Will homemade cloth face coverings protect against disease?

Handwashing remains a critical means of disease prevention for community members. When combined with physical distancing and proper face covering use, homemade cloth face coverings may help slow the spread of COVID-19 in a community. These face coverings limit the spread of germs from the wearer to others by helping block large droplets from coughs and sneezes.

It is important for people who choose to use these face coverings to understand what type of protection they offer. Homemade cloth face coverings aren’t as effective as clinical masks and offer limited protection for people in close contact with someone who is sick. Whether using cloth face coverings or not, always practice physical distancing, avoid touching your face, use good hygiene practices, and follow guidelines to safely use face coverings. Visit ProjectProtect.health to learn more.

What type of fabric works best for a homemade cloth face covering?

For homemade cloth face coverings, cotton or a cotton blend works best¹. The fabric in T-shirts and pillowcases are examples of this fabric. Wash your fabric before sewing.

Can I donate cloth face coverings to frontline healthcare workers?

Many healthcare facilities are accepting homemade cloth face covering donations. Before you sew face coverings to donate, find a recipient who agrees to take them. Ask hospitals, local governments, or community organizations who serve vulnerable populations if they want to receive and distribute homemade cloth face coverings. Finished face coverings should be sterilized before use.

What about giving cloth face coverings to family, friends, and neighbors?

If you are donating face coverings to family, friends and neighbors, they should be packaged in a paper bag and held for three days before being given. People receiving the face covering should carefully follow guidelines available on ProjectProtect.health for wearing and cleaning instructions before using.

How do I clean a cloth face covering?

Homemade cloth face coverings should be properly cleaned before they are used or reused. Launder the face covering in your washing machine in HOT water using soap or detergent that leaves no residue. Dry in HOT in your dryer.

How do I properly use a cloth face covering?

It is important to follow guidelines about how to put on and take off a face covering, what to and not to do while wearing it, and how to properly clean it. Visit ProjectProtect.health to learn more.

¹. Davies, Anna & Thompson, Katy-Anne & Giri, Karthika & Kafatos, George & Walker, James & Bennett, Allan (2013). Testing the Efficacy of Homemade Masks: Would They Protect in an Influenza Pandemic? Disaster medicine and public health preparedness. 7. 413-418. 10.1017/dmp.2013.43.
Assembly Guide

Preparation

Fabric

This face covering has two layers—the inner layer touching the face and the outer layer. The two layers can be made of the same fabric or different fabrics. Use 100% cotton or a cotton blend for the best filtration and breathability.

It takes two pieces of fabric about 14.5 in. x 7.5 in. (36 cm. x 18 cm.) to make one adult face covering (see Figure 1).

There are three sizes: Large, Medium, and Small. Patterns are available at the end of these instructions.

Ear Loop Material

Each face covering needs two strips for ear loops. Ear loop material should be less than ½ inch (1.25 cm) wide. Some options are elastic, elastic cord, string, ribbon, bias tape, or even shoelaces.

If using elastic, each piece should be 12 inches (35.5 cm.) long. For other materials each piece should be 15 inches (38 cm) long (see Figure 2).

Sewing Equipment

- Sewing machine
- Scissors or rotary cutter
- Thread
- Straight pins
- Safety pins

Work Area

Before you start sewing, ensure you are symptom free. Wash and sanitize your hands and your work area thoroughly with a disinfectant (it must indicate that it kills viruses) per the instructions on the label. Ensure there are no potential contaminants (e.g., pet hair, food, etc.) in the work area.
Assembly Guide
Sewing Instructions

Step 1—Cut out the two main face covering pieces.
- Fold the fabric in half. On the folded edge of the fabric, place the pattern edge marked “place on fold” (see Figure 4).
- Pin the pattern on the fold of the fabric and cut it out.
- Repeat step 1 to cut the second piece.

Step 2—Make the chin part of the face covering.
- Open one of the cutout face covering pieces. Fold it in half on the fold line, with the right sides inside.
- Sew along the chin seam, stitching 1/4 in (0.7 cm) from the edge (see Figure 5).
- If desired, press the seam to the side to help it lay flat.
- Fold and sew the second face covering piece in the same way.

Step 3—Join the inner and outer layers together.
- Lay the two face covering pieces on top of each other, with right sides of the fabric together (see Figure 6).
- Sew the two layers together across the top of the face covering, using a ¼ in (0.7 cm) seam.
- Sew the two layers together across the bottom of the face covering.
Step 4—Turn the mask right-side out.
• Press with an iron.

Step 5—Topstitch along the top and bottom edges.
• Keep your stitching close to the edges.
• Do not stitch across the sides of the face covering.

Step 6—Make the casing (a hollow channel) for the ear loop to go through.
On each side:
• Fold the raw side edges toward the inside of the face covering about ¼ in (0.7 cm) (See Figure 10).
• Then fold over again, about 5/8 in (1.5 cm).
• Pin in place and stitch as shown in Figure 11.

Step 7—Thread the ear loop through the casing along the sides of the face covering.
• Use a large-eye plastic needle or attach the end of the elastic to a small safety pin. Push the elastic through the casing on both sides of the face covering (see Figure 12).

Step 8—Make loops the right size.
• Tie the loop ends loosely. The wearer can adjust the length by tying a knot (see Figure 13).
Fabric and Notions Needed.

Fabric Quantity: 14.5 in x 7.5 in (36 cm x 18 cm).

The best fabric is cotton T-shirts, pillow cases, or other cotton material.

Notions: Elastic, elastic cord, string, or ribbon [Loop material must be less than 1/2 in (1.25 cm) wide].

Sew with 1/4 in (6.3 mm) seam allowance.

When printed, this line should be 2 in (5 cm). Enlarge or reduce as necessary to ensure your pattern is accurate.
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