How to Make A Homemade Cloth Face Mask Work Better Based On Science

Remember: The COMBINATION of fit and filtration is the most important when wearing a mask¹! Wearing a homemade cloth mask does not provide complete protection. (Stay home!)

Wash your hands!²

When you put on or take off a mask, your hands touch your face. Any time you place your hands on your face, you can spread the virus from your hands to your face.

Wear it right!

- ° Remove when wet because moisture affects filtration³
- Distance yourself from people³ (stand back when someone coughs; side-step the direct spray)
- Consider using a pantyhose tube (open on both ends) to hold the face mask in place to prevent air leakage¹⁰ (which also adds another layer of fabric)

Design

- Create a snug mask that fits around the nose and mouth for either kids or adults^{3,4} Most particles enter from a loose seal on the face, not the filter⁵
- Do NOT use a rectangular shaped design with loops that connect behind the ears because they do NOT filter air pollution particles well⁶
- Know that any mask is better when the seal on the face is good⁷
- ^o Use a cone or tetrahedral shaped pattern because it filters the most air pollution particles⁶

If you have to create a rectangular design:

- ^o Use pleats to improve filtration efficiency⁸
- Create a mask that extends far back over the cheeks and under the chin to prevent leakage⁸

Fabric

- Researchers have different opinions about which type of fabric to use. Consider using:
 - ^o Hanes sweatshirt material⁹
 - Tea towel¹
 - 100% cotton t-shirt⁴ (remove when moist)
- ^o Use multiple layers of fabric³
- Use a soft fabric because stiff materials may leak more organisms around the edges of the mask⁸
- ^o Select a fine fabric with a tight weave³

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