both unblocked and blocked so you can get a sense of how the fabric changes after blocking. Your edges will curl, but by knitting a large enough swatch you can stay away from those edges.

I prefer a hard ruler to a tape measure since tape measures can stretch out. Lay that ruler down, making sure your ruler doesn't tip up or down and you are going across one row. Then count each whole stitch.

CAN I USE A 2IN/5CM GAUGE WINDOW TOOL?

These tools can be problematic for a couple of reasons. First, sampling only 2in/5cm of your knitting is not going to tell you much — you need to see more. Second, when you cover up most of your stitches and see only what appears through the window, you may inadvertently round up or down by ignoring partial stitches that get obscured by the window.

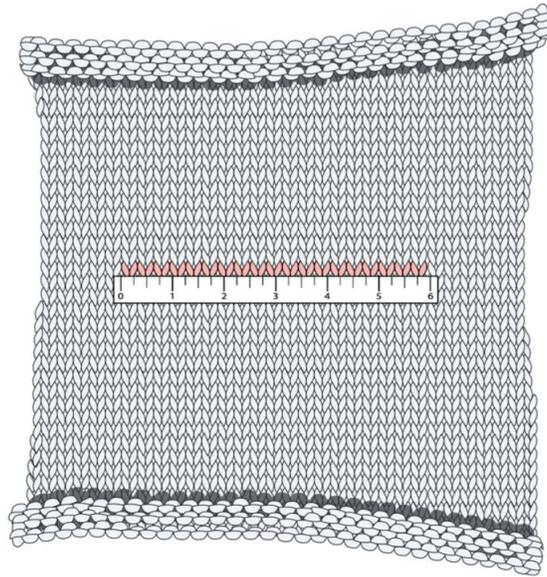
Small window, covers stitches



Start by measuring your unblocked gauge.

Of course, your swatch may roll when it's unblocked, but you can still get an unblocked measurement. Because you have a larger swatch, you'll be able to put that hard ruler down in the middle of the fabric away from the edges.

Measure unblocked



Next, measure your blocked gauge.

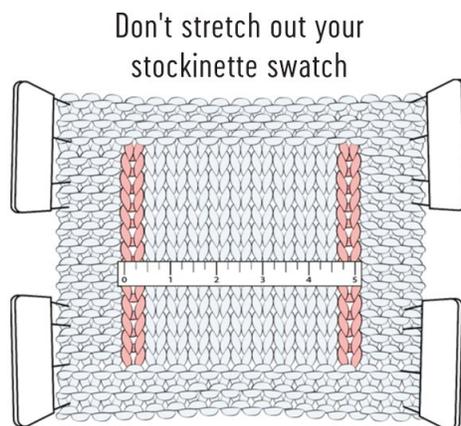
Block your swatch exactly as you would treat your finished garment. This might mean a soak or a steam, or for more delicate fibers and garments that will not be washed (think shawls and scarves), a spray with water.

Although cables or lace might need to be opened up by vigorous pinning, do not stretch or pin out a stockinette swatch. After a lovely, relaxing soak or steam, just gently squeeze out the water, lay it flat and let it dry.

WHY NOT PIN MY STOCKINETTE SWATCH INTO A SQUARE?

Here's another danger zone: pinning out your blocked swatch. Knitters often notice the distortion of the edge (especially if they've used a garter border), then try to *correct* the distortion by forcing the swatch into a square when they pin it out.

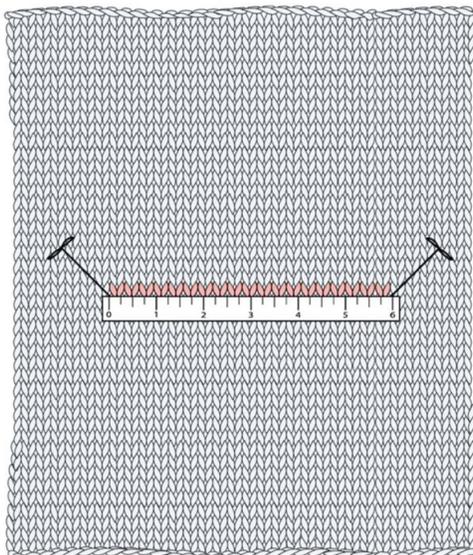
Funny thing about stretching a stockinette swatch: eventually your stitches are going to return to their natural size. If you unpin that swatch and measure it the second it's dry, you'll get a totally different gauge than if you measure it a day later, after it relaxes back to its former self. Unless you are going to have two attendants walk on either side of you stretching out your sweater, you can't rely on this swatch. It's a LIE!



Once dry, give it a shake, a stretch (think about what a sweater does when you pull it over your head to wear it), and just let it relax for a while before measuring it.

Because you knit a larger swatch, you can get out a ruler and measure until you get to a whole stitch on a whole inch. Say you measure 4in/10cm and the ruler mark ends on a partial stitch. Keep measuring to the 5in/13cm line. If you end on a partial stitch again, keep measuring to the 6in/15cm mark. Let's say, in our example, the 6in/15cm measurement ends on a whole stitch.

At 6in/15cm you count 25 stitches. $25 \div 6in/15cm = 4.17$ stitches per 1in/2.5cm. This means your real, relaxed, knit-the-way-you-knit, not distorted, not stretched out, non-LIE gauge is (drum roll please) 16.7 stitches per 4in/10cm. So if the pattern calls for 16 stitches per 4in/10cm, you know how your gauge compares.



MARK AND MEASURE = MORE MATH!

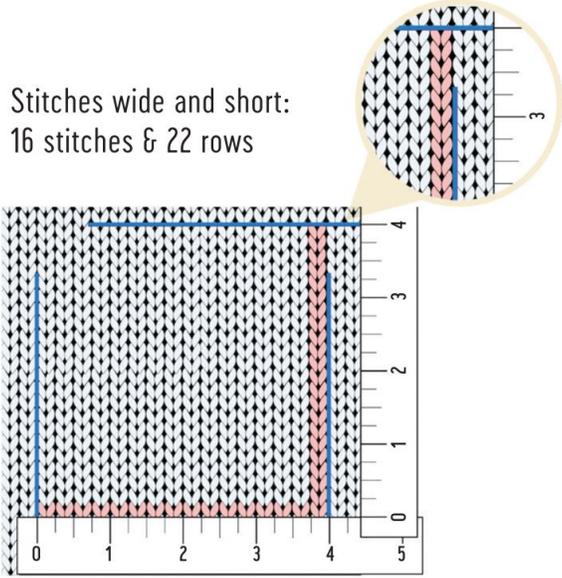
Another way to measure is to mark out a good section of your knitting in the middle of the swatch. Measure to the nearest 1/16in/1.5mm and then do the math. For instance, suppose you mark out 30 stitches and it measures 73/16in/18.5cm. First you convert the fraction to a decimal point (7.19) and then you can divide. $30 \div 7.19in/18.5cm = 4.17$ sts per 1in/2.5cm. You calculated the same gauge as measuring to a whole stitch on a whole inch (or cm) — but it takes a bit more math.

IS YOUR SWATCH WELL HUNG?

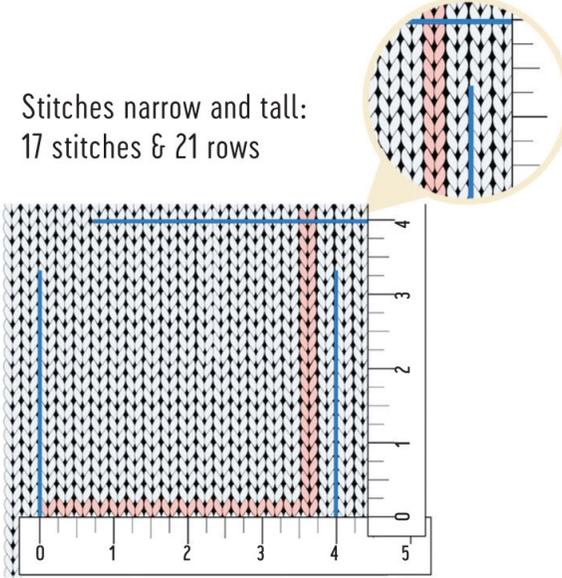
Finally, if you suspect your fiber might be a grower (see [Chapter 3](#)), or you are knitting a long garment or a garment with a heavy stitch pattern, you might want to see what gravity will do. Once the swatch is dry, hang it and add a bit of weight (I use earrings that hurt my

ears) to simulate the weight of the garment. You don't have to get too precise estimating the exact weight. Let it hang overnight, let it rest, and remeasure both stitch and row gauge. Why remeasure stitch gauge? Because our stitch and row gauge are linked. The longer a stitch gets, the narrower it gets. Take a look at the drawings to the right. Notice how when your swatch stretches to its finished length, each stitch gets narrower and taller.

Stitches wide and short:
16 stitches & 22 rows



Stitches narrow and tall:
17 stitches & 21 rows



TIP: If you are working with dark or fuzzy yarn, you might have trouble seeing your stitches. Tape your swatch to a window, let the light shine through, and measure it there!

Long story short (I know, too late), approach your swatch the same way you would approach your project, which means use the real tool, knit the way you knit, and make sure you have a realistic section of your knitting to measure, then measure accurately without fudging. It's always best to face the truth, even if it's not what you want to hear.

WHAT NOW — UP OR DOWN?

If you don't like the fabric you are getting and you want to change it, you need to change needle size. Should we go up or down a needle size? Believe it or not, this decision sometimes trips up even experienced knitters.

Remember: if you have **more** stitches per 4in/10cm than the pattern calls for, then your stitches are too small. Go to a larger needle. If you have **fewer** stitches per 4in/10cm than the pattern calls for, then your stitches are too large, so go to a **smaller** needle. Think of it this way, if you can fit more stitches into the same space than the designer did, it's because those stitches are smaller.

The same principle applies to row gauge. But I often find knitters mix this up when it come to length. I remember a knitter saying once, "I'm only getting 28 rows, not 32 rows per 4in/10cm, but I'm short, so I want my garment shorter anyway." If you are getting fewer rows that fit into the same space than the designer did, your rows are taller. If you are following a pattern with row gauge instructions, such as decreasing every eight rows, your eight rows will be longer than the designer's. Visualize lining up eight iPhones on a table versus eight iPads. You will have to adjust the pattern for row gauge.

Build a Better Fabric: Knitting Technique

What if you change needle sizes but your gauge doesn't change much? Don't despair. Here's another secret nobody talks about: we are not machines and we do not always knit using the optimal technique. Did you ever wonder why some knitters always have to go down three needle sizes while others go up three needle sizes? It's all about how you use your needle and where you form your stitch.

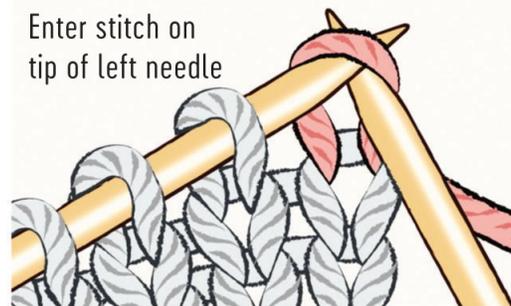
As with most things in my life, I want to do that with as little effort as possible, so let the tool do the work!

THE PERFECT TOOL: YOUR MEASURING CUP

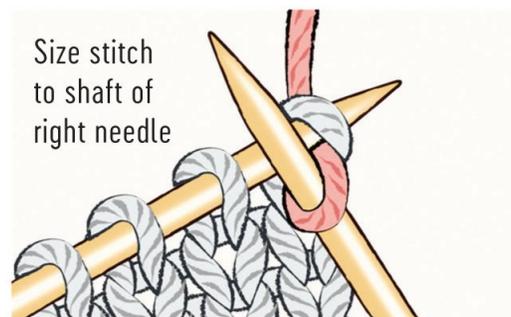
We have in our hands the perfectly designed tool to create the perfectly sized stitch every, every, every time. We have the humble knitting needle, but we have to use every part of it correctly to create a perfect stitch. Your needle has a narrowed tip and your needle has a shaft. Each has a job to do. The lovely, tapered tip of the needle is there so we can advance the stitch we are about to work to the tip of the left needle (or giving needle), giving us room to enter it with our right needle (or receiving needle), without stretching out our stitch.

The shaft of the needle is what sizes the stitch. We wrap the yarn around the shaft of the right needle to create a new stitch. Needles come in different sizes so we can select the one that gives us the size we want. Think of it as your measuring cup.

How do we create a perfectly measured stitch? First, advance the old stitch to the tip of the left needle. Notice that leaves empty space underneath our old stitch so we can now use the right needle to enter the stitch without distortion.



Wrap your yarn around your needle and with even tension still on your yarn, pull or push the new loop through the old loop. Here's the most important part: make sure your new stitch is sized to fit the shaft of the right needle before you exit.

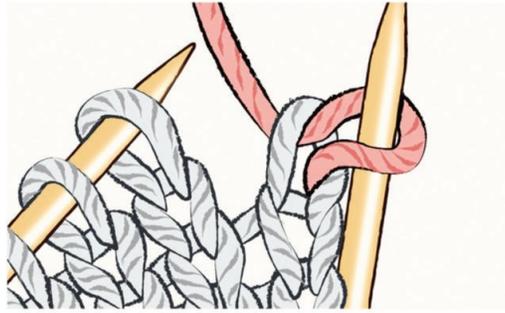


THE GRAB-N-GO VS. THE TIP WORKER

Knitters can get themselves into trouble when they don't take advantage of the structure of their needles. Some end up as loose knitters; others as tight knitters.

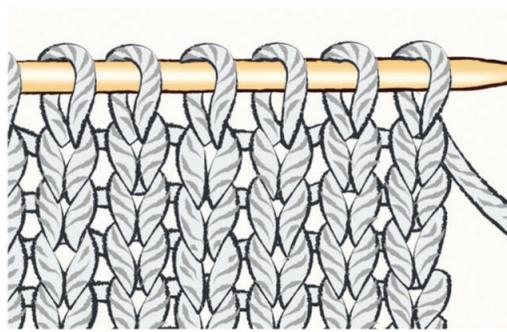
Many loose knitters are what I call a "grab-n-go." A grab-n-go knitter uses their needle as a tool to reach through the old stitch, then grab some yarn and pull it through to the receiving needle, but they stop there. They're not using the needle to measure the new stitch they're making. This is like reaching into the flour with the measuring cup and bringing up a big heaping cup of flour — but then not leveling it off.

Stitch is not sized to the right needle



The telltale sign of not using your needle to size your stitch is when you can see space under the needle. Sometimes there's so much space, you can fit another needle underneath your stitches.

Space under stitches



You might think you can pull that stitch loosely through and once on the right needle, give a yank to the yarn to tighten it up. But that only lifts up the legs of the row below; it doesn't size the new stitch. There's no crying in baseball and no pulling in knitting.

Pulling on yarn lifts up the row below



But what about the too-tight knitter? How does that work?

A “tip worker” is the knitter that creates a stitch so tight they can barely insert a needle into it. Tip workers advance the old stitch to the tip of their left needle without any problem, but once again, they are skipping sizing the stitch. Instead of sizing the new stitch to the shaft of the needle, they remove their new stitch while it’s still on the tip of the right needle.



Since the needle tip is much thinner than the shaft, they have made stitches that are too small. After a few (too-small) stitches are formed at the tip, they are shoved down onto the wider shaft of the right needle and feel tight. Imagine forming a row of stitches around a size US 2 (2.75mm) needle, then trying to slide them onto a US 5 (3.75mm) needle!

You can see how difficult it is to maintain a consistent gauge when you are a grab-n-go knitter or a tip worker. Instead of measuring every stitch against the correctly sized shaft, you are either adding extra size (the grab-n-go method) or are measuring the stitch against a tip that gets narrower or wider depending on where you wrap the yarn.

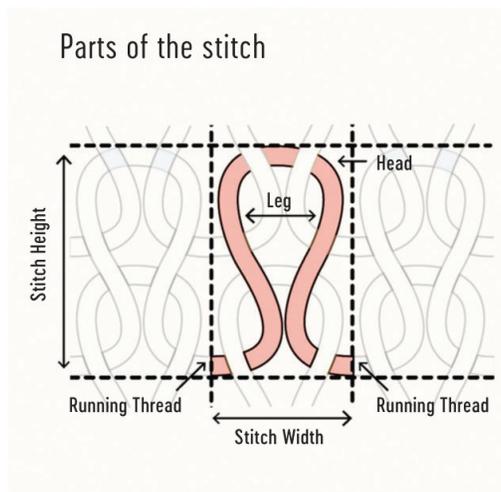
Knitting Exercise:

If you want to see what size needle actually fits your stitches, slide them off your needle, then try sliding a larger needle in until you find the one that slides in with no resistance and no space underneath. That is the size needle for that stitch.

Now try knitting with that size needle, but this time, size each stitch to the shaft of the receiving needle.

THE SPACE BETWEEN STITCHES: KEEPING YOUR FRIENDS TOGETHER

One more thing can wildly affect your stitch and row gauge and that is the space between the stitches. Your stitch is made up of one continuous piece of yarn. The legs and head of the stitch are made up of the yarn that is looped over the needle. But there is also the little length of yarn that travels from one stitch to the other, often called the running thread. The longer the running thread, the more space between the stitches.

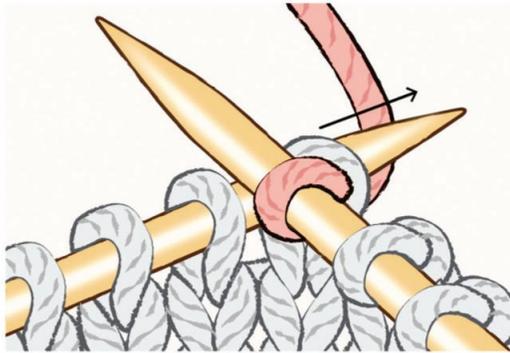


Think of a row of stitches like a group of friends standing in a line nicely spaced arm-in-arm. Now imagine that the same line of friends is standing with their arms around each other's waist, WAY too close to each other, or with their arms spread fingertip to fingertip, too far

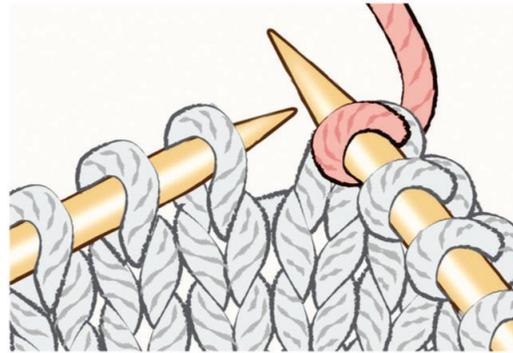
apart. You want your stitches to be standing arm-in-arm, with a comfortable amount of space between them.

The secret to keeping your stitch friends spaced comfortably is to control the exit path. I like to think of the stitches on your left-hand needle moving forward like items on a grocery store conveyor belt. After you have your new stitch on the right-hand needle, keep those needles connected, like an x, then slide the new stitch off in the direction the left-hand needle is pointing. Not only will your new stitch exit neatly without distorting the running thread, but the next stitch will move forward naturally to the tip of the left-hand needle.

Needles connected as you size your stitch



Exit the stitch following the angle of the left needle

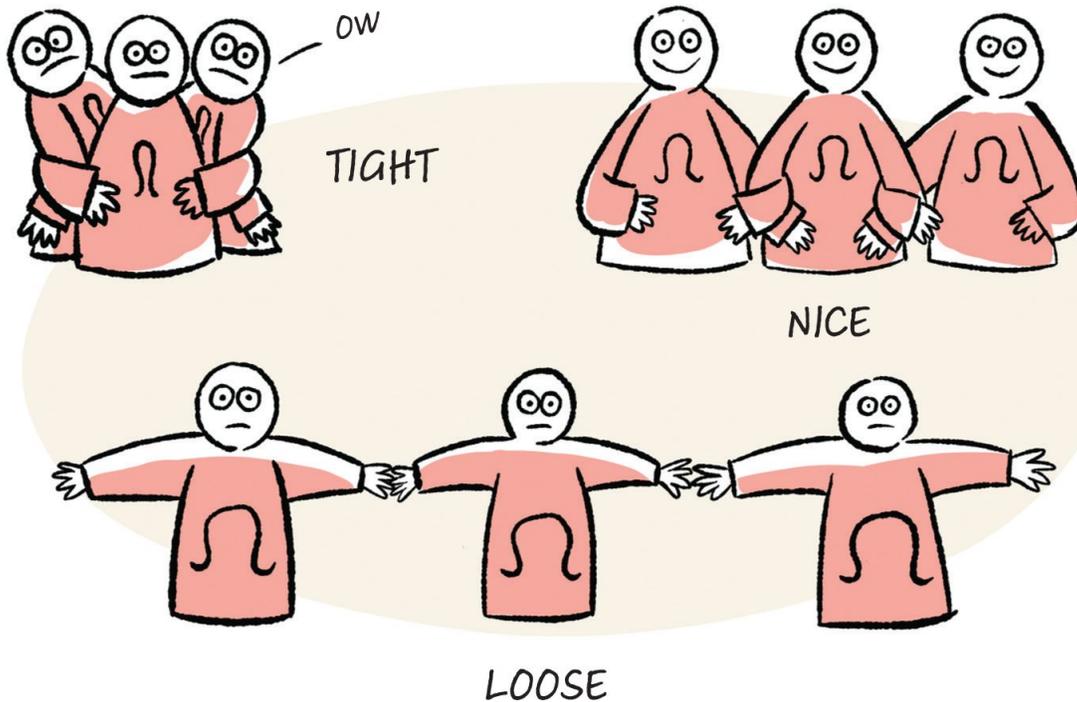
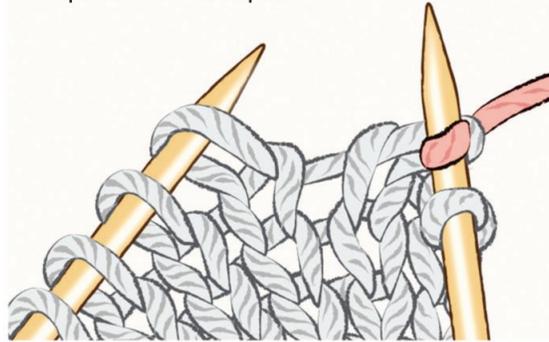


THE SPREADER!

Some knitters get frustrated with their gauge because they're what I call "spreaders." Spreaders get too large a stitch gauge, even when knitting on tiny needles. One reason a knitter ends up as a spreader: they have too much space between their stitches.

What can cause this extra space between stitches? A couple of explanations come to mind. The knitter may be working into the old stitch on the shaft of the left needle, instead of the tip. They may be separating their two needles as they create the new stitch. They may be pushing the new stitch too far down on the right needle. Or they may be doing some combination of these. All of these make the running thread travel farther, making the stitches farther apart. Any way you slice it, they are not keeping their stitches arm-in-arm.

Right and left needle
pulled too far apart



I've noticed that when a spreader is trying to get a smaller stitch gauge, they compensate by switching to a smaller and smaller needle, while pulling harder and harder on the yarn. This can make the issue worse and may result in a seemingly baffling stitch and row gauge combination: large stitch gauge with short row gauge.

Pulling the stitches tightly on a tiny needle creates short stitches, which reduces row gauge. Spreading stitches farther apart increases the space between, which results in a large stitch gauge. That's why one sign of a spreader is stitch gauge that is too large along with row

gauge that is too short. You can see the difference in these swatches.

Each swatch was worked with the same number of stitches and rows. The first one was worked with the recommended needle size. The short and wide swatch was worked on a much smaller needle with tighter row gauge and looser stitch gauge.



US 8/5mm needle -
20 st + 26 rows per 4in/10cm



US 4/3.5mm needle -
19 st + 36 rows per 4in/10cm

The goal, of course, is for form to follow function and to create a consistent fabric comfortably. All that being said, every knitter is different. A knitter might make a consistent fabric that still does not match the gauge in the pattern and that might be a great thing!

Why NOT Matching Gauge Is the Greatest Thing Ever

I used to introduce myself to my design students with, “Hi, my name is Patty. I have a small chest, medium waist, and large hips — what size shall I make?” My point is that a pattern is really a handful of examples of how a particular garment might be knit **if** we matched stitch and row gauge exactly **and** we matched every measurement for a specific size. But how likely is that?

And what about those pattern sizes? On average there are anywhere from 2–4in/5–10cm between sweater sizes. If you were

torn between the 36in/91.5cm and the 40in/101.5cm chest, might NOT matching gauge be exactly what you want?

Once you understand how gauge works, you have the power to alter a pattern (or even a portion of a pattern) to fit your personal measurements as well as your personal gauge. It's simple yet powerful math. Yeah, I said it... MATH. I'll say it again: MATH. I'm not afraid, and you shouldn't be either.

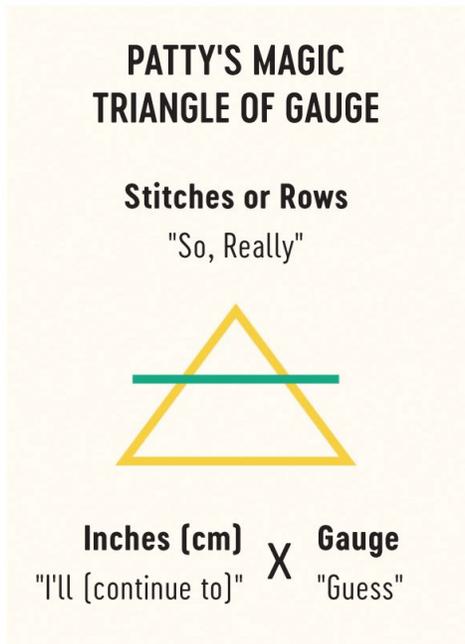
Magic Triangle of Gauge

You only need three simple equations when working with gauge. That's it. Even better, the three equations are all related and they all involve the same three factors. If you know two factors, you can find the missing third.

The three factors are:

- The number of stitches or rows (the pattern);
- The length or width in inches or centimeters (the finished measurement); and
- The number of stitches that fit into a certain number of inches or centimeters (your gauge).

Here's my handy little visual reminder, which I call the Magic Triangle of Gauge. If you think about what you used to say to yourself **before** you learned the power of gauge, you'll always remember the triangle: "So really, I'll guess." (If you live in the parts of the world that enjoy the metric system — meaning all of it except the U.S. — you can remember it, "So really, continue to guess!")



The green line is the symbol for division and the X is the symbol for multiplication. Just cover up the factor you are trying to calculate and the formula reveals itself.

- **Don't know how many inches (centimeters)?** Cover that corner of the triangle and you'll see how to figure it out: it's the number of stitches or rows divided by gauge.
- **Don't know how many stitches or rows?** Cover that part of the triangle and you'll see that you need to multiply the number of inches (or centimeters) times gauge.
- **Don't know the gauge?** Cover that corner up and you'll see that you need to divide the number of stitches or rows by inches (or centimeters).

Now for some reason, this simple math is used without panic, every day in our life. But when it comes to knitting, we FREAK OUT.

I've always called it "cookie math." Let's see why.

GAUGE ARITHMETIC = "COOKIE MATH"

If you had ten cookies on a plate and you had five friends coming over, you wouldn't freak out at the complex math it would take to decide how many cookies each friend gets, right?

Cookie Total ÷ Friends = Cookie Portion

$$10 \div 5 = 2 \text{ cookies}$$

If you have 20 stitches in a 4in/10cm swatch, don't freak trying to figure how many stitches or rows are inside each inch (or centimeter).

Stitches (or rows) ÷ Inches (cm) = Gauge

$$20 \div 4\text{in}/10\text{cm} = 5 \text{ stitches per inch (2.5cm) is your gauge}$$

If you had five friends coming over and you knew you wanted to give each friend two cookies, you wouldn't freak out at the complex math it would take to decide how many cookies you would need, right?

Friends x Cookie Portion = Cookie Total

$$5 \times 2 = 10 \text{ cookies}$$

If you know your gauge was 5 stitches per inch (2.5cm) and you knew you wanted an 8in/20.5cm-wide scarf, you wouldn't freak out at the complex math it would take to decide how many stitches you need to cast on, right?

Inches (cm) x Gauge = Stitches

$$8\text{in}/20.5\text{cm} \times 5 = 40 \text{ stitches}$$

If you had ten cookies and you wanted to give each friend two cookies, you wouldn't freak out at the complex math it would take to decide how many friends you could have over.

Cookies Total ÷ Cookie Portion = Friends

$$10 \div 2 = 5 \text{ friends}$$

If you had a pattern that told you how many stitches are in the sweater width (e.g., 117 stitches at the chest), *why* do we freak out trying to understand how wide it will be based on the pattern's gauge — in this case, 6.5 stitches per inch (2.5cm)?

Gauge is not so complex — it's how many stitches or rows are inside each inch (2.5cm).

Stitches ÷ Gauge = Inches (cm)

$$117 \div 6.5 = 18\text{in}/45.5\text{cm chest}$$

DIFFERENT GAUGE, SAME COOKIE MATH!

If you changed your mind about how many cookies were in a portion and you decided that each friend should get only one and a half cookies, you wouldn't freak out at the math it would take to revise how many friends to invite.

Cookie Total ÷ Cookie Portion = Friends

$$10 \div 1.5 = 6.6 \text{ friends (so you could have 6 friends over and one kid)}$$

It's the same kind of math you did before — and the same kind of math when applied to a pattern.

Here's an example. Suppose you were making a pattern that gave you the following information:

Stitches at chest (front and back): 104 (117, 130, 143, 156, 169, 182, 195) sts

Width of sweater (front and back): 16 (18, 20, 22, 24, 26, 28, 30)in/40.5 (45.5, 51, 56, 61, 66, 71, 76)cm

Finished chest size: 32 (36, 40, 44, 48, 52, 56, 60)in/81.5 (91.5, 101.5, 112, 122, 132, 142, 152.5)cm

Pattern gauge = 26 stitches per 4in/10cm or 6.5 stitches per 1in/2.5cm

If you were knitting to a larger gauge — getting fewer stitches per inch (centimeter) than the pattern gauge — it wouldn't take too much complex higher math to figure out what size the sweater would be if you followed a size at your gauge.

Stitches ÷ Gauge = Inches (cm)

Let's say you are getting 24 stitches per 4in/10cm, or 6 stitches per inch (2.5cm), and you wanted a size that was close to the third size. Since you are knitting at a larger gauge, you can see what following the second size would give you. You'll end up closer to the third size.

117 st ÷ 6 = 19½in/49.5cm

19½in/49.5cm x 2 (sweater front and back) = 39in/99cm

If you haven't swatched yet, you can easily figure out what gauge you should be shooting for.

Say I want a size that is between the second and third size. I wanted a 37½in/95.5cm finished chest, which means the sweater front and back will each measure 18¾in/47.5cm. Yet the pattern above only gives the numbers for a size 36in/91.5cm and a size 40in/101.5cm chest. What gauge should you shoot for?

Stitches ÷ Inches (cm) = Gauge

You can do the math for the sizes on either side of the in-between sizes by starting with one of the given sizes. For instance, if I take the stitch count for the second size:

$$\mathbf{117 \text{ stitches} \div 19\frac{1}{4}\text{in}/49\text{cm} = 6 \text{ stitches per } 1\text{in}/2.5 \text{ cm}}$$

I know I need to swatch to get a gauge of 6 stitches per inch (2.5cm). We still have a little more tweaking to do on row gauge, but we'll get to that next.

ROW GAUGE: WHY YOU GOTTA BE LIKE THAT?

Many hands shoot up in the air when I ask gauge students, “Who has had trouble matching both stitch gauge and row gauge?” Then I say, “Take a look around the room. Anyone who is not raising their hands falls into one of two groups. They have never measured their row gauge or they are lying.”

Differences in row gauge can be caused by many factors: the needle material, the style or method the knitter used, the yarn’s fiber content, and the yarn’s construction. You can try to alter your row gauge by changing one of those factors, but the important thing is to know your accurate, blocked, finished row gauge so you can adjust for it.

The best tip I can give a sweater knitter: back away from the tape measure. As I always tell my students, your tape measure touches your knitting twice: once when you measure your gauge and once when you block. Wait a minute, you ask (or shout), “What about when the pattern says ‘now work straight until piece measures 13in/32.5cm from cast-on,’ what about that huh, huh?” Okay, settle down. When a pattern says, “Now work 13in/33cm straight,” just assume it means, “now work 13in/33cm worth of your finished row gauge.” Seriously, you can’t go wrong.

Remember that if your row gauge is off and you want the pattern to look the same, you may need to make some adjustments in areas where there is shaping. Don’t worry — you use the same powerful math! It’s just a few easy steps.

SAME FINISHED SIZE, DIFFERENT GAUGE



Count the number of rows in a shaping area.

- 2** Divide that by the pattern row gauge. This gives you the number of inches (centimeters) the pattern used for that shaping zone.
- 3** Multiply the number of inches (centimeters) by YOUR row gauge and you'll discover how many rows you need to accomplish the same shaping.
- 4** Divide the total number of rows in the shaping zone by the number of shaping rows, then round down to an even number.

Let's apply the steps to a real-life situation, a sleeve. You know the trauma: the pattern that tells you to increase one stitch each side and then repeat that increase row every ten rows twelve more times, then work even until your sleeve is 18in/45.5cm, but you finish your increases and your sleeve is already 19in/48.5cm! Yup, that's our friend row gauge.

The pattern gauge is 8 rows per inch (2.5cm), but my row gauge is 7 rows per inch (2.5cm).

Now let's work those four steps. There are fancier ways to calculate shaping (the magic formula), but I'm going to keep it simple and this will work just fine.

STEP #1:

Count the number of rows in a shaping area.

The sleeve pattern starts with the cuff: work one increase row and then repeat that increase row every tenth row 12 times. $10 \times 12 = 120$ rows used in the shaping zone.

STEP #2:

Divide that by the pattern row gauge to get the number of inches (or centimeters) in the sleeve's shaping zone.

$120 \text{ rows} \div 8 \text{ rows per inch (2.5cm)} = 15\text{in}/38\text{cm}$. Knit your cuff, shape your sleeve, and that still allows for 1in/2.5cm of straight knitting at the top of the sleeve.

STEP #3:

Multiply the number of inches (or centimeters) by your row gauge.

$15\text{in}/38\text{cm}$ for the shaping \times my row gauge of 7 rows per inch (2.5cm) = 105 rows.

STEP #4:

Divide the total number of rows in the shaping zone by the number of shaping rows, then round down to an even number.

$105 \text{ rows} \div 12 = 8.75$ (round down to 8)

Work your cuff; work the first increase row; then repeat the increase row every eighth row 12 more times. Then work even until the sleeve measures 18in/45.5cm long.

SAME MATH FOR DIFFERENT SHAPES!

You can use this math not only to match the shaping zone in a sweater using a different gauge, but to change the shape of the garment (or part of it).

Let's say you are working that same sleeve, but you want to make it $\frac{3}{4}$ length *and* you have a different row gauge.

We're going to add one additional step to make the sleeve shorter. Of course you can use the same steps to lengthen a shaping zone.

DIFFERENT FINISHED SIZE, DIFFERENT GAUGE

- 1** Count the number of rows in a shaping area.
- 2** Divide that by the pattern row gauge to get the number of inches (centimeters) the pattern used for that shaping zone.
- 3** Subtract (in inches or centimeters) how much shorter you'd like the sleeve to be.
- 4** Multiply the number of inches or centimeters by **your** row gauge to get the number of rows you need.
- 5** Divide the total number of rows in the shaping zone by the number of shaping rows, then round down to an even number.

Let's use the same sleeve as above. The sleeve length in the pattern is 18in/45.5cm long, with a row gauge of eight stitches per inch

(2.5cm).

You'd like to have a sleeve that is 14in/35.5cm long, and your row gauge is seven stitches per inch (2.5cm).

We have already calculated that shaping zone in the above steps.

STEP #1:

Count the number of rows in a shaping area.

The sleeve pattern starts with the cuff; then work one increase row and repeat that increase row every tenth rows 12 more times. $10 \times 12 = 120$ rows used in the shaping zone.

STEP #2:

Divide that by the pattern row gauge to get the number of inches (or centimeters) the pattern used in the shaping zone.

$120 \text{ rows} \div 8 \text{ rows per inch (2.5cm)} = 15\text{in}/38\text{cm}$.

STEP #3:

Subtract (in inches or centimeters) how much shorter you'd like the sleeve to be.

I'd like to remove 4in/10cm in the shaping zone to shorten the sleeve. The pattern shapes the sleeve over 15in/38cm - 4 more inches (10cm) = 11in/28cm in your shaping zone.

STEP #4:

Multiply the number of inches (or centimeters) by your row gauge.

The modified sleeve shaping zone is $11\text{in}/28\text{cm} \times 7$ (my row gauge) = 77 rows.

STEP #5:

Divide the total number of rows in the shaping zone by the number of shaping rows, then round down to an even number.

$77 \text{ rows} \div 12 \text{ more increase rows} = 6.4$

Work your cuff; work the first increase row; then repeat the increase row every six rows 12 more times. Then work even until the sleeve measures 14in/35.5cm.

Boom! Cookie math!

Make a swatch that doesn't lie to you. Make a fabric you love. Use the math for good, not evil. Make a sweater that fits. Now go have a cookie. You earned it!

Words of Wisdom

KNITTING PATTERNS,
LIKE LIFE, ARE BEST
WHEN WE DON'T TRY TO
OVERCOMPLICATE THEM.



CHAPTER 3 — PATTERNS

To Ignore or Not to Ignore: That is the Question

Before we dig into the meat, to the gist, to the heart, to the creamy center of this book — knitting tricks — I would be remiss if I didn't address one last thing: the pattern. When we are new to knitting, it's hard to know what to expect from a pattern and it's hard to know exactly what we are allowed to ignore. Must we use the same yarn? Follow all the words exactly? Follow all the techniques exactly?

One thing is certain: our pattern helps us make two big decisions before we cast on. By listing gauge, yarn, and size, the pattern tells us **what we are making** and **what to make it with**.

What to Knit With (Or How to Be a Top Chef Master)

First up, our ingredients. Generally, knitters fall into one of two categories: those who fall in love with a pattern and go hunting for a yarn, or those who fall in love with a yarn and go hunting for a pattern. But either way you slice it, the marriage of yarn and pattern is a sacred union that should not be entered into lightly, but thoughtfully and seriously, and with the blessing of swatching.

Entire books have been written about yarn substitution, so I'm not going to try to cover the world of yarn in a few paragraphs. Instead, here are my top three tips for success.

TIP #1:

Test Drive Your Fabric.

First and most important, slow down your decision. Grabbing a yarn based only on the ball band is a hasty decision. It's akin to having a hankering for apple pie, looking around your kitchen and finding a loaf of Wonder Bread, a can of peas and a tin of SPAM and declaring "Yes, I can't wait to make apple pie!" Be better. Don't make SPAM pie.

Think about your yarn before you go shopping. A top chef master does not go into the market with their recipe and ask the clerk if they have cow. Oh no, no, no. A top chef master knows exactly the cut of beef they want and how much marbling it should have. We should put just as much thought into choosing our ingredients. Experiment, play, swatch for the sake of swatching.

Making a good yarn choice means looking past the gauge on the ball band and considering everything that goes into that yarn: fiber content, construction, twist, texture, the whole shebang. How do you find out if you like the fabric that yarn will make, or if you like that yarn in the stitch pattern? Say it with me — SWATCH. And not a bitty 4in/10cm, "am I done yet, can I start now" square, but a big old fabric sample that you can shake and feel and stretch. We learned why we need a larger swatch for an accurate gauge, but we also need a large swatch to learn about our fabric.

TIP #2:

Is It a Grower?

When picking a yarn for a project, we need to consider that fiber's properties: warmth, absorbency, elasticity, and memory. And although much can be learned about your yarn by making a large fabric sample, there is one issue I want to address, because it is the number one complaint that knitters have when choosing a yarn. I speak, of course, of the dreaded GROWER: a garment that looks great when you first wear it and then becomes longer and longer. I once knit a little square-neck cotton-bamboo top and throughout the day I started feeling more of a, shall we say, draft around my front. I

knew things had reached critical mass when I walked in a room and my friend said, “Yikes, lady, leave a little bit to the imagination!” Let me be clear, your fabric won’t continue to grow forever, but the right circumstances can turn a cardigan into a bathrobe in just a few hours.

