

# Fabric Face Masks:

## A Good Mask Fits Well and is Breathable, Comfortable, and Washable

Revision: 2020 Jul 01

This document compiled by Cathy Fisher (mask donator) and comments are OPINIONS, this is not a research site.

### General Notes:

- **Recommended reading about masks by Peter Tippett MD PhD:** [https://www.linkedin.com/content-guest/article/saving-your-health-one-mask-time-peter-tippett-md-phd?fbclid=IwAR2R4zYYidR0pizbE8ADTX6EFXI7PIIlog2JF9qI\\_QD9faMwM2kweh8zqWvo](https://www.linkedin.com/content-guest/article/saving-your-health-one-mask-time-peter-tippett-md-phd?fbclid=IwAR2R4zYYidR0pizbE8ADTX6EFXI7PIIlog2JF9qI_QD9faMwM2kweh8zqWvo)
- **Fabric masks ARE NOT medical grade masks.** Fabric masks are designed to help you keep your germs from reaching others. When everyone wears a mask AND stays 2m / 6 ft apart AND washes their hands frequently... germs/viruses spread less and more people stay healthy.
- **DO NOT PUT A MASK ON A CHILD WITH BREATHING PROBLEMS OR UNDER TWO YEARS OLD.** Children under 24 months are susceptible to suffocation, do not put a mask over their face unless under direct medical supervision. As an alternate precaution use hats with clear face shields.
- **Mask Shape:** Because we all have different size and shaped faces, some masks work better for some individuals than for others. Find the pattern(s) that works best for your needs.
- **IF you wear glasses,** it's a real pain when your [glasses get fogged](#). For you, a nose wire is most likely required (you could also try double sided tape). My understanding is there is less risk if air escapes from "below" the mask (good old gravity most of it hits your chest). If you are finding your mask causes fogging, fold a tissue into a log and place over your nose under top of your mask. The extra "cushioning" helps to trap air inside the mask so your glasses don't fog. Thank-you to Jan Howell and partner for posting the tissue no fog hack: [https://www.youtube.com/watch?v=IrYFvE\\_mCU4](https://www.youtube.com/watch?v=IrYFvE_mCU4). If still a problem then pull out the bottom of the mask to loosen it from your face (still keeping face covered). While a more airtight mask is preferred, we will still benefit from having a fabric mask that covers our nose and mouth while practicing social distancing. **It is important to keep both your nose and mouth covered.**
- **WASHING:** The beauty of fabric masks is they are re-useable. Most fabric masks can be machine washed. If machine washing, I recommend putting them in a lingerie mesh bag. My preferred way is to wash by hand. Fill the sink with hot soapy water, soak the masks for 30 min, thoroughly rub material between your fingers, rinse well, then air dry over night. Your masks will last significantly longer if hand washed and are less likely to fade.
- **When to change your mask?** Wash your hands before putting on your mask. Wash your hands before and after you take it off and, if possible, wash your face too. Germs love wet moist places so once the inside of your mask is moist/wet change it for dry. Health Care Professionals are usually advised to take off their mask for 15 min every 2 hours so their face can dry out. Sounds good to me. Change your mask every couple of hours and if possible be in a safe place to go without your mask for 15 minutes before putting on a fresh one. Never wear the same mask longer than one day and don't wear when not needed (usually not needed: inside your car, inside your house, in your yard, outside and not near anyone or anything where you can leave behind germs...). A wet mask is less effective than a dry mask.

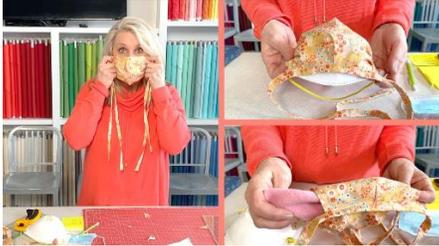
- **Coughing / Sneezing:** Just because you have a mask on doesn't mean you should try to blow it off your face with a gigantic sneeze. It is still good practice and hygiene to cough and sneeze into your elbow/sleeve. With your mask on, cough and sneeze towards your raised elbow.

**THANK-YOU to ALL who made their patterns available across the world and to those who are sewing and making fabric masks an option.**

