

## Researchers Trial Masks as Bush Smoke Shields

People with asthma will be donning face masks this bushfire season to test whether COVID-19-type coverings can also protect vulnerable lungs from smoke.

Respiratory experts at the Woolcock Institute of Medical Research in Sydney along with colleagues at UNSW are investigating whether surgical or respiratory masks offer better protection from smoke than staying indoors. Researchers are recruiting 300 NSW, Victoria, SA, Tasmania and ACT residents with asthma or the smoking-related condition chronic obstructive pulmonary disease (COPD) to establish new recommendations.

“People with these conditions are more vulnerable to the effects of bushfire smoke, but there’s never been any research to help us say conclusively whether a mask would help,” says Professor Guy Marks, Woolcock epidemiologist and an investigator on the study. “With this work, we’ll get a much better idea of what we should be recommending.”

Almost 7.4 million Australians live with a chronic respiratory condition, according to 2017-2018 data from the Australian Institute of Health and Welfare. Asthma was the most prevalent, affecting one in nine people. A growing body of research shows bushfire smoke and debris trigger respiratory symptoms like wheezing, breathlessness, coughing or chest tightness. It is currently recommended that those with asthma and related conditions try to reduce exposure to smoke by staying indoors with the doors and windows closed.

The researchers will investigate whether masks could be a better option. Volunteers will be randomly selected to either stay indoors, to wear a standard surgical face mask or to wear a respirator-type P2 mask when air quality is poor. The surgical mask is similar to those routinely worn in the COVID-19 epidemic, while the P2 is more specifically designed to filter airborne particles and fits more firmly to the face.

“We’ll be asking that they follow their restrictions for up to four weeks over the hazard control burning period in September and October,” Professor Marks says. “Then they do it every day over December and January when bushfire risk is highest.” The trigger to wear the mask will be when the air quality is poor, or if there is a fire alert in their area. Researchers will also gather information about the participant’s health, wellbeing and exercise levels.

The project aligns with the Kirby Institute’s internationally-recognised research program on face masks. Professor Raina MacIntyre, Principal Investigator and head of the Kirby’s Biosecurity Research Program, says: “Applying this knowledge and expertise to this study on the impacts of bushfire smoke, we hope to provide guidelines to inform the use of masks to prevent smoke-induced illness.”

The project is a collaboration by The Kirby Institute, The Woolcock Institute of Medical Research, UNSW Sydney and Western Sydney Local Health District, and is funded by Medical Research Future Fund. For further information about the study visit <https://www.researchvolunteer.org.au/studylist/>

**To arrange an interview, contact Lucy Williams on 0403 753 028.**

### About the Woolcock

The Woolcock Institute of Medical Research is one of the world's leading respiratory and sleep research organisations. It has over 200 medical researchers working to uncover the causes of disease, find better treatments and translate these into practice.

**Woolcock Online**

**Facebook:** <https://www.facebook.com/WoolcockInstitute>

**Twitter:** @woolcockmedical <https://twitter.com/Woolcockmedical>

**LinkedIn:** <https://www.linkedin.com/company/woolcock-institute-of-medical-research>

**YouTube:** <https://www.youtube.com/channel/UCmnNGky3sGHsRtngCN1glsA>

ENDS