To predict whether our garment will grow, we need to look at the yarn’s elasticity and memory. Elasticity is a fiber’s ability to stretch and memory is its ability to snap back where it came from.

Remember what we learned in the previous chapter about the effect of gravity on a swatch?

How do you know if a particular yarn is a grower? Here’s my cheat: if a fabric has sheen, it might be a grower. Think about fibers like silk, rayon, nylon, superwash merino, bamboo. All these fibers reflect the light because of the yarn’s slick surface. That slippery surface means there is nothing that grabs or anchors one row of stitches to the other. The stitches slide past each other and the fabric stretches vertically.

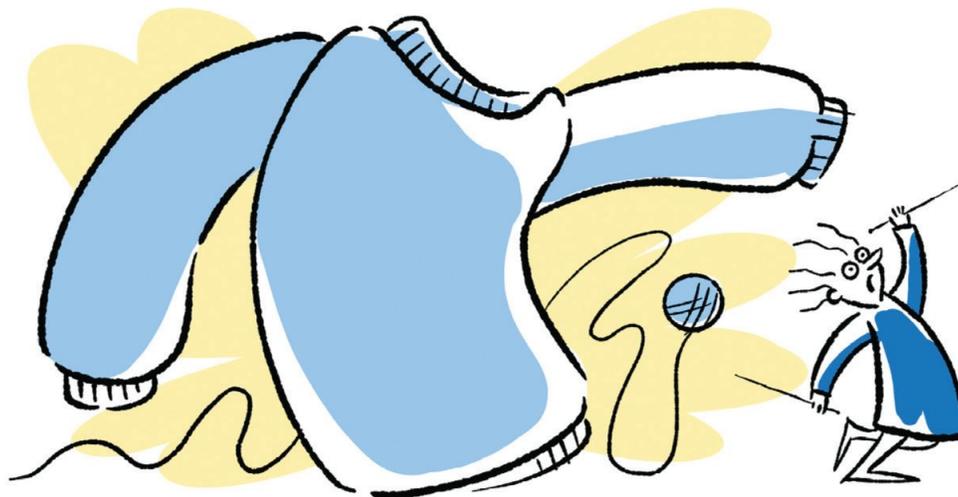
One of the biggest boo-boos we can make as knitters (again, ask me how I know) is pairing a fiber with no memory with a stitch pattern that has vertical stretch, like garter (remember the Cirque du Soleil acrobats?). When in doubt, look at the fiber content of the yarn the designer originally used. If it has memory and you want to substitute another fiber, make sure to look for a substitute fiber with excellent memory, like a wool.

TIP #3:

Density Matters.

Finally, if I were to name the single most overlooked element when picking a yarn, it would be density, also known as grist. Density is the relationship between weight and yardage. Often knitters hear the word weight and they think of the thickness of yarn (for example, worsted weight vs. fingering weight), but in this case, I’m talking about weight on a scale. Two yarns that knit up at the same gauge can vary, sometimes substantially, in how much they weigh. A yarn’s

weight is affected by the fiber content and construction. If one 100g ball of worsted weight has 350 yards while another has 175 yards, then the finished garment knit out of the second yarn will weigh twice as much. Density will affect not only the overall weight, but the sag and drape of the garment. A bad yarn sub paired with the wrong size can lead to knitting a ten-ton tent when you meant to knit a lightweight sweater.



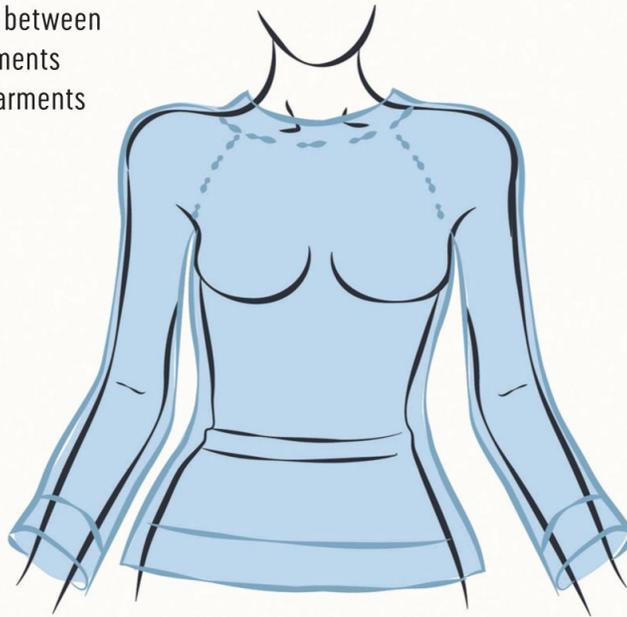
What to Make: Size Does Matter

For a sweater knitter, in addition to choosing the right ingredient, choosing the right size is vital. In my experience, when knitters end up with a sweater that is too small, 99% of the time it is from rushing the swatch process. However, when knitters end up with a sweater that is too large, 99% of the time it's from choosing the wrong size.

Choosing a size has become even more confusing lately with the discussion of ease. Sometimes as designers we can provide just enough information to be dangerous. I first realized that mentioning ease in a pattern can cause more confusion than clarity when I started getting questions from knitters. They'd ask: "Is the ease built in?" or "The pattern says 'meant to be worn with 2in/5cm of ease.' I want a sweater with a 40in/101.5cm finished chest, so am I knitting the 38in/96.5cm or the 42in/106.5cm chest?" or "Do I have to add 2in/5cm of stitches to the pattern?"

Let's break it down. Simply put, ease is the difference between the number of inches (or centimeters) your body measures and the number of inches (or centimeters) in the sweater. (Drops mic.) That's it. The schematic shows finished garment measurements, and they are not a trick. If the schematic says the sweater's finished chest measures 40in/101.5cm, it will measure 40in/101.5cm. If your full chest measurement is 38in/96.5cm and you make that size, then your sweater will have 2in/5cm of positive ease over your full chest.

The difference between
body measurements
and finished garments



Think of it this way: when you see a table in a furniture catalog and it says 4 x 6ft/1.2 x 1.8m, that is the actual size of the table, not the size of the room you are putting the table in. You have to decide if that size table is right for your room. The table designer doesn't know your room size or how much room you want between the walls and the table! That amount will vary from room to room and person to person.

When it comes to ease, I like to consider three main things.

SWEATER CONSTRUCTION

Different sweater constructions require different amounts of ease. For instance, a drop shoulder design might have 6–8in/15–20cm of positive ease. Why so much? Because part of the body width drops down over the shoulder (get it?) to create the top of the sleeve. If the sweater body doesn't have enough ease, it will bunch under the arms. A raglan may have a deeper armhole for a more athletic fit. A dolman or modified drop shoulder needs more ease to fit you correctly, since these constructions also depend on extra body width to create the sleeve top. On the other hand, a set-in sleeve can be knit to a variety of eases because its sleeve construction most closely matches how your arm actually connects to your body. Look at the sizes in the pattern for guidance.

DESIGNER INTENT

Start by looking at the pattern picture. Is the sweater oversized, relaxed, tailored, or slim-fitting? What does it look like on the model? Is there a pattern note saying what size is pictured and what type of ease? For instance, if a small size is 40in/101.5cm finished chest size, a pattern might say “meant to fit chest size 34–36in/86.5–91.5cm” or it might say “meant to be worn with 4–6in/10–15cm of positive ease.” All of these are clues to help you decide on how much ease to select.

PERSONAL PREFERENCE

Here's the biggie! How do YOU want it to fit you? What are you going to wear under it? What do you like? Ultimately, unless you are knitting it for me, my opinion on size is irrelevant.

Just like yarn substitution, you can find many wonderful books on sweater fit, so I'm going to give you only my top tips.

PATTY'S FOUR TIPS FOR PICKING THE RIGHT SIZE

TIP #1:

The pattern's suggested ease is not a command.

Any mention of ease in a pattern is there simply as a guide. It's the designer's way of saying how they envision the sweater to fit using that sweater construction. It is not, as I've heard, a formula. It is not something you have to match exactly or do anything about.

TIP #2:

Ease over what? (Hint: It's all about the chest.)

When a pattern mentions ease, as in "meant to fit with 2–4in/5–10cm of positive ease," or "Use a size with 2–4 in/5–10cm of positive ease," it is referring to the chest measurement.

Why the chest? Every sweater construction fits differently in the armhole and shoulder, but every sweater is basically a tube, and regardless of the shoulder construction, that tube must go around your chest. That's why ease always refers to ease over the chest.

But what chest measurement? Patterns like to pretend there is only one, but you actually have two chest measurements: your full chest and your high chest (sometimes called "upper torso"). Measure your full chest by wrapping the tape measure around the fullest part of your chest. Measure the high chest by wrapping the tape measure around your body, above your full chest, right under your arms. Your high chest measurement is a great place to start when picking your sweater size. Many knitters find they get a better fit by starting with their high chest measurement, then adding any desired ease to that. Remember that the high chest is a skeletal measurement, directly connected to other skeletal measurements like armhole depth and cross back (shoulder bone to shoulder bone). The full chest is a flesh measurement and sometimes adding too much ease to the full chest makes for an ill-fitting sweater.

TIP #3:

Measure a sweater that fits you well.

Since the schematic measurements are finished garment measurements, measure a sweater or top that fits you well.

Compare apples to apples. This is often more helpful than trying to

take our own body measurements. Just make sure you're measuring a sweater or top with a similar fabric weight and sleeve construction.

Now the most important (and possibly brain-breaking) tip (drum roll please)...

TIP #4:

No one size fits all.

Here's the big one, the one that shocks most knitters, yet is a given for all sewers. Are you sitting down? Here goes: the size you pick is just your starting point, your base size. No sweater pattern, no matter how many sizes, can fit every body shape. Therefore, you pick the best base size for you based on your high chest, embrace a bit of cookie math, and behold the power of gauge!

The Secret Language of Patterns

Finally, before we learn our tricks, let's talk a bit about the pattern's words. Those scary, weird words that can sometimes seem like a secret code. I'm often asked why tricks like mine aren't written into a pattern. One reason is because patterns are written in a shorthand and assume the knitter has certain background knowledge. But they are also written in the simplest way.

Let's take the example of binding off at the shoulder. The first time a certain someone knit a sweater (to protect her anonymity, let's call her Maddie Blyons), she might have made things a little harder than they needed to be. The pattern said: "Bind off five stitches at each shoulder edge twice." This new knitter bound off five stitches at the start of the row, worked to the last five stitches, tried to bind them off, was left with a random loop on her needle, cut the yarn, secured the last loop, wove in the end, joined the ball of yarn again at the start of the row, and repeated "WHAT?" It seemed like a good idea at the time.

The pattern not only is written in a shorthand — "Bind off 5 stitches at each shoulder edge" — and assumes the knowledge that you can

only bind off at the start of a row, but also is written using the simplest technique. For shoulder shaping, that means bind-offs. The pattern is telling you how many stitches go away at each shoulder. How you make them go away is where you bring your mad skills to the table.

Think of your pattern as instructions on how to make a thing and not a knitting how-to book. Patterns are just like a recipe that might tell you to do something without telling you how (for all you Schitt's Creek fans out there, think "fold in the cheese"). Therefore, it's helpful to think of a pattern as a basic list of ingredients, measurements, and "fold in the cheese" type of instructions.

Now, without further ado, let's learn a few better ways to fold in that cheese!





Words of Wisdom

Better to have
KNIT & RIPPED

THAN NEVER TO
HAVE KNIT
AT ALL



CHAPTER 4 — CAST-ONS

Best Foot Forward: You Have One Chance to Make a First Impression

Let's start at the top: the humble cast-on. If I were stranded on a desert island and only allowed to bring two cast-ons with me — okay, I know that makes no sense, just go with me — I would pick the long tail and cable cast-ons. With these two standards, the world is pretty much your oyster. But there are soooo many ways to make them both better.

Long Tail Cast-On

Long tail cast-on is one of the most well-known and beloved cast-ons for a reason. (If you'd like a quick refresher, see Techniques, [page 202](#).) Like the perfect life partner, long tail cast-on is versatile and firm but flexible. But let's face it, even the perfect life partner can do with a few improvements.

Here I offer four simple fixes that make long tail cast-on darn near perfect.

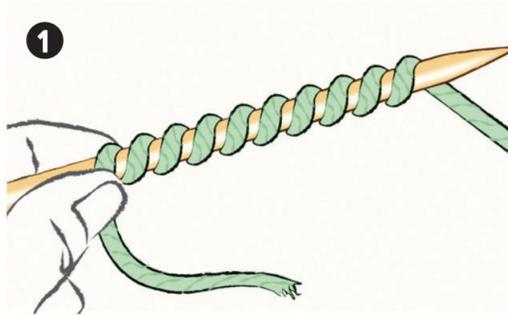
FIX #1:

The Bob Vila Rule (if he knit!): Measure Twice, Cast On Once

There are few things in knitting more mind-numbingly maddening than running out of yarn tail on stitch 394 of your 400 stitch cast-on. I've seen so many tricks out there, from using your arm length to measure the yarn tail, to charts showing how many inches or centimeters per stitches for every yarn weight, to (I kid you not)

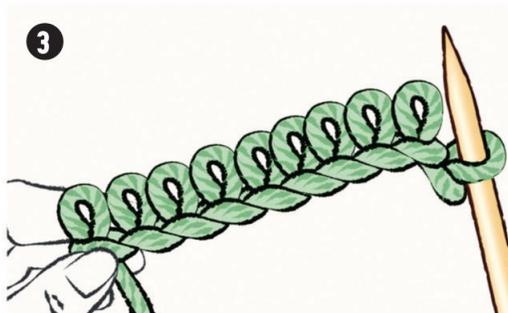
formulas using pi. I'm too lazy for all of that. I kick it simple, yet accurate. Here's how.

1. Leaving a tail long enough to weave in (about 6–8in/15–20cm), wrap your yarn around your needle ten times.



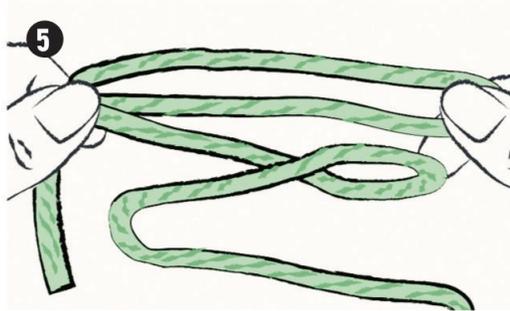
2. Starting from the last wrap, use that length of tail, over your thumb, and cast on 10 stitches to test the length.

3. Pinching at the base of the tail by the last stitch cast on, pull all but the first stitch cast on off the needle, holding that stitch with your finger.



4. Pull your hands apart, letting the 10 cast-on stitches unravel. The length of yarn remaining between your hands is the amount of yarn used to cast on 10 stitches.

5. Now use that length of yarn to measure out your full cast-on. Don't overcomplicate it, no need to crack out a ruler or calculator, just fold over as many lengths as you need.

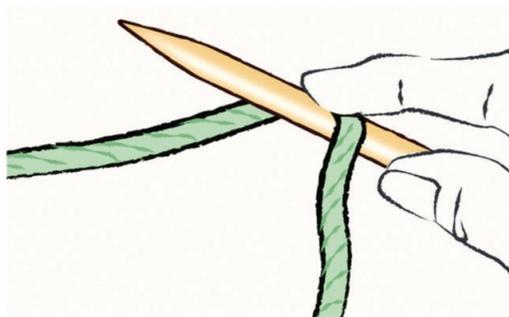


FIX #2:

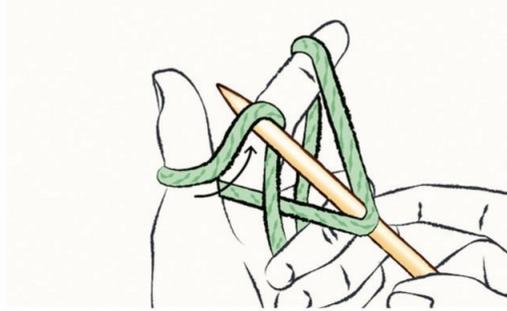
A Better Beginning: Ditching the Ugly Knot

Trust me; don't use a slip knot. I know, I know, every set of instructions starts with a slip knot. Why? If you want the first stitch to have the same look as all the others, skip the knot and make the first stitch the same way as you make the others. You measured out the right amount of yarn tail for your cast-on in the last step; now let's cast on without the unsightly knot.

1. Drape your measured-out tail over the top of your needle with the tail coming to the front. With the same hand that is holding your needle, plant your index finger on the tail to hold it on your needle. This will become your first stitch cast on.



2. With your other hand, insert your thumb and index finger between the tail and working yarn and cast on a stitch. The act of casting on the stitch puts a twist in the tail draped over the needle. That is your first cast-on stitch. That's it!



FIX #3:

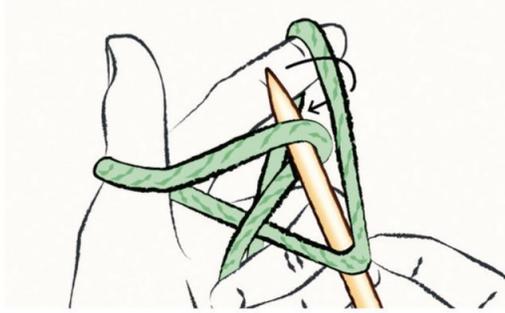
Rid the Unraveling

As you cast on using the long tail method, you may notice that the yarn tail that runs from the needle to your thumb starts to unply as you go along. This is not only annoying but can be hazardous to your knitting. As the yarn splits into separate plies (or strands), the foundation chain of your cast-on is weakened and may catch or fray.

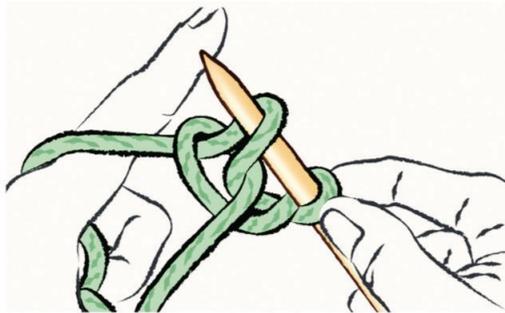
As with everything in Patty-land, we're going to explain the what, the why, and how to fix it.

First: the what. Long tail cast-on is so beloved because it creates an actual row of knitting, instead of a line of unanchored loops. We saw in [Chapter 1](#) that a knit stitch is a loop (made with the working yarn) pulled through another loop (the existing stitch on your needle). When you start a long tail cast-on, however, you don't have an existing stitch on the needle. You must first create one. Only then can you pull the working yarn through. Let's take a closer look.

When you're ready to cast on, you're holding the yarn in your left hand and the needle in your right. The working yarn (attached to the skein) is looped over your index finger—we're going to refer to that as the **finger yarn**. The yarn tail is looped over your thumb, so we'll call that the **thumb yarn**.



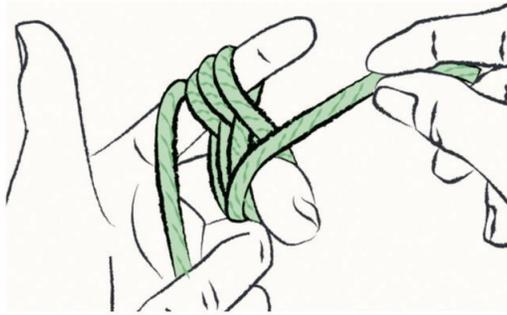
As you cast on, your needle goes to the outside of the thumb yarn and up through the middle of the loop around your thumb. Envision your thumb as the left knitting needle. When you catch the finger yarn with your right knitting needle and insert it into the thumb loop, then pull a new loop through, it's just like knitting a new stitch.



As my always-sunny mother would say, "There's only one problem." Every time you move the right needle toward you to make the thumb loop, you remove twist from the inside thumb yarn. The more twist you remove, the more the yarn may unravel.

Fortunately, there is a fix! Let's go back to the start of the cast-on.

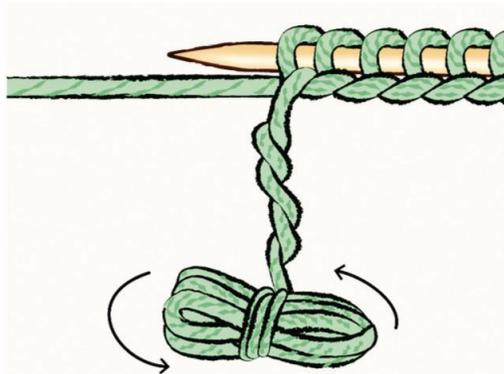
1. After you've measured out that big old hunk of tail for your cast-on, make a butterfly with that tail. Holding the tail between your palm and two little fingers, wind the tail in a figure eight around your middle and index fingers.



2. Once you've wound most of the yarn, pull the butterfly off your fingers, make a loop with your tail, pop it over the top of the butterfly, and pull the tail to tighten it. And because comedy and butterflies work best in threes, repeat making a loop with the tail and tightening it down over your butterfly two more times.



3. When you are casting on and the thumb yarn starts to get untwisted, drop the butterfly off your thumb. The weight of it will spin the yarn back to its former self!



FIX #4:

No More Sad Frown Cast-On

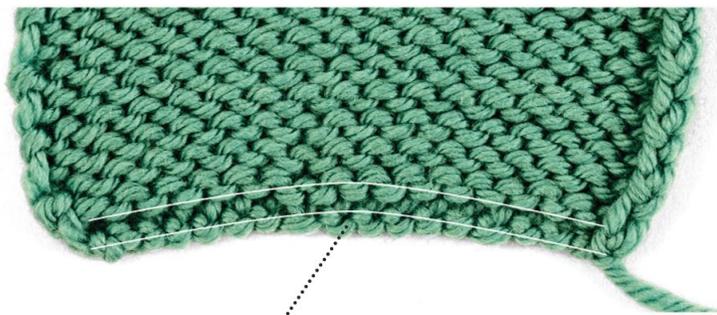
We've all been there. We try so hard to cast on loosely. Sometimes we even try casting on over two needles, but we still get that extra tight, sad frown cast-on.

Here's a sample cast-on the way most of us were taught. Classic sad frown.



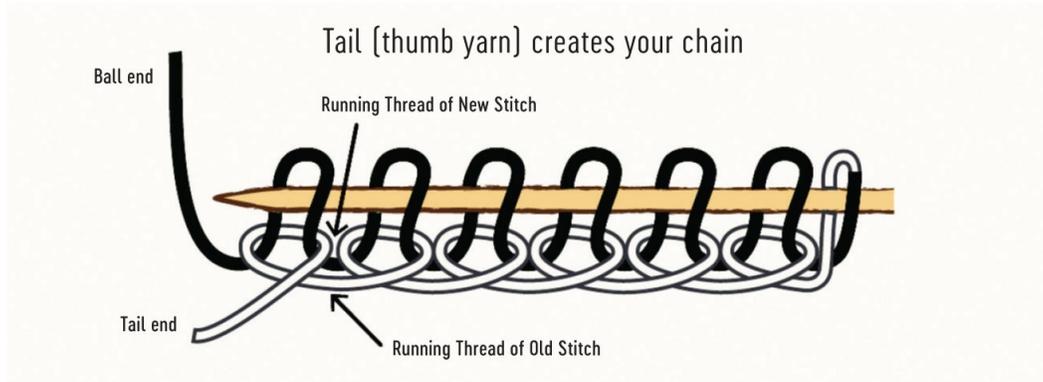
Casting on over a needle two sizes larger doesn't help space out stitches

I tried not be too tight. I even cast on with a needle two sizes larger, but that didn't create a more elastic cast-on — it just created a taller first row. Look at the wrong (non-public) side of the swatch. You can clearly see the taller cast-on row.



Larger needle results in taller first row

I can hear the collective screams through the pages. “BUT WHY DOES EVERYONE TELL US THAT WILL WORK?” I don't know, my friend, I don't know. But I do know why it doesn't work and how to fix it. Take a look again at the structure of long tail cast-on.



You might assume that by casting on over a larger needle the big loop that's on your needle will also create a generous running thread between the stitches, allowing them to spread out. The issue is not the loops on the needle, but the fact that they are lassoed together by the chain beneath the needle.

The tail (thumb yarn) creates the chain at the base of your cast-on. This chain is made up of the loops created when you move your needle to the outside of your thumb yarn. It's as if this chain was the foundation row that you were knitting into with your finger yarn.

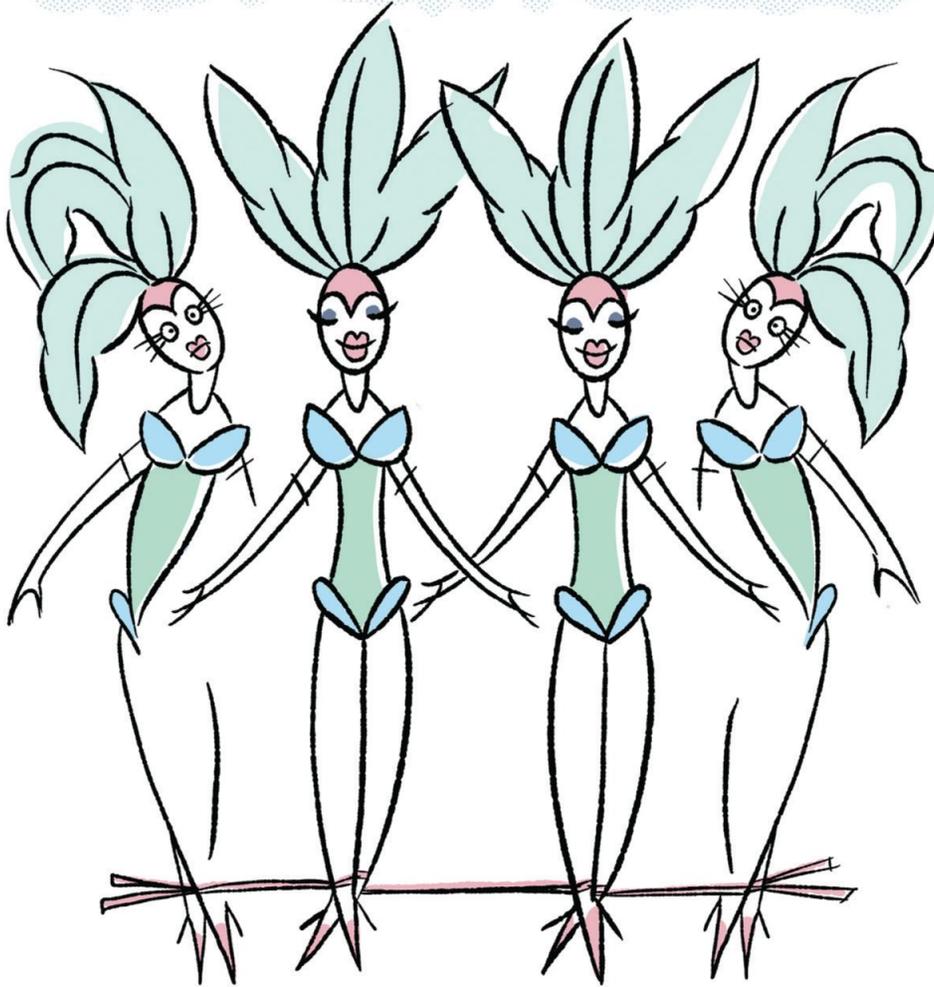
The ball of yarn that goes over your finger is the working yarn you are *knitting with*. It creates the stitches on the needle and the running thread between those stitches. Think of it as Row 1 of your knitting. The fact that the foundation row (the chain at the base of the needle) and Row 1 (the loops cast on) are made at the same time is key to what can make that too tight cast-on. It's all about the space between the stitches, our running threads.

If we cast on by loading our stitches one right next to the other on our needle, it's as if we are lining the stitches up in profile. What makes this even worse is that the stitches are held tightly together at their base by the foundation chain. Remember what we learned about the top-heavy knit stitch? Well, when the stitches are off the needle and turn flat, they have no room to spread out, hence the sad frown.

Imagine what would happen if a row of Vegas dancers were all lined up in profile, wearing their giant headdresses, tied together at the

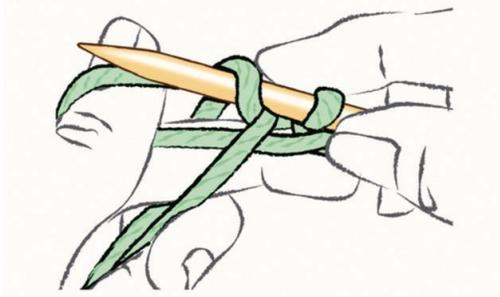
ankles, and then they tried to turn to face straight. It would not be pretty.

CAST-ON-FOLLIES



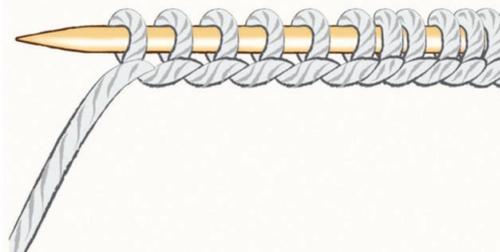
What we need is more space between our stitches. After you cast on a stitch, simply plant the tip of your finger on the needle and cast on the next stitch and repeat.

Use your finger as a spacer



This creates the needed space between each cast-on stitch so when those little top-heavy darlings go from profile (straddling the needle) to facing front, they have some shoulder room. Notice the difference between the first five stitches cast on and the next five stitches. (The first five stitches were cast on the traditional way; the next five were cast on using the finger-as-spacer method.)

Stitches cast on with and without finger spacer



The proof is in the finished product.



Cast on with US 10 [6mm] needle.
Did not space stitches.

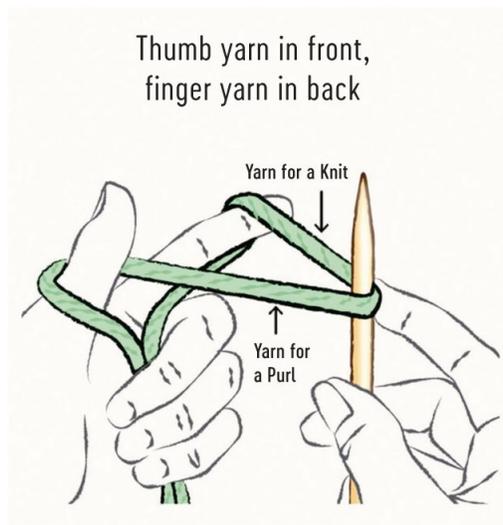


Cast on with US 8 [5mm] needle.
Spaced stitches with finger.

TAKING LONG TAIL CAST-ON TO THE NEXT LEVEL

Once you see long tail cast-on as what it is, a row of knitting, whole worlds begin to open up. You may be asking yourself: “If we can cast on in knit, can’t we also cast on in purl?” Of course we can!

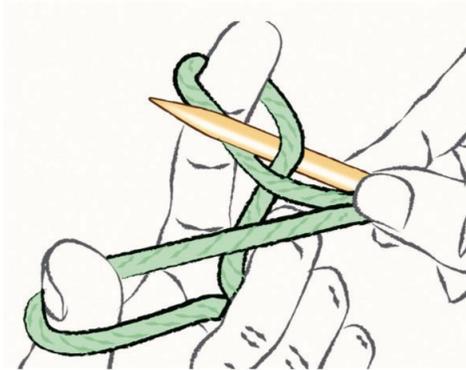
Go back to the start of the cast-on. You’ll see two pieces of yarn coming from the needle: the finger yarn and the thumb yarn. We talked about how we create the foundation row when we enter the thumb yarn and knit with the finger yarn to create new stitches. We also saw how the finger yarn is held in back and the thumb yarn is held in front. Well, dang it all, that makes sense. When we make a knit stitch, our yarn is in back and when we make a purl stitch, our yarn is in front (okay Norwegian purlers, don't @ me, I see you, but you know what I mean!)



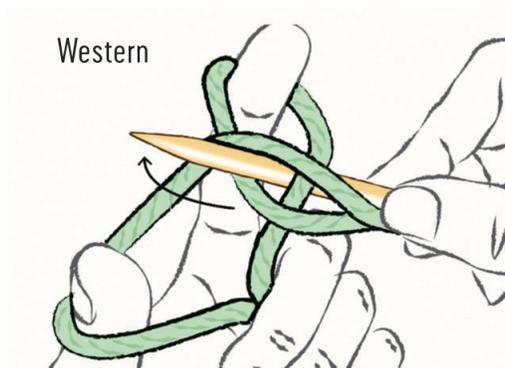
The knit stitch is a loop pulled through a loop and a purl stitch is a loop pushed through a loop. apply Now apply that concept to casting on. If we create a loop with our thumb yarn and PULL a new loop through using our finger yarn to cast on a knit stitch, then (say it with me) we also can create a loop with our finger yarn and PUSH a new loop through using our thumb yarn to cast on a purl stitch. Make sense?

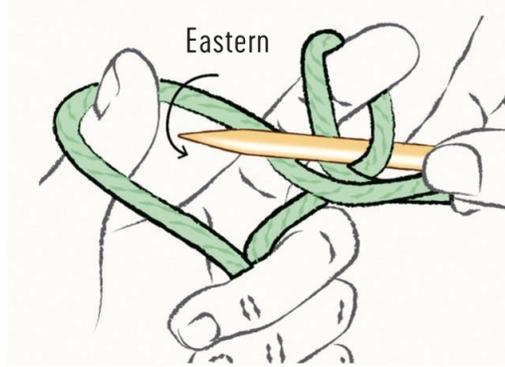
Let's break it down. Pick up your cast-on stitches and follow along.

1. For the knit stitch, our needle moves to the outside of the **thumb** yarn and up into the loop we created, as if our thumb was our left needle. For the purl, we move the needle to the outside of the **finger** yarn and up into the loop created on the finger with the needle coming toward you, just like entering a stitch to purl. Now your finger acts as the other knitting needle.

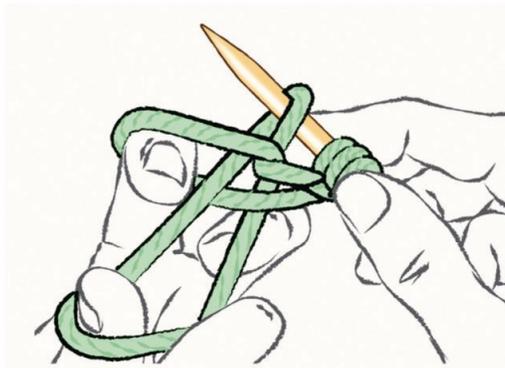


2. Look at the thumb yarn that's coming off the needle. It's just like your working yarn held to the front when you purl. Wrap that thumb yarn around your needle in the same direction you use to purl. For Western knitters that would mean the needle moves **UNDER** the thumb yarn so the yarn wraps **OVER**; for Eastern or Combination knitters that means the needle moves **OVER** the thumb yarn so the yarn wraps **UNDER**. (That's right, Eastern knitters, you control your stitches, so when casting on a knit, you move your needle under the finger yarn so it wraps over the needle.)



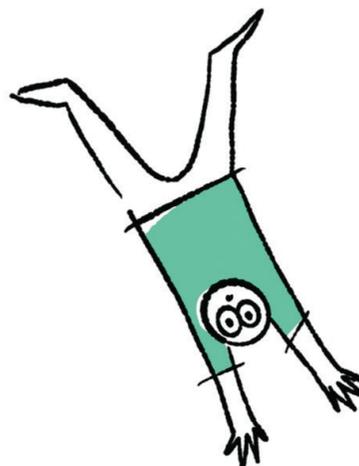
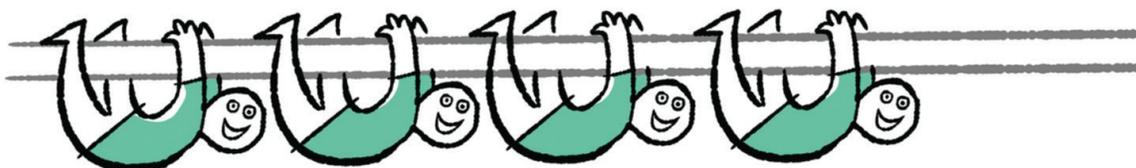


3. What is a purl? It's a loop pushed through another loop, so push the needle through the loop on your index finger, then remove the index finger to snug up your stitch.



Once you know how to cast on stitches either knit-style or purl-style, whole worlds await you! For example, if you are knitting 2 by 2 ribbing (e.g., knit two stitches, purl two stitches, repeat), you can cast on your stitches in the same ribbing pattern: cast on two stitches knitwise, cast on two stitches purlwise, and so on. This will eliminate that odd-looking first line of stitches. Just cast on in pattern following Row 1 of your pattern and begin by working Row 2 of the pattern. This trick works whether you are knitting flat or in the round.

AHHHH, I DROPPED A CAST-ON STITCH!

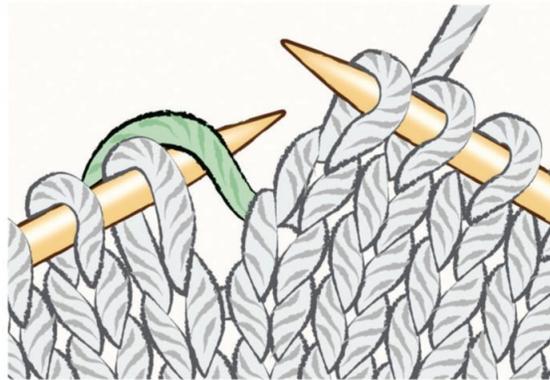


Nothing makes you want to burn your knitting to the ground quite like carefully casting on 400 stitches, only to drop one while working your first row. Never fear; help is here.

Although this book isn't going to cover knitting fixes (maybe that'll be the next book!), I couldn't resist adding this one. Because we've studied the structure of the cast-on and know exactly what the thumb and finger yarn do, it's the perfect place to introduce this fix.

Before we begin looking at fixing our cast-on, let's take a minute to think about picking up a dropped knit stitch that hasn't run yet.

1. With the knit side facing us, insert the left needle tip front to back into the dropped loop to pop the stitch onto our needle. Next, insert the left needle underneath the ladder (the working yarn) to drape it over the tip of the left needle.

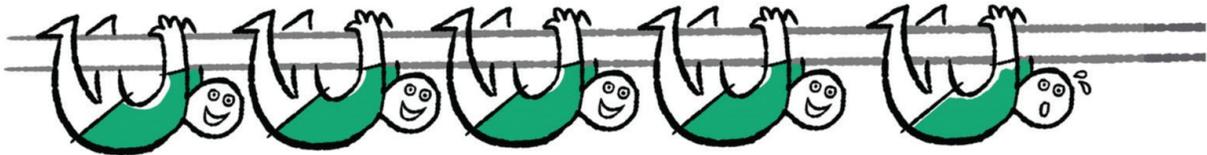


2. Then, using the right needle, we grab that loop by its leading leg and lift the dropped stitch up and over the ladder. Ta-da! The dropped stitch is fixed.



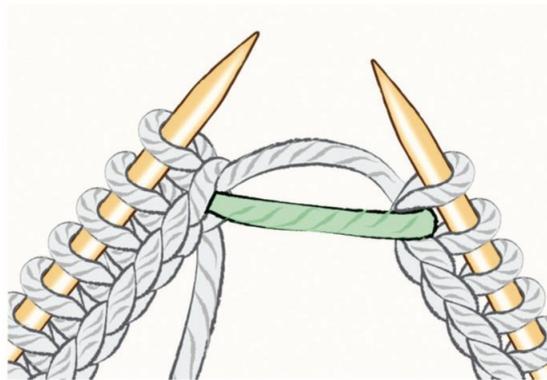
A dropped cast-on stitch can also be fixed with a crochet hook. Insert the crochet hook, facing down, between the two running threads. Next, create a twist in the front thread by turning the crochet hook counterclockwise, then pull the back thread through the loop on the crochet hook. Finally, transfer your picked-up stitch from the crochet hook back to the knitting needle.

However, fixing a dropped cast-on stitch with a hook can be a bit fiddly. As we showed here, we don't need to grab a crochet hook when we drop a stitch down only one row. We can pick it up using just our knitting needles. Let's do the same thing with our dropped cast-on stitch.



Now look what happens when we drop a cast-on stitch. Instead of seeing a dropped loop, we see two scary strands of yarn. Don't panic.

