Q&A with Suraj Sharma
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Why did you decide to study this?

There has been a tremendous amount of conflicting information put out in recent months on face coverings, leading many people to believe that gaiters provide little to no protection, relative to masks. This didn’t make sense to us. The type of material and number of layers should determine the efficacy of a face covering more so than the form factor. We wanted to put that thesis to the test.

Were you surprised at your findings?

The results that gaiters can provide a similar level of protection as CDC-recommended masks was consistent with our expectations. However, we were somewhat surprised to see the multi-layer gaiters provided by MISSION performed so much better than the masks we tested (96% reduction in respiratory droplets vs. 81). It was clear from the results that whether a face cover loops behind your ears like a mask, or goes around your head like a gaiter, the reduction in respiratory droplets is driven by the material and the number of layers used, rather than the form factor of a mask or gaiter. Moreover, this study was based on speaking mode. We didn’t simulate someone coughing harder. More research needs to be undertaken to simulate various situations, including fit.

What do you think about neck gaiters being banned in some areas?

I think it’s very unfortunate. Fighting this pandemic requires us to encourage everyone to wear face coverings. Protection is not driven by the form factor. The most important drivers appear to be the number of layers and the quality of the material – not whether it’s in the form of a gaiter or a mask. It is important to use double or multi-layered gaiters.

What about the CDC saying that it doesn't recommend the use of them?

It is my understanding that the CDC is simply saying that they can’t recommend gaiters yet, because they haven’t received enough data. This is partly the reason why we wanted to study their effectiveness and ensure there is as much evidence-based information in market as possible for the public. Again, the issue isn’t gaiter vs mask. It’s all about the type and number of layers of material. Many gaiters are single layers of fabric, but they can easily be folded up to create 2 or 3 layers, making them as good, if not better, than standard 2-layer masks.

If someone wants to buy a neck gaiter, what should they look for?

My recommendation would be to purchase a high quality gaiter that is either long enough to be folded up to create two layers or is constructed with multiple layers.