FREE WEBINAR

Date: Tuesday, Sep. 29th

Time: 11:30AM – 1:00 PM

Location: Webinar (Zoom)

Price: $0.00 (FREE)

Registration:
Registration is available online through our website. It is secure, quick, and easy.

Click link below to register.

Register for Webinar

Abstract
Mandates for mask use in public during the recent coronavirus disease 2019 (COVID-19) pandemic, worsened by global shortage of commercial supplies, have led to widespread use of homemade masks and mask alternatives. It is assumed that wearing such masks reduces the likelihood for an infected person to spread the disease, but many of these mask designs have not been tested in practice. We have demonstrated a simple optical measurement method to evaluate the efficacy of masks to reduce the transmission of respiratory droplets during regular speech. In proof-of-principle studies, we compared a variety of commonly available mask types and observed that some mask types approach the performance of standard surgical masks, while some mask alternatives, such as neck gaiters or bandanas, offer very little protection. Our measurement setup is inexpensive and can be built and operated by nonexperts, allowing for rapid evaluation of mask performance during speech, sneezing, or coughing.

Source:
Science Advances 02 Sep 2020:
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Link

The American Society of Safety Professionals presents

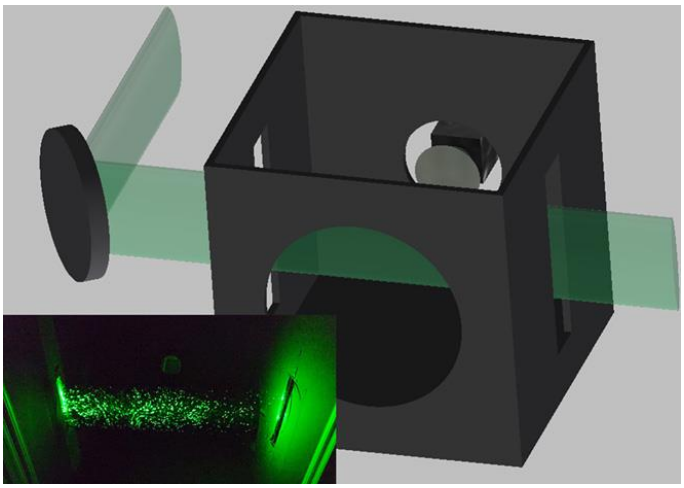
Determining Facial Covering Efficacy

With the help of Dr. Martin Fischer, Duke University, who published the paper, "Low-cost measurement of face mask efficacy for filtering expelled droplets during speech" (Duke University Paper), the Great Plains Chapter has sponsored the development of a similar testing chamber.

This presentation will **demonstrate the test method used to quantify efficacy of different facial coverings.**

Presenters: Doris Burns, MPH, CSP, EurOSHM, Chris Kerber, UNMC Professor Chandran Achutan, PhD, CIH and UNMC Students

Facial Covering Testing: The test method demonstrated during this presentation will be made available to our Great Plains Chapter members (in exchange for a nominal donation to the Chapter) so they can have their facial coverings tested. Please keep in mind that this is NOT a certified test method, only an indication of efficacy and no inferences are made as to the ability of facial covering to prevent or protect anyone from disease. Details to be provided during the presentation.



Schematic of Experimental Setup:

A laser beam is expanded vertically by a cylindrical lens and shined through slits in the enclosure. The camera is located at the back of the box, with a hole for the speaker in the front. The inset shows scattering for water particles from a spray bottle with the front of the box removed. Photo credit: Martin Fischer, Duke University.