We know that when we cast on in long tail we are actually knitting a row. We also know it's easiest to pick up a dropped stitch from the knit side. This means if you are working flat, then you will need to turn your work around to pick up your dropped cast-on. If you were working in the round, you didn't turn your work to knit your first round, so you're all set.

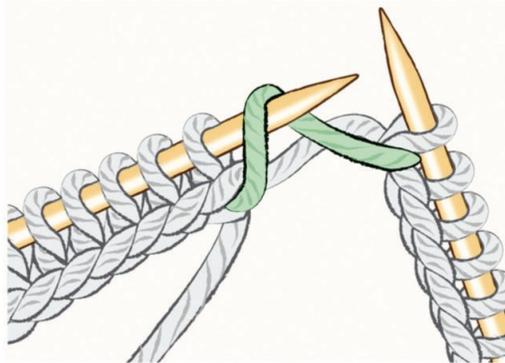


Take a good look at the strands. Notice how the strand closest to you is a bit lower and shorter than the strand in the back. This strand is the thumb yarn that you twisted to make a stitch when you cast it on. The other strand, the one in the back, is the finger yarn.

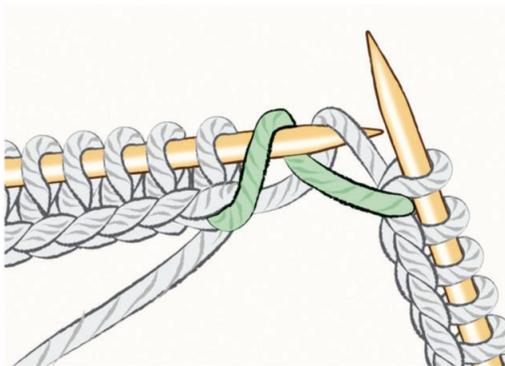
Remember what we do in the long tail cast-on? Not unlike doing a make one, we put a twist in one piece of yarn and pull the other one

through. We're going to do something similar here.

1. Insert the tip of the left needle bottom to top, between the two strands, lifting the front strand onto the needle with its leading leg (the leg closest to the tip of the needle) in the back. This is your dropped stitch.



2. Insert the tip of the left needle under the back strand so the strand drapes over the tip of the needle. This looks like a figure-eight. This is your working yarn.



3. With the tip of the right needle, grab the front loop — the trailing leg — of the front strand and lift it up and over the back strand.



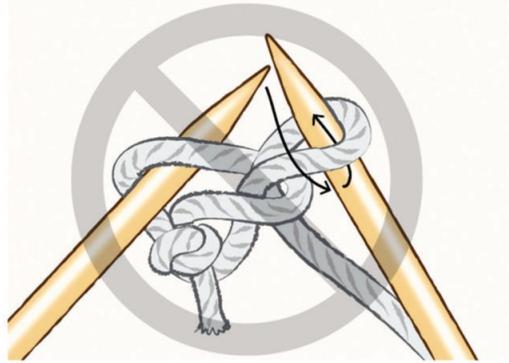
See what we did there? By grabbing the trailing leg (the leg farthest away from the tip of the needle), we put a twist in the strand to create our loop and when we lifted it up and over the other strand, we pulled our stitch through the loop. Whoop, there it is!

Make sure to put the picked-up cast-on stitch back onto the correct needle. If working flat, turn your work back around to continue working the row.

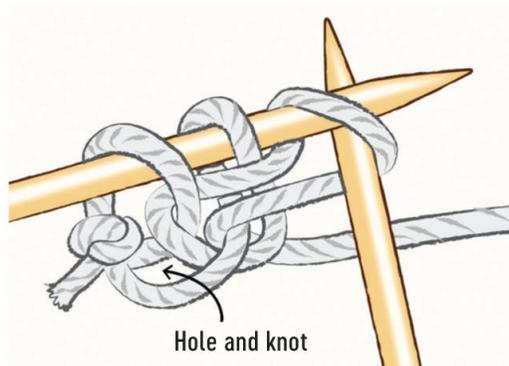
Cable Cast-On

My second desert island cast-on is the cable cast-on. It creates a beautiful firm edge, with a lovely braided appearance, that will hold its shape. (See Techniques, [page 202](#).) But there are two less-than-beautiful things about the cable cast-on that we've got to address: the way it starts and the way it ends.

Since the cable cast-on requires us to insert our needle between two stitches to cast on the next stitch, we must first have two stitches on the needle. Most instructions tell you to put a slip knot on your needle and then cast on one stitch using the knitted cast-on: enter the slip knot as if to knit, wrap the yarn as if to knit, pull the loop through, and put it onto the left needle knitwise, by inserting the left needle tip into the bottom of that loop.



After two stitches are sitting on the left needle, you could continue with the cable cast-on, drawing new loops up between the stitches. But this leaves an ugly knot and a weird little hole.



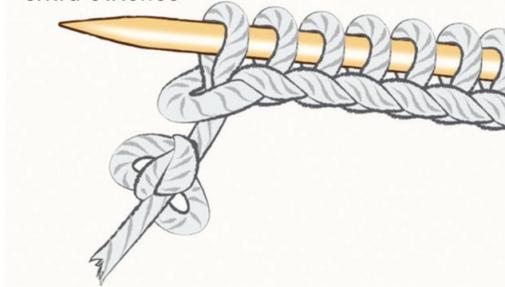
There are two ways to fix this.

FIX 1:

You'll need a circular needle or a double-pointed needle for your cast-on stitches. Cast on the correct number of stitches, plus two extra. After you finish casting on, slide your work to the other end of the needle, slide off the slip knot along with the first cast-on stitch, and unravel them.

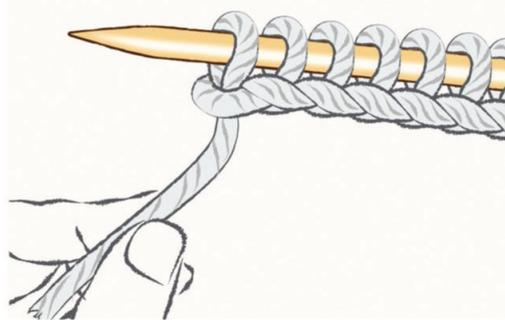
The finished effect is definitely an improvement, but not always perfect. See the slightly elongated loop along the base of the cast-on? That loop used to be wrapped around the stitch that you ripped out.

Cable cast-on after removing
extra stitches



Gently tug your tail to tighten up that loop and get a very clean edge. Be careful, because if you overtighten, it can be hard to correct.

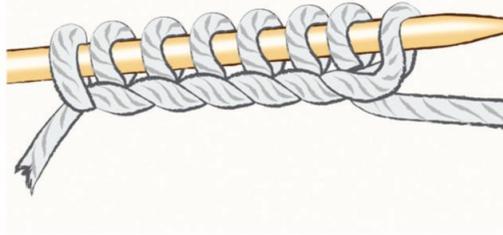
Neatened start to cable cast-on



FIX 2:

However, if we're going to cast on in pattern, then I prefer to begin the same way we did with long tail, by draping the tail over the needle and casting on one stitch. Since you will be turning your needle around to start the cable cast-on, the secret to a lovely edge is to match the first stitches cast on using long tail to the stitches cast on in cable. That means if you are using the cable cast-on for knit stitches, you will cast on one long tail purl stitch, turn your work around, and start casting knits on using the cable cast-on. If you are using cable cast-on for purl stitches (yep, you heard me), you will cast on one long tail knit stitch, turn your work around, and start casting on purl stitches using cable cast-on.

Use long tail to start



See? No weird knot or hole.



Cable cast-on start, with a slip knot

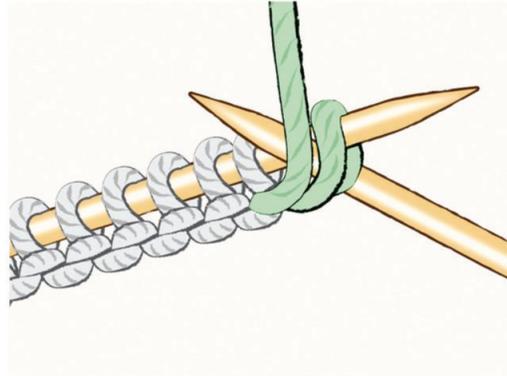


Cable cast-on start, without a slip knot

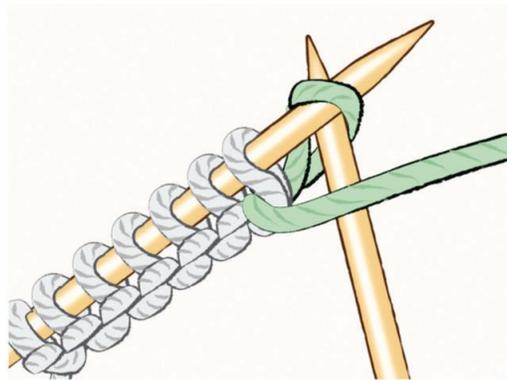
YES, PURL STITCHES!

Now that we have a perfect start, we also need a perfect end. But before our final magic trick, let's talk purl. It's surprisingly intuitive to cast on in purl stitch instead of in knit stitch. Here's how.

1. Set up for the cable cast-on by creating the first stitch (because we'll be doing a purl cast-on, you'll cast on that first stitch, long tail style, as a knit stitch). Turn the work and insert your needle back to front, then, with yarn in front, wrap the yarn as if to purl.



2. Push the loop through, just like any other purl stitch, and put it onto the left needle knitwise (inserting the left needle tip into the bottom of that loop.)



This creates a very stable row of purl stitches. I find this a lovely way to start garter.

Of course you can also cast on in rib, by alternating between knits and purls. This creates a firm rib edging, more appropriate for the bottom of a sweater than something that needs a ton of stretch like a hat or a sock. See that lovely rounded edge? It looks almost like a tubular cast-on — with WAY less fuss.



Purl cable cast-on into garter



Cable cast-on in pattern in rib

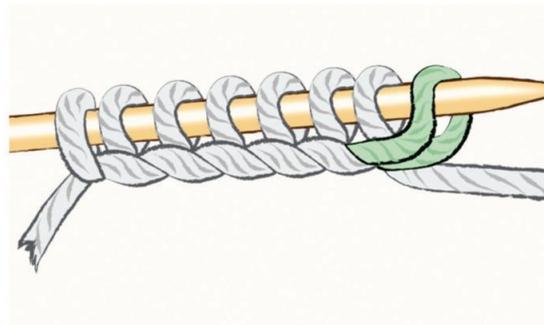
NEATENING THE CURVED EDGE: HIP TO BE SQUARE

Despite the love I hold for the cable cast-on, I hold no love for the way it ends. Not only does the last stitch overlap the second-to-last stitch, but you end up getting a rounded edge. This looks less than lovely in a scarf and creates serious problems when you try to sew two sweater pieces together.



Cable cast-on leaves a rounded corner

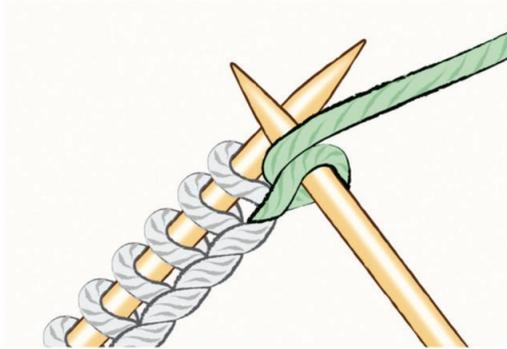
As usual, in order to discover the fix, we have to start with the why. In the cable cast-on, each new loop is acting as both the base of the stitch that came before it *and* the new stitch. The last stitch has no base. It's left hanging in the wind, a lonely stitch without a base to anchor it.



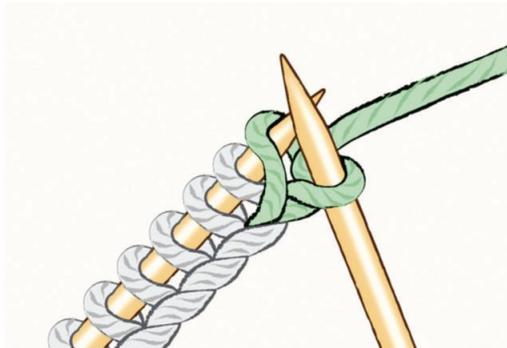
I've seen some knitters try to fix this by casting on an extra stitch and then starting with a K2tog, but this trades one problem for another. The decrease is bulky, and it looks lousy if your first stitch is a purl. Here's what I came up with to neaten that edge — finish the stitch!

FOR A KNIT CAST-ON

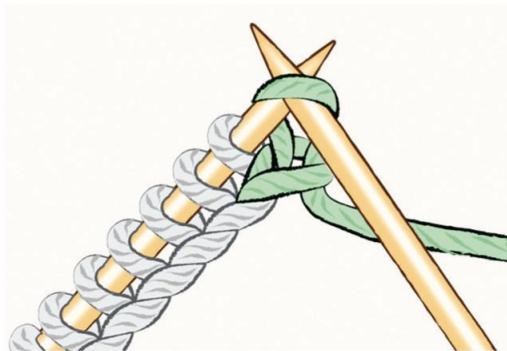
1. After you pull a loop through onto the right needle but before you put it on the left needle, move the working yarn between the two needle tips, then to the back of the right needle, like a yarn over (YO).



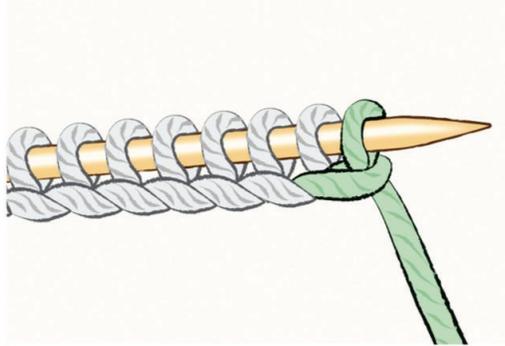
2. Insert the tip of the left needle into the loop on the right needle and lift it up and over the YO. You now have one stitch on your right needle.



3. Transfer that stitch knitwise to the left needle.

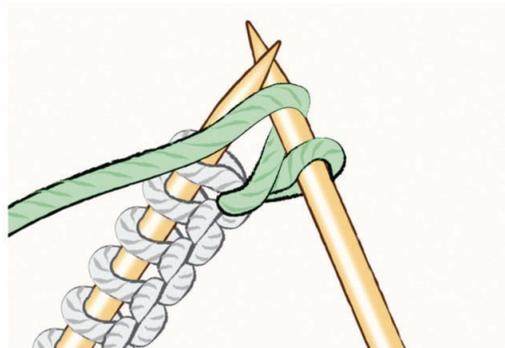


Now that last little guy is not left hanging. It has a base!

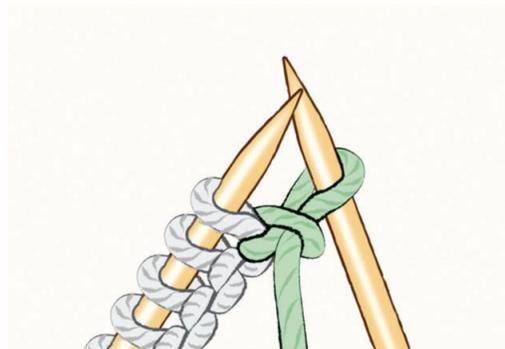


FOR A PURL CAST-ON

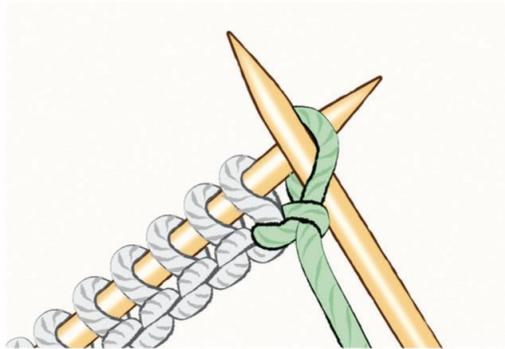
1. After you push a loop through onto the right needle, but before you put it on the left needle, move the working yarn between the two needle tips, and over the right needle from back to front, like a backward YO.



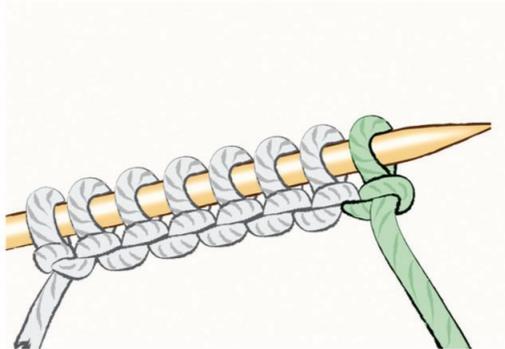
2. Insert the tip of the left needle into the loop on the right needle and lift it up and over the YO, with the working yarn still to the front. You now have one stitch on your right needle.



3. Transfer that stitch purlwise back to the left needle.



Notice how the stitch that you lifted over becomes the purl bump around the base of your newly formed last stitch. Perfection!



I think our cable cast-on is now ready for its close-up. No icky knot on one end or curve on the other, just two squared-off edges of perfection.



Sad edges



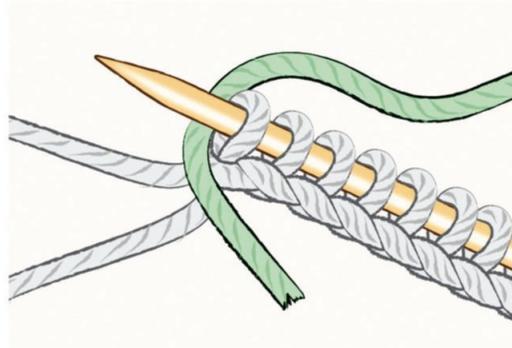
.... glad edges!

Keeping Track: Why Can't I Count to 100?

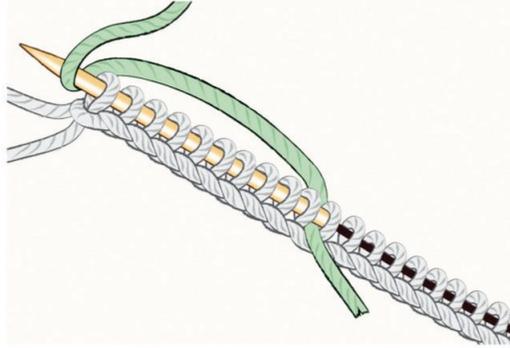
Here's a fun game that every knitter knows. Cast on 100 stitches, count them again to double check ... get 99, count again ... it's 101, hand it to a friend, they count 98. It's like your stitches are cells that can multiply and merge at will.

Worse than that is getting interrupted WHILE you're casting on. Not fun. Here's my favorite trick to keep track of your stitches as you are casting on. You can use this with any cast-on method and it doesn't involve stopping to put in, or worse, take out, a bunch of locking stitch markers. All you need is a smooth length of cotton yarn, the ability to count to 10, and you're set.

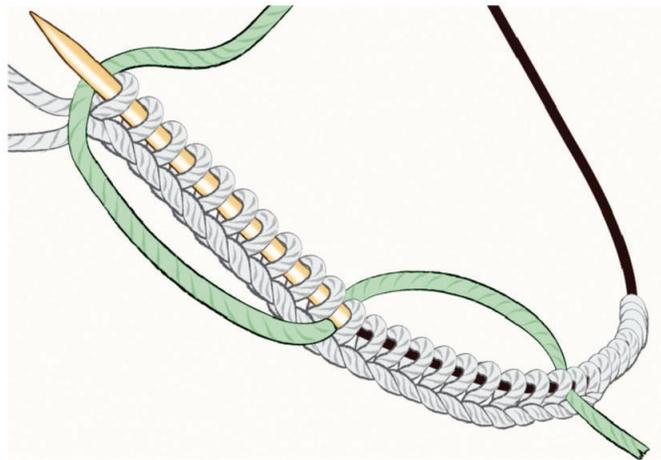
1. Cast on 10 stitches using any method, then hold the scrap yarn underneath your working needle and in front of your cast-on stitches, with a bit of the tail to the front and the rest of the scrap yarn to the back.



2. Cast on another 10 stitches, then move the long end of your scrap yarn to the front of the work. Always move the scrap yarn underneath the tip of the working needle.

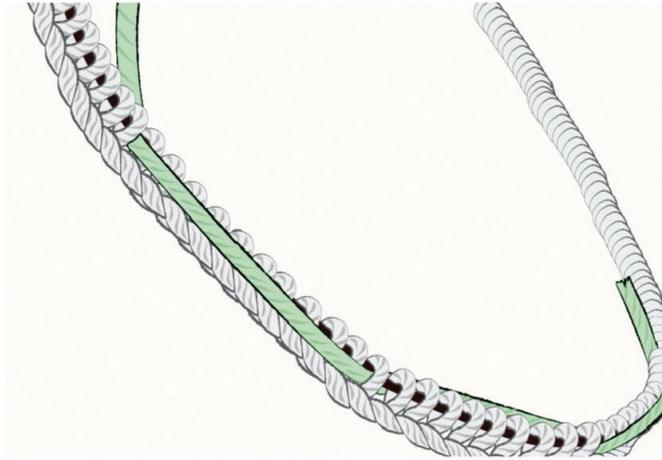


3. Cast on another 10 stitches, then move the scrap yarn to the back of the work.



Keep moving the scrap yarn back and forth between front and back every ten stitches. This way, if you get interrupted and you have two stitches cast on past the scrap yarn, you just have to count how many ten-stitch sections you have and then add two!

Best part is when you're all done, a simple tug and you pull out your marker, without having to stop and unhook 10 or 20 locking stitch markers!



Now that we have the perfect start to our stitches, it's time to play!

Words of Wisdom

—

— WHEN WE —
MEMORIZE,



FORGET

— WHEN WE —
UNDERSTAND,



***NEVER* FORGET**



CHAPTER 5 — INCREASES AND DECREASES

You Win Some, You Lose Some

As Picasso said, “Learn the rules like a pro, so you can break them like an artist.” Sure, he was brilliant, but he also said, “There are only two types of women — goddesses and doormats,” so let’s just focus on that artist thing.

One of the many reasons it’s vital to understand how our stitch is constructed (the direction we wrap our yarn) and how we might twist it or not (where we put our needle) is so we can control those two elements. Once we do, we can find new and improved ways to do increases and decreases. In this chapter, I’ll be using a Western mounted stitch, with the leading leg in front, but no matter how our stitches sit on the needle, knowing how they’re built will help us make them better.

Decrease in Style

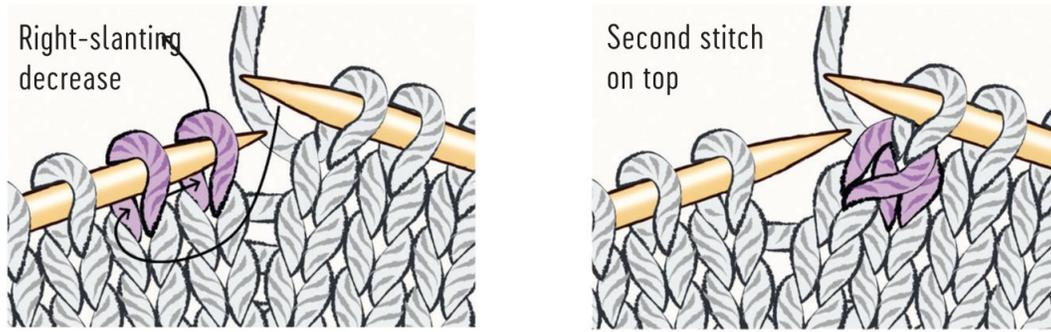
We're going to be tossing out the rule book to create more beautiful decreases. But before we can start breaking rules, we need to understand them. Let’s start with...

The Two Universal Rules of Decreases.

RULE #1:

Whichever stitch your needle first enters will end up on top.

The knit-two-together decrease (K2tog) is a perfect example. It's a single right-slanting decrease, created when we put our needle into **stitch number two** and then stitch number one. This causes the **second stitch to sit on top** of the first stitch so the decrease slants to the right.



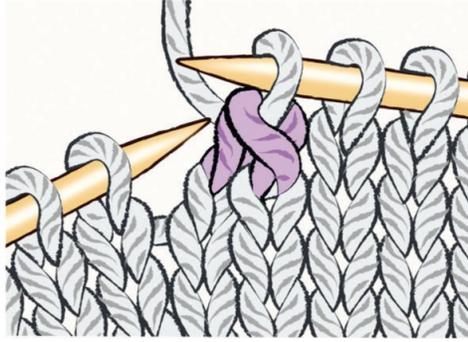
To make a left-slanting decrease, why can't we just switch the order, putting our needle into stitch number one and then stitch number two? Wouldn't that make the first stitch sit on top of the second and slant to the left? Why are we taught to do a slip, slip, knit (SSK), with all those extra steps: slip one as if to knit, slip the next stitch as if to knit, insert the tip of the left needle into the front loops of the slipped stitches and knit them together?

This brings us to rule # 2, what I like to call the Marina rule (in honor of that wonderful knitter who first observed this truth).

RULE #2:

The needle must go in the hole.

If we just insert the needle into those two stitches the way they are, we aren't putting our needle in the hole — we're knitting those stitches through the back loop. That twists the stitches. Remember the American driver in the UK? We bring what was to the left and cross it to the right and bad things happen.

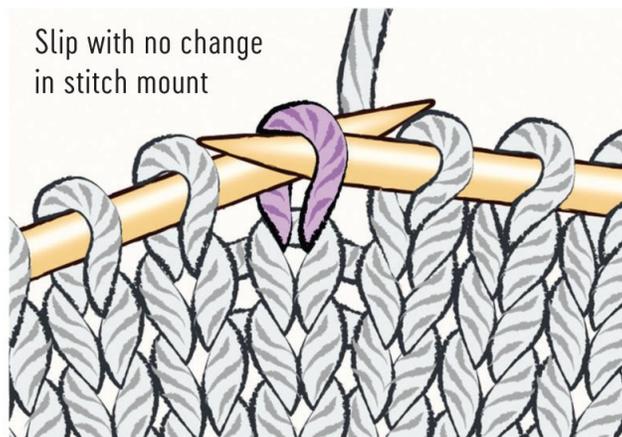


Left-slanting twisted decrease

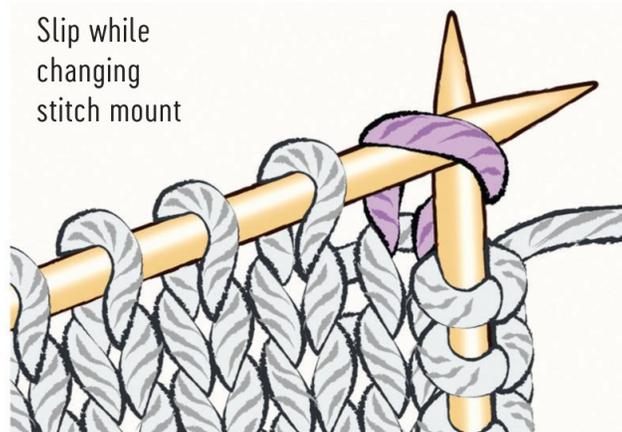
SLIPPING STITCHES: CAN'T SLIP ONE PAST ME

Before we dig into decreases, there's another rule we must understand — the when and why of slipping stitches. Just to make sure we're all on the same page, to slip a stitch “as if to knit” or “as if to purl” has nothing to do with the position of the working yarn, but rather how our right needle enters the stitch.

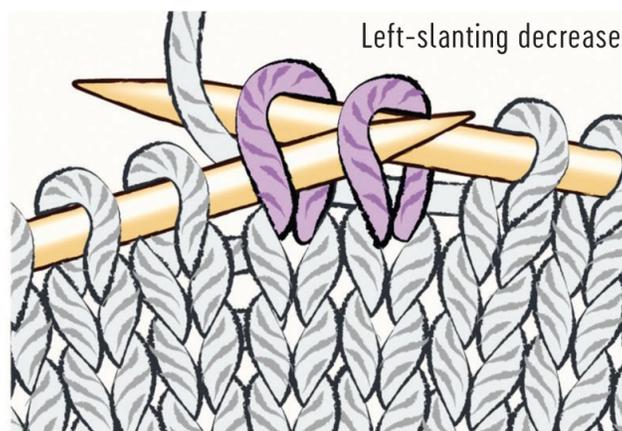
When we slip a stitch as if to purl, our needle enters that stitch tip-to-tip and the stitch moves from one needle to the other with no change in its stitch mount. It's just taking a ride on the needle monorail.

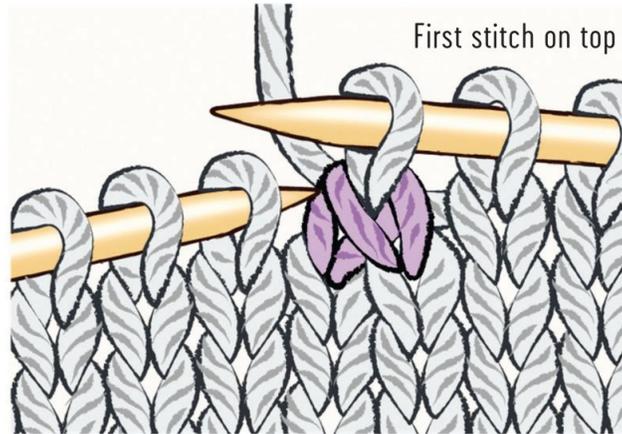


When we slip a stitch as if to knit, our needle tips are pointing in the same direction, so when we slip a stitch from one needle to the other, we turn the stitch mount around.



When we do those extra steps in an SSK, slipping those two stitches as if to knit and then inserting our left needle into the front loops, we're pulling the first two stitches off our needle, turning them around so the leading leg is in back, putting them back onto our needle, and then knitting them together. Boom — rule number one and two followed! We've entered stitch number one so it ends up on top AND we've put the needle in the hole.





How do we know when to slip as if to knit and when to slip as if to purl? After all, many definitions of SSK simply say “slip, slip, knit,” while others say “slip two stitches to the right needle and then knit them together.” That’s right, sometimes even a definition of a stitch is written in shorthand!

When we do something in knitting, but we don’t know WHY, we can make quite a mess. I remember when I read that first helpful definition of SSK, I slipped one stitch, then I slipped the second stitch, then I knit the third and I thought, “how is this a decrease?” Then I read the second definition, which told me to knit them together, and I slipped the two stitches as if to purl, and then knit them together and thought, “Okay, I decreased, but it seems like I’m just moving them from one needle to the other for no reason” — and of course, I was.

Before I slip too far down humiliating memory lane, it’s time to learn...

The Universal Rule of Slipping.

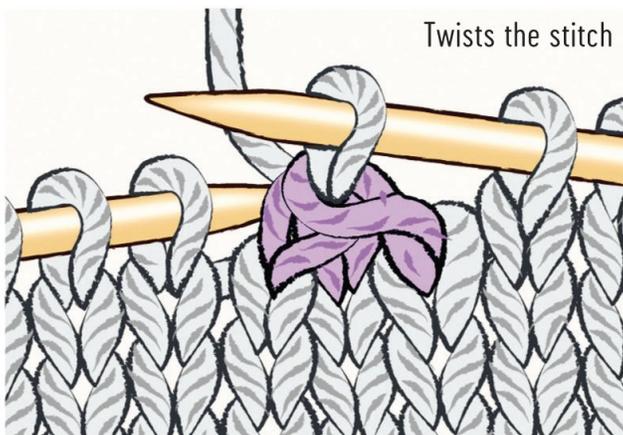
The Universal Rule of Slipping

We always slip a stitch as if to purl unless:

- The pattern says otherwise; or
- The slip is part of a larger decrease.

Whether we are slipping that stitch to work it later, or slipping that stitch to pass it over, it's all about **the leading leg**.

Take the SK2P. That abbreviation stands for slip one, knit two together, pass the slipped stitch over. It's a double decrease that slants to the left. If we slip a stitch as if to purl, the leg that is closest to the right needle tip is in the back, so when we grab that stitch to pass it over, we're grabbing the trailing leg and twisting the stitch.



Now we *almost* have all the tools we need to make those decreases do our bidding. But there's one more piece to the puzzle: the connection between our stitches. To explore that, let's begin with the SSK.

THE SSK: YOU LOVE IT, YOU HATE IT

We used to create a left-slanting decrease with the SKP (slip, knit, pass over): slip the first stitch, knit the second, then pass the slipped stitch over the knit stitch. Then came the SSK, the brainchild of the brilliant Barbara Walker, and the knitting world cheered. There's no question that the SSK was a huge improvement over the SKP. And yet the fact that it never really matches the K2tog drives most knitters crazy, me included.

The K2tog creates a sharp, orderly slant, like the Von Trapp children lined up after the captain whistles. The SSK on the other hand, creates a lumpy, unruly zigzag, like a line of New Yorkers leaning over the tracks waiting for the subway to come.



As always, we need to explore why the traditional decrease causes an ill-behaved mess. (Remember, it's in the *why* that we find the *how*.) Let's spend extra time with this one, because understanding the SSK helps to improve a lot of other stitches.

Some SSK variations offer small improvements. They're worth looking at because they were the first steps to finding the true path to happiness. They involve playing with our two old friends: how you wrap your yarn and where you put your needle.

VARIATION #1:

The Row-Before Prep (How We Wrap Our Yarn)

In this variation, we prep our stitches on the row before so we don't have to remount them when it's time to make the decrease.

We know that the direction we wrap our yarn seats our stitch on the needle, so the row before the decrease you'll work to the stitches you'll be using for your SSK and purl the two stitches Eastern-style (wrapping the yarn under the needle). If you're working stockinette in the round (knitting every round), you can knit those stitches Eastern-style (wrap the yarn over the needle). On your next row, your two SSK stitches will be ready and waiting with their leading leg in the back so you can just K2tog through the back loops.

Prepping your SSK on the row before offers a small improvement. When you wrap the yarn under the needle in an Eastern-style purl, it takes a slightly shorter path than the Western purl. The stitch uses a bit less yarn so it's naturally smaller. Also, you don't have to manipulate the stitches by slipping them. But it still has a slight zigzag appearance; it's just a smaller zigzag. (See a side-by-side comparison of all methods on [page 101](#).)

VARIATION #2:

Twist on Purpose (Where We Put Our Needle)

Our second variation results in a flatter SSK when we intentionally twist the bottom stitch.

We already know that when we work into the trailing leg of a stitch, we twist the stitch. To get our SSK to lie flatter, we can slip the first stitch as if to knit, then return this stitch to the left needle and knit it together with the next stitch through the back loops. This opens up the top stitch and twists the bottom stitch so it lies a bit flatter.

Although it looks better, the SSK still has the zigzag — it's just a flatter zigzag. (*See a side-by-side comparison of all methods on [page 101](#).*)

These two variations solved a part of the puzzle. One made the stitches smaller, one twisted the bottom stitch to make it lie flatter, but they both still had that zigzag. This next trick has a special place in my heart since it was my very first unvention and the seed that grew into my class “Patty’s Knitting Bag of Tricks” that I first taught back in 2009. It fills all my happy places: it’s quick, easy, and looks great.

ONE MOVE SSK: MY FAVORITE

My ah-ha moment in fixing the SSK came when I realized why the bind-off always leaves a big loop at the end or why the first stitch of a row looks loose. All our stitches are made with one continuous piece of yarn, flowing from one stitch to the next. That means the stitch we’re knitting now affects the stitch that came before it.

When we knit, the stitch we enter always stretches out a bit, but the act of knitting the next stitch tightens it up. When we do a K2tog, stitch number two ends up on top. When we knit stitch three, the stitch on top gets tightened, so it looks lovely and small. The yarn flows from stitch one to two to three — with no interruption.

When we do an SSK, stitch number one ends up on top and stitch number two is on the bottom. When we knit stitch number three, the stitch that is covered up on the bottom gets tightened, leaving the top stitch loose and sloppy. Our yarn flow was interrupted.

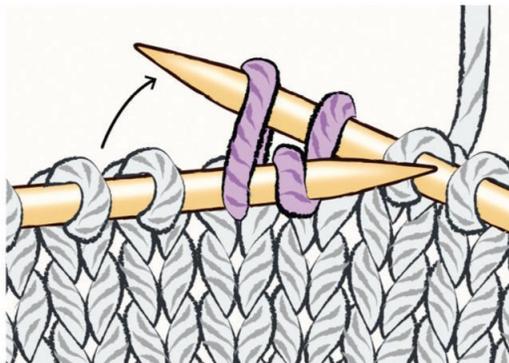
The following move both tightens the top stitch and allows you to do the SSK in one move, making it as fast as the K2tog. No need to

prep or slip or do anything in advance.

1. Advance the next two stitches to the tip of the left needle. Insert the tip of the right needle into the front loop of the first stitch and pivot around to enter the back loop of the second stitch. This keeps the structure of variation #2 — the top stitch is open (you are knitting in the hole), while twisting the bottom one (you are knitting through the back loop).



2. Pivot the right needle away, stretching out the second stitch. The stretching will tighten up the first stitch.



3. Wrap the working yarn around the right needle and knit the two stitches together by pulling the needle out through the same spot the needle went in, at the base of the little triangle formed. This move will make the top stitch smaller.



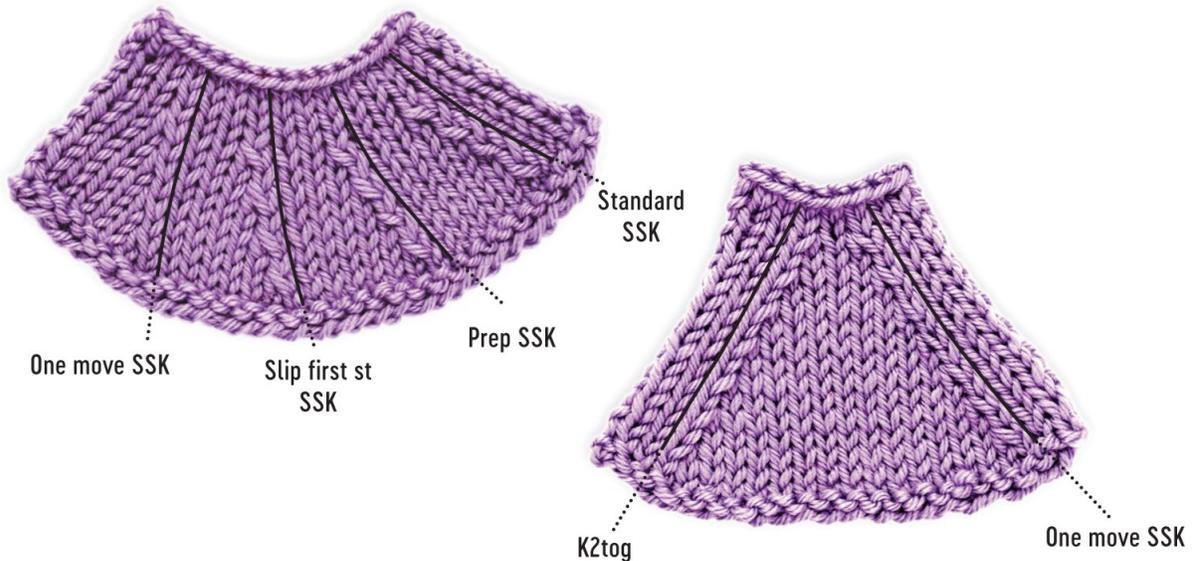
4. Pull the new stitch off the needle, letting the old first loop drop off, and as you are exiting, gently tug the old second loop with your left needle. This removes any remaining slack out of the first stitch that now sits on top.



5. When you enter the next stitch on the left needle, give a tug to your working yarn to snug up your one-move SSK.



Here's a comparison of all four versions of the SSK.



And you are done!

You've moved the slack of the loose top stitch to the back and you will have a neat orderly line of SSKs that actually match your K2togs.

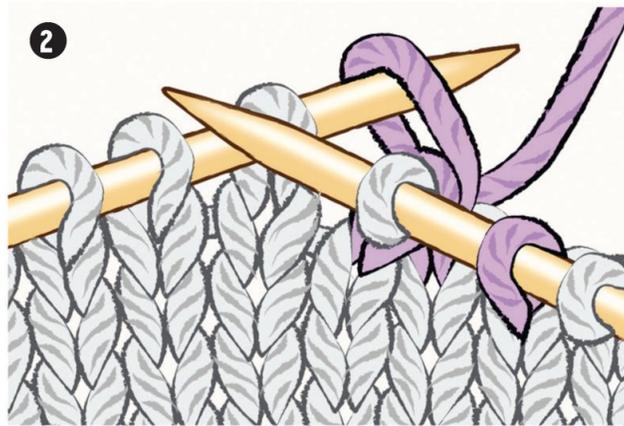
SK2P: I SEE YOUR SINGLE DECREASE AND DOUBLE IT!

