

ARCH-SHAPED SOCKS

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The basic principle of these socks is that fabric knitted on the bias is less stretchy than fabric knitted plain, and if you do this on the arch of a sock, it will fit your foot more snugly where it is knit on the bias. By increasing and decreasing every round, you'll make a sock with arch shaping in graceful curves around your foot. I owe a debt of gratitude for inspiration to Grumperina, whose stranded stockings featured this arch shaping and made me sit down to work out my own pattern.



Finished Size Fits women's US size 8-10; 8" in circumference; you control the length.

Gauge 16 stitches per 2" in st stitch

Needles Size 2.5mm, 40" circular needle for magic loop OR set of 5 2.5mm dpn's

Yarn About 420m / 440 yards sock yarn (I used 2 skeins of Knit-Picks Gloss, a 50/50 merino/silk blend); this will give you a 5" leg with lots left over.

Notions Four stitch markers, tapestry needle, row counter.

Difficulty level Intermediate; it will be helpful if you've made a sock before, but the difficulty mostly lies in the fiddliness of working the foot shaping. An adventurous beginner can make this sock.

Notes: The abbreviation skpo is used for a left-leaning decrease: slip one stitch knitwise from left needle to right, knit the next stitch onto the right needle, and pass the slipped stitch over the knitted stitch. You may use a ssk or your preferred left-leaning decrease. I think skpo is easier to work and looks neater.

Instructions are given for working with magic loop or 5 dpns; If you are using magic loop, call one needle 2/3, and the other needle 1/4. When you turn the heel, place a marker between 1 and 4 to help you decrease evenly. With dpns, the heel is knitted on needles 1 and 4.

CUFF / LEG:

Using Norwegian cast-on, loosely CO 65 stitches. Join for knitting the round, being careful not to twist. Divide stitches as below:

Magic Loop - 30 sts on needle 1/4, 35 sts on needle 2/3. (You do not need a marker separating 1/4 at this point.)

Work all rnds as foll: K3, P2 around.

DPN's - 16 sts each on needles 1 and 4; 16 sts on needle 2 and 17 on needle 3.

Work all rnds as foll: K3, P2 around.

Cont in patt for 16 rnds or until ribbing is 1.5" long from cast-on edge, or knit to your desired length.

Next round and all foll: knit stockinette stitch (knit every round) until leg is 5" long total from cast-on edge or your desired length.

Next round: magic loop only: shift 2 stitches from needle 2/3 onto needle 1/4 (magic loop); 33 stitches on needle 2/3 and 32 stitches on needle 1/4.

HEEL:

Work heel on 32 sts of needle 1/4.

Next round: Hold 33 sts on needle 2/3 to be worked later for instep. RS is facing. Work the heel on needles 1/4 (32 stitches).

Heel Flap:

Row 1 (RS): *Sl 1 pwise with yarn in back, k 1, rep from * (end k1).

Row 2 (WS): Sl 1 pwise with yarn in front, purl to end.

Repeat these two rows a total of 16 times or 32 rows total with 16 chain sts (slipped selvedge sts) along each edge. End after a WS row (row 2).

Turn the Heel:

Row 1 (RS): Sl1, k15, pm (for magic loop), k2, skpo, k1, turn.

Row 2 (WS): Sl1, p5, p2tog, p1, turn.

Row 3 (RS): Sl1, k to one stitch before gap, ssk, k1, turn.

Row 4 (WS): Sl1, p to one stitch before gap, p2tog, p1, turn.

Rep Rows 3 and 4 until all heel sts have been worked, ending with Row 4. 18 sts remain, 9 each on ndl 1 and 3. Last row brings the right side facing you.

Be sure to read the ** notes. They are important.

**After five rounds of gusset decreases you are going to start the arch shaping. It will be worked simultaneously with the gusset decreases, so all of the decreases and shaping take place in even-numbered rows, while the odd-numbered rows are knitted plain in stockinette.

GUSSET:

Rejoin for working in the rnd as foll:

Rnd 1: (RS) - Rnd 1: Beginning with needle(s) 1/4, k across 18 heel stitches, then with same needle, pick up and knit 18 sts along left edge of heel flap, work 33 instep sts in stockinette patt as established; pick up and knit 18 sts along right edge of heel flap, then knit first 9 heel sts again - 89 sts total; 27 sts each on ndl 1 and 4 and 33 on ndl 2/3. (This is asking you to pick up 2 more sts than normal - to prevent holes. If you don't get holes, just pick up 16.)

Rnd 2: On needle 1, knit to last 3 sts, k2tog, k1; on needles 2 and 3, work instep as established; on needle 4, k1, slip one stitch from the left needle to the right purlwise, knit 1, pass the slipped stitch over the knitted stitch (skpo), knit to end—2 sts decreased total.

Rnd 3: Knit.

Rnd 4: Rep round 2. You will have 50 stitches total on your heel needle(s).

Rnd 5: (set-up round): Beginning at right side of heel as it faces you (the skpo side), knit 17, pm, k7, pm, k1, m1, k1, pm, k7, pm, k17 - 51 stitches. Knit to end of round as established. There are 17/7/3/7/17 stitches on needle 1/4 (think of the / as the marker).