**Construction Notes: Most Important - PRE-WASH FABRIC**

- **Fabric:** Tight woven natural fabric is best, at least 170 threads per inch (threadcount). Recommend: 100% Premium Cotton such as Cotton Batik or Quilters Cotton
- **Easing:** When a mask has curved edges that require "clipping" I use pinking shears.
- **Elastic:** When you have a head/face measurement, your elastic should be 2/3 size of the measurement to stretch comfortably and hold the measurement distance.
- **Nose Wire:** Find what is most comfortable, available, and works for you. People have used coffee bag closures, paperclips; pipe cleaners (beware these can shed and rust); wire (best is stainless steel around 16 gauge from the hardware store). I've been using wire, be sure to curl the ends so there are no sharp edges. Of course, the best nose shaper are those sold specifically for that purpose. Patterns often have a recommendation.
- **Fabric Seal:** Double sided tape can be used to seal the edges of a fabric mask and is value added if you are using as a last resort for medical purposes. Adding foam or other materials can help to strengthen the seal. Make sure you understand how any materials you use will be affected by washing.
- **Ties:** While many of the designs call for elastic other options include: binding strips, twill tape, ribbon, t-shirt strips... The t-shirt strips demonstrated by The Fabric Patch are one of my favourite, every soft. There are also different ways to set up your ties (example: [Single Tie Back - Utube](#) 3 min by Learn Create Sew), use what works best for you with the materials you have available.
- **FILTERS:** Are a good addition particularly if you can't social distance the whole 6 ft. In general, a mask with at least two layers of fabric, with mouth and nose fully covered, works well to keep your germs within your 6 foot circle. Add a face shield that covers your eyes and face and you are golden. Particle stopping filters are **non-woven** material (e.g. polypropylene). If nothing can get in, well, its also harder to get in air too. Breathing through a non-woven filter when you are not use to it can be tiring. That's one of the reasons why many of our front-line workers look so exhausted. If you use a non-woven filter make sure you plan your activities so you can remove the mask periodically to breath deeply and up those oxygen levels. When you can breathe easier you are less likely to touch your mask unnecessarily. Although, touching your mask is better than touching your face, just remember to wash hands before and after removing the mask.
- **Mask Sizing:** The easiest way to size a mask is to use ties, that tie. Or to use stop beads to "shorten" elastic. This only works if elastic has been made larger than required and you've got stop beads. Alternately, if using elastic, cut different lengths. Of the many Sweet Red Poppy masks I made, my elastics started at 5" (Small) and went all the way to 8" (Extra Large). I have given out many "large size" masks when I've run into those poor souls who have their ears folded forward because their mask elastics are much to small for the width of their face.

There are hundreds of patterns and u-tube videos available for making masks. Find the one(s) that work best for your purposes. I have personally tried most below and included my comments and links. Your requirements will help you find the right patterns to suit your differing needs.

Ref	Picture	Links - Comments	Mask Data
	<b>SURGICAL MASKS</b>	<b>Rectangles with Pleats</b>	
	<ul style="list-style-type: none"> <li>• <b>Surgical Masks: Pleats should be worn point down.</b> When pleat points towards your nose it creates a fold that works like a pocket to collect stuff – not good.</li> </ul>		
1	 <p>Most common donated mask. Used by many hospitals and offices as a “giveaway” to wear immediately.</p>	<ul style="list-style-type: none"> <li>• <a href="#">Utube</a> 3 min</li> <li>• <a href="#">PDF Basic Instruction</a> (2 pg)</li> <li>• <a href="#">PDF Instr Pictures</a> (10 pg)*</li> <li>• <a href="#">Original Blog with Comments</a></li> </ul> <p>Comment: Simple to make and like the ability to add/remove both the nose wire and filter</p> <p>Note: I created a <a href="#">4 pleat pattern</a> as the extra pleat seems to fit better on my particular face.</p>	<p>Surgical Mask <a href="#">Sarah Maker</a></p> <p>2 Layers of fabric 3 Pleat Surgical Mask Filter &amp; Nose Wire Option</p> 
	<b>FACE FITTING MASKS</b>	<b>Curved Front</b>	
2		<p><a href="#">Template &amp; Instructions</a> <a href="#">Utube</a> 25 Min</p> <p>Comment: Love the feel of this mask on the face, it’s the darts. I snipped a few stitches along top of mask and slipped in a nose wire under the tie/binding strip then re-stitched. Best shape if you will be putting an N95 mask underneath to extend the life of your N95 mask.</p>	<p>Face Fitting <a href="#">Riley Blake</a></p> <p>3 Layers of fabric Filter Mask Will cover N95 mask</p>
3		<p><a href="#">Template</a> (get via email) <a href="#">Utube</a> 11 min <a href="#">Designer Web-Site</a></p> <p>Comment: This mask was the easiest to breath through when a filter was sewn in between the outer/inner fabric. The filter created a stiff pocket in front of the nose stopping the fabric from being inhaled which can be a problem with all masks. I used Pellon Soft-N-Stay #380 as the non-woven filter – 3 layers.</p>	<p>Face Fitting <a href="#">Sweet Red Poppy</a></p> <p>2 Layers of fabric Nose Wire Multiple Sizes</p> <p>Also offers a 3 layer fabric surgical mask <a href="#">utube</a> with nose wire and filter option. Great design for the filter pocket with no raw edges.</p>