Now that we know how to make lovely single left- and right-slanting decreases, we can use what we know about stitch anatomy to improve our double decreases.

When we need three stitches to merge into one and slant to the left, we bring out our old friend, the SK2P (slip one, knit two together, pass the slipped stitch over). It's simple to do, but it also leaves that elongated loop at the top for the same reason the SSK does. It's another tug to the rescue.

1. Slip one stitch as if to knit (we know why!), then do a K2tog.
2. Look at the back of the K2tog on your right needle. Find the lowest purl bump, the one farthest away from the base of the right needle. Now insert the tip of your left needle, front to back, into that purl

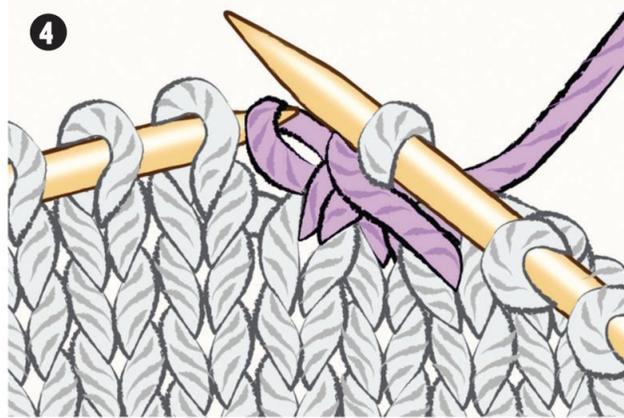
bump. This will stretch out the second stitch, taking the slack out of the slipped stitch.



3. With your left needle still hanging on to that second stitch, pivot the needle around to the front, over the other stitch of the K2tog, to reach the slipped stitch and pass it over.

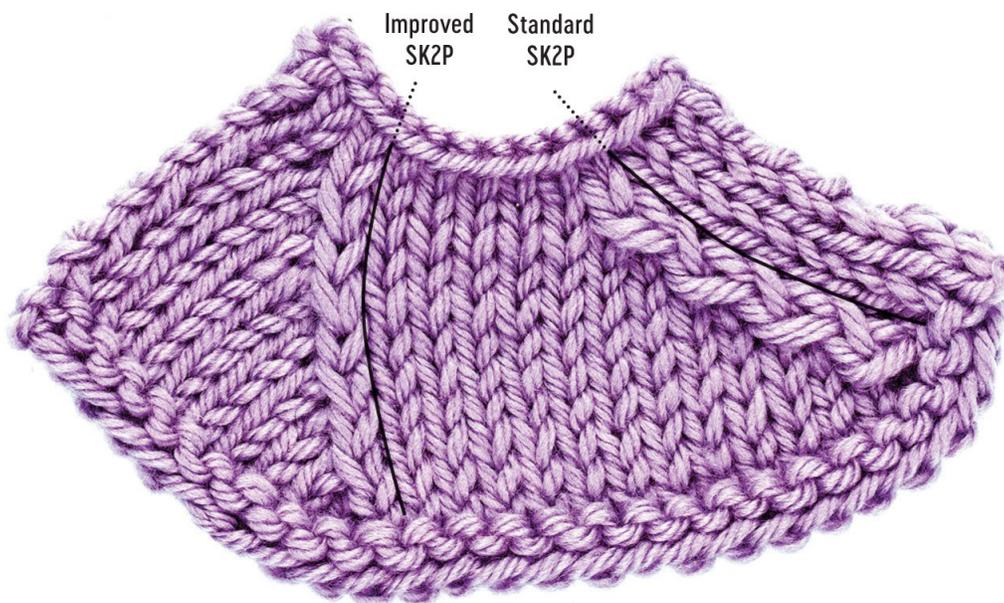


4. Pull out the left needle from the passed-over stitch and the second loop from the K2tog.



5. Enter the next stitch on the left needle and give a gentle tug to your working yarn to snug up your improved SK2P.

Ta-da! Sloppy top stitch be gone!



K3TOG: DOUBLE RIGHT-SLANTING DECREASE

As I said at the start of the book, some of the tricks I created are to improve the finished look of a stitch, and some because I hated doing the stitch *correctly* — that's right, K3tog, I'm looking at you.

This trick fixes one of my least favorite things to do: a K3tog. K3tog stands for knit three together and is worked the same as a K2tog — only with three stitches instead of two. The thicker the yarn, the harder it is to get all three stitches to advance to the tip of the left needle so we can enter them without distortion. We often have to muscle the needle into all three stitches and stretch them out to knit them together. It's not fun.

The K3tog is the right-slanting mirror to the left-leaning SK2P. One day I said to myself, "Self, is there a way to put slip, K2tog, pass over in reverse?" The answer: "Why, yes, yes, there is: K2tog, slip, pass over."

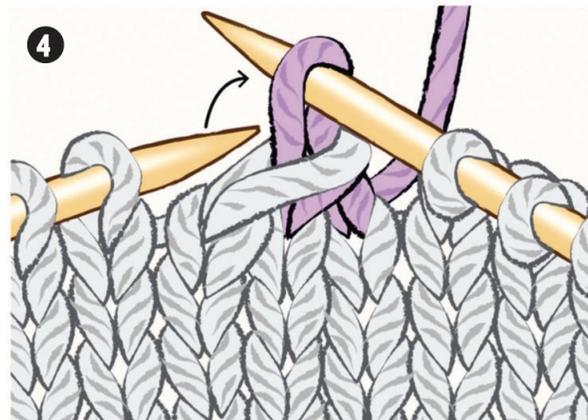
1. Start with a K2tog. Even with chunky yarn, it's much easier to advance only two stitches to the tip of your left needle and work them together.
2. Slip the stitch you just made back to the left needle. Slip it purlwise so the stitch mount does not change.



3. With the tip of your right needle, grab the next unworked stitch and pass it over the K2tog.



4. Finally, one last slip. Slip your new and improved K3tog from the left needle to the right needle (again, purlwise), then give the yarn a gentle tug to snug up the stitch.



Don't let the pass over fool you; this really is knitting three stitches together. Lifting a loop over another loop is the same as pulling yarn through a loop. Think about when we drop a stitch: you can drape the yarn over the tip of your needle and lift that dropped loop over, and it's knitted. You could do this trick by draping the working yarn over the tip of your left needle and lifting as many loops over as you need, but this can be fussy to do. (It's also hard to maintain even tension, especially if you hold your yarn in your right hand.) It's easier to always start with a K2tog, and then pass over as many stitches as you need for a K3tog or even a K4tog or K5tog.

CDD: CENTER DOUBLE DECREASE

The center double decrease (CDD) is a lovely but much misunderstood decrease. Like the SK2P, it's worked over three stitches, but this time it has no slant. Stitch number two, the middle stitch, ends up on top of stitches one and three. This decrease is often used in lace and in decorative sweater elements like ribbing for a V-neck when there's a center stitch at the bottom front of the neckline.

The CDD is sometimes abbreviated as S2KP and its definition, not unlike the SSK, can sometimes be less than helpful. The first time I read "slip two, knit one, pass over," having learned the hard way how to work an SSK, I thought: "Fool me once ... I know I'm supposed to slip them as if to knit." And so I did, one at a time, and did not get a central decrease. I got a double left-slanting decrease. Because, again, even definitions sometimes are written in shorthand. The *slip* in the definition means to slip two stitches **at the same time** (as if you were doing a K2tog), then knit the next stitch, and then pass both slipped stitches over the knit stitch. Now that makes sense, knowing our rule of decreases (whatever stitch your needle first enters ends up on top), because we want stitch number two to end up on top of one and three.

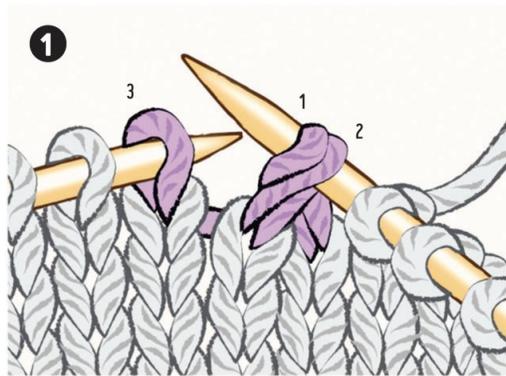


A CDD is a lovely decrease, but when done as directed, it has two drawbacks. It can be hard to wrestle those two slipped stitches over without really stretching them out. It also leaves a bit of a bump. In lace, this texture can look quite nice, but there

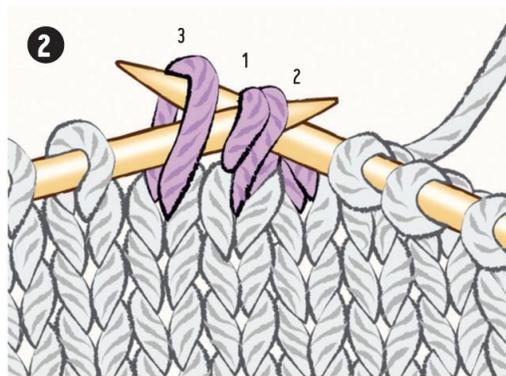
are many times, like a V-neck trim, where we'd prefer this stitch to lie flat.

With the K3tog, we substituted passing stitches over for working them together and got the same effect. Now let's put that in reverse! Here's a trick for an easier and flatter CDD.

1. We start the same way as the original instructions: slip two stitches at the same time, as if to do a K2tog. Notice how that reverses not only the mount of the stitches, but also their position. Stitch number two has traded places with stitch number one on your right needle.



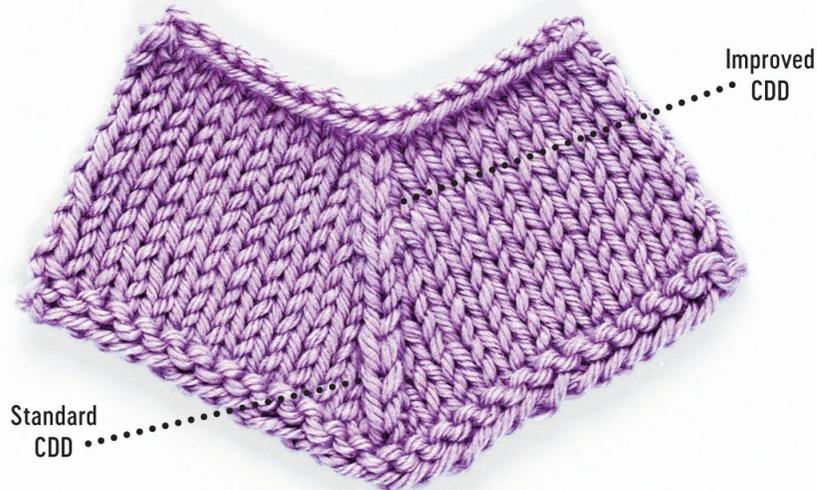
2. Insert the tip of the left needle into the front loops of the slipped stitches, and without removing the right needle, wiggle the tip of the right needle through the back loop of the third stitch.



3. Knit all three stitches together and tug the yarn to snug up your new improved CDD.

Done! Much easier to do and it lies flatter.

Can we figure out why? Think about where we put the needle. Just like in our one-move SSK, we knit through the back loop of the bottom stitch, twisting it so it lies flatter.



CENTRAL SINGLE DECREASES

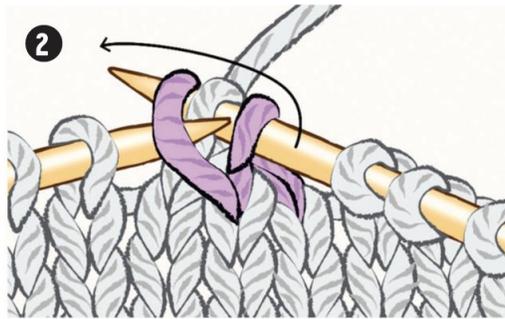
Sometimes we want to make one stitch go away without any lean. Years ago, I was working on a lace pattern that had K2togs at the top of a diamond motif and I didn't love the way it looked. While playing around on the needles, I came up with two variations. What I didn't know at the time was that another brilliant knitter, Robert Powell, had a different way to get to the same three-into-two decrease. That's one of my favorite things about knitting: that's there's more than one path to the same place, and we can pick the one that works best for us.

VARIATION #1:

Central Single Decrease: Leaning Out

The first is a super simple decrease based on the CDD. I thought if I could pass two stitches over one, couldn't I pass one stitch over two?

1. It begins exactly the same way as the traditional CDD: slip two stitches as if to do a K2tog, then knit the next stitch.
2. Pass only the first slipped stitch (the one farthest away from the right needle tip) over the next two.



A neat little decrease that turns three stitches into two! Technically, the first of the remaining stitches has been slipped and the second one knit, but you'll never see the difference. All you'll see is two stitches that look like they are magically emerging from a single stitch.

VARIATION #2:

Central Single Decrease: Leaning In

The previous decrease leans out, as if two stitches were emerging from a right-slanting decrease on one side and a left-slanting decrease on the other. The central single decrease reverses things!

1. Start by making the one-move SSK (see [pages 100-101](#)), ending with that lowest loop from the SSK (the one we gave a tug to) still on the tip of your left needle.



2. Insert the tip of your right needle into the back loop of the remaining loop on the left needle to flip the stitch around.



3. Slip that stitch purlwise back to the left needle.

4. Knit that loop together with the next stitch, through the front loops, like a K2tog.



Central
single
decrease
[lean in]
3 stitches
into 2



Central
single
decrease
[lean out]
3 stitches
into 2

Increases: The Perfect Additions!

Increases in knitting are straightforward, but that doesn't mean we can't have a few tricks up our sleeves to make them more beautiful. Before we improve them, let's look at the three main categories of increases. Thinking about the structure of each increase helps us choose which one to use.

Increases are either worked:

- Between two stitches (via a yarn over or make one);
- Into a stitch (often called a bar increase); or
- Onto the row below (a lifted increase).

INCREASE BETWEEN TWO STITCHES: YARN OVER AND MAKE ONE

The two most common between-stitch increases are the yarn over (YO) and the make one (M1). Understanding the connection between these two increases is our key to improving them.

YARN OVER: HOLEY MOLEY, LEAVE THE STITCH OPEN

A yarn over (YO) adds a stitch to our knitting but also creates a hole. YOs are used in lace and for other decorative increases. For obvious reasons, a YO is not considered an invisible increase.

Abbreviations

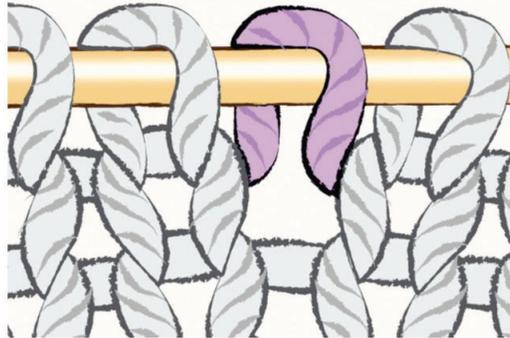
The U.S. abbreviation for **yarn over** is YO. In the UK, you might see a variety of abbreviations, such as YRN, YON, YFRN, or YFWD. Different abbreviations are based on what stitch comes before or after the increase. It's always best to read the stitch glossary in a pattern if you see something you don't recognize. Regardless of their name, these abbreviations all describe the two steps of the yarn over.

Rather than memorizing four different versions of a YO, think about it as having two steps:

- 1** Move the yarn from the front to the back over the needle.
- 2** Move the yarn into position for your next stitch.

In **Step 1**, you may wonder why the yarn moves from front to back over the needle. Once again, it's all about the stitch mount. A YO is a stitch with two legs. When we move the yarn from front to back, the YO is mounted the same as all our other stitches, with the leading leg to the front. When we work it in the next row or round, we'll work into the leading leg (the front loop), leaving the stitch open and creating our decorative hole.

YO with leading leg in front



In **Step 2**, we move our yarn into position to make the next stitch. Notice that if the next stitch is a knit-based stitch, our yarn is already in place and the yarn has traveled only about three-quarters of the way around the needle. However, if your next stitch is a purl-based stitch, the working yarn has to come back to the front again to be ready for the purl. The yarn has taken a longer path — it's traveled 360 degrees, all the way around the needle.

These YOs use a different amount of yarn, which leads to the bane of many knitters' existence: mismatched YOs.

Yarn in back, ready for a knit



Yarn continues to the front, ready for a purl



FIXING MISMATCHED YOS: THE LENGTH OF THE PATH

Here's a swatch showing mismatched YOs worked after and before a purl stitch.



By choosing the shorter or longer path the yarn takes around the needle, we will not only match our YOs, but we can also control their size. In some projects, we may like the look of two matched small holes and in other projects, we might want two matched large holes.

To control the length of the yarn's path, we'll consider three things:

- **The Start:** whether we need to move the yarn between the needle tips to start our YO;
- **The Direction:** the direction we need the YO to take; and
- **The End:** whether we need to move the yarn between the needle tips to make the next stitch.

Our secret weapon in changing the length of the yarn's path: the backward YO.

Yarn back to front: backward YO



We've already seen how to work a traditional YO — we wrap the yarn over the needle with the yarn traveling front to back. The backward YO is worked in the opposite direction, with the yarn going over the needle from back to front.

MATCHED SMALLER YO: WORK BACKWARD YO INTO A PURL

The backward YO is done a bit differently for an English knitter (thrower) than a Continental knitter (picker), and in both cases it may feel a bit odd, like you don't have enough yarn. But trust me, it will look great once it's worked on the next row.

Hold onto YO with your right finger, enter to make the purl



Continental

Leave yarn in back, enter to make purl; yarn wraps over needle



English

For a smaller YO, take the shorter path around the needle. A good way to remember what makes a shorter path is that the yarn should **start and end in different places**.

Smaller YO = Shorter Path (end in a different place than you started)

1. YO into a Knit → Traditional YO

I want my yarn to start in the **front** and end in the **back**.

- Yarn starts in the front (if coming from a knit, move yarn to front between needle tips)
- Yarn over the needle to the back
- Your yarn is ready for the knit

The yarn moves three-quarters of the way around the needle.

2. YO into a Purl → Backward YO

I want my yarn to start in the **back** and end in the **front**.

- Yarn starts in the back (if coming from a purl, move yarn to back between needle tips)
- Yarn over the needle to the front
- Your yarn is ready for the purl

The yarn moves three-quarters of the way around the needle.

Here's the shorter path: **traditional YO into a knit**, and **backward YO into a purl**, and two neat small, matching YOs.

Matching smaller YO's



MATCHED LARGER YO: WORK BACKWARD YO INTO A KNIT

For a larger YO, take the longer path around the needle. A good way to remember what makes a **longer path** is the yarn should **start and end in the same place**.

Larger YO = Longer Path (end in the same place as you started)

1. YO into a Knit → Backward YO

I want my yarn to start in the **back** and end in the **back**.

- Yarn starts in the back (if coming from a purl, move yarn to back between needle tips)
- YO the needle to the front
- Yarn moves between the needles to the back ready to knit

The yarn moves 360 degrees around the needle.

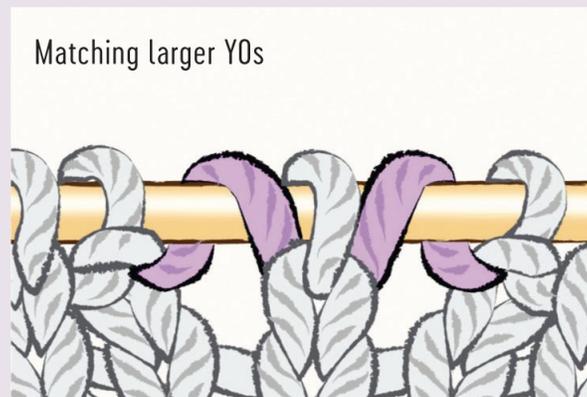
2. YO into a Purl → Traditional YO

I want my yarn to start in the **front** and end in the **front**.

- Yarn starts in the front (if coming from a knit, move yarn to front between needle tips)
- YO the needle to the back
- Yarn moves between the needles to the front ready to purl

The yarn moves 360 degrees around the needle.

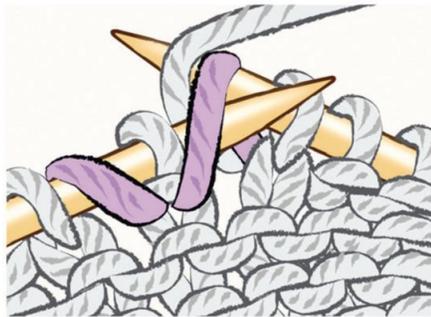
Here's the longer path: **backward YO into a knit**, and **traditional YO into a purl**, and two lovely large matching YOs.



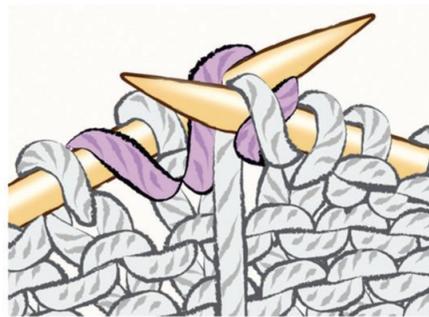
Right now, you may be wondering about all those backward YOs. If a YO is a stitch with its leading leg in front, won't a backward YO have its leading leg in the back? How do we work those on the next row to keep them open? Say it with me — *put the needle in the hole*.

On the next row or round we just knit or purl through the back loop on those backward YOs and we get our perfectly matched, custom-sized YOs.

Knit into backward YOs

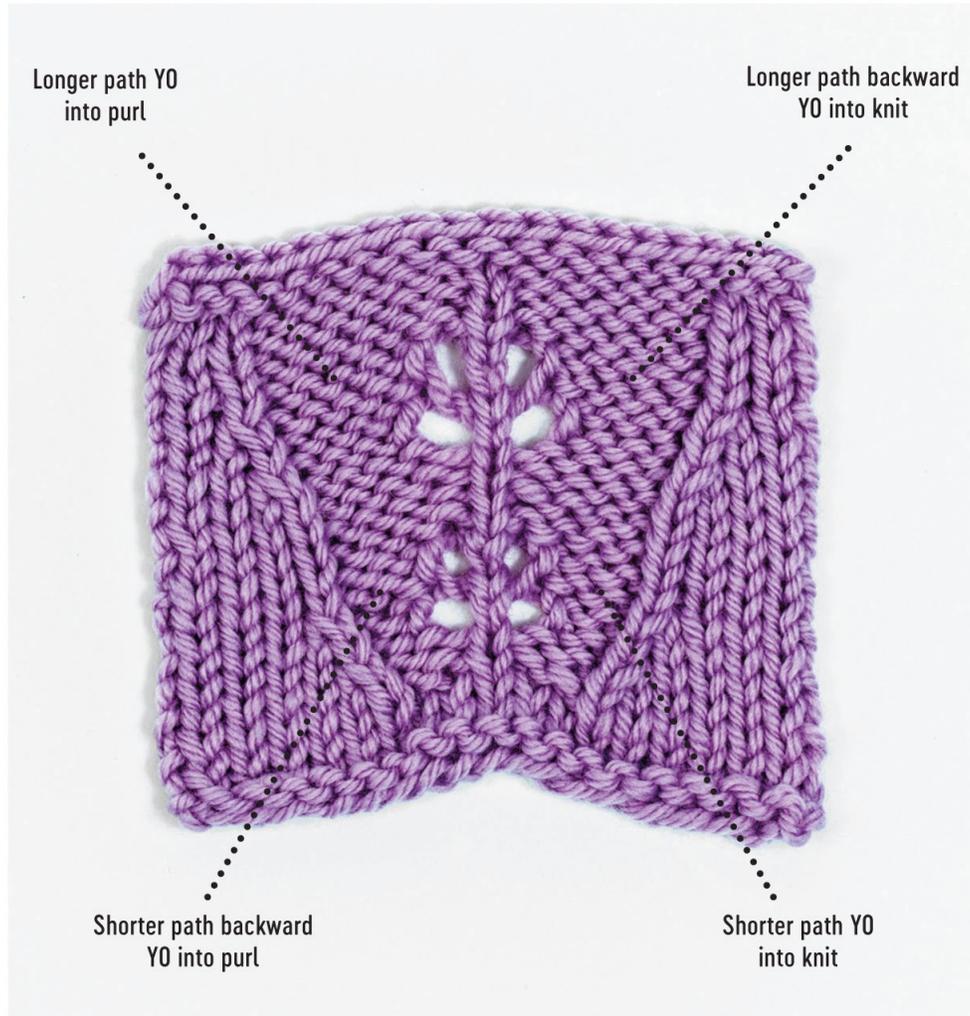


Purl into backward YOs



In addition to the pesky purl stitch, some knitters may notice mismatched YOs when it comes before or after a decrease. This depends on a knitter's tensioning, but some knitters see a smaller YO before a decrease and/or a larger YO after a decrease. This is because we often pull our yarn tighter as we make a decrease, so it tightens the YO that came before it. Every knitter is different, so use this directional trick anytime you need it to better match up your YOs.

Here's our perfectly matched small and large YOs.



MAKE ONE: IT'S A TWISTER, CLOSE THE STITCH UP

While the YO creates a pretty decorative effect, there are times when we just don't want a visible hole in our knitted fabric. Fortunately, there's another way to increase between two stitches: the make one.

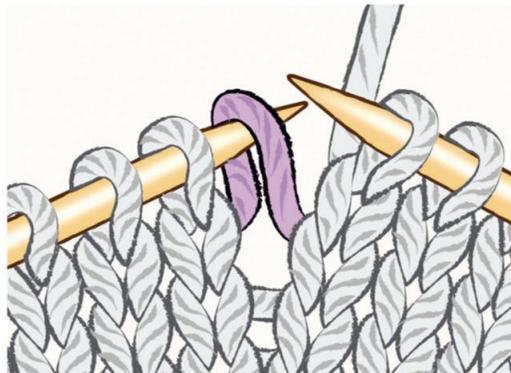
The make one (M1) creates a new stitch between two existing stitches without leaving a hole. It is very versatile increase: it can be done between any two stitches, whether they're knits or purls; there is a left and right version of this increase depending on how the running thread is twisted; it can be worked as a knit or a purl (M1P). The M1 is particularly useful when changing a stitch count while transitioning from ribbing into stockinette. (See [page 203](#).)

I like to think of the M1 as the twisted sister to the YO. They both create a new stitch using the working yarn between two stitches. The connection between these two increases might not seem immediately obvious until we think about how each is built.

Remember the running thread, the working yarn that runs between stitches? In a M1, we pick up the running thread (the working yarn) from the row below to travel over our needle. In a YO it's our working yarn from the current row that travels over our needle. But they have one key difference: in a YO we work into the leading leg so our stitch stays open and we get a hole. In the M1 we work into the trailing leg, which twists the stitch to close the hole.

Here we see the running thread lifted onto the left needle (by inserting that left needle front to back), ready to work a M1 left. Look familiar? If we knit that through the front loop, we'd get a YO. Every lace knitter who has ever missed a YO and notices it on the next WS row, knows they can pick up the running thread and purl it through the front loop. Bam — afterthought YO.

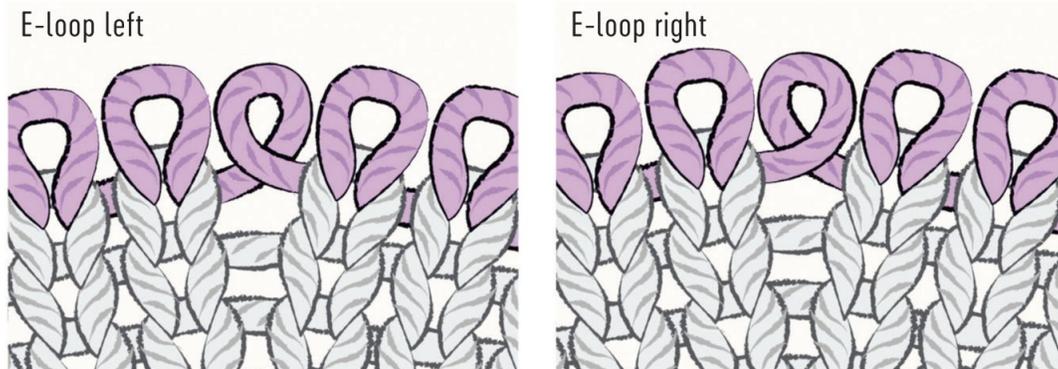
The lifted running thread for a M1 looks like a YO



ONE'S TOO TIGHT; ONE'S TOO LOOSE

A common complaint knitters have with the traditional M1 is the tiny hole we can get right under the increase. This can happen when we're working with a yarn with no elasticity like a cotton, but it can also come from the running thread size — lifting the running thread can feel too tight.

Understanding the connection between the YO and the M1 opens up a world of ways to create them. Elizabeth Zimmermann liked to create the M1 left and right by twisting the working yarn into an e-loop with the yarn tail crossing in front (right) or in back (left) and putting it on the right needle and then knitting the next stitch. (To review how to make an e-loop refer to [page 202.](#))



The advantage to adding the yarn between the needles, rather than lifting the running thread from the row below, is we can stack those increases closer together without puckering the fabric. However, while the lifted running thread M1 can feel too tight, for me the e-loop M1 can feel too loose.

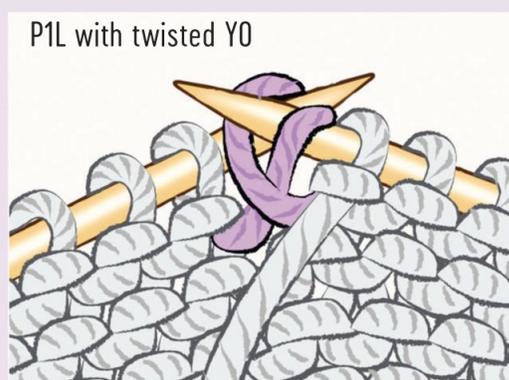
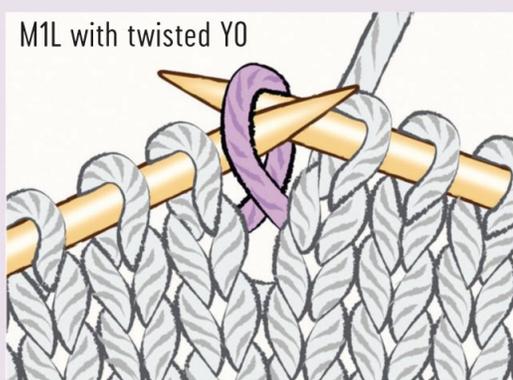
TO REMEMBER MAKE ONE LEFT (M1L) AND MAKE ONE RIGHT (M1R):

- “**Left it out front**”: Pick up the bar from the front = M1L
- “**Be right back**”: Pick up the bar from the back = M1R
- For both, whatever your left needle does, the right needle does the opposite. If your left needle picks up the bar from the front, you knit it in the back.
- The stitch itself does not lean left or right, but the running bar twists left or right.

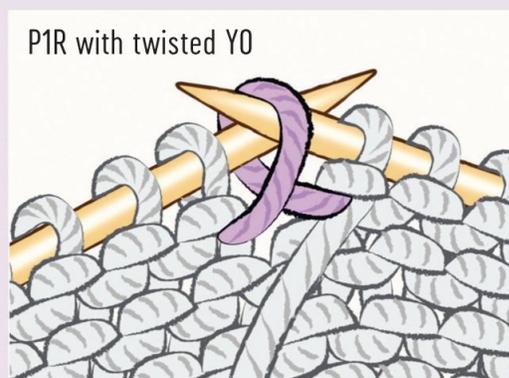
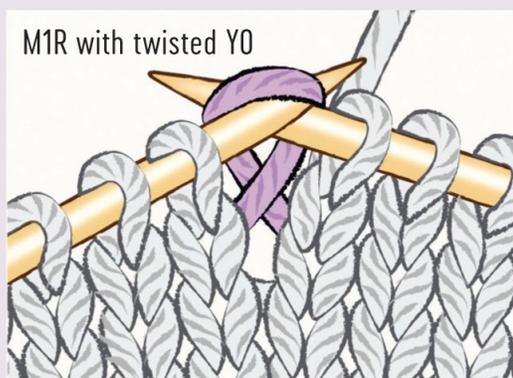
THE TWISTED YO: THE GOLDILOCKS OF MAKE ONES

Finally I found one that felt just right: the twisted YO. We still have the advantage of adding the yarn between the stitches, but rather than making the twist when we add it (which uses more yarn), we make the twist on the next row.

To create a M1 left, make a traditional YO (yarn moving front to back over needle), and on the next row work that through the back loop.



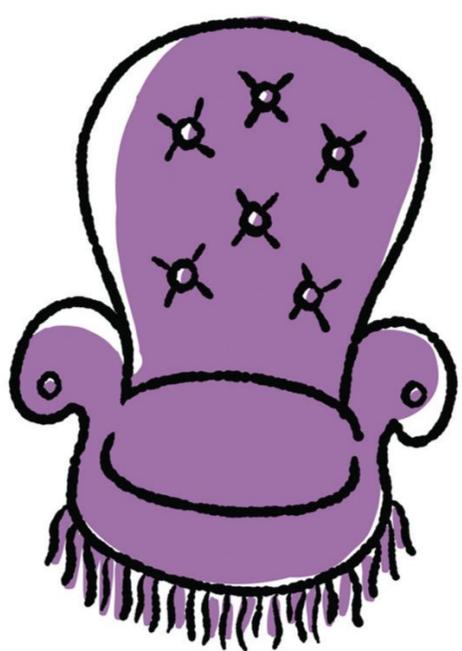
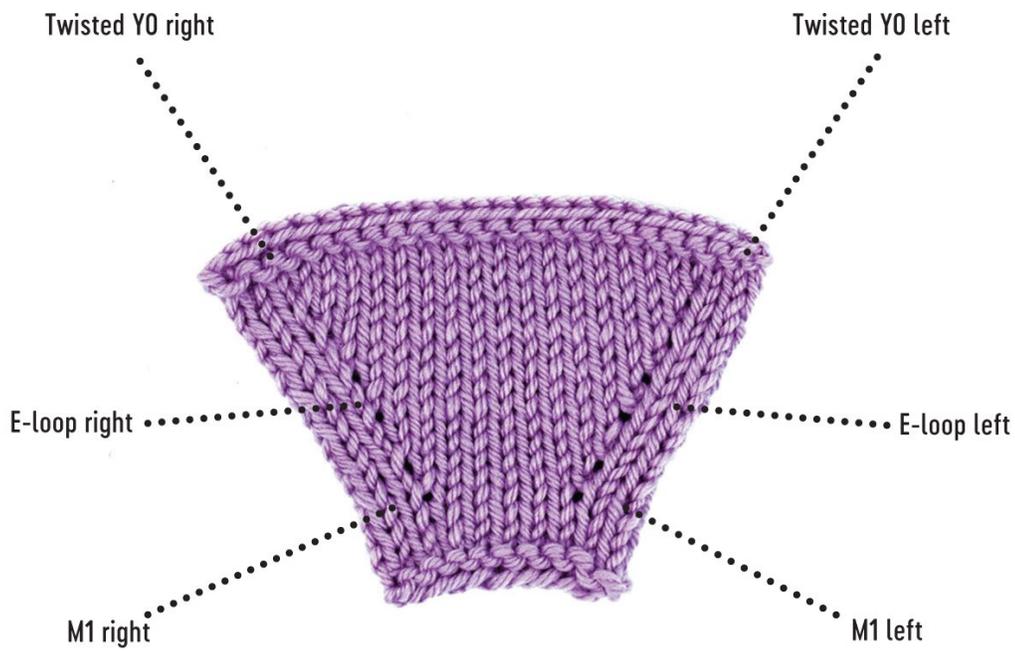
To create a M1 right, make a backward YO (yarn moving back to front over needle), and on the next row work that through the front loop.



You can make your YO on a RS row and twist it on the WS row. If you need your increase to land on the same row as a traditional M1 — which would lift the running thread that was the working yarn from a WS row — make your YO on the WS row and twist it on the following RS row.



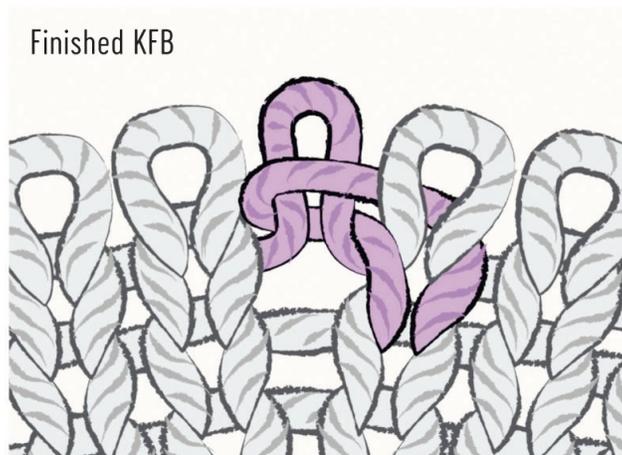
Here's a swatch showing all the different options. My favorite is the twisted YO making the YO on the RS row and twisting it on the WS row. Try them all and see which works best for you.



KFB: INCREASE IN A STITCH

A versatile darling that doesn't get the love it deserves is the knit front and back loop (KFB). This increase is worked into a stitch, so it doesn't lift up the row below or use a running thread. It's a perfect increase to use when we have to stack increases every other row, like in a toe-up sock or a top-down raglan. (See [page 203](#).)

The KFB is also sometimes called a bar increase because when we work into the front loop and then pivot our needle around to work again into the back loop, the right leg of the stitch wraps around the base of the increase, making it look like a knit stitch followed by a purl. That makes it the perfect increase for garter, seed stitch, rib, and more.

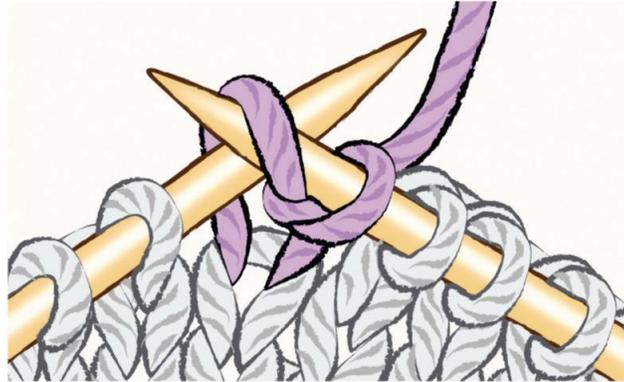


TIP: Because the bar always appears to the left of the original stitch, keep your increases symmetrical by working this increase on the first stitch of a row and the second to last stitch of a row. This will land that purl-like bar one stitch in from the edge of your work on each side.

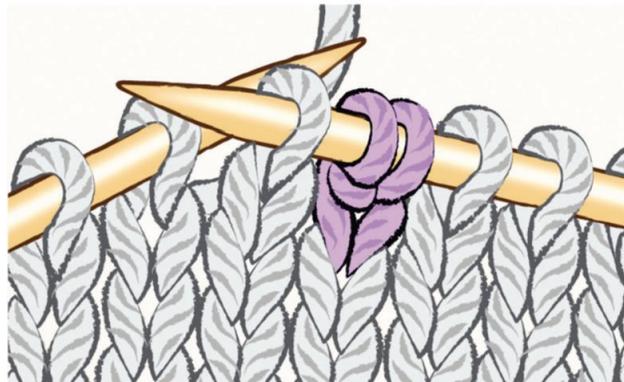
KFS: THE CAMOUFLAGE OF INCREASES

Sometimes we want to work a quick and easy increase in a stitch, without the bar. Meet the knit front slip (KFS).

To make a KFS, you start the same way as a KFB, but you don't knit into the back loop. Instead, you knit into the front loop, leaving the stitch on the left needle, then pivot your right needle into the remaining loop on your left needle and slip it to the right needle.



This will look like a doubled stitch, but on the next row you will work each loop as its own stitch.



Some knitters call this an easier way to work the KFB. But since we're working into only one leg of the stitch and lifting up the other leg to be worked on the next row, this is actually a lifted increase in disguise. Which brings us to our last family of increases.