**Round now begins at right side of heel as it faces you, the beginning of needle 4 (the skpo side where you started round 5). This does in fact set you back one half-round, but it's easier to do it this way—all the shaping and decreases take place in the same rounds, with every other round knitted plain. Place your row counter at the beginning of this needle to help you keep track of shaping. If you are using dpns, divide your stitches for needles 1 and 4 in a way that is comfortable for you—maybe make the break between stitch 2 and 3 of the stitches between the markers.

****M1** means to insert your needle front-to-back in the strand between two stitches, when stitch 1 is on your right needle and stitch 2 is on your left. Lift this strand up onto your left needle and knit it through the back loop so it twists - one st increased.

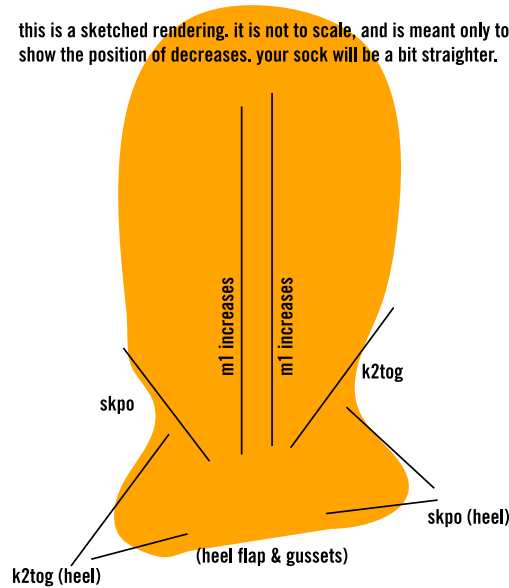
BEGIN THE ARCH SHAPING:

Rnd 6: k1, skpo, knit to 2 st before marker 1, k2tog, slip marker (sm), k to marker 2, m1, sl m, k3, sl m, m1, k to marker 3, sm, skpo, knit to last 3 sts before end of heel gusset, k2tog, k1. Knit across instep. *You just did a heel decrease, then a shaping decrease, then an increase, another increase, another shaping decrease, and a second heel decrease. The shaping decreases lean the opposite way from the gusset decreases. (See diagram below.)*

Rnd 7 and all odd-numbered rounds: knit.

Work rounds 6 and 7 until you have 33 stitches on Needle 1/4.

this is a sketched rendering. it is not to scale, and is meant only to show the position of decreases. your sock will be a bit straighter.



**The decreases will gradually move away from each other, and the increases will continue to stack up, creating one more stitch between the marker and its paired decrease every round. This creates the bias-knit fabric. (Like most things in knitting, this will make sense when you do it.)

**Note that for the shaping you are increasing and decreasing the same amount in each row, which keeps the stitch count even as far as they are concerned. The gusset decreases bring the stitch count down by 2 each round.



If my math is right and you picked up 18 stitches for the gussets, your last decrease round for the heel will be round 22. If I'm wrong, continue to decrease till you're back down to 33 stitches on needle 1/4: 15/3/15.

At round 24 the shaping decreases will meet the gusset decreases at the edges of the heel. If you are still decreasing the heel gussets, skip the gusset decrease and use only the shaping decreases as established for this round.

At round 26 (or the next round) the shaping will move to the top of the foot, and here is where it gets fiddly. From this point on you'll be decreasing on the top of the foot, but increasing on the bottom of the foot. (You see where this is going, ey?)

At this point you have two choices: Rearrange your stitches so that half the instep stitches and half the heel stitches are on each of your magic loop needles, or 2 dpns; or stop every ten rounds or so and move some stitches from the heel needles to the instep. I haven't figured out a way to do the rearranging method with only 4 dpns...it works with five.

Somewhere around round 54 you will have brought the shaping around so it meets on the top of the foot. Finish the shaping rounds when you have four stitches left between the decreases on the top of the foot. (65 stitches total.) Next round: in the place where you had 3 stitches between the markers, remove marker 1, skpo, k1, remove marker, knit to end. (64 stitches total, 1 stitch decreased.)

If you've rearranged your stitches to knit the shaping, now would be a good time to rearrange them back so that the 32 stitches for the top of the sock are on one (two) needles and the 32 stitches for the bottom are on the other(s).

Alternately, you can leave the stitches as they are and work the toe; this will make your toe sideways, which will pretty well match the shaping, but I don't know if it's comfortable.

TOE:

If you want to swap in the Nancy Bush *Knitting Vintage Socks* star toe of four points, now is the time. This is a longer toe - if you work it, work only 6 rounds plain, arrange the stitches so that your round begins with the center bottom of the foot, and start the toe with the k7 round in the book. (I'm not sure I can publish those toe instructions.) For a round toe, see below.

Round toe: Knit the foot in stockinette until it reaches the base of your big toe.

Decrease the toe 4 stitches every other round: top of sock: k1, skpo, knit to 3 stitches from end of needle(s), k2tog, k1. Repeat for bottom of sock.

Do this until you have 32 stitches left, then decrease every round until you have 8 stitches left on the top and 8 on the bottom. Graft the toe closed (knit, purl, purl, knit), weave in your ends and block.

I'd love to see pictures of your finished socks! You can email them to me at meangirl@comcast.net.

