Facemasks and Virus Protection

To the Conservation and Cultural Heritage Community,

First, our primary message to conservators and the cultural heritage community is that the best way we can protect ourselves and our coworkers from getting the coronavirus (COVID-19) is to stay home, practice social distancing, and utilize good hand hygiene.

Also, we would like to commend you on your ingenuity and volunteer spirit concerning the lack of personal protective equipment (PPE) for our brave healthcare workers helping those infected with coronavirus. To ensure that we keep everyone safe, our message aims to educate people and clarify points about face masks and protecting yourself and others against the virus.

The AIC Health and Safety Committee does not recommend that you make your own face mask or wear a surgical face mask to protect yourself against coronavirus infection, as it will not prevent the inhalation of the virus. It is also important to note that the Centers for Disease Control (CDC) guidance on reusing respirators, using expired respirators, or making homemade face masks is for healthcare settings only during this pandemic, not for other settings.

When supplies run low, healthcare facilities will be looking first to extended use or limited reuse of respirators, per CDC guidance, to deal with shortages, not homemade face masks. Unfortunately, homemade face masks provide little to no protection from inhaling viruses.

For those that want to help healthcare workers, we would recommend donating any N95 respirators and other relevant personal protective equipment (PPE) that you are not using or can spare at this time. If you have expired N95 respirators, these can also be donated, as the CDC is allowing healthcare workers to use these to help cope with severe shortages. In addition to donating PPE, there are organizations that are accepting financial donations to help support families and healthcare providers affected by COVID-19, such as the United Way of New York City, the University of California San Francisco, and Atlanta’s Grady Hospital; or at the national level, consider donating to the United Way’s COVID-19 Community Response Fund. If you want to do something for your local health care center, consider contacting their administrative offices (procurement officer or supply chain manager) first or checking online to see what donations of proper PPE they may need. If local healthcare facilities are asking directly for sewn masks and gowns and you are able to assist with the request, then do so.
Face Masks vs. Respirators

The AIC Health and Safety Committee is concerned about misinformation with regards to the use and home manufacture of face masks, and the continued confusion of face masks with respirators. We are providing some information here that hopefully will help clarify face mask and respirator use, along with their limitations for infection control, so our community can make better informed decisions when it comes to protecting their health.

Example of a surgical face mask

The DIY mask fabric patterns that have been circulating are best classified as face masks, not respirators. Food and Drug Administration (FDA)-approved face masks are used as barrier protection to protect the wearer from large droplets/splashes or to prevent the wearer from spreading large droplet aerosols from their cough or sneeze. They do not protect the wearer from inhaling viruses or other small particles that can enter a person’s respiratory system. As face masks are not respirators, fit testing is not required by the Occupational Safety and Health Administration (OSHA) for the worker wearing one.

Example of an N95 respirator

N95’s (filtering facepieces) are respirators. They are certified by the National Institute for Occupational Safety and Health (NIOSH) to provide respiratory exposure protection for the wearer by filtering at least 95% of 0.3 micron or larger inhaled particles, such as dusts, mold, pollen, and some bacteria and viruses. They do not filter out gases or vapors. They are used in many workplace settings including hospitals for the care of infectious patients. OSHA requires that workers be fit tested when they are required to wear them. These respirators can be worn for protection against coronavirus infection; however, these are in short supply. The AIC H&S Committee recommends that you
follow CDC guidelines on staying home, social distancing, and hand hygiene to help reduce the number of infections and preserve these respirator supplies for healthcare workers. If you have these on-hand, consider donating them to a local hospital.

Example of a surgical N95 respirator

A surgical N95 is another type of respirator that is FDA-approved, and NIOSH certified for use in hospital settings when caring for infectious patients, especially in operating rooms and intensive care units. It provides the same protections as an N95 respirator with the additional benefit of protecting the wearer from biological fluid spray or spatter. OSHA requires that workers be fit tested when they are required to wear these. These can also provide protection from coronavirus infection. Again, if you have any of these on-hand, consider donating them to a hospital.

For more information on the difference between surgical face masks and N95 respirators, please see this PDF from the CDC: https://www.cdc.gov/niosh/npptl/pdfs/UnderstandDifferenceInfographic-508.pdf

Again, no face mask or respirator is a substitute for practicing social distancing, staying home if you are in a vulnerable group, or practicing good hand hygiene currently. So, keep singing that 20-30 second song of choice when washing those hands!

We hope that you and your loved ones stay safe and healthy.

On behalf of the AIC Health and Safety Committee,

Tara Kennedy, Chair & Kimberly Harmon, CIH, Smithsonian Institution, with assistance from Kathy Makos, MPH, CIH; approved by the AIC Board 3/27/2020