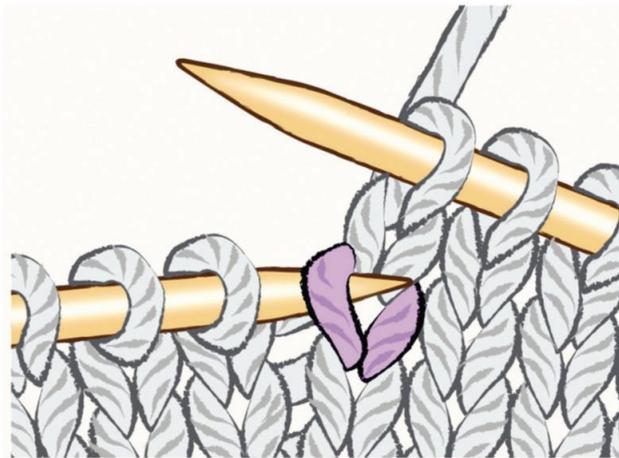
INCREASE INTO THE ROW BELOW: THE MOST INVISIBLE INCREASE

Our third category of increases are lifted increases working into the row below. The lifted increase is the most invisible increase, so it hides well even in a smooth fabric like stockinette. It's perfect for increasing evenly across a row and, when paired using the left and right versions, is my favorite to use in sweater waist shaping.

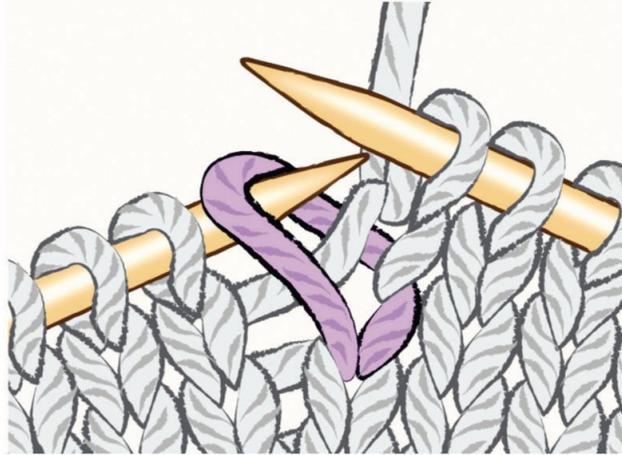
We'll look at the left lifted increase first (LLI). This is worked under the stitch on your right needle.

LEFT LIFTED INCREASE (LLI)

- 1.** Insert the left needle back to front into the left leg of the stitch two rows below the stitch we've just worked.



- 2.** Lift that loop onto your left needle tip and knit it through the back loop.

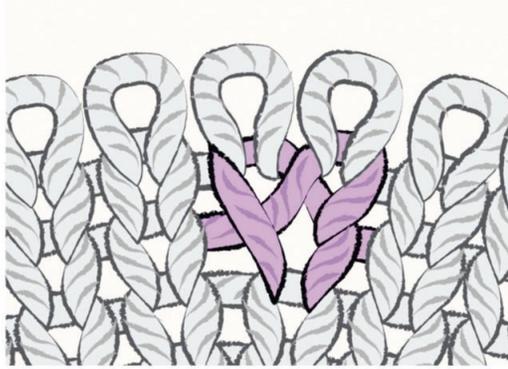


The new stitch we've created leans to the left, with no hole or gap underneath.

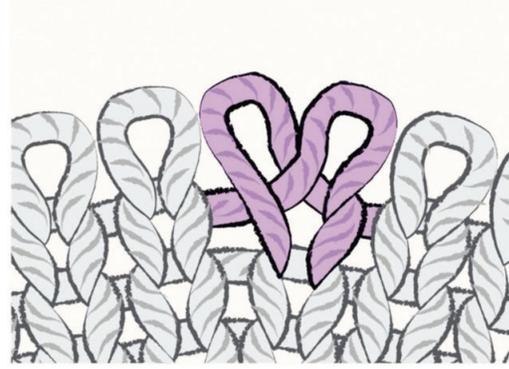
KNIT FRONT SLIP: THE ROW BEFORE LLI

Now that we understand how the LLI works, let's compare that to the KFS. When we work the *no-bar* KFB, by slipping the second loop we are lifting the leg of that stitch. We'll complete this increase on the WS row when we purl that lifted leg.

If we look at the lifted increase and the KFS side by side you'll see that they're the same stitch done on different rows. The LLI is lifted and worked on the same row, the KFS is lifted on the RS row, and worked on the next row.



Lifted and completed on RS row;
lifts the previous knit st from two
rows below and knits it to complete
increase on the same row



Lifted on RS row, completed on WS
row; lifts the previous purl st from
one below and purls it to complete
increase on next row

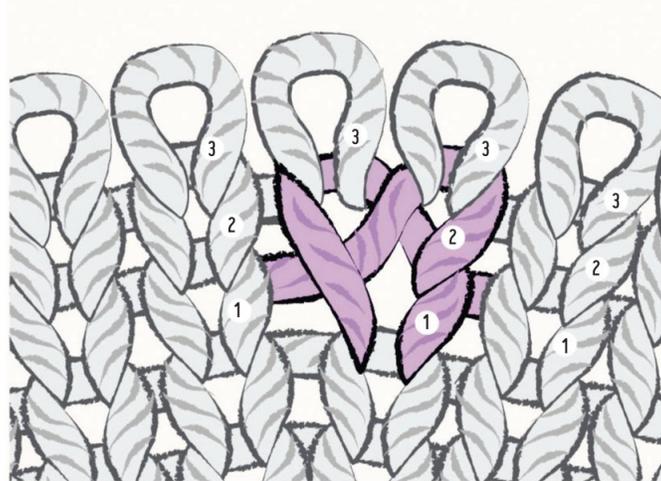
The KFS can be a handy alternative to the LLI if you're increasing evenly across a row and you find working the traditional LLI to be too fiddly.

Of course, if we can do that trick for the left lifted increase, we can also do it for the right lifted increase (RLI).

RIGHT LIFTED INCREASE (RLI)

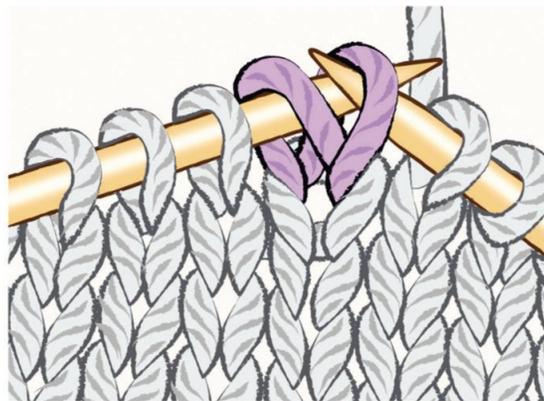
First, let's look at the traditional right lifted increase and how it relates to the traditional left lifted increase. The LLI was done by working into the stitch **two** rows below the stitch you just worked (on the right needle). In stockinette, that means you just knit the stitch on your right needle (let's call this Row 3), the row below was the purl row (Row 2), and the row you worked the increase into was the previous knit row (Row 1).

Remember how the LLI is worked two rows below the stitch just worked.



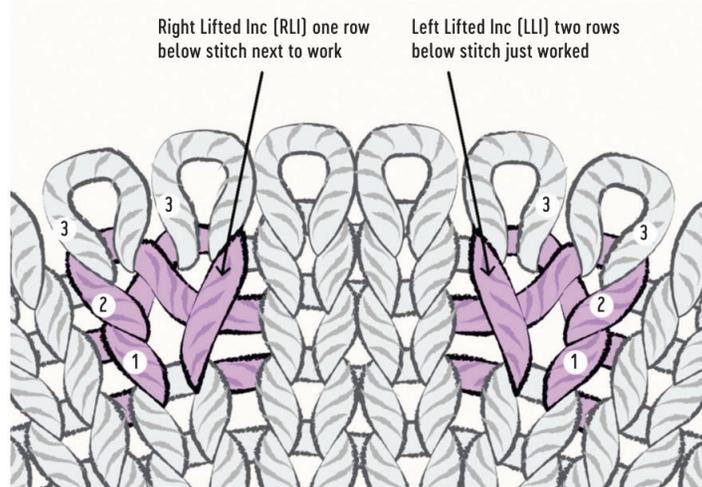
The RLI is worked into the same row as the LLI, even though it might not feel like it. In the RLI you are working into the stitch ONE row below the stitch that is yet to be worked (on the left needle).

1. Insert tip of right needle, back to front, into the right leg of the row below the stitch on your left needle, and lift it up onto your left needle.



2. Knit the lifted loop through the front loop.

Using the same labeling, that means you are increasing into Row 1 with Row 2 on your left needle; work that stitch and Row 3 is now on your right needle.



Here's the lovely and nearly invisible result.



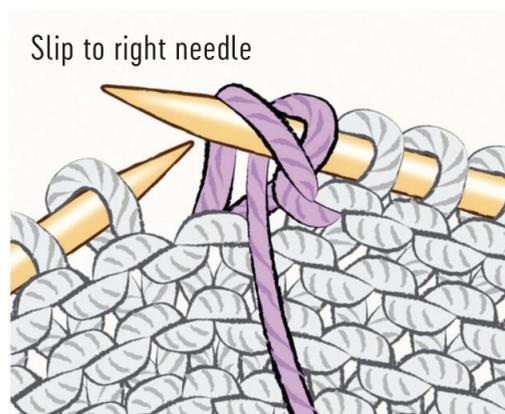
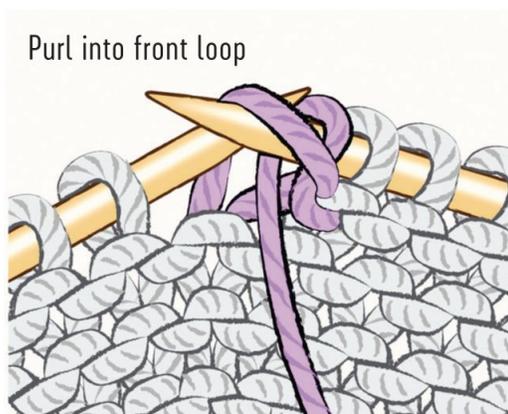
TO REMEMBER HOW TO WORK LLI AND RLI:

- You lift the stitch with the left needle for the left lifted increase.
- You lift the stitch with the right needle for the right lifted increase.

PURL FRONT SLIP (PFS): THE ROW BEFORE RLI

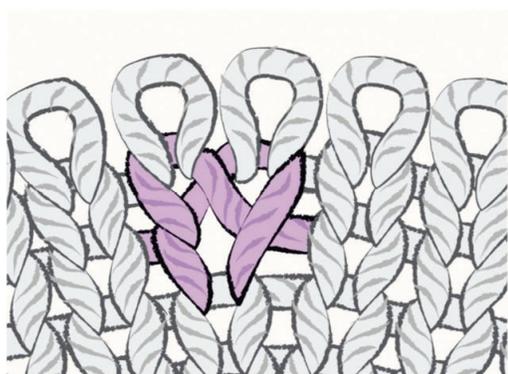
You can also create the RLI by working a purl front slip (PFS). Just like the KFS, on your WS row, you purl into the front loop, leaving the

stitch on the left needle, then pivot your right needle into the remaining loop on your left needle and slip it to the right.



This will look like a doubled stitch, but on the next row you will work each loop as its own stitch.

Notice how, just like with our *row before* LLI, here you lift a stitch on one row, but you work into that lifted stitch on the *next* row. If we look at the PFS from the RS we can see the connection to the RLI.



RLI (lifted and completed on RS row); lifts the previous knit st from one row below and knits it to complete increase on the same row.



PFS (lifted on WS row and completed on RS row); lifts the previous knit st from one row below and knits it to complete increase on the next row

It's cool to figure out two ways to get to the same place, but what's the practical use of the PFS? Doing both increases at the start of the row!

Sometimes when we work paired shaping on both sides of a long row, we might increase at the start of the row, then forget to increase at the end — after we've worked the 200 stitches in between. For some reason it's always easier to remember to do something at the start of the row. We can use the PFS to do our mirror-image shaping at the start of two rows, instead of at the beginning and end of the same row.

Suppose you're working a sweater back and need to increase on both ends of every shaping row. Instead of needing to remember to work the second increase (at the end), you can work the increase at the start of two consecutive rows. If the pattern tells you to increase every eighth row, work a PFS at the start of the seventh row, then work to the end of the row. At the start of your eighth row, do a traditional LLI and that row of shaping is done.

Nerding out over stitch anatomy is a great way to find ways to improve our technique. It's also fun to discover that there's more than one way to work the same stitch. By adding more tools to your knitting toolbox, you'll always be able to take out the right tool for the right job!

Try these increases and decreases and see which ones you like, then pull them out when you need them.

Words of Wisdom

—

**DID YOU
MAKE A
MISTAKE...**



OR **DID YOU
INVENT
A NEW
STITCH**





CHAPTER 6 — PESKY PROBLEMS & SECRET SOLUTIONS

Don't Do It Right, Do It Better

As a child I was never terribly satisfied when my questions of *why?* were met with *because*, or worse, *because I said so*. And so when I learned to knit, though at first I did what I was told, it didn't last long. I started to wonder *why* — or sometimes *why not?* In this chapter, we are going to embrace both the *why* and the *why not*.

In addition to hearing *just because*, new knitters are often told *you always* or *you never*. I'm here to tell you that in knitting, as in life, there are very few *always* or *nevers*.

Join a New Ball: More Ways Than You Think!

When it comes to joining a new ball, I remember learning two *you always* rules that did not serve me well. One was “you always join a new ball at the beginning of a row” and the other was “you always tie a knot in the two yarns.”

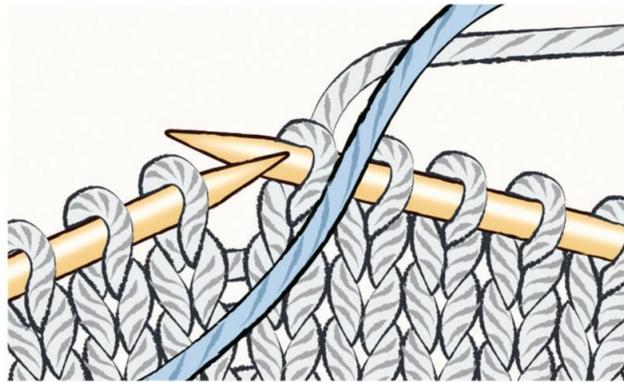
Where to join a new ball depends on your project. If the edge of your project is exposed, like on a scarf or shawl, it's best to join a new ball in the middle of the row so your edges are clean. If your garment is going to be seamed, then it's best to join at the start of the row so you can weave in those ends at the seam.

The problem: when you use a knot in the middle of a row, keeping that knot to the back of the work is hard. It can wiggle its way to the front and that's not pretty. A knot at the start of a row might be okay, but knots can lead to a false sense of security. When I knit my first

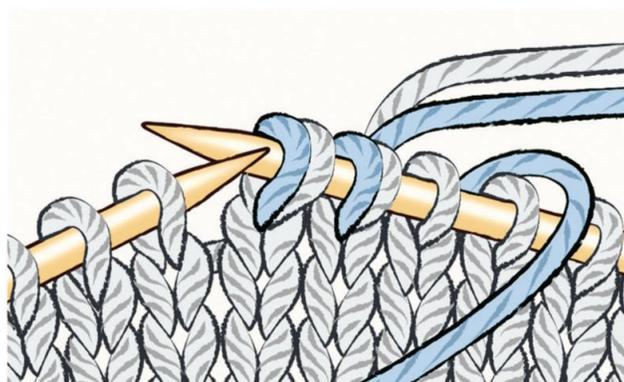
sweater, I did what I was told, tied the new ball to the old ball, and kept knitting. After I'd worn the sweater for a while, that knot came loose and I ended up with a hole right at the seam. Moral of the sad story, if you're going to tie a knot at the start of a row, make sure to leave long tails. When you finish, you can untie the knot, cross the ends, and weave them in. Or you can try one of my (lazy) favorites.

MIDDLE OF THE ROW: DOUBLE TROUBLE

1. Leaving a good 6in/15cm in your old yarn, drape a generous tail of the new ball over the top of the right needle — new yarn tail to the front — so the new ball of yarn overlaps with the old tail.



2. Knit two stitches with the new yarn doubled with the tail of the old yarn. That's it. Let the tail of the new yarn drop to the back, let go of the tail of the old yarn, and continue with the new.



I know a lot of people will say you have to knit four to six stitches doubled, but I promise you, two will do the trick. When you work

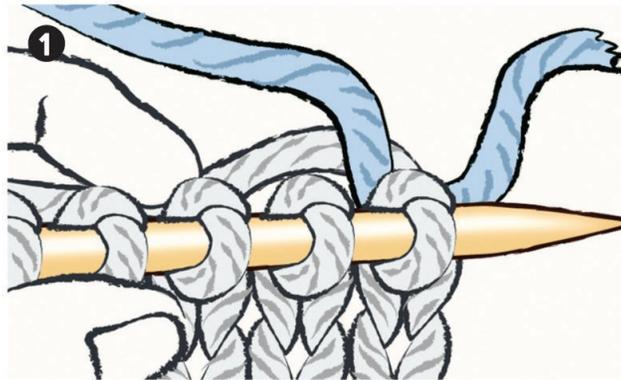
back over a doubled stitch on the WS, just work it as one stitch, give a snug to both tails, and you are good to go.

TIP: If you're working with a pattern with knits and purls, make sure you work the doubled join on a stitch that will be purled on the WS row. This will ensure the doubled stitch head ends up at the back of the work.

START OF THE ROW: TRAP IT

It's true you can just start knitting with the new yarn at the start of a row, but the loose stitch can bother some knitters. This little trick gives a clean start to a row and is perfect for a striped scarf or shawl.

1. Lay the new yarn under the old yarn, with its tail going to the right. Hold the old yarn tail firmly against the back of the left needle.



2. Knit one stitch with the new yarn.

3. While still holding the old yarn tail against the left needle, pick up the new yarn tail and hold it doubled with the new yarn so the old yarn is trapped between them. Knit the second stitch with your doubled yarn. Drop the tail of the old yarn.



As always, when you come to that first doubled stitch on the WS, just work it as one stitch.

A great bonus to this technique: if you're working stripes and coming back to the first color, this join also carries your original color up the side of your work.

From here you can just keep knitting and weave in your tails later or knit them in as you go.

KNITTING IN THE TAIL: THE LAZY KNITTER'S BEST FRIEND

Have you ever met a knitter who binds off their work, claps their hands with glee, and squeals, "Oh goodie, now I get to weave in my ends"? Yeah, me neither. And so I humbly offer this alternative.

Knitting in your tail is the same as trapping your floats in Fair Isle — and yes, there are fancy two-handed ways to do it (we'll get there.) Let's start by looking at the simplest form, since it's just moving the tail under and over your working yarn each time you knit a stitch. This works whether you're holding your working yarn in your right hand or left hand.

METHOD #1:

Knitting In The Tail: One-Handed

1. Enter the stitch and move the tail under and then over the working yarn so the tail is to the right. Knit the stitch. The tail ends over the

working yarn.



2. Enter the next stitch and move the tail over the top of the working yarn, so the tail is to the left. Knit a stitch. The tail ends under the working yarn.



Repeat Steps 1 and 2 for a few inches (or centimeters).

Now that we understand what the action is, let's kick it up a notch and do it two-handed!

METHOD #2:

Knitting in the Tail: English Knitter (Thrower)

Hold the working yarn in your right hand and the yarn tail in your left hand.

1. Enter the stitch and drape the tail over the tip of your right needle, from right to left.



2. Throw your yarn to knit a stitch, moving the working yarn under the tail. Let the tail pop off the tip of your left needle and cross over the working yarn as you pull it through. The tail ends over the working yarn.



3. Knit the next stitch without moving the tail. The tail ends under the working yarn.

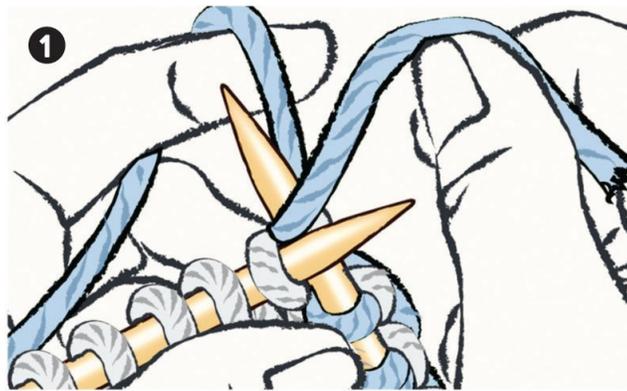
Repeat Steps 1–3 for a few inches (or centimeters).

METHOD #3:

Knitting In The Tail: Continental Knitter (Picker)

Hold the working yarn in your left hand and the yarn tail in your right hand. You'll be throwing with the tail like an English knitter.

1. Enter the stitch and wrap the tail around your right needle under to over (the same direction that we wrap to knit a stitch.)



2. Wrap the working yarn to knit (under to over) the tip of the right needle.



3. Unwrap the tail by moving it under the tip of the right needle. The tail ends over the working yarn.

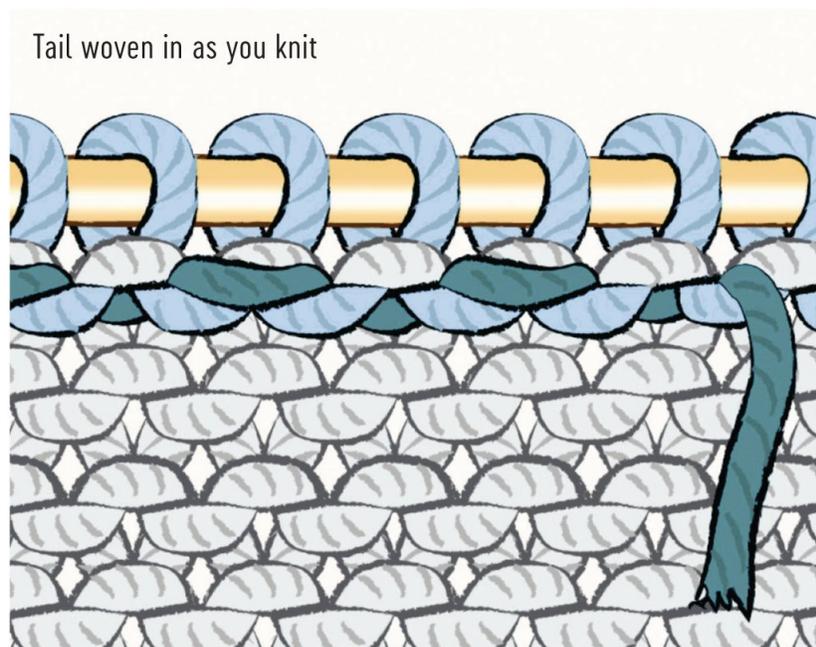


4. Complete the stitch by pulling the working yarn through the stitch you entered. Knit the next stitch without moving the tail. The tail ends

under the working yarn.

Repeat Steps 1–4 for a few inches (or centimeters).

Whether you're manually moving your tail around your working yarn or knitting it two-handed, you are doing the same action. You're weaving the tail up and down in the purl bumps as you knit. Keep a relaxed tension and check the front of your work when you finish the row to make sure the tail doesn't peek through between the stitches. If it does, just give a little tug to the tail and watch it disappear to the back.



TIP: Measure your yarn before you run out to make sure you have enough to get across a row. When you still have plenty of yarn left, drape your yarn across the width of your piece four times and tie a small knot. Work the next row to see if you hit the knot and you'll know how much yarn to save to complete a row.

FELTING MAGIC: LOOK, MA, NO ENDS!

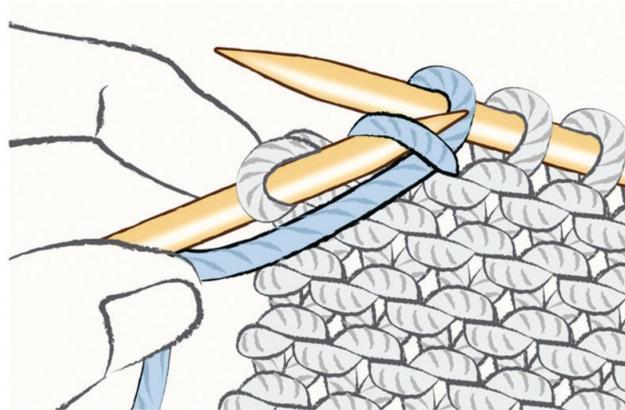
One of my favorite ways to join a new ball of yarn involves no ends to weave in at all: the spit splice. You can use the spit splice on any

non-superwash animal fiber. The yarn ends are felted to each other with a bit of spit and by rubbing them together between the palms of your hands. If you're squeamish about using your own saliva, you can use warm water, but honestly, I think good old-fashioned spit works best.

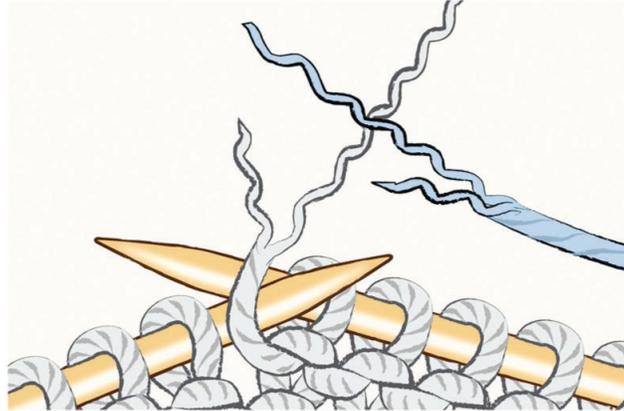
Many knitters are familiar with this little join and use it anywhere in the row for a single-color piece, but did you know you can use it with stripes to get the color to change right at the start of a row? Here's how:

1. Work to the end of the last row of your current color. Clip the yarn, leaving about a 1in/2.5cm tail. Do not turn your work.

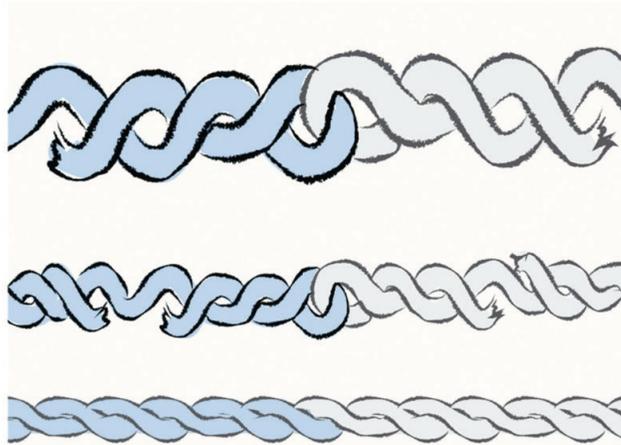
2. Pinch that 1in/2.5cm tail and with the empty needle in your left hand, unknit (tink) back about eight to ten stitches by inserting the left needle front to back into the row below the stitch on the right needle. You know you've entered the row below if your needle is going in where the yarn is coming out. Pull out the working yarn to release the old stitch onto the left needle.



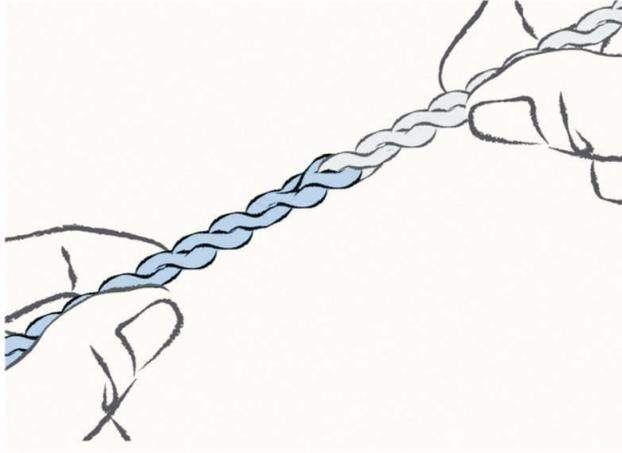
3. Unravel about 2in/5cm of the plies from the old color and the new color you're going to join. Cut away some of the plies from each color and cross one color over the other about halfway down the frayed end.



4. Fold the frayed ends of each color over onto itself to interlock the ends. By cutting away some of the plies and overlapping for 1in/2.5cm, you will avoid getting an extra thick lump at the join.



5. Wet each folded-over color a bit and run each end between your fingers, enough for it to stick to itself. Then lay the join in your palm, add a bit of your magic spit, and rub your palms together until you feel heat. Give a gentle tug to the ends to see if the join feels firm.



Once the ends have dried a bit, work to the end of the row and watch that yarn color change like magic at the start of the next row.

Fix That First Stitch: Yarn Interrupted

Speaking of the start of a row, we've all experienced that large, sloppy first stitch. Years ago, more experienced knitters told me not to worry about it, or that's "just how it is." I tried pulling the yarn really tightly around the needle. That didn't work. I tried knitting the first stitch on the tip of the needle. Nope. I tried tugging at the yarn after I made the stitch, but that just lifted up the row below and made it worse.

One day when I was knitting in the round, I had a lightbulb moment. In flat knitting, it's not the first stitch that's the problem — it's the last stitch of the row below! And it's because our yarn flow was interrupted.

Remember how the stitch we work naturally tightens up the one that came before it in our SSK? In flat knitting, when we finish the row and turn our work around, there is no stitch next to it. The next stitch we work is above it, so we need to do a little extra move to tighten that row below.

CONTINENTAL KNITTER: LIFTED STITCH METHOD

This move feels natural when you carry your working yarn in your left hand.

1. Knit the first stitch as usual. Plant your right finger on the loop just made on your right needle.



2. Still holding the stitch on the right needle, lift up on the needle. The stitch on the needle will get larger, removing the slack from

the row below.



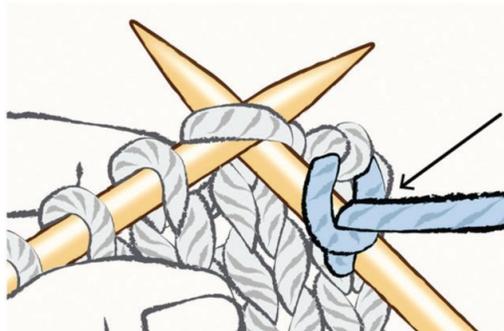
3. Move your left finger away from you, removing the extra yarn that was fed into that first stitch on the right needle, and continue working across the row.

By pulling up on the stitch just knit, you duplicated the move we did in our one-move SSK. If you do this every row, you'll get a neat, clean edge.

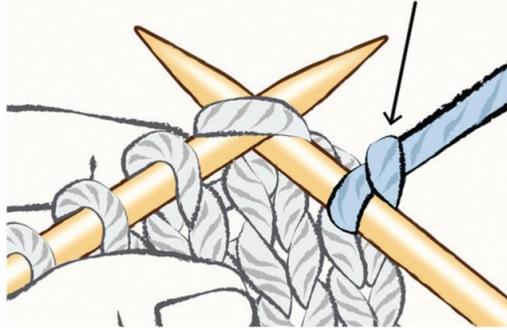
ENGLISH KNITTER: PULLEY METHOD

This maneuver works like a charm when you're holding your working yarn in your right hand.

1. Knit the first stitch and then enter the second stitch, but don't work it yet.



2. Give a tug on your working yarn and watch the row below tighten up like magic!



The needles braced against each other act like a pulley. This allows the working yarn to travel around the right needle, removing the slack from the stitch below it.

DPN: AVOID THE LADDERS

Bonus — this trick allows you to avoid ladders when you work on double-pointed needles (DPN) in the round. A ladder is the working yarn that runs between the last stitch of one needle and the first stitch of the next needle. You can tighten up that path in the same way you tighten the big first stitch in flat knitting.

As every DPN knitter knows, the worst advice we get is “to avoid ladders, knit the first stitch tightly.” Nope, does nothing. Knit the first stitch on the new DPN, enter the second stitch, and THEN give a tug to your yarn. Just like the slack in the row below in flat knitting, your ladder will disappear.

Speaking of circular knitting ...

Circular Knitting: Round and Round We Go

Knitting in the round is wonderful for so many projects, but let's face it, there are certain aspects of it that can make us feel like we're trying to fit a square peg in a *round* hole. No need to go *round* the bend, though — here's a bevy of ways to help us get '*round*' to working even better. Okay, I'll stop now. Here are a few of my favorite in-the-round tricks.

SWATCHING: THE LAZY WAY

If we're knitting a project in the round, we have to swatch in the round. The purl stitch, that old troublemaker, is the culprit. When we knit stockinette flat, we knit one row and purl one row. When we knit stockinette in the round, we just knit. For many knitters who knit and purl at different gauges, this means their in-the-round gauge is different from their knitting-flat gauge.

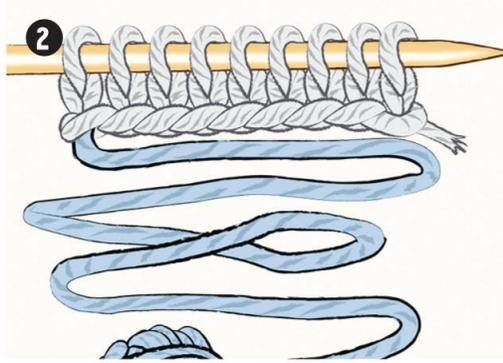
As much as I adore Elizabeth Zimmermann, her suggestion for swatching in the round — “just knit a hat” — never really spoke to me. There are, after all, only so many hats a gal needs. I prefer the speed swatch, a brilliant little trick that allows you to knit flat with no purls on circular needles.

The speed swatch simulates knitting in the round by working only RS rows. Instead of turning our work after finishing a row, we slide it to the other side of a circular needle, and with the yarn draped to the back, work another RS row.

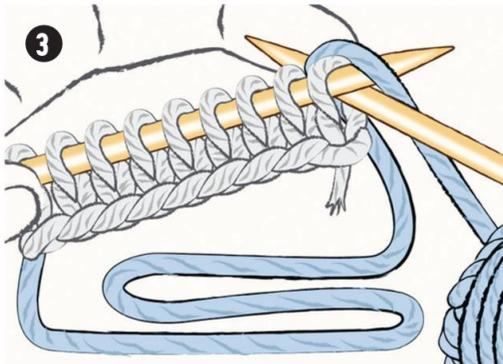
The traditional speed swatch leaves big loose edges, so you have to cast on a lot of extra stitches to have unaffected fabric in the middle to measure gauge. This version is much easier and neater.

Start by casting on enough stitches for your swatch, then knit one row.

- 1.** Slide your work to the other side of your circular needle. The working yarn is now coming from the left side of your swatch.
- 2.** Take your working yarn and fold it across the width of the swatch five times. This measures out a length of yarn for a full row, with a bit extra to hang on to.

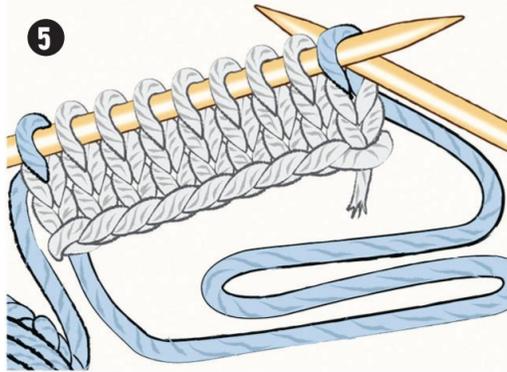


3. Holding the end of the yarn you just measured, drape that yarn across the back of your swatch. Hold the end of the yarn against the tip of your left needle, leaving a large loop across the back. You won't be knitting with this loop just yet.



4. Still holding onto that loop against the back of your left needle, and using the yarn coming from the ball, knit the first two stitches of your row through the back loop to create a twisted edge. Work in pattern to the last two stitches, then knit those last two stitches through the back loop to create a neat edge. The last stitch you work will feel loose as it's connected to the big loop of yarn going across the back. Gently tug the loop to tighten up that last stitch.

5. Slide your work to the other side of your circular needle. Now you'll knit the next row with that big loop of yarn running across the back.



Repeat Steps 1–5. By knitting the first two and last two stitches twisted, and by alternating working one row from the ball and one row from our loop, we create a neat, orderly swatch. Every two rows of knitting result in a little loop of yarn to the left of your swatch. Like magic, we've creating stockinette flat by knitting every row!

JOIN IN THE ROUND: SMOOTH THAT SLINKY

Working in the round is really working in a spiral. When we finish one round, we aren't connecting the last stitch in the round to the first stitch but working on the round above it. When we join in the round, we get a little jog, like the end of a Slinky. (Remember Slinky? I understand for fun it's a wonderful toy. Google it.). Many knitters also get a gap at the join. This little trick eliminates both.

1. While casting on, add one more stitch than your pattern calls for. Slip the first stitch you cast on from the left needle to the right needle and place your end-of-round marker. Your working yarn will now be coming from the second stitch on the right needle tip.



2. Join in the round by working into the first stitch on the left needle. (This is the second stitch cast on.) You'll have a small float of yarn that goes across the back of your slipped, unworked stitch.
3. Continue to work in pattern until you get to two stitches before the end-of-round marker and then work those two stitches together.

Ta-da! Jog smoothed and a nearly invisible join.



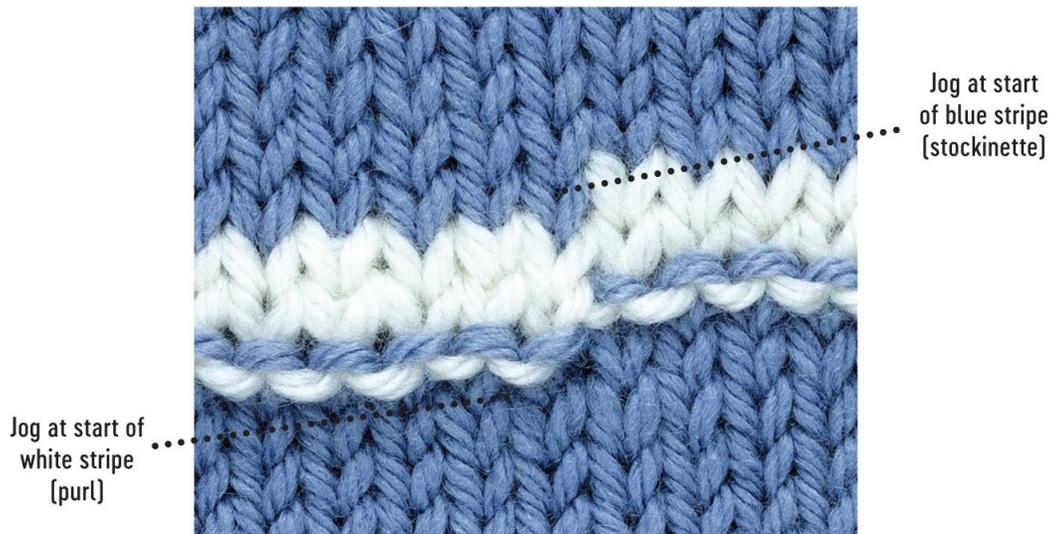
STRIPE SADNESS TO STRIPE GLADNESS

Nothing shines a light on the true spiral construction of circular knitting quite like stripes. Fear not, there are ways to smooth out those jogs. Which fix we use depends on the type of stitch and how many rows are in each stripe.

FIX #1:

One-Round Purl: The Do-Nothing Fix

Sometimes a round of purl is used to divide two pattern stitch sections or to add a bit of zing to a striped project. Remember what we learned in Chapter One: when we purl, the head of the stitch of the row (and in this case, color) below ends up at the front of our work. This means starting a new color with a purl round gets you two colors for the price of one. It can look great — until you knit the next round and the purl bumps no longer connect. We have a jog.



To smooth out the start of that jog, we're going to trick the eye by **not** working the first stitch. After you've purled one full round, slip your end-of-round marker, then slip the first stitch purlwise from left needle to right needle and start knitting. That's it! Sound familiar? It should — it's exactly what we did to create our jogless join.

This little move skips over the first stitch of the purl row, so you aren't working into that stitch until the second round. In other words, you're really working into the round below.

When we have all stockinette on the needle, another way accomplishes this even better.

