Basic Formula for Toe Up Socks using German Short Rows Knitted with 2 Circular needles or Magic Loop method

Size	Sock yarn 30-32 sts on 2 – 2.75 mm needles	DK Weight yarn 24-26 sts on 3-4 mm needles	Worsted Weight Yarn 20-22 sts on 4 – 5 mm needles
Baby	40	32	28
Child 1-2	44	32	32
Child 3-4	44	32	32
Child 6-8	48	36	32
Lge child/X-small Adult	56	44	36
Small Adult	60	48	40
Medium Adult	60	48	40
Large Adult	64	52	44
X-large Adult	68	56	48

We recommend using a needle size smaller than stated on the ball band, unless you are a very tight knitter, a 4mm needle is recommended. Socks should be knitted to a firm gauge to minimize stretching with wear.

You will be casting on ½ the stitches for the size required according to the chart above, using a provisional cast on. The toe is knitted flat.

Crochet a simple chain in a smooth yarn of similar weight to your sock yarn a few stitches longer than the # of stitches to be cast on. Fasten off and mark the last chain stitch (You will "unzip" the stitches from that end). Pick up the bumps on the reverse side of the chain for the required # of stitches, placing markers to divide stitches into thirds. (If you have one stitch left over, place this in the middle third, 2 stitches left over, one each will go in the outside thirds). Purl across the row.

Row 1: Knit the row, turn the work. Hold the yarn at the front of the work and slip the stitch as if to purl. Pull the yarn firmly to the back over the needle, this will bring both loops of the lower stitch over the needle, forming a double stitch. The yarn is now at the back of the work, bring the yarn to the front of the work between the needles, ready for the next row.

Row 2: Purl the row, turn the work and bring the yarn to the front, slip the stitch, pull the yarn firmly to the back over the needle, making a double stitch. The yarn will be at the back ready for the next row.

NB When making the double stitch, make sure to pull the yarn very firmly set that the gap between the stitches closes, otherwise there will be a little.

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Row 3: Knit to double stitch, turn the work. Work double stitch. Row 4: Purl to double stitch, turn the work. Work double stitch.

Repeat rows 3 and 4 until all the side stitches have been made into double stitches. You will have approx. 1/3 of the stitches plain in the centre of the row.

To complete toe, you will be treating each double stitch as **one stitch**:

Row 1: Knit to first double stitch past the centre stitches. Knit this double stitch as one. Knit the next double stitch, turn

Row 2: You will now work a double stitch on that stitch (we shall call this stitch a "double, double"). Purl across the row to the first double stitch past the centre on the other side, purl it as one. Purl the next double stitch, turn

Row 3: Work a double stitch, knit across to the "double, double" stitch, knit it as one, knit the next double stitch as one, turn.

Row 4: Work a double stitch. Purl across to the "double, double" stitch, purl as one, turn.

Repeat rows 3 and 4 until all the double stitches are used up on both sides and all the "double, double" stitches except one, have been worked. End after a **knit** row, removing markers (there will still be one "double, double" unworked at the other end of the needle)

Commence working in the round:

Using a spare needle, a DPN works well here, unzip the provisional cast on stitch by stitch, starting with the marked end. Due to the nature of the provisional cast on, you will find you have one stitch less than originally cast on. Just kfb into the first stich or find a nice spot to pick up an extra stitch. You should now have the correct number of stitches according to the chart. If there are any gaps in the corners, pick up a stitch and on the first round, knit these picked up stitches with one of the adjacent stitches. Place a marker at the beginning of the round. This will be where the tail of yarn hangs. Knit across this newly picked up row, then knit across the "toe" stitches, knitting the leftover "double, double" as one as you go.

Instep:

Knit even in the round until approx. 1 ½ inches short of back of heel. It is a good idea to try the sock on at this point as the knitting will stretch sideways a little. Remember to fit comfortably, your sock should be a little short. You will now be working the heel flat on half the number of stitches. The other half of the stitches are taking a break. Place markers as you did for the toe dividing into thirds (approx.) and making sure you start the heel at the beginning of the round, so that it lines up with the toe.

Heel: The first part of the German Short Row heel is worked exactly as the first part of the toe.

You now have an option, to work the second half of the heel exactly as you did the toe

OR, if you require a little more room in the heel, you can knit two rounds of stocking stitch over all stitches (heel and instep stitches) starting and finishing at the centre of the heel. You will now work the second half of the heel as the toe, but you will not have the "double, double" stitches to contend with. i.e. On the right side, knit to one stitch past the marker, turn, work a double stitch, purl to one stitch past the marker, turn, work a double stitch.

Row 3: Knit to double stitch, knit as one, knit next stitch, turn, work a double stitch.

Row 4: Purl to double stitch, purl as one, purl next stitch, turn, work a double stitch.

Continue with Rows 3 and 4 until all the side stitches are used up. Work one more row, using up the last double stitch. You are now ready to knit in the round.

Leg:

If you find any gaps in the corners, pick up a stitch and on the next round, knit it with one of the adjacent stitches. Move EOR marker to the centre of the heel stitches, so the EOR now runs up the back of the leg. Continue working in the round for the length required.

Cuff:

Work 15 rounds or so of knit 2, purl 2 ribbing. Cast off **loosely**. Darn in all ends.

OR

For knee length socks, you may require to add some stitches to accommodate the calf. Try the socks on and decide where you want the increases to start. Increase on either side of the EOR marker at the back leg as follows: Knit 1, make 1, knit to last stitch in the round, make 1, knit 1. Repeat every 4 – 6 rows as required. Stitches should be divisible by 4. **Optional** 3 inches before required length, add a Fairisle patterns, then 6 rows of 2 x 2 ribbing and 5 rows of purl in the Fairisle colour, cast off loosely and darn in all ends.

Knit another sock exactly the same.

Wash the socks and lie flat to dry, smoothing out any wrinkles.

Present with pride to the recipient.