<p>4</p>	 <p>Inside View:</p> 	<ul style="list-style-type: none"> <li>• <a href="#">Template: Adult</a></li> <li>• <a href="#">Utube</a> Unity Point 18 min</li> <li>• <a href="#">PDF Instructions</a></li> <li>• <a href="#">Web-Site</a></li> <li>• <a href="#">Additional Utube</a> Faster 13 min – by <a href="#">She Can Sew</a></li> <li>• <a href="#">Template: Children</a> – She Can Sew</li> </ul> <p>Comment: Hair elastics easy on ears. Recommend fold elastic pocket to the OUTSIDE instead of inside. Have smooth on skin and rougher seam out. Not as pretty but more comfortable. This seems to be the most commonly requested fitted mask from hospitals.</p>	<p>Face Fitting <i>Olsen</i> <a href="#">Unity Point Health</a></p> <p>3 Layers of fabric Filter Mask Multiple Sizes via She Can Sew</p>
<p>5.</p>	<p>Do not have a picture. Similar to Sweet Red Poppy design.</p>	<ul style="list-style-type: none"> <li>• <a href="#">Utube</a> 12 min</li> <li>• <a href="#">Template</a></li> </ul> <p>Comment: I have NOT made this mask but added it for those who want to try one with a tighter fitting nose area. This pattern has added foam and uses bits of heat bond.</p>	<p>Face Fitting <i>The Best Fitting</i> <a href="#">The Sewing Channel</a></p>

	<b>FITTED FACE MASK</b>	<b>Individually Measure</b>	
6	<p>The Fabric Patch <a href="#">Covid-19 page</a> is a wonderful resource. Utube videos, material info, special instructions for medical personnel, and templates.</p> <p>(Being made to measure the Killion mask was the only mask that would fit my mom who has an elfin small face. I extended the sides ¼” and used the casement Olsen style to add hair ties for the ears).</p>	<ul style="list-style-type: none"> <li>• <a href="#">Templates MEASURE</a></li> <li>• <a href="#">Web-Site The Fabric Patch</a></li> <li>• <a href="#">Utube</a> (general info first 12 min of the 35 min)</li> </ul> <p>Comment: For home family masks this is the best fitting option for someone outside the “average” size. There is enough space between the nose and mask to allow better breathing in such a tight fit mask. Has deeper cut-outs under the eyes so less chance of fabric touching eyes.</p>	<p>Face <b>FITTED</b> Jesse Killion (Engineer) <a href="#">The Fabric Patch</a></p> <p>This is the only INDIVIDUALLY Sized, made to measure mask I found. Tightest seal/fit.</p> <p>18 SIZES, plus you can adjust</p>
	<b>OTHER MASKS</b>	<b>I Have NOT Tried These</b>	
7	<p><a href="#">Jen Reviews</a> published a comprehensive guide on how to make five types of DIY face masks at home on their sister site.</p>	<p><a href="https://happydiyhome.com/diy-face-mask/">https://happydiyhome.com/diy-face-mask/</a></p> <p>Comment: Great for making masks with “at home” items (t-shirts...).</p>	<p>Various Masks <a href="#">Jen Reviews</a></p>
8	<p>To make a Non-Woven FILTER MASK similar to N95</p>	<ul style="list-style-type: none"> <li>• <a href="#">WebPage</a> with utube (21 min) and template</li> </ul> <p>Comment: I liked the detailed info provided about filters and options for materials. This mask is past my skill set with an iron.</p>	<p>Homemade Version of N95 Mask <a href="#">Craig Turner</a></p>
9	<p>Gail Kollmar includes fabric research in her information and recommends “stretch chiffon” fabric (90% polyester 10% spandex) as safer (less porous). Her review advised one layer of stretch chiffon is better than 2 layers of cotton. <a href="#">Gail Kollmar</a> has a number of useful videos, <a href="#">best mask fabrics</a>, to <a href="#">customizing masks</a>.</p>	<ul style="list-style-type: none"> <li>• <a href="#">Utube</a> (19 min)</li> </ul> <p>Comment: Uses one layer from the <a href="#">Olsen pattern</a>. Stretch fabrics are usually for more experienced sewers. I’m not there yet so didn’t try. Gail’s instructions are excellent. This would be worth considering especially if making a mask for someone with a breathing problem.</p>	<p>Lighter Breathe Easy Mask <a href="#">Gail Kollmar</a></p> <p>1 Layer of Fabric, non cotton</p>

\* Thank-you to [SaraMaker.com](#) who provided permission for us to post our own version.

## **P.S. WHY SHOULD WE ALL WEAR A MASK?**

When my face is covered my germs cannot spread as far as when my face is not covered. Just sneeze into your bare hand and you will quickly find out how much gross stuff you catch (be sure to wash your hand afterward). Wearing a mask is a community service. You are not doing it for you, you are doing it to help protect others which eventually helps you. When all of us reduce how much of our germs we spread around by wearing a mask, then logically, there are less germs floating about to breath in. Not sure why doctors can't agree on this. Maybe the non-believers should try sneezing into their hands and then ask their friends if they can wipe them off on their faces... yuck!

Help yourself and your community – wear a mask outside your personal environment, stay 6 ft apart, and wash your hands often. Best wishes to all.

CatFish