FIX #2:

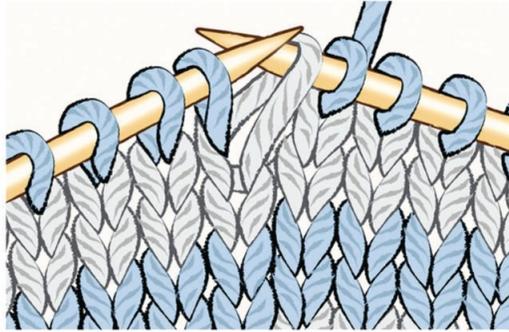
Two-Round Stockinette Stripe: Dig Deep!

When we have a stockinette stripe that's two rounds or more, we can smooth our jog by working into the round below. This brilliant invention was the creation of Meg Swansen. In the previous picture, note the jog at the start of our white stripe and at the start of the blue as well.

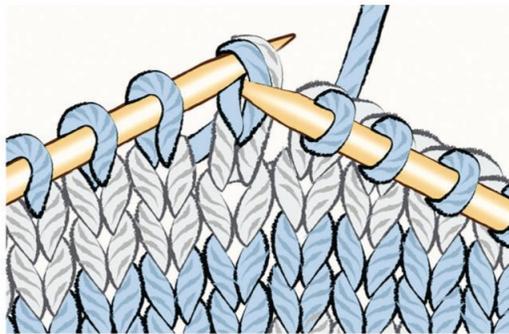
To avoid a visible puckering of your fabric if you are going to work a series of two-row stripes, move your end-of-round marker by one stitch every stripe, like this:

Start by knitting one full round of your new color.

1. When you come to the end of round, remove the marker and snug up the last stitch of the old color. Insert the tip of your right needle, back to front, into the head of the stitch of the round below (the old color). Lift the old color stitch and put it on your left needle tip.



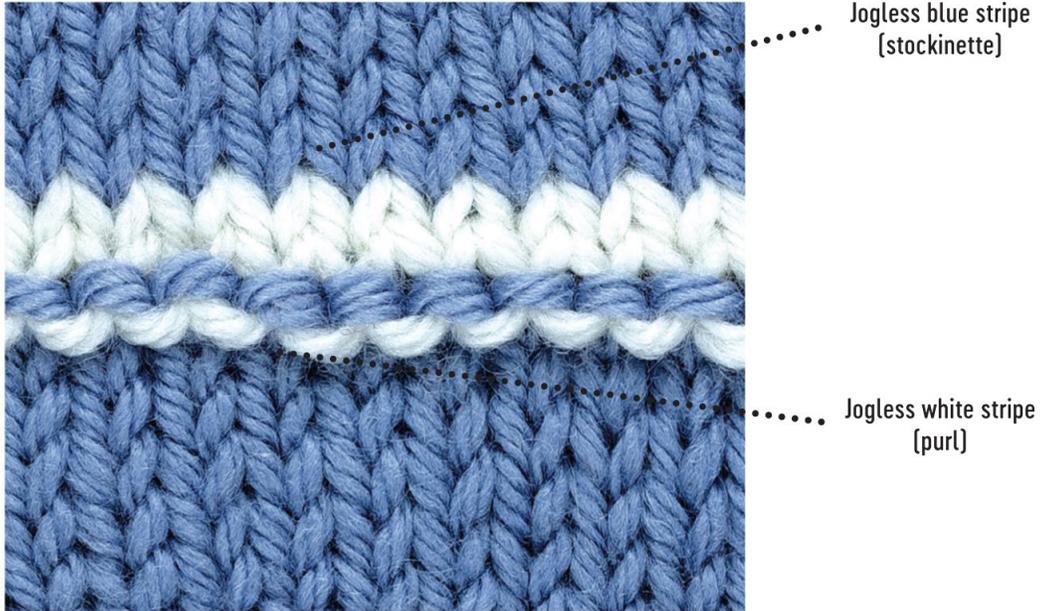
2. Knit the first stitch of the round together with the row below



Replace the end-of-round marker. You have now moved your end-of-round marker by one stitch. Knit to the end of your round (round two of the new color).

Now you can continue working in the round with your new stripe color or change to another color for a new multi-row stripe. For each new color, repeat Steps 1 and 2 for lovely jogless stripes.

See how we've smoothed out the jog at the start of our white purl round and the start of the blue stockinette round.



TIP: You only have to work into the row below for the second round of a new color. If you're working three or more rounds, just knit normally for those rounds. Always adjust the stitch size of the old color before switching back to it for the next stripe.

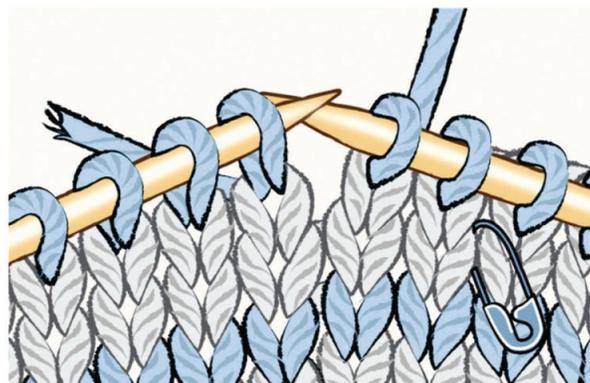
SINGLE-ROW STRIPES: CLOSE THAT RING

There are special techniques for working an entire project alternating between two or three colors. But what about popping in a few single-row stripes in the middle of our main color? Well, to paraphrase the guard from the Wizard of Oz, that's a stripe of a different color.

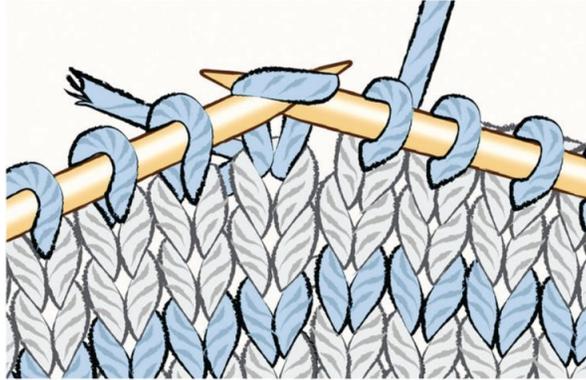
We can work into the row below that single-row stripe when changing colors, but that leaves a tiny jog that is not hidden as it is in a two-row stripe. The chunkier the yarn, the more visible that jog. We can still slip the first stitch of the old color each time we change colors, but if we're working several stripes, this means our end-of-round marker moves one stitch every row, which can throw off shaping. This can also create a hard ridge at the back of the work from the floats.

This little unvention creates a completely closed loop for every stripe, with no jog, no floats, and no need to change the end-of-round marker. It's like inserting a completed ring of color right in the middle of our work.

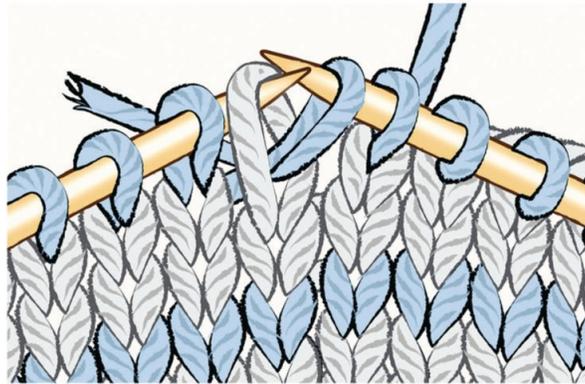
1. Slide a few stitches in the old color from one needle to the other, moving away from your end-of-round marker.
2. Join your new color, leaving a generous tail, and knit one full round. Do not knit in the tail of this yarn. (Note: the end of round of the new color is in a different spot than your old color.)



3. Slip the first stitch of the new color knitwise from the left needle to the right needle. This reverses the stitch mount.



4. With the tip of the left needle, enter back to front into the row below the slipped stitch.

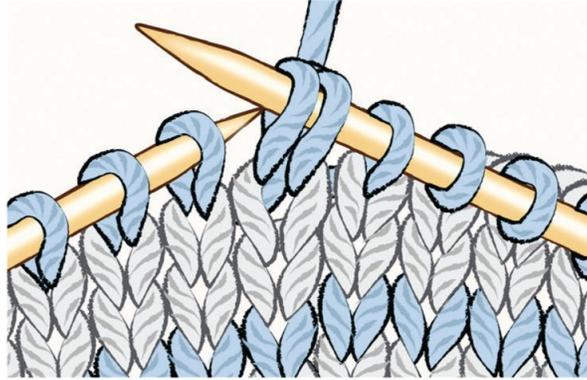


5. With your working yarn crossed under the tail, knit the row below the stitch Eastern-style, by wrapping the yarn over the needle instead of under it.



This creates a double Eastern mounted stitch. When you come to this doubled stitch on your next stripe, work it as one stitch through the back loops.

6. Now slide your stitches forward to a new spot to join your next single-color stripe and repeat Steps 2–6, working that previous doubled stitch through the back loops when you come to it and snugging up the tails.

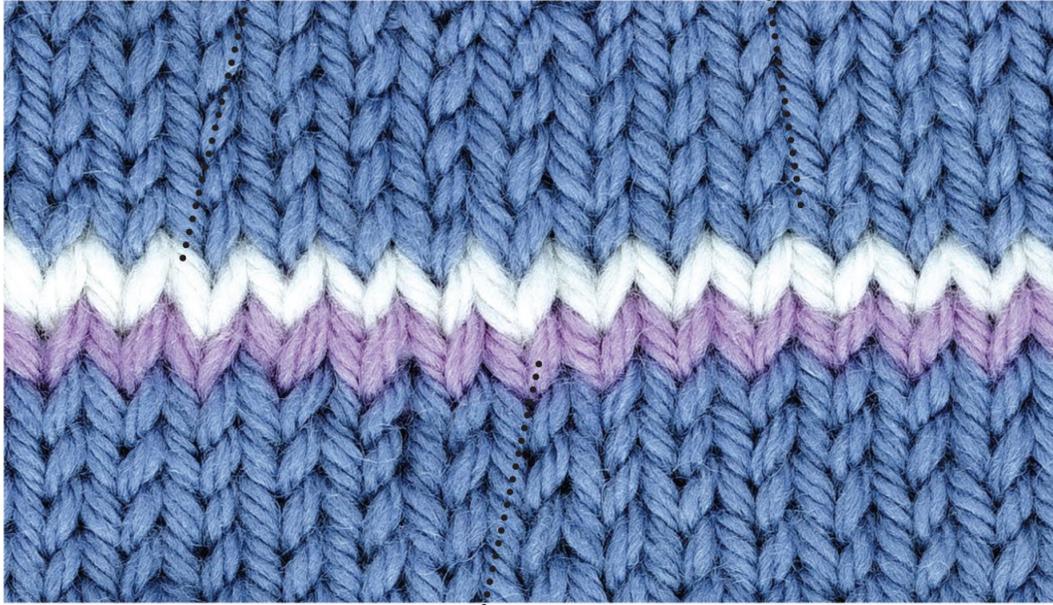


Once you're finished knitting one or more of your single-row stripes, slide your way back to your end-of-round marker where you left your main color. Pick it up and start your next round. Of course, when you come to the second round of your main color, you'll want to work through the row below to avoid the jog in your main color (using the previous technique for two or more row stripes.)

You've inserted perfectly closed rings right in the middle of your main color and not needed to slip, float, or move your marker!

Closed loop — white stripe

Original end of round — blue



Closed loop — pink stripe

Short Rows in the Round: The Conspiracy of Silence

Short-row knitters, can we talk? This tip is for all of you. If you've never worked short rows in the round, this section won't mean much. But believe me, once you work your first short-row pattern in the round, you'll want to come right back here. For every knitter who's worked German short rows or wrap-and-turn short rows in the round, you know you're being lied to!

Short rows are an amazing way to shape our knitting, but they are less than lovely when we work in the round.

Short rows are exactly what they sound like — rows that are worked short and turned before we get to the end. At our turning point we use a technique to avoid a hole. We'll be looking at German short rows and wrap-and-turn short rows. When we work short rows in the round, we are actually turning and working flat until the short rows are completed and then returning to working in the round ... and that's where the trouble starts.

These two short-row methods are constructed differently, but they have a key element in common: the last wrap or doubled stitch was on a WS row, but when you return to work in the round, you close the gap (by hiding the wrap or working the doubled stitch) on a RS row.

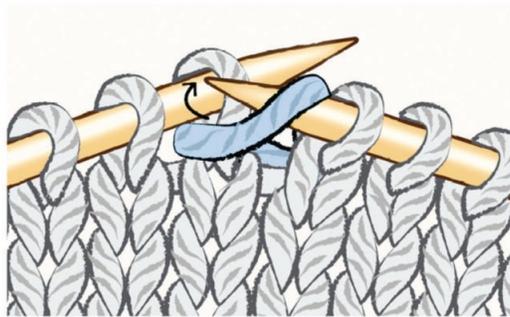
For some reason, patterns pretend that using the instructions meant to be used on a RS row will work on a stitch that was turned on a WS row, but they don't and it's not your fault! It's a big lie. You end up with either a gap or a hole.

To understand what goes wrong, we need to look at how each method connects the worked and unworked stitches and if that connection is made before or after the turn. If you're new to German short rows or wrap-and-turn short rows, you can find the basics in the Resources section.

THE WRAP AND TURN: FIXING THE GAP

With wrap-and-turn short rows, you connect the worked and unworked stitches by wrapping the yarn around the next unworked stitch and turning after you wrap.

When we're working flat, a stitch wrapped on the knit side is hidden on the knit side. We knit the wrap together with the stitch by inserting the needle bottom to top into the wrap and then into the stitch, knitting them together, neat and clean.



But when we're working short rows back and forth and it's time to return to working in the round, we'll have that one last wrapped stitch from the WS. Instead of turning and hiding your last WS wrap on the WS, you stay on the RS row and return to working in the round. And that's the problem. That last wrap is facing the wrong way because it was wrapped on a WS row.



See the gap and the elongated stitch?

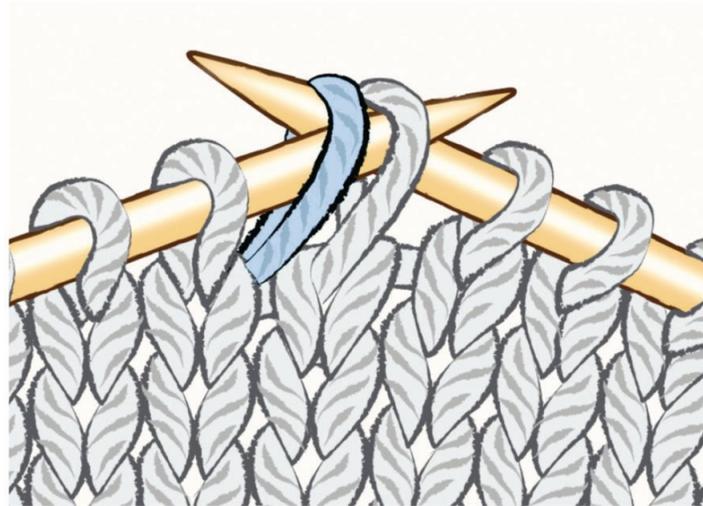


W&T from last RS row
hidden on RS

W&T from last WS row
hidden on RS

Since we have to come at it backward, doesn't it make sense that we close the gap backward? We closed the RS wrap using a k2tog, so, it's an SSK to the rescue!

1. Lift the wrap over the stitch so it sits to the left of the stitch.



2. Now do an SSK using the wrap and the next stitch, slipping only the first stitch (the wrap) as if to knit.

Gap be gone!



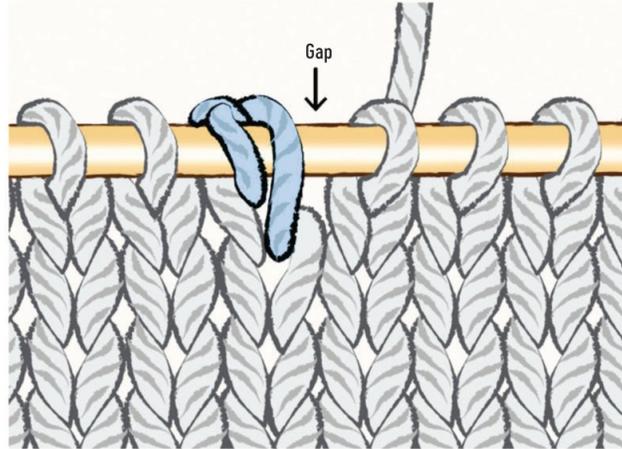
W&T from last RS row
hidden on RS

W&T from last WS row
hidden on RS (as an SSK)

GERMAN SHORT ROWS: NO MORE HOLE

With German short rows, we turn first and our connection is achieved by working our doubled stitch on the last worked stitch. Here, closing the gap is simple. The double stitch (DS), created on a knit side, is closed with a K2tog. The DS created on a purl side is closed with a P2tog.

However, when we return to working in the round, we get more than a gap; we get an actual hole. Just like the W&T, when we stop working flat and return to working in the round, we'll come to the last DS created on a WS, but we're supposed to close it with a K2tog. Working the DS together will not close the gap, because the gap is BEFORE the DS.



If you simply work to the DS and do a K2tog, that gap remains and when you work over it you get a hole.



We need to fill that gap. Work to one stitch before the DS.

1. Slip that stitch as if to knit.
2. Advance the DS to the tip of your left needle. Enter the first leg of the DS through the back loop. Entering this stitch can be tricky, so if you have trouble, pull down on the back of DS on your needle to reveal that first leg. Wrap your yarn to knit and pull it through.



3. Remove the stitch just knit, being careful to leave the second loop of the DS on the left needle.



4. Pass the slipped stitch over the stitch you just made (into first leg of the DS), and give a snug to your working yarn.



5. Knit the second leg of the DS through the back loop.

And voilà! You have filled the hole.



End in the Round: Smooth that Slinky

Just when we've bound off, thinking we're seconds from a clean getaway, we look down and see this.

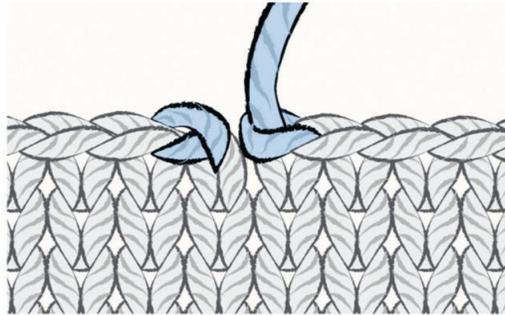


Since we're working in a spiral, the dreaded Slinky effect strikes both cast-on and bound-off edges. The first bound-off stitch sits one round below the last bound-off stitch. Just as we did for the cast-on, we will need to connect the last stitch of the round to the first stitch of the round. It's time for another slip.

1. Remove your end-of-round marker and slip the first stitch of the round, purlwise, from the left needle to the right needle. This will now be the last stitch you bind off. Your working yarn will now be coming from the second stitch from the right needle tip.

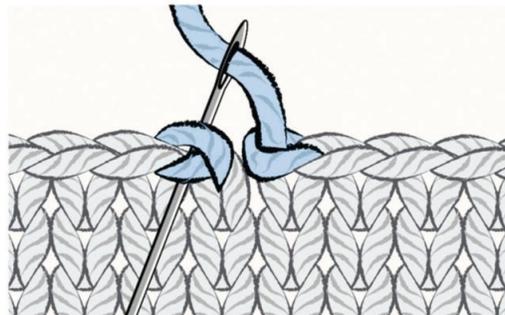
2. Begin your bind-off by working into the first two stitches on the left needle and passing the first stitch over. You'll have a small float of yarn that goes across the back of your slipped, unworked stitch, just like the cast-on.

3. When you bind off your last stitch (the first stitch of the round you slipped), you will have connected the last stitch of the round to the first stitch of the round. Cut the yarn and lift up on the needle, pulling that tail out of the final stitch you just made.

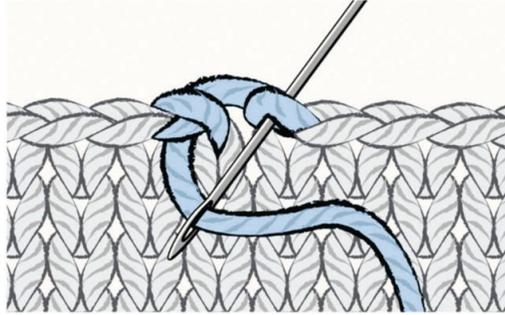


Now that the ring has been closed, let's connect the bind-off braid. Our bind-off braid is made of nesting Vs from our stitches lying on their sides. We simply need to create one more stitch, so our yarn tail is our hero.

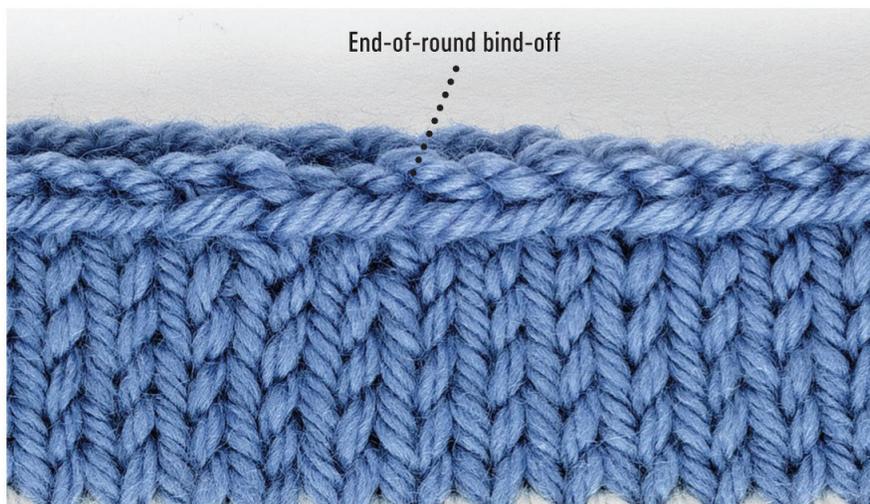
1. Put the yarn tail on a tapestry needle and bring the needle under the legs of the first bind-off V.



2. Now finish your added stitch by bringing the needle back through the heart of the V it came from and weave in the end. You have now connected the first and last bound-off stitches.



Like magic, the braid is completed and we say, “So long, Slinky!”

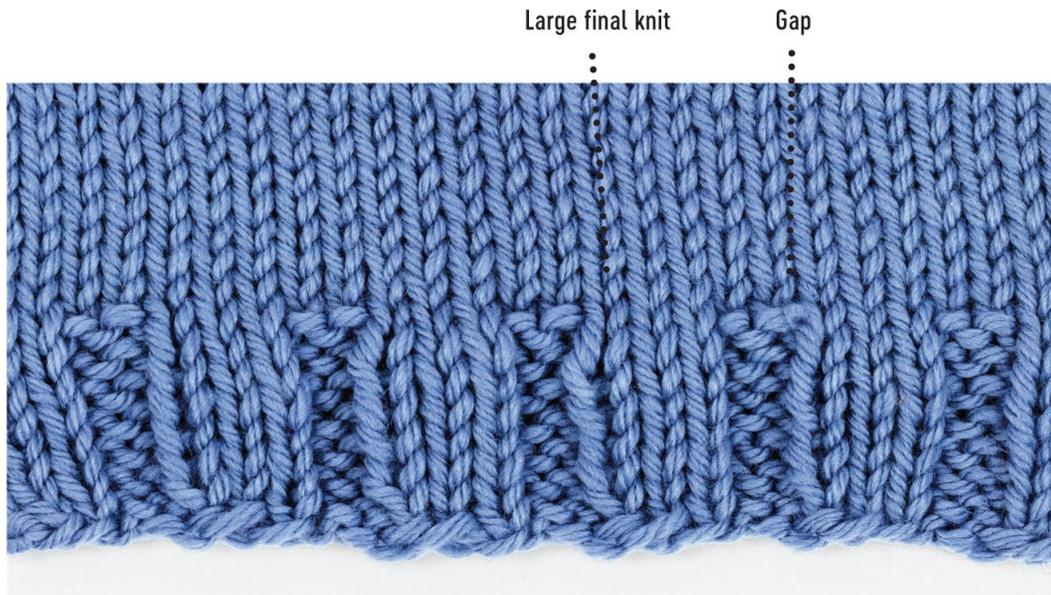


Ribbing: Not Always for Our Pleasure

Like circular knitting, ribbing can be fraught with peril. From the gap to the blip to the flip, let's fix them all and make sure our ribbing is truly for our pleasure.

THE LOOSE KNIT STITCH MYSTERY: MIND THE GAP

In a wide rib or a cable (which is just a wide rib with a cable cross), knitters often notice that the last knit stitch in a column is big and sloppy. If we look closer, we see there's a gap between our knit and our purl, yet no gap between the purl and the knit. Here we have a bit of k3, p2 rib and you can see the third knit stitch is larger than the first two.



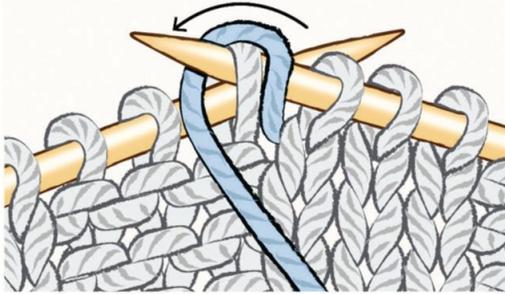
This is a prime example of “It’s not you, it’s them.” That’s right, it’s the stitches’ fault. To be more specific, it’s the bane of many knitters’ existence and the reason we can’t have nice things — the purl.

Remember what we learned about the path our yarn takes when we improved our SSK (see [Chapter 5](#)). The act of knitting the next stitch naturally tightens up the one that comes before it, because our stitches are connected. But that connection can also allow the slack from a larger stitch to flow backward into the stitch that came before it and a Western purl uses up a bit more yarn than a knit stitch. Pair that with the longer path before you start and you’ve got trouble.

When we knit, our yarn is in the back, poised to take its shorter path from under to over the needle for the knit. This means the yarn not only takes a short trip around the needle but doesn’t have far to go to start its journey. It’s like taking a short plane ride AND having the airport right next door.

But when we go from the knit to the purl, not only does that yarn have to travel from the back to the front, but it also has to take the longer path up and over the top of the needle. Now we have to not only fly cross-country, but take a shuttle to get to the airport!

Yarn takes a longer path
over the needle



Yarn takes a shorter path
under the needle

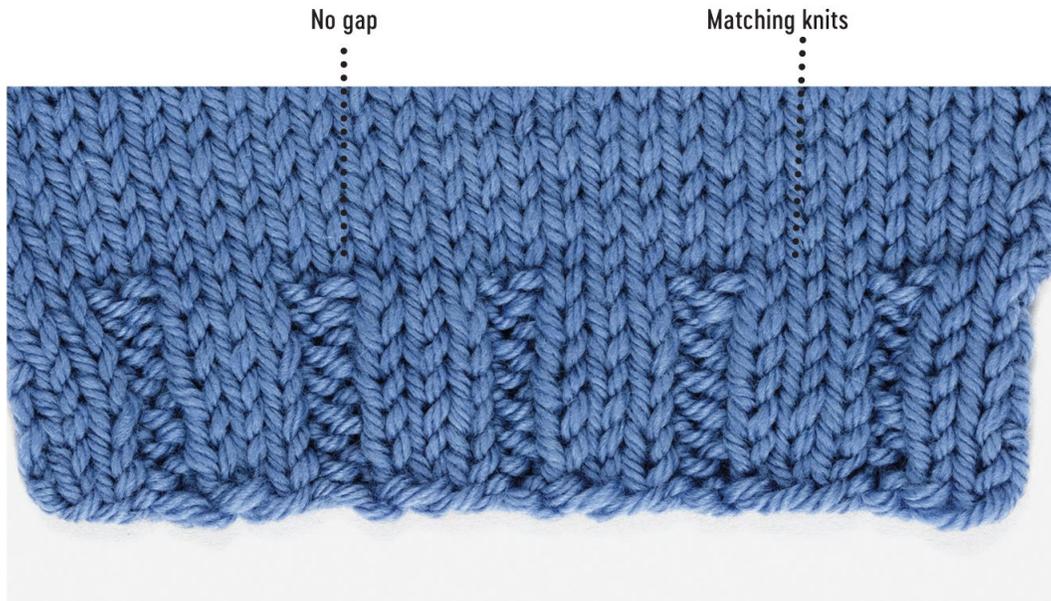


We can't do anything about the yarn moving to the front, but we can shorten its path around the needle by stealing from Eastern and Combination knitting. Work the first purl stitch following a column of knits by wrapping the yarn UNDER the needle (rather than over it). This is nicknamed the *lazy purl* because if you're a Continental knitter, the yarn is positioned under the needle and then just pushed through. This path matches the one we take for the knit.

This creates a small, neat running thread and no slack feeds backward into the last knit.

Now we KNOW what happens in the next row, right? Since the direction we wrap our yarn seats our stitch on the needle, we work that stitch through the back loop (the leading leg). That's a fancy way of saying *put the needle in the hole!* (See [page 94.](#))

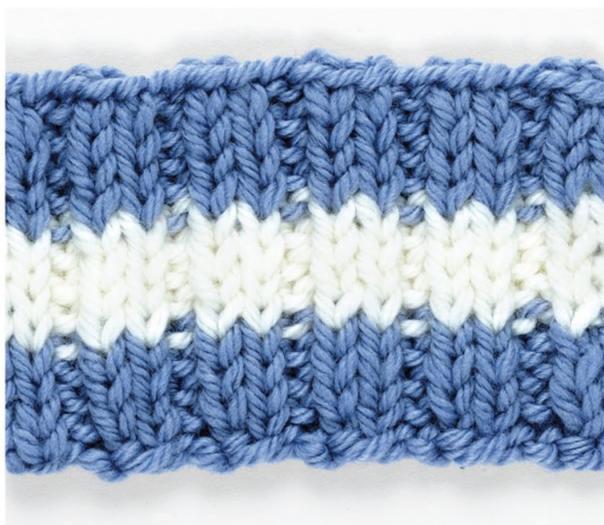
Now we have a neat and tidy rib.



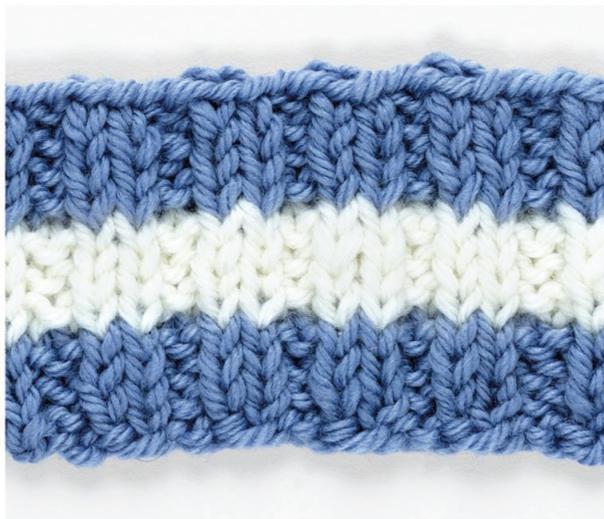
TIP: Take this trick out of your knitting bag whenever you need it to neaten up your rib or cables.

STRIPES IN RIB: BAN THE BLIP

Stripes in rib will always involve a color blip in the purl columns and a smooth join in the knit columns. Of course, we know why. When we purl, the head of the stitch of the row below comes to the front. We may use this for decorative effect when purling a stripe, but we don't always want that in our ribbing.



The fix for this seems so simple that it's hard to believe it works, but it does, and nobody will be the wiser. Ready? When you change colors in your rib, don't work rib. WHAT? That's right, you'll want to work your new color, on a RS row, by knitting across — then return to the rib pattern. I promise you nobody will ever know unless you tell them!



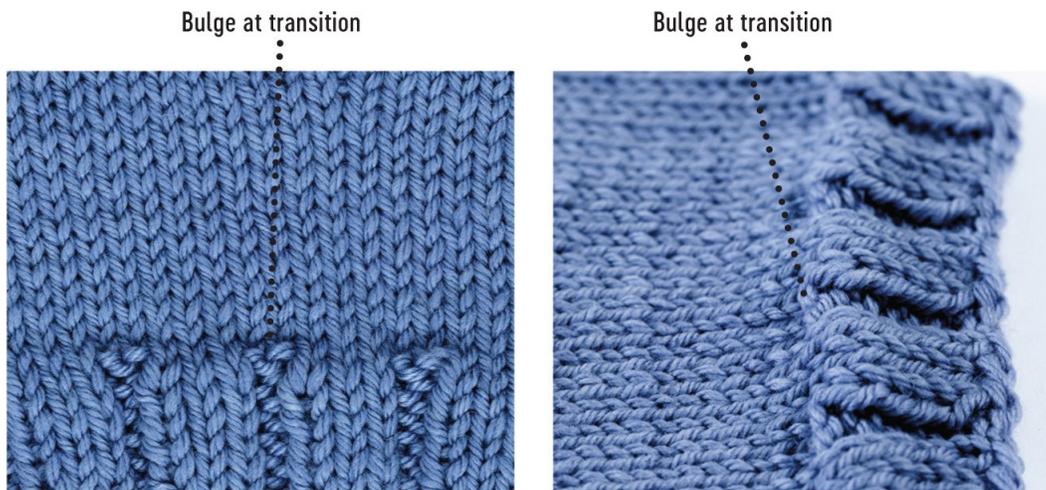
RIBBED BORDER: FIX THE FLIP

I never loved the way my ribbed hem looked when it transitioned into stockinette. Depending on the yarn and pattern, sometimes it would have a weird bulge and in a cardigan sometimes it would even flip up. WHY?

Here in Patty-land, we know that once we know why something is happening, we can figure out how to fix it.

We now know that our yarn takes a longer path working in rib than in stockinette, so it uses more yarn. This explains why patterns often have us work our ribbed hem on a smaller needle or over fewer stitches and then increase before the stockinette to minimize flaring. This does fix the flare, but not the flip.

Think what we learned about the nature of the purl stitches in [Chapter 1](#). (Remember our friends on the beach on [page 15](#)?) When purls are stacked vertically, they recede (as in ribbing), but when they appear horizontally, they stick out (as in garter). When we change from rib to stockinette, the purl bumps for the row below will stick out because they don't have another row of purls above them to make them recede. This causes the rib to bow out in the transition. In a pullover when the ribbing is stretched around you, this can cause a bulge and in an open cardigan, this can cause a flip.



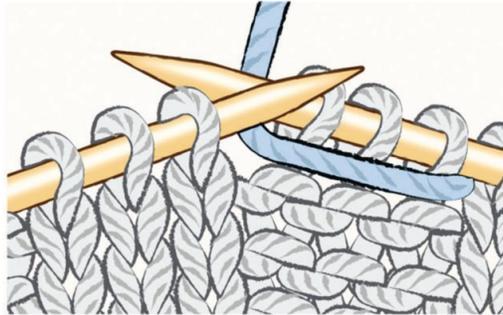
To smooth this transition, we are going to elongate the knits by working some slipped stitches. Of course, we will be slipping purlwise. This fix is done on the last WS row of your rib.

FLAT KNITTING

Work the first and last stitch of the row, then slip all the other purls with yarn in front. This will carry the float across the WS of the work.

Bring the yarn snugly across the front of the slipped stitches, moving the yarn between your needle tips to the back to knit the knits.

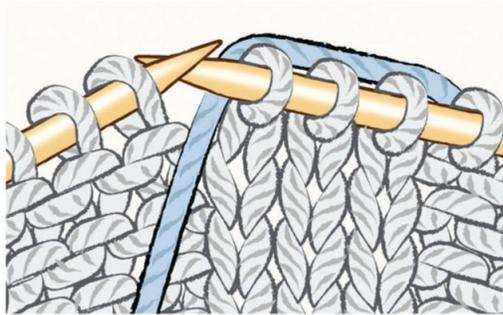
[WS] Slip the purls with yarn in front



IN THE ROUND

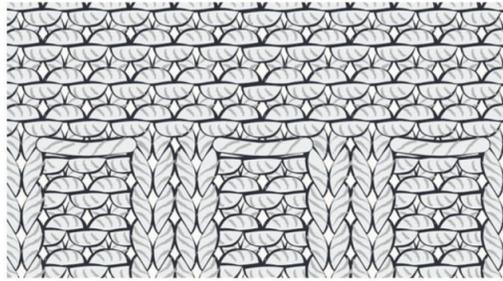
Slip the knits with the yarn in back. Bring the yarn snugly across the back of the slipped stitches, moving the yarn between your needle tips to the front, then purl the purls.

[RS] Slip the knits with yarn in back



This fix only works well if you bring the yarn tightly across the back of the slipped stitches. Bonus: the float across the back works acts a girdle that prevents your rib from stretching out of shape when using a yarn that has no memory.

Floats across the WS of the work



A simple slip banishes the bulge and fixes the flip.

Elongated knits smooth transition



Elongated knits smooth transition

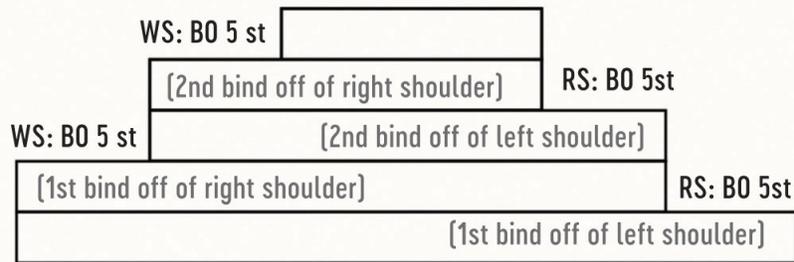


Sweater Skills

There's nothing like bringing your own skills to sweater knitting. Remember, a pattern is going to tell you the basics of how to knit that pattern, but that doesn't mean you can't bring your own tricks to the party. Here are a few of my favorites.

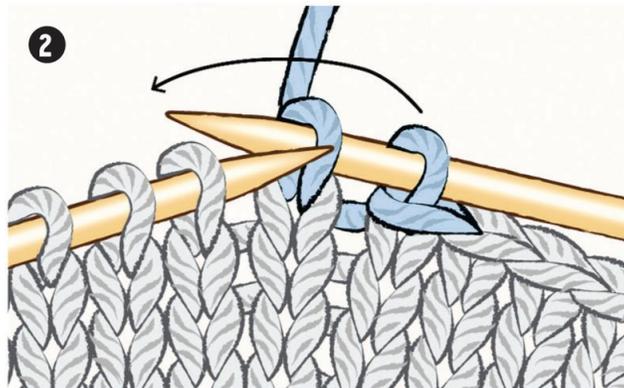
SHOULDER SHAPING: THE SLOPED BIND-OFF

Most sweater patterns tell you how many stitches go away at each shoulder using a series of bind-offs. These create a staircase that can be annoying to seam. Because we can bind off only at the beginning of a row, the rise of each staircase is created from the row worked between each bind-off. For instance, a pattern might tell us to bind off five stitches at the beginning of the next four rows, removing ten stitches from each shoulder, like this:

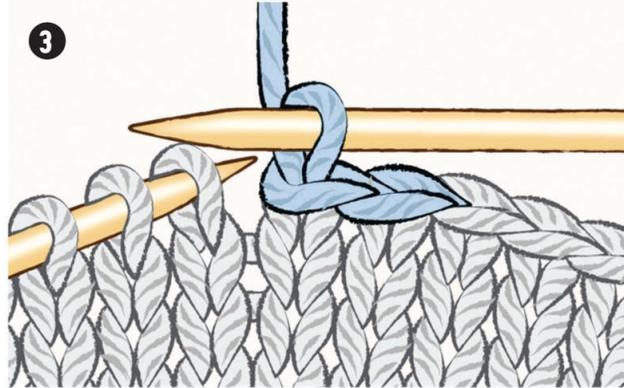


My favorite technique to smooth out the steps is the sloped bind-off. It begins the same way: bind off your first set of shoulder stitches on the RS row, work to the end of the row, turn your work, then bind off your shoulder stitches on the WS row. Now comes the trick.

1. Work across the row until you have one stitch remaining on your left needle.
2. Turn your work and slip your first stitch from the left needle to the right needle.

