

## DIY Surgical Mask Pattern

### Materials

- 100% cotton fabric (with a tight weave, like quilting cotton)
- 1/8" flat elastic, or additional fabric to make fabric ties
- fabric scissors
- ruler
- pins or clips
- sewing machine and thread

### Cut List

For an adult size mask:

- Cut 1 fabric rectangle 15.5" long and 8.5" wide
- Cut 2 pieces of elastic, each 7" long

For a child-size mask:

- Cut 1 fabric rectangle 13.5" long and 6.5" wide
- Cut 2 pieces of elastic, each 6" long

For elastic ear loops:

- Cut 2 7" long pieces for an adult mask
- Cut 2 6" long pieces for a child mask

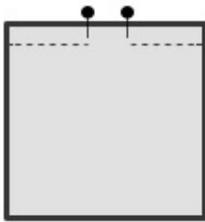
For fabric ties, if you aren't using elastic:

- Cut 4 rectangles 18" long by 1.75" wide.

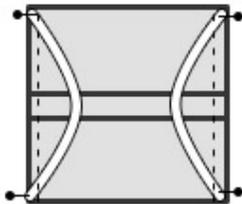
Fold the long sides to meet in the middle, then fold in half again to encase the raw edges. Stitch down the length of the rectangles along the edge to create the ties.



Cut one cotton rectangle, 8.5" wide by 15.5" long. Cut 2 7" pieces of elastic or 4 18" fabric strips.



Fold in half and sew along the top, leaving a 3" opening for the pocket.



Sandwich the elastic or ties between the layers of fabric at the corners, and sew along each side to secure.



Turn the mask right side out. Fold 3 evenly-spaced 1/2" pleats. Pin in place, and sew to secure.

## Step 1: Sew to the top side, with pocket

Fold the fabric in half, with the right sides facing each other.

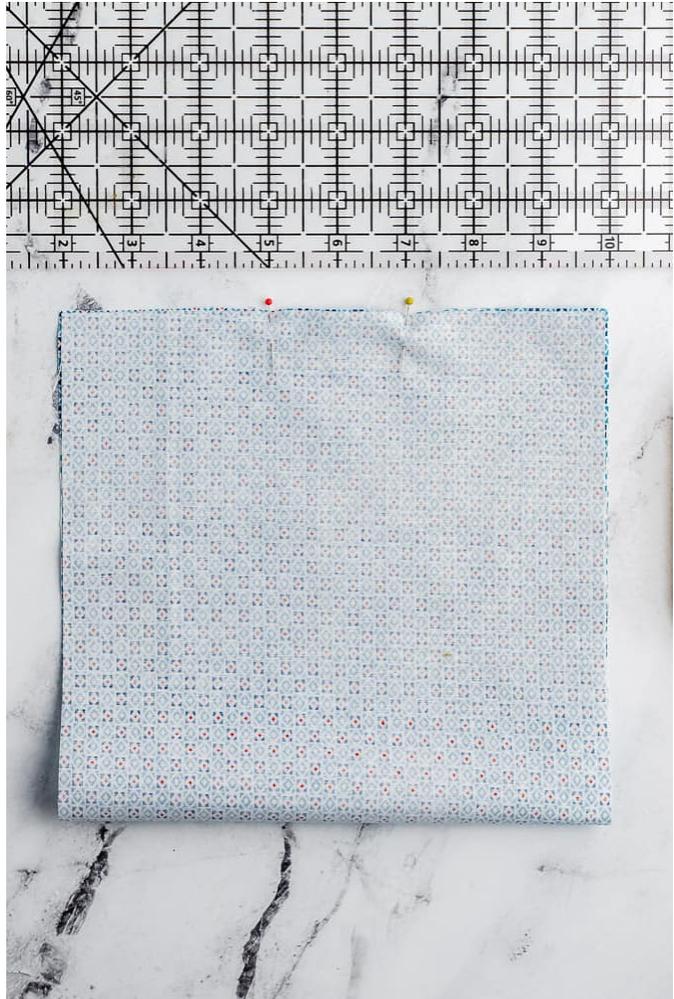
Sew along the 8.5" width edge, using a **3/8" seam allowance**.

Leave a 3" opening in the center of this seam to create an opening for the filter pocket, and to allow the mask to be turned right side out after sewing. In the picture above, I've marked this opening with pins.

### **Don't want a filter pocket?**

If you don't want or need a pocket, that's totally fine. You'll still need to leave a hole in order to turn the fabric right side out.

After you attach the elastic and turn the mask right side out, sew the opening closed.





## Step 2: Pin Elastic

Turn the fabric so that the seam with the pocket opening is centered in the middle of one side.

Optionally, stitch to reinforce the seam: Press the seam open and topstitch or zig-zag stitch along both sides of the seam for a neater edge.

Pin one piece of elastic to the top and bottom of the short sides of the fabric rectangle to create an ear loop. Place the ends of the elastic 1/2 " from the top and bottom edge of the fabric.

The length of the elastic will be sandwiched inside the two layers of fabric, so it will be on the outside when you turn the mask right side out.

## Alternative – Use fabric ties:

**If you can't find elastic**, or prefer to use fabric ties, you can use 4 fabric ties, one in each corner. Each tie will be 18" long. Sew one tie in each corner, being careful not to catch the ties in the side seams.

You can also use twill tape, bias tape, or strips from cotton jersey (t-shirt fabric).

The finished mask will then be worn by tying the fabric strips behind the head.

### Step 3: Sew the Sides

Sew the sides of the facemask. Backstitch over the elastic or fabric ties to secure them. Trim the corners with scissors.

Turn the mask right side out and press with an iron. You can use a pencil to push out the corners.

### Step 4: Make the Pleats

Create three evenly spaced 1/2" pleats. Pin the folds in place, and sew along the sides. Make sure all pleats are facing the same direction.

The finished mask will be about 3.75" tall.

When the mask is worn, the pleats should open downwards to prevent any particles from collecting in the fold pockets.





## Troubleshooting the Pattern

### **Can't find elastic?**

I've heard from many people that are having a hard time finding elastic. If you can't find elastic to make the ear loops, you can make a mask with fabric ties instead. The ties will go around the back of the head, rather than around the ears.

To make ties, you can use ready-made 1/4" twill tape, double-fold bias tape, or cut long strips of the same tightly woven cotton fabric you are using for the rest of the mask.

### **To make fabric ties:**

Cut 18" long strips of fabric, 1.75" wide. Fold the long sides together (lengthwise or hot-dog style) so that they meet in the middle. Then fold the strips in half again (lengthwise) to encase the raw edges. Stitch down the strips along the edge to create the ties.

If you wanted these straps to have a bit of stretch, you could also cut long strips from cotton jersey or knit T-shirt material.

Whichever option you choose, you'll want to make 4 pieces about 18" long, and attach one strip to each of the corners. The mask will fasten by tying the straps behind the back of the head.

## **What about metal around the nose to help it fit better?**

To help the mask fit better around your nose, you can insert a length of flexible metal to the top inside of the mask, through the pocket insert opening before forming the pleats. Then, you can topstitch down around the metal insert so that it stays in place. I've seen people use pipe cleaners, floral wire, or twist ties.

## **What can you use as a filter?**

It is so important that everyone understands that while wearing a cloth face mask can offer some level of protection, it can't protect against viruses the same way that an N95 mask can.

In [testing](#), a layer of HEPA vacuum cleaner bag or HEPA air filter seems to perform the best. However, it will be harder to breathe through.

If you are sewing for hospitals, they may have their own medical grade filters. Always call before you sew to check their requirements.

Disclaimer: This pattern has not been industry-tested and is intended for educational purposes only. The decision to use this device is solely your own.

See the original post, comments, and discussion at:

<https://sarahmaker.com/how-to-sew-a-surgical-face-mask-for-hospitals-free-pattern>