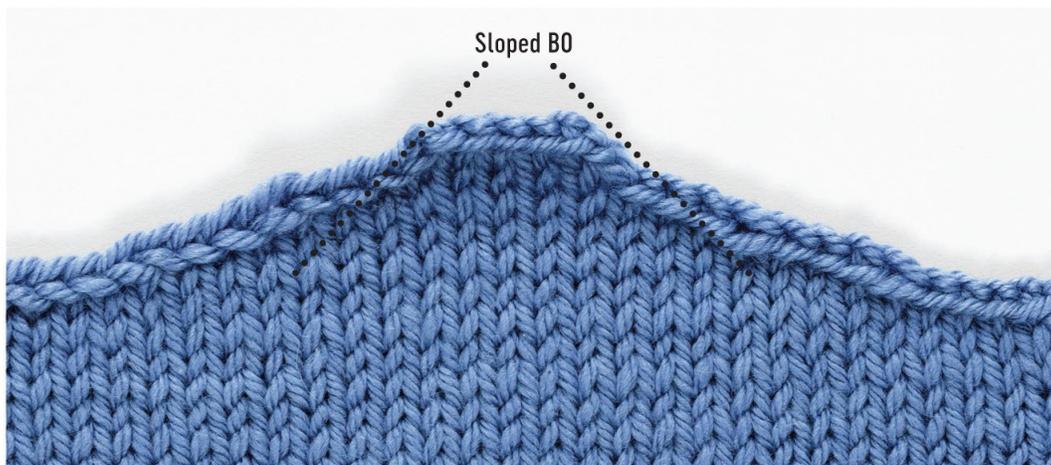
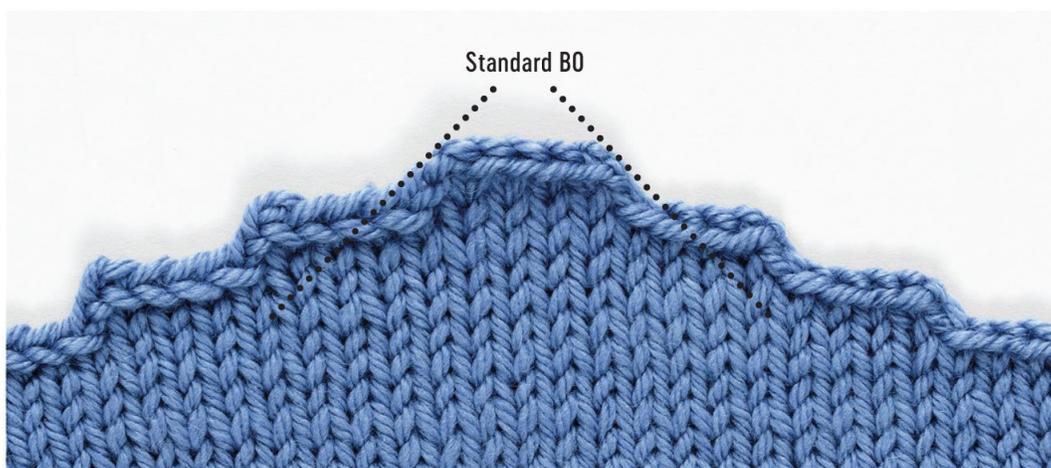


3. Pass the unworked stitch over the slipped stitch. This counts as your first bound-off stitch. Then continue with the rest of the bind-offs in that row as written.



Repeat Steps 1–3 until all shoulder stitches are bound off.

The slipped stitch bridges the stairstep, making it much easier to seam. Here it is with the original stairstep bind-off. As you can see, the sloped bind-off results in a lovely, easy-to-seam shoulder.



SLOPED CAST-ON? WHY NOT?

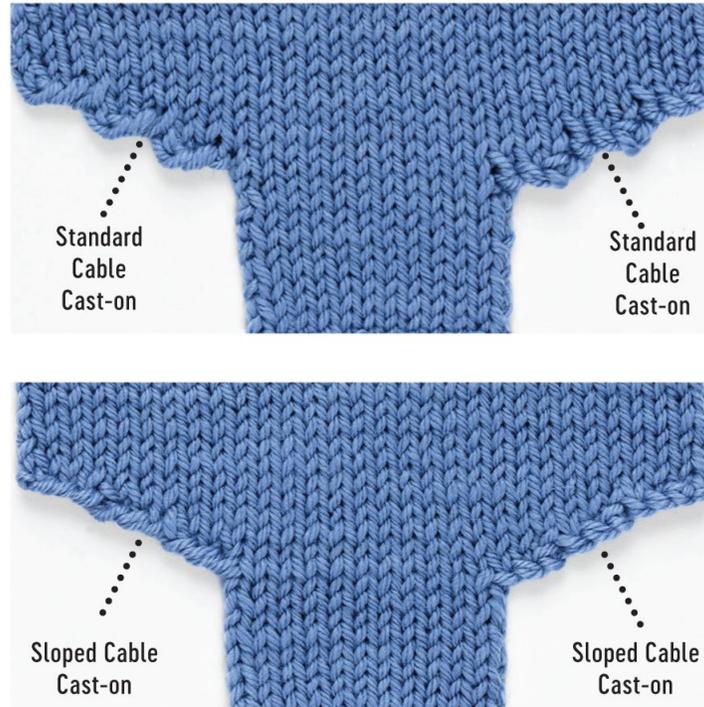
One day I was working a dolman sweater that created the sleeves by casting on stitches at the start of each row. Stairstep sleeve cast-ons aren't any more fun to seam than shoulder bind-offs. I thought if you can smooth out the top with a sloped bind-off, why not a sloped cast-on?

Say you have a pattern that tells you, using the cable cast-on, to cast on five stitches at the beginning of the next six rows. On the right-side row, use the knit cable cast-on and on the wrong side row, use the purl cable cast-on (see [pages 84-85](#)). Don't use our neat trick from [Chapter 4](#) to end each cast-on. You'll save that for your final WS and RS cast-ons.

The sloped cast-on starts just like the sloped bind-off. Work the first pair of cast-ons as usual: on the RS row, cast on your sleeve stitches, work to the end of the row, turn your work; on the WS, cast on your sleeve stitches. And now comes the trick.

- 1.** Work across the row until you have one stitch remaining on your left needle.
- 2.** Turn your work and slip the unworked stitch from the right needle to the left needle. Work your next cast-on by inserting the needle between the last worked and unworked stitch.

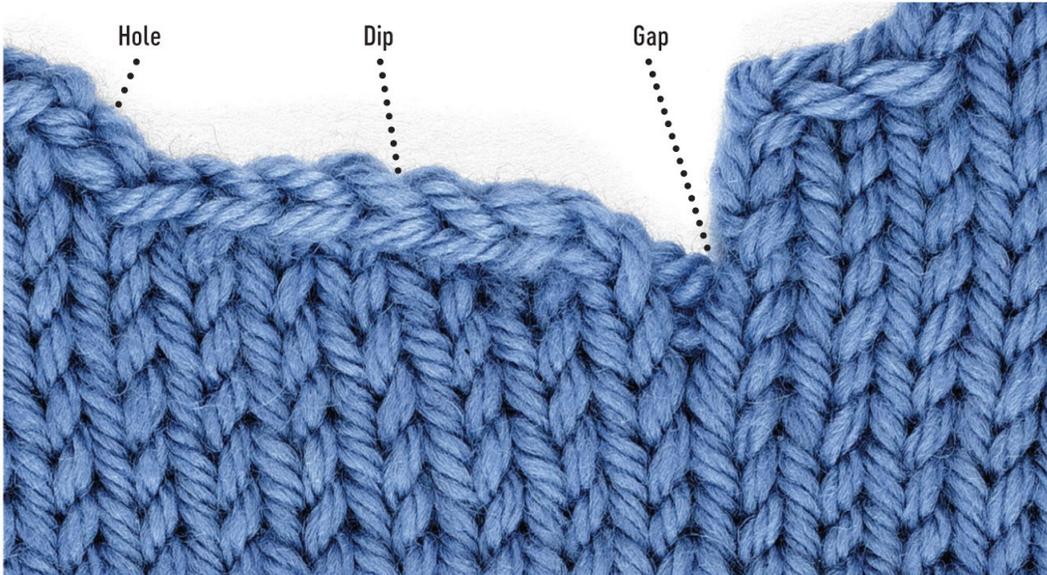
Repeat Steps 1 and 2 until all sleeve stitches are cast on, ending your last knit and purl cast-on with our perfect cable cast-on end (see [pages 86-87](#)). You'll get a smooth, easy-to-seam dolman sleeve. Here I've shaped one sleeve with traditional cast-ons and one with the sloped cast-on. Which would you rather seam?



THE PERFECT NECK OPENING

Neck openings usually involve the knitter working to a certain spot, joining a new ball of yarn, binding off the center stitches, and working to the end of the row. Then we work both sides of the neck with their own balls of yarn, either at the same time or one side at a time.

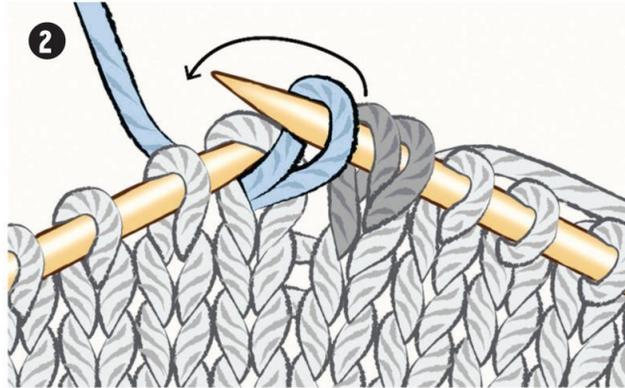
We have three issues: the gap, the dip, and the hole. Let's solve all three.



When we bind off, we are passing one stitch over another. Since our stitches are wider than they are tall, when that stitch lies down on its side it doesn't reach the middle of the next stitch. This is why your bind-off pulls in. As you can see from the picture above, at the start of a bind-off this causes the dip; at the end of the bind-off it causes the hole.

Then there's the gap. When we bind off in the middle of the row, we interrupt the flow of yarn. The first bound-off stitch is no longer connected to the one that came before it. This gap is exacerbated when we add a new ball of yarn because the two columns of stitches are no longer connected. Solution: connect them.

- 1.** Work to the position of your bind-off, then work a LLI increase (see [page 124](#)).
- 2.** Add a new ball of yarn (ball 2) and knit the next stitch, then pass the increased stitch from ball 1 over the new stitch from ball 2. This does not count as a bound-off stitch. You added a stitch and now you are simply getting rid of it.

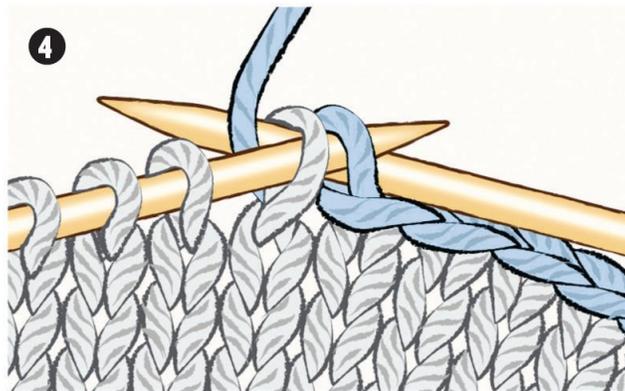


Give a snug to the yarn from ball 1. You have now connected the two columns of stitches and there will be no more gap or dip.

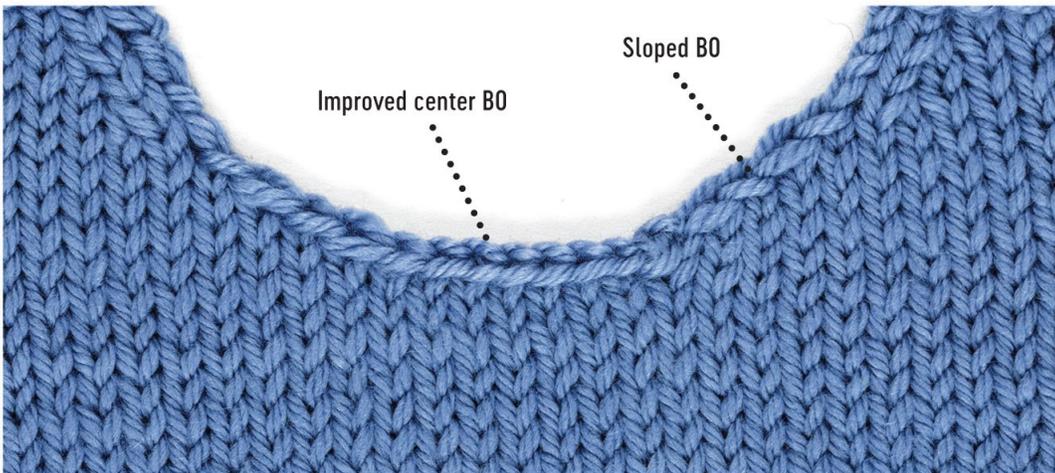
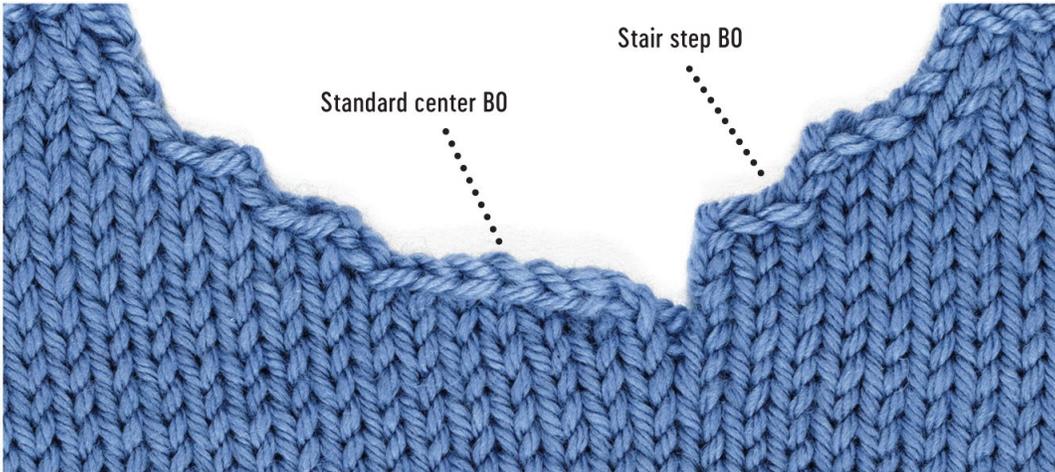
3. Now you begin your bind-off. You've already knit one stitch, so to bind off, just knit the next stitch and pass over. Repeat this until you have bound off one fewer stitch than the pattern requires.

Now it's time to eliminate the hole.

4. Instead of binding off that final stitch, we are going to do a modified SSK. Slip the next unworked stitch as if to knit; insert the tip of your left needle through the front loops of the slipped stitch and the last worked stitch; then knit them together.



Neck shaping is often followed by a few more pairs of bind-offs at the neck before starting any decreases. Pair the perfect center bind-off trick with the sloped bind-offs and you'll get a neck that is smooth and round with no gaps or holes!



So next time someone tells you “you must always,” or “you should never,” or (shudder) my favorite, “that’s just the way it is,” just smile and ask, “Why?”

Words of Wisdom

—

WHEN YOU FEEL

at loose ends

WEAVE

them in

AND KEEP

KNITTING!



CHAPTER 7 — FINISHING

Happy Endings!

We have knit all our pieces and are seconds from a clean getaway. Yet for many of us, the road ahead can still be fraught with danger. Whether it's a too tight bind-off, a bad blocking or frightening finishing, we might feel the most daunting part of our knitting journey is still ahead of us.

But I believe our knitting can smell fear, so stay strong, gentle readers — this is our time to shine and tell our stitches who's boss!

In this chapter, I offer you a few of my favorite tricks for professional-looking finishing.

Build a Better Bind-Off

Before we can get to finishing, we have to bind off, a simple act that can go so tragically wrong.

Every knitter knows those three little words in a pattern that seem to mock us: “bind off loosely.” From the dip to the chokehold to that weird loop at the end, let's fix all these roadblocks and build a better bind-off.

BETTER START: DITCH THE DIP

In the last chapter, we learned why bind-offs can cause so much trouble. Because stitches are wider than they are tall, when they lie down on their sides for a bind-off, they can't reach the middle of the next stitch. This causes our bind-off to dip down at the start and to pull in as we work across.

In creating our perfect neck edge, we solved the dreaded “dip” by connecting the first bound-off stitch with the last worked stitch that came before it. But what if nothing comes before it, like in a scarf? To get a nice square start to our bind-off, we can steal from crochet!

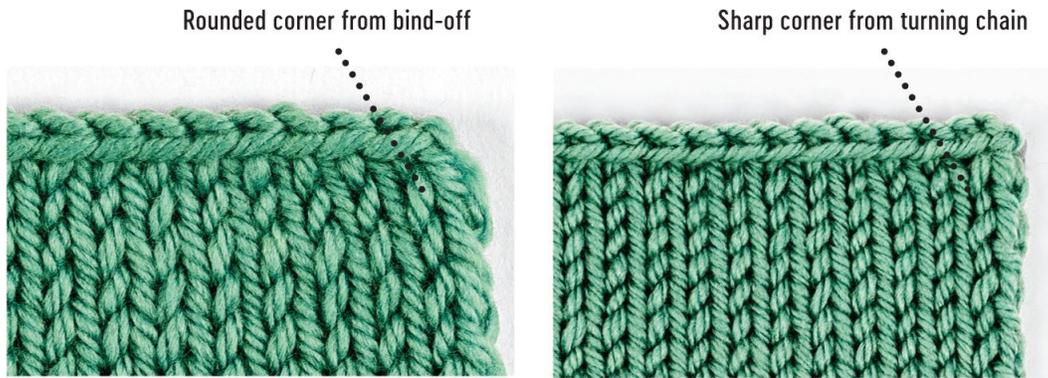
In crochet, to keep our edges square, we use a turning chain (one or more chain stitches made after we've turned our work) before we begin our next row. This brings the yarn to the height needed to work the next row.

A bind-off is basically a crochet chain, so let's do a turning chain.

1. Knit one stitch.
2. Make a YO on your right needle. Insert the tip of the left needle into the first stitch and lift it over the YO.



You have created a turning chain! From there, continue your bind-off. One simple move creates quite a big difference.



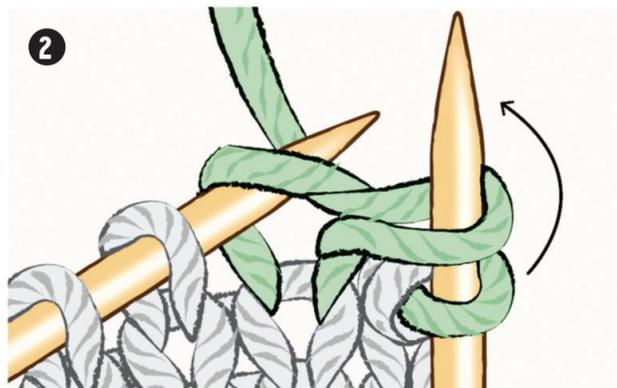
THE TOO-TIGHT BIND-OFF: STOP THE CHOKEHOLD!

Now that we know why binding off loosely is easier said than done, we can fix it. We need to make each stitch taller so when it lies down on its side, it doesn't have to choke the next stitch.

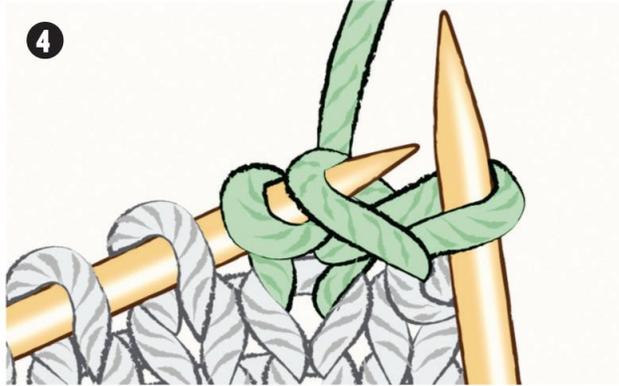
One simple fix is to use a larger needle to bind off, but we don't always feel like stopping and switching needles. Here's a super-simple, tiny change to a standard bind-off that does the trick.

Start by knitting one stitch.

1. Knit the next stitch but do not remove it from the left needle.
2. Pull the right and left needles apart. This will feed more yarn into the stitch just made, making it taller.



3. Pivot your left needle tip around the front of the stitch just made to grab the first stitch and pass it over.
4. Pull the left needle out of both loops.



This will leave a bound-off edge that is perfect every time.

This trick can be done for both knits and purls, which brings us to our next simple fix.

BIND OFF IN PATTERN: BAN THE BRAID

When we're binding off a pattern stitch, like rib, cables, or seed stitch, keep that pattern going as you bind off. For ribbing, that means knit the knits and purl the purls. Here's a bit of ribbing with an all-knit bind-off next to one that was bound off in pattern.



Now your bind-off moves with your ribbing, giving your neck pick-up or a ribbed button band a much cleaner finish.

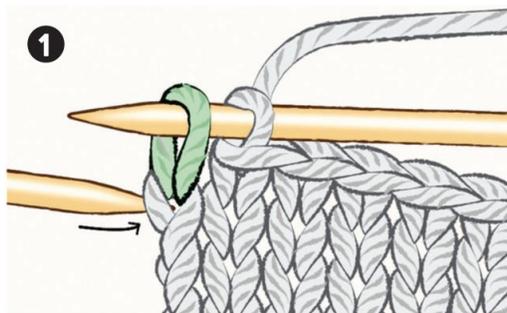
FIX THE END: YARN FLOW INTERRUPTED (AGAIN)

Now that we've fixed our beginning and middle, it's time to deal with the mess we get at the end. We all get the giant loop on the last bound-off stitch, and now we all know why. Our yarn flow was once again interrupted. But unlike other fixes we've learned (like our fix for the SSK or the first stitch of a row), when you bind off, that last stitch is it — The End. No stitch next to it, no stitch above it, just a big, loose, sloppy mess.



To fix it, we have to do something with the excess yarn. Not unlike stripes, it's the row below that saves us.

1. Bind off until you have one stitch left on each needle. Pass the last unworked stitch from left needle to right needle.



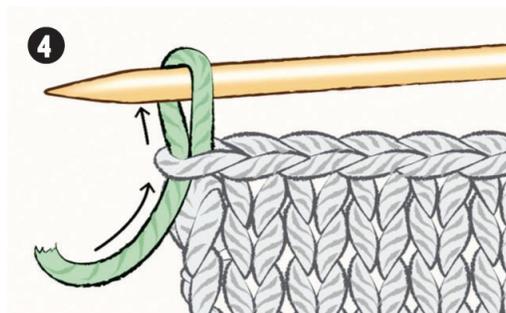
2. With the tip of your left needle, pick up the left loop of the row below the unworked stitch by inserting the needle back to front.

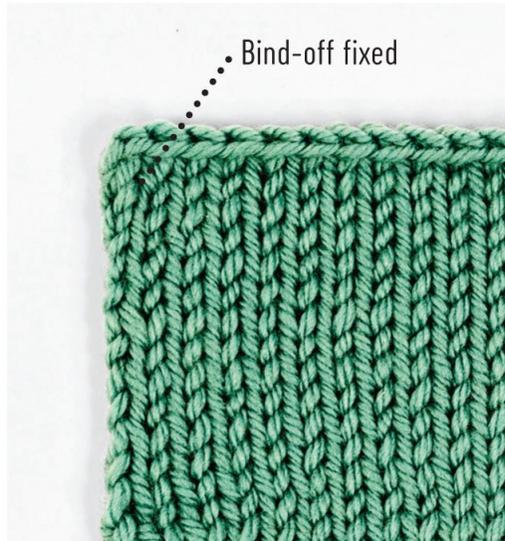


3. Move the unworked stitch back to the left needle. Notice how that puts the real stitch to the inside and the stitch from the row below to the outside. Now knit them together and pass the last stitch over.



4. Cut the yarn and lift up on the needle, pulling that tail out of the final stitch you just made and you're done. All the slack pops to the back and you have a clean, square edge to finish.





Blocking: The Finishing Touch

I remember being amazed the first time I saw what blocking could do to knitted fabric. Blocking is like taking our stitches to the spa. With a soak, steam, or spray, they will relax and become their true selves. After all, since we are not always perfect in our knitting, blocking helps make our greedy stitches share with our stingy stitches, evening them out to look perfect.

We sometimes make this simple process way more complicated than it needs to be. More good knitting is ruined by bad blocking than bad knitting is saved by good blocking. Here are a few of my top blocking tips plus my favorite blocking hack.

TEST-DRIVE YOUR BLOCKING

Every potential blocking tragedy can be avoided by blocking your swatch according to the care directions on the ball band. If you learn through wet blocking that a yarn you used in Fair Isle is not colorfast or that steam blocking melts the sequins in your yarn, you have ruined your swatch, not your project. Test-driving your fabric allows you to make smart decisions.

LEAVE THE LIFE IN YOUR KNITTING

Blocking is not ironing your knitting — every time you press an iron to your knitting, an angel loses its wings. I know some knitters like to iron their knitting flat and have that slight sheen, but I believe you lose some of the vibrancy of your stitches. Your knitting is a three-dimensional fabric. Don't press the life out of it.

PREPARE FOR SEAMING

Do block your individual pieces before seaming. Your seams will be so much neater and easier to make with straight edges. It's also important to block your pieces before picking up stitches. You can always hit a seam or button band with a bit of steam for your final touch.

KEEP IT SIMPLE

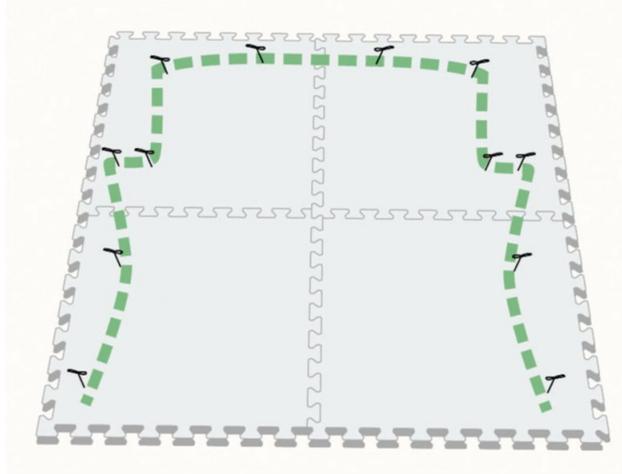
For many yarns, a wet block does the trick. Give your piece a good long soak with a proper wool wash. Next, roll your piece in a towel and gently press out most of the water. Finally, lay it flat to dry.

Except for some items like lace shawls, very few knitted items need to be (or should be) stretched when blocking. When it comes to a sweater, you might be able to get it a tiny bit wider or longer by stretching and pinning, but once dry it will return to its original shape. Best to trust your gauge and not try to block it to fit.

BLOCKING HACK: SET IT IN A FRAME!

Like many knitters, I use a blocking board and pins for my sweater, but not the way you think. Not only is aggressive pinning not needed, but letting your edges roll naturally assists in your seaming. My favorite blocking trick is to measure out a frame — an outline of my sweater — first. And then be amazed at the power of gauge!

1. Using your schematic, measure to place pins in your blocking board to create a frame, like an outline of your sweater. Place a pin on either side of your hip, waist, chest, cross-back, shoulder, and neck widths.



2. After squeezing out the moisture from your sweater piece, lay it down on the blocking board inside your frame. Smooth out your sweater inside the frame toward your pins. Then sit back and wonder at the power of gauge when it fits.

3. If it makes you happy to put in a few pins, you can lift up the ones that are marking out the width of your chest, hips, etc., and just pop them in the corners of your sweater piece.



The joy of the blocking frame method is you only have to measure out your sweater frame once. You can then use it to block both your sweater front and back. You now know that they will match. You can do the same for the sleeves.

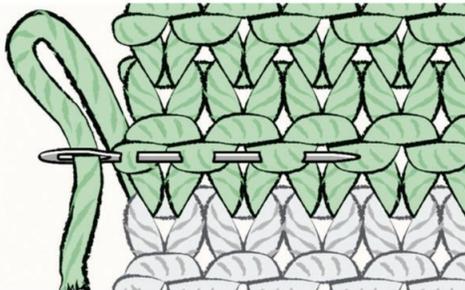
Weaving in Ends: Reversible or Not?

There are multiple methods for weaving in our ends, but most of us were taught only one way: weaving our tails in and out of the purl bumps, essentially doing a duplicate stitch on the WS row. For any reversible garment, like a scarf, this is a great method.

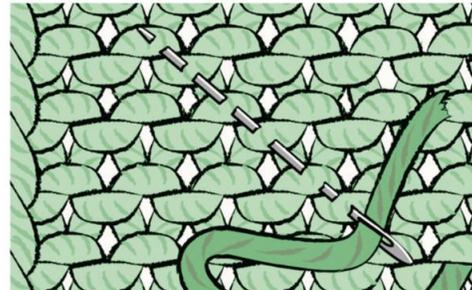
However, if it's not reversible, then don't worry about what your ends look like on the wrong side. Very often, I prefer weaving in my ends by splitting the plies and changing direction. This method leaves less bulk than the duplicate stitch.

1. Thread your tail on your tapestry needle and then spear right through the purl bumps. If it's garter, you can follow a row, working in the channel between rows; if it's stockinette, weave it in diagonally.

Garter stitch

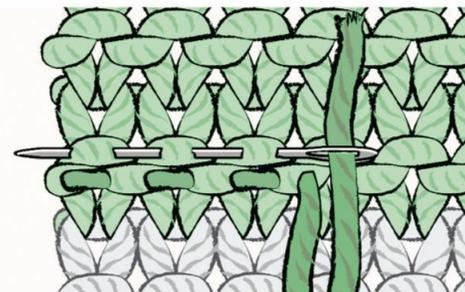


Stockinette stitch

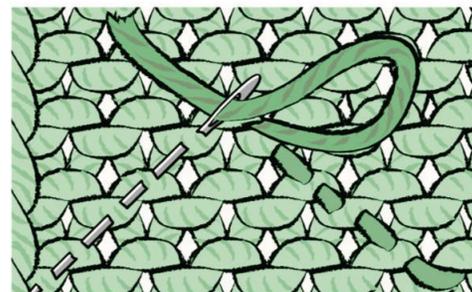


2. Pull the tail through and change directions and go for another inch or so. Move up or down to another row if it's garter; change directions on an angle if it's stockinette.

Garter stitch



Stockinette stitch



3. Pull the tail through, leaving a bit of slack where you changed directions.

4. Finally, give your piece a horizontal stretch to make sure that turning point isn't too tight and clip your tail.

CLIPPING THE TAIL

Speaking of clipping the tail, there's a great debate among knitters. To weave in ends before or after you block: that is the question. Some say before, because blocking helps lock the ends in. Other say no, because stretching out your piece might make the yarn ends shift or pop out. I land somewhere in between.

If you're blocking a lace piece that you are going to be stretching, then weave them in after blocking. For other pieces, I do like weaving in my ends before blocking, but clipping the tail after blocking.

To avoid the dreaded clip, pop, clip, pop (we clip the tail right to the fabric, then it pops out again, we clip it, pop, rinse, repeat), I create a stopper to my tail so it stays in place.

- 1.** After you finish weaving in the end, make sure to stretch the piece out to its full width. Then clip the tail leaving about $\frac{1}{4}$ in/0.5cm sticking out of the fabric.
- 2.** With the tip of your scissor, fan out the end of the tail and fray the end.



- 3.** Spread the yarn tail fan out and smooch (highly technical knitting term) it down into the fabric.



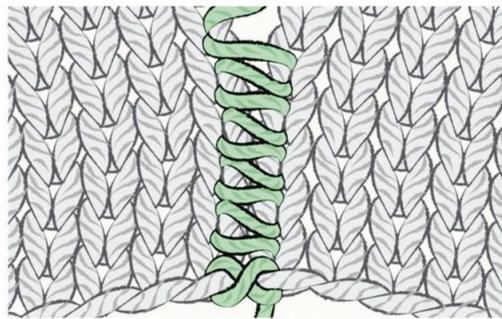
Now that end won't pop out!

Mattress Stitch: A Secret Start

There are about a million books on finishing (only slightly exaggerating) and just as many videos on seaming and yet nobody talks about the elephant in the room. Which elephant? The misaligned mattress stitch, of course.

Mattress stitch involves sewing two pieces together with a vertical seam. To work our seam, we insert our tapestry needle under a bar from each side, alternating back and forth, creating a zigzag. It looks like stitches lying on their side.

Mattress stitch



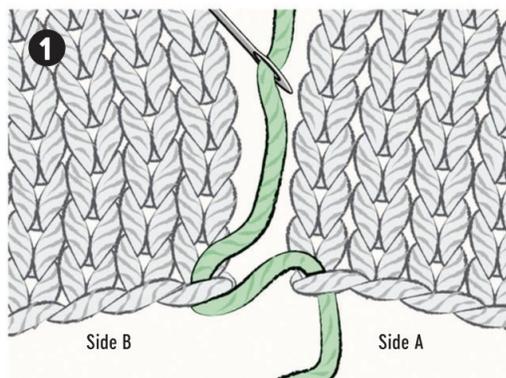
We are told to carefully line up our two pieces. We are told to seam row-to-row. We are told when we zip it shut it will look perfect. LIE. Once again, we have a conspiracy of silence.

Everyone pretends it will work, but what we really get is this.



To avoid this stairstep edge, we must start by misaligning the two bottom edges of our pieces. Let's take it again from the very top. We're going to start with a **figure-eight join**.

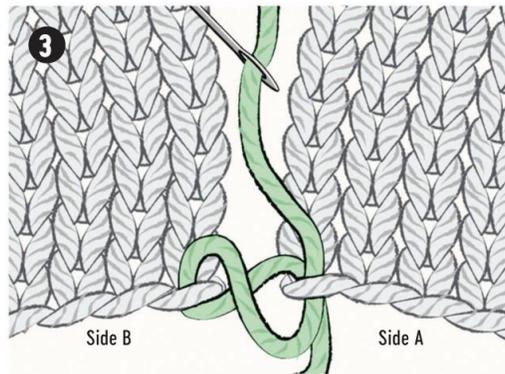
1. Start with your two pieces next to each other, right sides up. We'll call the piece to the right "side A" and the piece to the left "side B." With your seaming yarn on a tapestry needle, bring the yarn back to front between the edge stitch and the next stitch in, right above the cast-on braid, on side A.



2. Now do the same thing on the other side. Bring that tapestry needle back to front, between the edge stitch and the next stitch in, right above the cast-on braid, on side B.

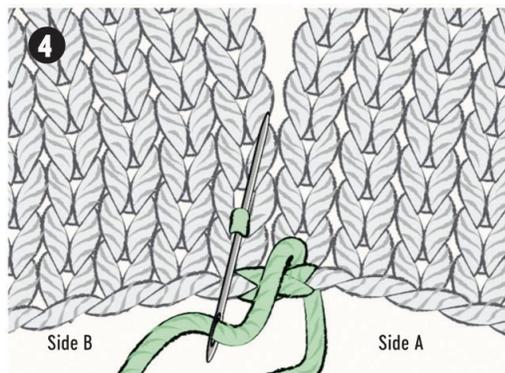
3. Complete the figure-eight by bringing the tapestry needle back to front again through the same spot you used in Step 1 on side A.

Gently tug to your yarn to join the two pieces.

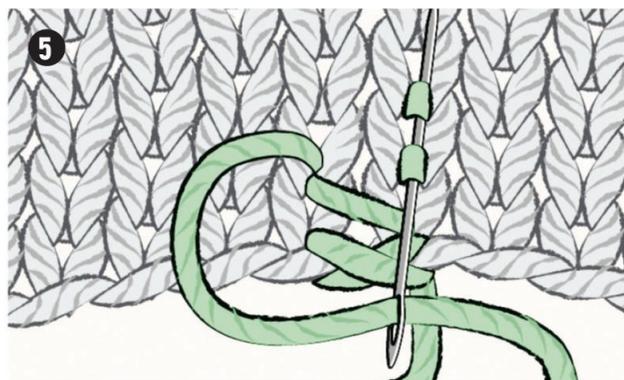


Now the secret that NOBODY tells you: do NOT carefully go bar to bar. Instead, jog up.

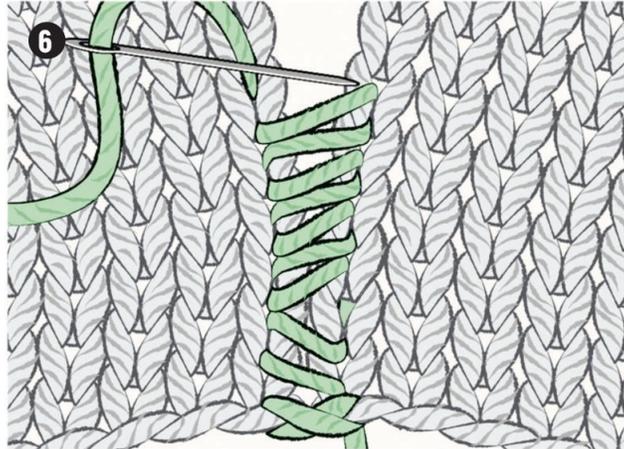
4. On side B, insert your needle front to back, in the same spot your yarn is coming out, then jog up ONE bar.



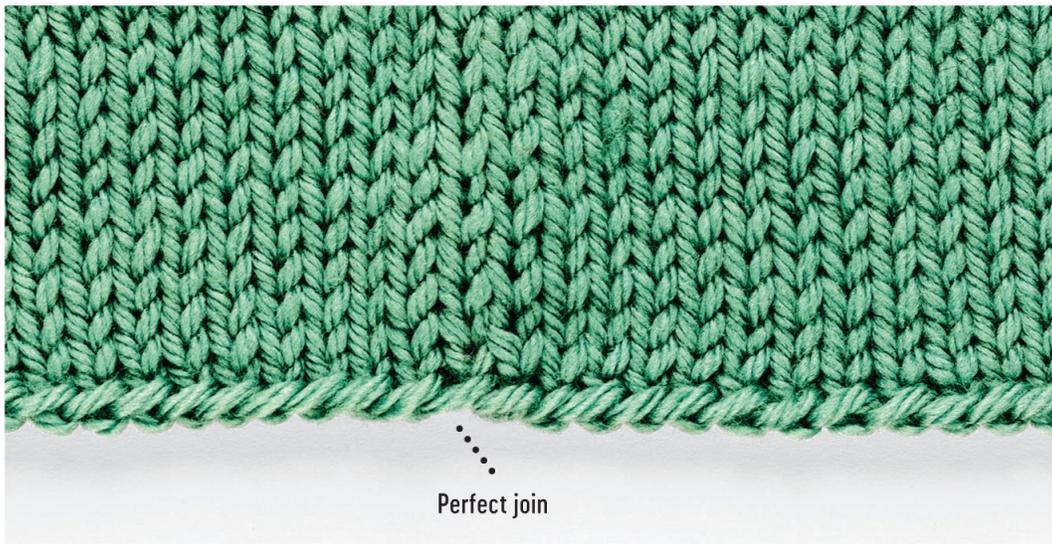
5. Next, insert your needle front to back on side A in the same spot your yarn is coming out, then jog up TWO bars.



6. Now continue picking up the same number of bars on each side. Your sideways, zigzag stitches look a bit like they are slanting up. Zip it shut and you'll see a perfectly aligned edge.



Moral of the story: sometimes it's best to ignore what we're told!



Picking Up Stitches: Going Rogue

When it comes to finding your bliss for a pick-up-and-knit, we need to explore what to ignore!

This may or may not be a given, but I would be remiss if I didn't repeat it here: we must block our pieces before picking up stitches. I

know, I didn't know that either when I started. You need to know your real finished row gauge and your real finished stitch gauge so you can get YOUR stitch-to-row ratio. Knowing this ratio will empower you to ignore the pattern. Let's take a look.

HOW MANY STITCHES: IGNORE THE PATTERN

When we pick up into a cast-on or bound-off (horizontal) edge, we pick up and knit one stitch for every stitch on the edge. We are stacking each picked-up stitch on top of an existing stitch. But when it comes to picking up vertically or diagonally, our stitch gauge and row gauge may be different — and that's when we need to figure out how many is right for us!

Back in the day, a pattern might say: "Pick up the right number of stitches for your stitch and row gauge; should be a multiple of 2 + 1." Now many patterns tell us exactly how many stitches we should pick up and knit. But there are oh-so-many reasons we might want to ignore the pattern. (Pattern doesn't always know best!) Maybe our stitch or row gauge is different, maybe we've changed the length or the neck width, or maybe there's another reason.

Best to base your pick-up number for YOUR knitting, not the designer's.

You'll find many ways, from the simple to the complex, to calculate how many stitches to pick up. Let's look at two math-y ways and one lazy way. (Patty's favorite!)

METHOD #1:

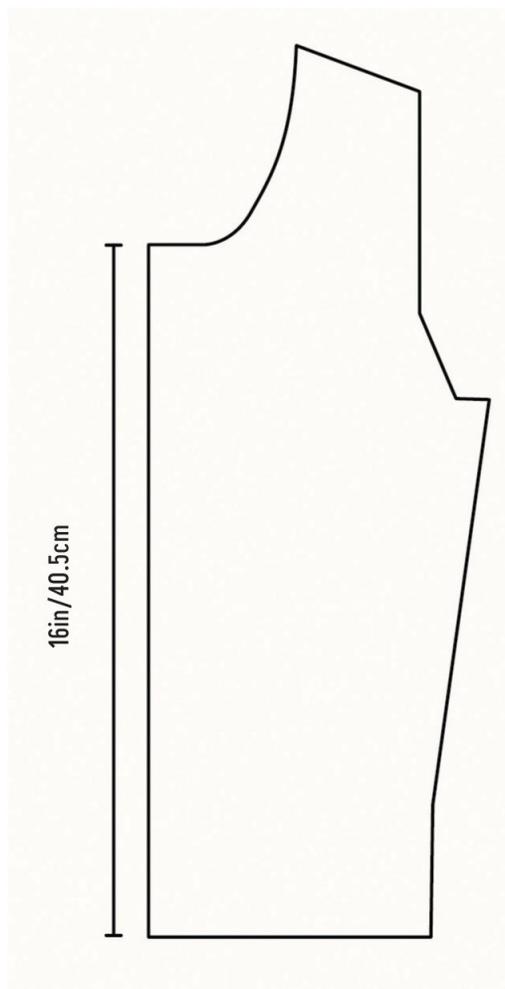
Use Your Gauge & Your Measurement: It Is YOUR Sweater!

If your stitch or row gauge is not the same as the pattern's, then how can you use the pattern's pick-up number? Nope, you've got to make up your own. Let's use the button band of a cardigan as an example. For this you'll need to know:

- **The measurement of your opening.** For instance, measure the vertical edge of the blocked cardigan opening where you'll pick up for your band.
- **The blocked stitch gauge of your trim.** Yes, that means you have to do a swatch of your button band stitch. I can hear you groan right through the pages. Stop it.
- **The stitch multiple of your band.** You'll need to round up or down to your desired multiple.

Let's say the front button band opening is 16in/40.5cm in length; stitch gauge is 4 stitches per inch (2.5cm), stitch multiple is 4 + 2.

Now multiply the length of your pick-up edge by your gauge (and if necessary, round up or down).



16 (length of band) x 4 (stitches per inch/2.5cm) = 64 stitches.

To get a multiple of 4 + 2, cast on either 62 or 66 stitches.

METHOD #2:

Use the Pattern (sort of)

If your stitch or row gauge is the same as the pattern's, but you've altered the length, you can't pick up the same number of stitches as the pattern. But you *can* use that pattern as a guide. We'll use the same cardigan for our example. You'll need to know:

- The length of the sweater opening (check the schematic);
- The number of stitches picked up in the pattern; and
- The length of your finished sweater opening (after blocking).

Start by dividing the number of stitches picked up in the pattern by the measurement of the pattern's sweater opening. You'll get the stitches per inches (centimeters) of your pick-up.

Next, multiply the stitches per inches (centimeters) of the pattern by your sweater opening.

In our example, the finished sweater opening to the neck in the schematic is 16in/40.5cm.

The number of stitches the pattern says to pick up to the neck is 71 stitches.

Your finished sweater length is 18in/45.5cm to the neck.

71 stitches ÷ 16in/40.5cm = 4.338 stitches per 1in/2.5cm

4.338 x 18in/45.5cm = 79.875

Now double check that it makes sense. This is where you trust your knitter's logic — my sweater front is longer so I'm picking up more

stitches. Check.

From there you round up or down to match the stitch multiple. For instance, this band is a k1, p1 rib beginning and ending with a knit. This is a multiple of 2 +1. You'll need to pick up 79 stitches for your 18in/45.5cm opening.

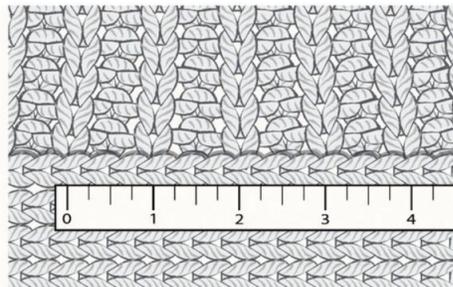
METHOD #3:

Use Your Knitting

Math is awesome, but have I mentioned that I believe laziness is the mother of invention? Why not use your knitting as a guide?

Very often the same stitch pattern is used at the hem and the button band. I like to block my sweater fronts, and then hold the hem of one cardigan front against the opening of the other. Then I count a section of rows and stitches so I get a ratio of how many stitches to pick up per number of rows.

Count the number of rows to stitches



Say you count 12 rows of the cardigan front in the same amount of space that you count nine stitches in the hem. That means you've got a ratio of 9 stitches to 12 rows (to make the numbers simpler, we can divide both by three and get a 3 to 4 ratio). That means you pick up one stitch into each of three rows and then skip one row (picking up 3 stitches in 4 rows). That's the right ratio for your gauge. From there you can tweak that number to make sure the pick-up number works with the stitch multiple for your band.

Which brings us to how.

How to Find a Stitch Multiple

The best way to check if a number is a certain multiple is to subtract the extra stitches and divide by the multiple. If it's not a whole number, then round up or down.

- $64 - 2 = 62$
- $62 \div 4 = 15.5$
- *Round 15.5 down to 15*
- $15 \times 4 = 60 + 2 = 62$
- *Round 15.5 up to 16*
- $16 \times 4 = 64 + 2 = 66$

PICKING UP STITCHES EVENLY: DIVIDE & STAB IT OUT

We've calculated how many stitches to pick up, but how do we make sure we pick up evenly?

Two sanity-saving tips: break it into smaller sections and stab it out to plan it out. Remember, this is more of an art than a science. Don't stress about it too much; it doesn't have to be perfect.

Divide into Smaller Sections

Say you have 66 stitches to pick up for your button band. Start by breaking that number into smaller sections.

- 1.** Fold the edge in half and place a locking stitch marker at the halfway point. You now have two sections.
- 2.** Now fold each of those sections in half and place another marker. You now have four smaller sections.
- 3.** Now divide the total number of stitches by the number of subsections (in this case, $66 \div 4 = 16.5$). For two of the sections, you'll pick up 16 stitches and for two of the sections, you'll pick up 17.

You'll always be fudging a bit here and there, but dividing into smaller sections and stabbing it out to plan it out are simple ways to pick up evenly.

Stab It Out to Plan It Out

We pick up in the space between the edge stitch and its neighbor. This is the same space we entered when doing a mattress stitch.

- 1.** Using the tip of your knitting needle, stab through every available space and count how many rows are in each section.
- 2.** Next subtract the number of stitches to pick up from the number of rows and you'll know how many you're skipping in

each section.

For example: You've counted 21 rows (pick-up spaces) in a section. You have 16 stitches to pick up.

$$21 - 16 = 5$$

You'll skip five pick-up spaces evenly spread out across the 21 rows. If you divide the available pick-up spaces by the number of spaces to skip, then you know how many stitches to pick up before you knit a row.

$$21 \div 5 = 3.2$$

Boom, pick up one stitch in the next three rows, then skip.

PERFECT EDGES: FIX THE SWOOSH AND ROLL

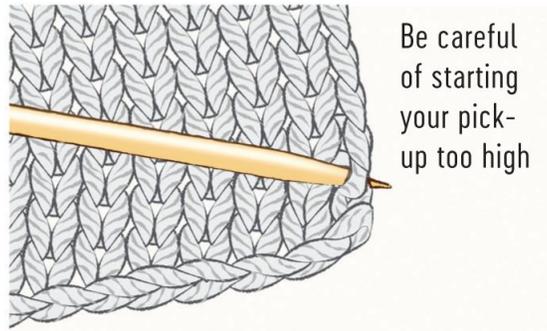
Even if we've calculated the perfect pick-up ratio and picked up evenly, there are still two issues that may plague our ribbed button band. I call them the swoosh and the roll. Let's fix both.

THE SWOOSH

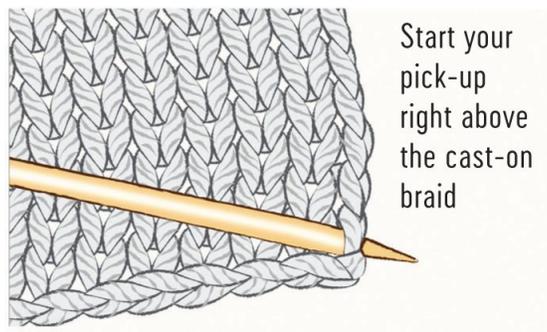
The swoosh is the way the bottom of our ribbed button band can sometimes lift up, looking awkward. There's an easy fix, though; just make sure you start your pick-up in the correct place.



Garment openings can have a bit of a rounded edge, making it hard to see where to start your pick-up. We start our pick-up in what looks like the first row – except it's not.



If you pull down on your edge and give a little poke with your needle, you'll find an even lower space, right above the cast-on. It's the same space we entered when we did our figure-eight join.



This will eliminate the unsightly swoosh.

THE ROLL

What I call the roll is the way that the bottom edge can curl to the back. This makes our knit two, purl two rib look off, like it starts with a lifted-up K1.

Stockinette stitch will always curl. When our ribbed band starts with a knit stitch, it will roll to the back. If we follow the pattern for a knit two, purl two rib, the bottom edge looks like a knit one because of this tendency to curl. Luckily the fix is super easy.

Pick up an extra stitch outside the normal multiple. If it's a 1 x 1 rib and the pick-up is a multiple of 2 + 1 (because it starts with a knit and ends with a knit), pick up a multiple of 2 instead, and have a K2 at the bottom of the button band. If it's a 2 x 2 rib and it's a multiple of 4 + 2, pick up a multiple of 4 + 3 instead, because you'll have a K3 at the bottom of the button band.

Here is a band knit in knit 2, purl 2 ribbing, but the bottom edge actually starts with a K3. The bottom stitch naturally rolls, leaving it looking like knit 2, purl 2.



So let it roll! Once we pick up right above the cast-on and add that extra stitch, we get a perfect bottom edge.

V-NECK PICK-UP: TURNING THE CORNER

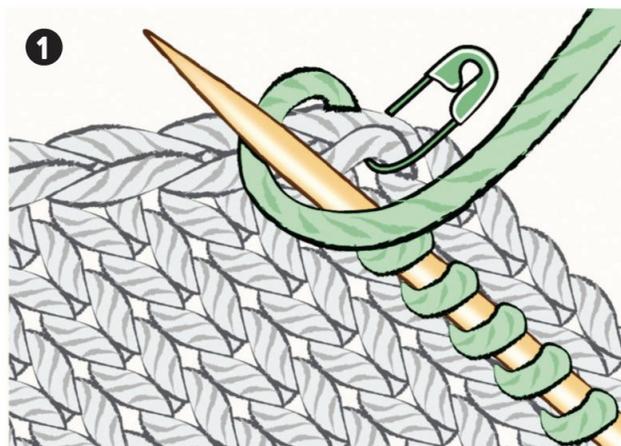
There's one more unique pick-up problem to solve and that's rounding the corner of a V-neck. When we pick up a button band on a V-neck, our band has to go straight then round the curve created by the neck shaping. All too often the fabric puckers.

Puckered
pick-up

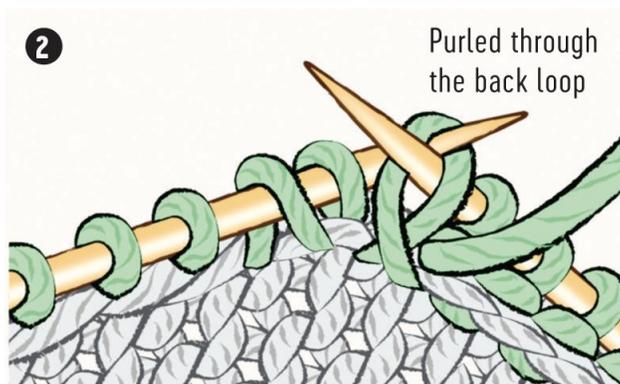


For this trick, we once again borrow from crochet, which adds stitches to turn a corner. We will add two YOs to our pick-up. Don't forget to count those two YOs as stitches when counting your pick-up stitches.

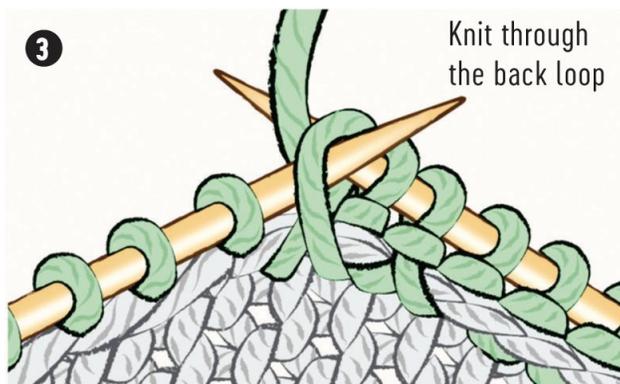
1. Place a locking stitch marker at the corner of your V-neck, in the space you pick up between the edge stitch and its neighbor. Following your pick-up ratio, pick up stitches up to your marker.



2. Now you'll add a stitch on either side of that corner. Make a YO, remove the marker, and pick up a stitch at that corner stitch (the one that you had the marker in). Then make another YO and continue your pick-up to the end.



3. On the next row, you'll work your button band in your pattern and when you get to the YOs, you'll knit or purl them through the back loop.



There you have a perfect pick-up rounding that corner.

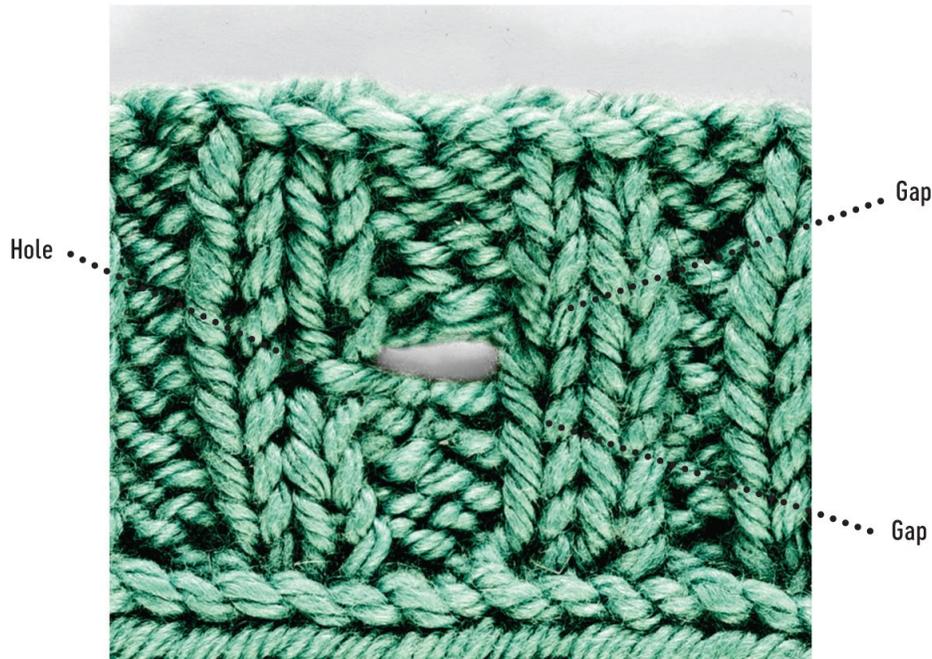
2 YOs



Best Buttonhole Ever

A two-row buttonhole is one of the most common kinds. It seems simple enough: on one row we bind off the desired number of stitches for our buttonhole and on the next row, we cast on the same number of stitches over the gap. Simple, right? What could go wrong?

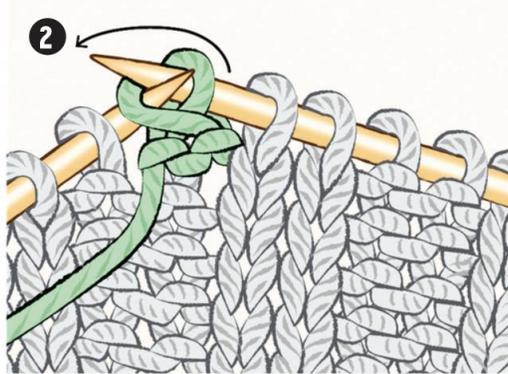
We remember from our neck bind-off the problems we get when binding off in the middle of the row. We have the same two problems on the bottom of our buttonhole. We have the gap and the dip from the start of our bind-off, and we have the chokehold at the end. Add the gap from the cast-on, and we get this:



Meet a better buttonhole. This buttonhole looks magical when the bound-off stitches for the buttonhole are bordered by knits. For instance, try a three-stitch buttonhole in a knit 1, purl 1 rib; a two-stitch buttonhole looks great in knit 2, purl 2 rib.

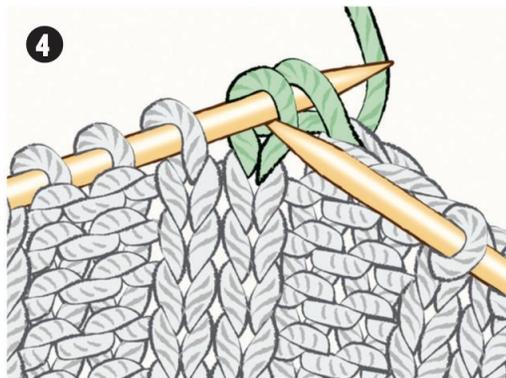
Just as we did with our perfect neck, we'll connect the stitches at the start of our bind-off with an increase and we'll replace the end of our bind-off with a decrease. We'll be using a different increase and decrease than we used for our neck to get a neater look when we work our buttonhole.

- 1.** Work to one stitch before your buttonhole, and work a KFB (see [page 122](#)). You have now added one stitch.
- 2.** Purl the next stitch, and then pass the increased stitch over. This does not count as a bind-off. You added a stitch and you are simply getting rid of it.



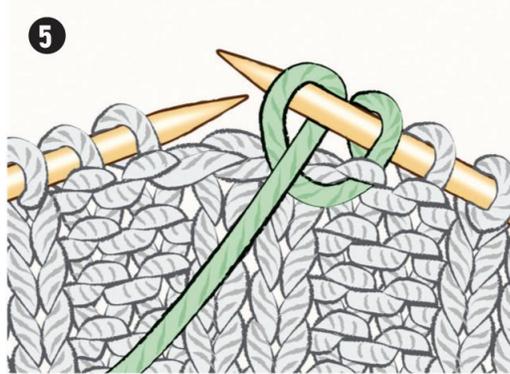
3. Now begin your bind-off. You've already purl one stitch, so to bind off, just purl the next stitch and pass the first stitch over. You have bound off one stitch.

4. Instead of binding off that final stitch, you're going to do a K2tog. Pass the last stitch worked from the right needle to the left, and knit two together.



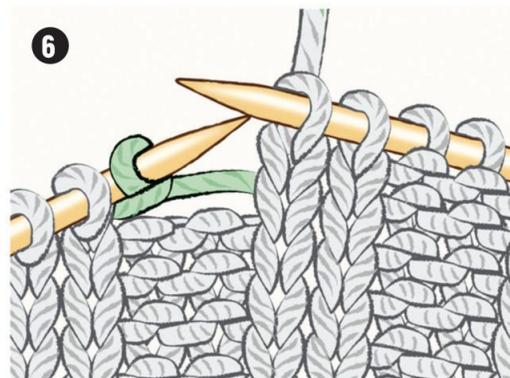
Repeat Steps 1–4 for each buttonhole. Work to the end of the row. Now it's time to cast on over our buttonholes. It's here we'll turn lemons into lemonade!

5. On the next (WS) row, work up to the gap formed by the bind-off for the buttonhole. Using the e-loop cast-on (see [page 119](#)), cast on one fewer stitch than you bound off. In this example, you bound off two, so you are going to cast on one. Make a loop with your working yarn and place it on your right needle. Give a tug to the working yarn to tighten up that loop.

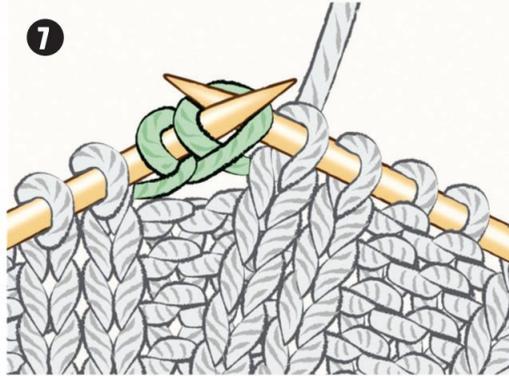


Work in pattern to the next buttonhole and repeat Step 5 for every buttonhole. The final magic happens on your next (RS) row.

6. Work to the buttonhole and when you get to that e-loop cast-on, you'll find a huge gap and a long strand of yarn running from the last worked stitch to your e-loop (there's our lemon).



7. Use that strand to make your second cast-on stitch (and that's our lemonade!). You can use your fingers, a crochet hook, or your knitting needle to pick up that strand, then twist it (like a M1) to add a second stitch to your left needle. Just make sure that you are twisting it in the same direction as your e-loop.



Work in pattern to the next buttonhole and repeat Step 7 for every buttonhole.

Voilà! Here's our perfect buttonhole!

Now wear that cardigan unbuttoned with pride!



Perfect buttonhole

Setting in a Sleeve

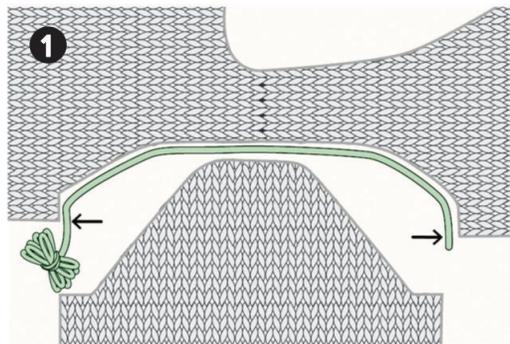
Nothing beats the fit of a classic set-in sleeve, that's true. But it's also true that nothing strikes fear into the hearts of knitters quite like reading the words "sew in sleeves." Wait, no need to hyperventilate. Let's breathe into a paper bag and understand it's WAY simpler than it looks.

Here are three little tricks that will change your seaming life.

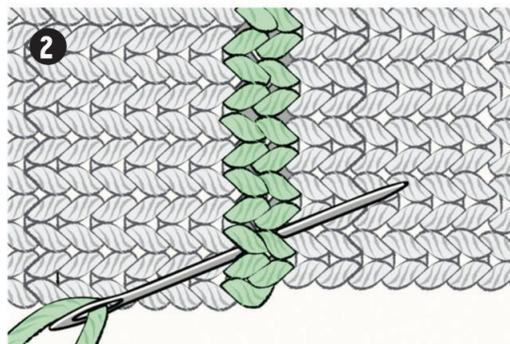
WORK TOP TO BOTTOM

I used to seam with my yarn still attached to the ball. This meant I had to start seaming at one underarm and work my way around to the other side. Far easier to work from the shoulder down. This way, any little fudging you might have to do at the end is under your arm. (So unless you are playing Eva Peron in the balcony scene of Evita, nobody will be the wiser.)

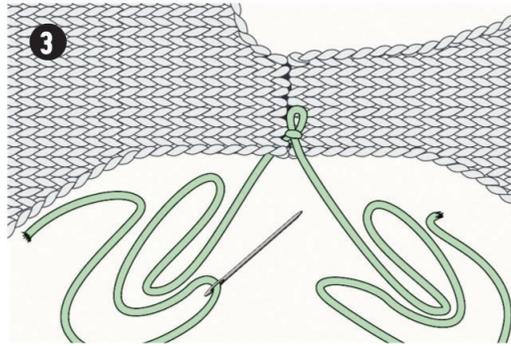
1. Once your shoulders are seamed, measure out a piece of yarn four times the length of the armhole opening. Cut the yarn and thread it onto your tapestry needle.



2. You'll be drawing your yarn through the very top of your shoulder. With the RS facing up, beginning on one side of your shoulder seam, insert your tapestry needle down into the space between the edge stitch and its neighbor and up through the same space on the other side of the shoulder seam.



3. Draw the yarn through until you have equal amounts on either side of the seam. Tie a knot in the yarn on one side so it can't pull through. You now have yarn saved for seaming both sides.



Now that we have our yarn set up to seam one-half of the cap at a time, let's learn the seaming trick that will change your life ...

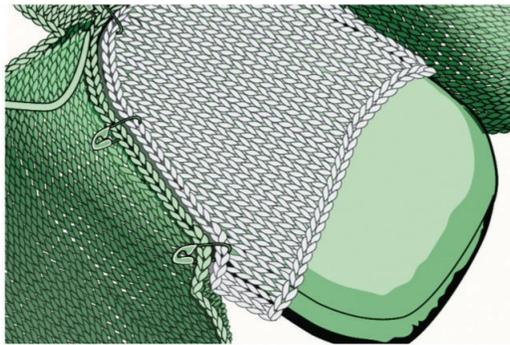
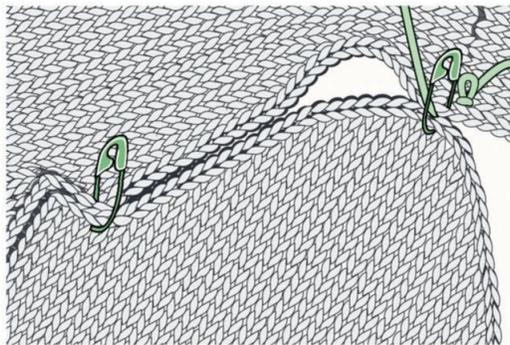
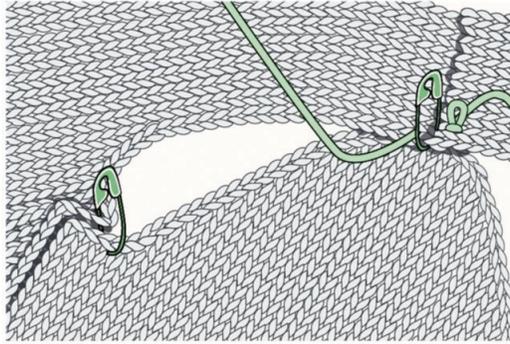
EASE IN: ROUND THE CURVE

Our armhole is taller than our cap, so when we try to sew it flat on a table, it doesn't seem to fit. Often tutorials give the vague instruction "ease in fullness." Um... how?

1. Start by pinning the cap into the armhole. Put a locking stitch marker through the top of your cap and pin it to the top of your shoulder. Next match up the bind-offs. Put a locking stitch marker at the end of the armhole bind-off and pin it to the cap at the end of its final bind-off.

Of course, the cap is designed to round over your shoulder, so seaming it flat on a table can present challenges. When we try to line up the cap into our armhole opening, they don't seem to fit.

Meet your new best friend, the tailor's ham. A tailor's ham is a firm stuffed pillow used as a mold when ironing curved areas in clothing, but we are going to use it as a seaming aid. (Fun fact: I didn't know it was called a ham until I was an adult. My grandmother just called it a tailor's roll — maybe because ham wasn't kosher. So feel free to think of it as a tailor's brisket.)

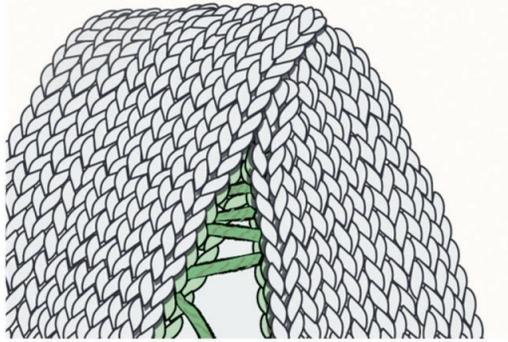


2. A tailor's ham will allow you to seam around a curve. Lay your sleeve cap over the top of the tailor's ham and it will fit perfectly. Now add one more locking stitch marker. Pin the cap to the armhole about halfway between the shoulder and bind-off pin.

EVEN IT OUT: ONE FOR YOU, TWO FOR ME

Now we need to complete our final step to the perfectly seamed sleeve cap. The armhole has more rows than the cap, so traditional mattress stitch needs a little tweak.

1. Seam across the top of the cap and down the side. Stop when you get to that locking stitch marker you placed on the side.
2. Count the available spaces for seaming on the cap and on the armhole. For instance, say you count 15 available spaces on the cap and 18 available spaces at the armhole. That means instead of seaming one bar to one bar all the way down, three times you'll seam into one bar on the cap and go under two bars on the armhole.



By the time you get to the underarm, you'll be all even. Now that's finishing strong!

Words of Wisdom

*When you don't
know what you
'can't' knit...*

ANY

**YOU
CAN
KNIT**

THI

NG!





CHAPTER 8 — FINAL WORDS OF WISDOM

The Mindful Knitter

We did it! If you've made it this far, I can only assume one of two things: either you are an adventuresome knitter excited to learn the why and take control of your knitting, or you're the type of reader who always skips to the last chapter to see how a book ends.

I'm going to assume the former.



What next? When I teach, I always end my classes with my final words of wisdom, so here goes...

READ YOUR KNITTING

The single most powerful tool in your knitter's toolbox is the ability to read your stitches. Practice this.

When I first started knitting, I would test myself. I used to purposely stop in the middle of a lace row and put it away. Then I'd come back to it the next day to see if I could figure out what row of the pattern I was on. Suffice it to say two things happened: one, I ripped out a LOT of lace, and two, I became great at reading my knitting.

The first step in becoming a mindful knitter is to recognize. The next step is to analyze.

UNDERSTAND HOW IT WAS BUILT

My brother rehabs houses, and he once made this observation: you can't fix something if you don't understand how it's built.

Remember that lace I mentioned ripping out? I did so much ripping because every time I would try to fix a mistake, I'd make a bigger mess. That might sound familiar to a few of you. In the spirit of laziness is the mother of invention, I wanted to rip less and knit more, so I taught myself how each stitch was built.

Cast on for a swatch and make stitches mindfully. Watch the path your yarn travels. See if you can understand how it's built, where the needle goes, and why. Once you see how a stitch is built, you'll know how to fix it.

DON'T MAKE THE SAME MISTAKE TWICE: MAKE DIFFERENT MISTAKES!

That's right, make mistakes on purpose. The most empowering feeling in the world is being able to fix your mistakes. Rather than waiting to fix them on your cashmere sweater, practice now.

Once you have your mindfully knit swatch, screw it up on purpose. See if you can take out a decrease or drop down and move an increase. When you're able to drop a giant section of cable knitting and rebuild it, you understand what it feels like to be a superhero.

FIGHT FOR THE WHY

Have you ever learned a new technique in knitting, like brioche, magic loop, or the tubular cast-on, and mastered it for your project, but then, when you tried to do it again, you had to look up the instructions? Me, too. It took me many tries to learn brioche because I wasn't really learning it. I was matching it.

When we memorize, we can forget, but when we see, when we truly understand, we will never forget.

OWNERSHIP OF YOUR KNITTING

All of this leads to that incredible feeling of ownership in our knitting. You aren't just following directions; you are making choices. You aren't just matching a how-to video; you are understanding. And most important, question EVERYTHING.

The most powerful word in your knitting journey is WHY. Always let the why lead you to the how.

And the next time a friend asks you to show them how something is done, just smile and say, "I'll show you why it's done and then you'll know how."

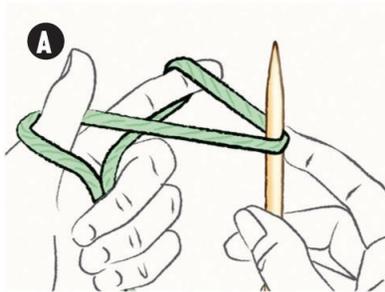
RESOURCES

BASIC TECHNIQUES

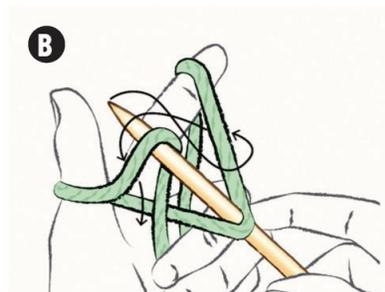
Cast-Ons

Long Tail Cast-On

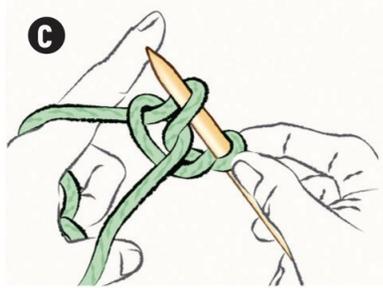
1. Drape the tail over the top of the needle to the front. Holding onto needle and yarn with your right hand, wind the tail end around your left thumb, front to back. Wrap the yarn from the ball over your left index finger and secure the ends in your palm (A).



2. Insert the needle upward in the loop on your thumb. Then with the needle, draw the yarn from the ball through the loop to form a stitch (B).

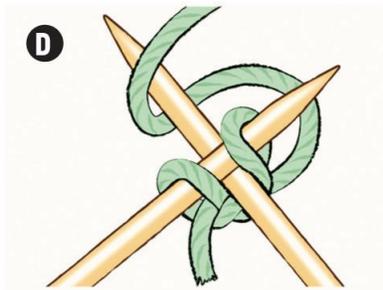


3. Take your thumb out of the loop and tighten the loop on the needle. Continue in this way until all the stitches are cast on (C).



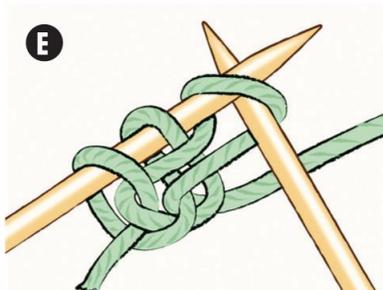
Cable Cast-On

1. Cast on two stitches using the long tail cast-on. Insert the needle between the two stitches (D).



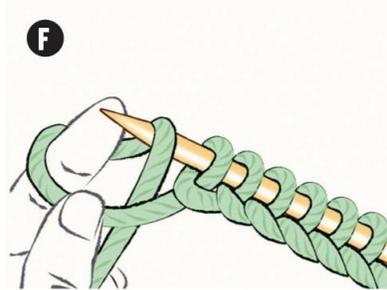
2. * Wrap the yarn around the right needle as if to knit and pull the yarn through to make a new stitch.

3. Place the new stitch on the left needle as shown. Repeat from the *, always inserting the right needle in between the last two stitches on the left needle (E).



E-loop Cast-On

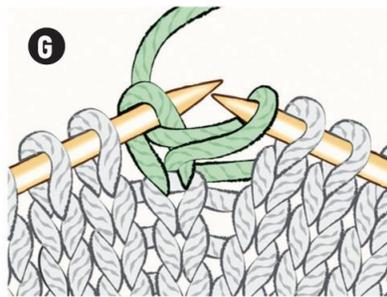
Pick up the working yarn with your left hand and create a loop. Twist the loop around a half turn to the right. Put the loop on the knitting needle and pull the working yarn to tighten. Repeat until you have cast on the number of stitches required (F).



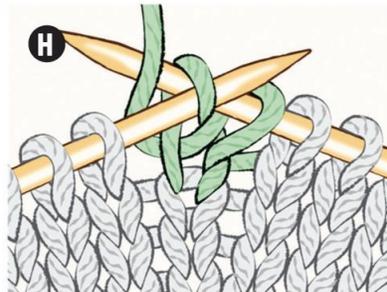
Increases

Knit Front Back (KFB)

1. Knit into a stitch and leave it on the needle (G).



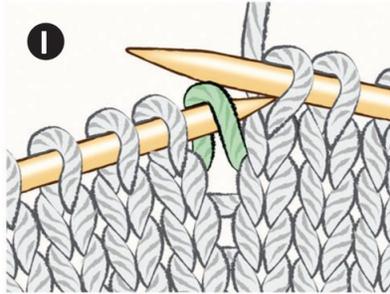
2. Knit through the back loop of the same stitch (H).



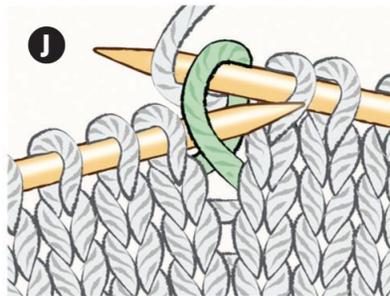
3. Remove both from the needle.

Make One Left (M1L)

1. Insert left needle from front to back under the running thread between the last stitch worked and next stitch on left needle (I).

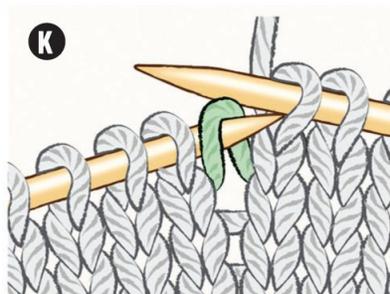


2. Knit the strand through the back loop (J).

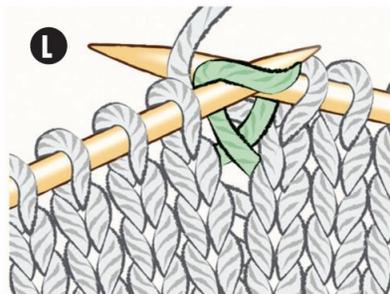


Make One Right (M1R)

1. Insert left needle from back to front under the running thread between the last stitch worked and next stitch on left needle (K).



2. Knit the strand through the front loop (L).



Short Rows

GERMAN SHORT ROWS

DS (double stitch) worked after turning on a Knit Row

Knit to turning point, turn work. Slip next st purlwise from LH needle to RH needle. Bring working yarn to back over RH needle, pull up on yarn, raising legs of the stitch below the slipped st up onto the needle (looks like double stitch). Bring yarn to front between the needles ready to purl.

DS (double stitch) worked after turning on a Purl Row

Purl to turning point, turn work. Bring yarn to front between the needles. Slip next st purlwise from LH needle to RH needle. Bring working yarn to back over RH needle, pull up on yarn, raising legs of the stitch below the slipped st up onto the needle (looks like double stitch).

Hiding DS

In flat knitting: Work to doubled stitch, work both legs together in a k2tog or p2tog to hide the turning point.

WRAP AND TURN (W&T)

Slip next stitch purlwise from LH needle to RH needle. Move yarn to opposite side of work (in front if you are knitting, in back if you are purling), slip stitch purlwise back to the LH needle. Return yarn to original side of work (in back if you are knitting, in front if you are purling). Turn your work.

Hiding Wraps

RS rows: Insert the RH needle from bottom to top, front to back into the wrap and through the stitch on your needle. Knit the wrap and the stitch on your needle together.

WS rows: Insert the tip of the RH needle from behind, to lift up the wrap onto the LH needle. Purl it together with the wrapped stitch.

About the Author

PATTY LYONS is a nationally recognized knitting teacher and technique expert who teaches at guilds, shops, and knitting shows across the country as well as hosting her own retreats. She is known for teaching the “why” not just the “how” in her pursuit of training the “mindful knitter.” Her popular classes can also be found on DVD and online through her website on her streaming education site education.pattylyons.com.

Patty’s designs and knitting skill articles have been published in Vogue Knitting, Interweave Knits, Knit Purl, Knitter’s Magazine, Cast On, Knit Style, Creative Knitting, Twist Collective, and Modern Daily Knitting where she writes a monthly knitter’s advice column, “Ask Patty.”

Learn about new classes and patterns: pattylyons.com

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