



FACE MASKS FOR THE PUBLIC DURING COVID-19

Covid-19: Important potential side effects of wearing face masks that we should bear in mind

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In their editorial Greenhalgh et al advise that surgical masks should be worn in public to prevent some transmission of covid-19,¹ adding that we should sometimes act without definitive evidence, just in case. Two side effects of wearing face masks in public have already been highlighted:

Wearing a mask may give a false sense of security and make people adopt a reduction in compliance with other important infection control measures¹

People must avoid touching their masks and adopt other management measures, otherwise masks are counterproductive^{2,3}

Other potential side effects that we must consider, however, are:

The quality and volume of speech between people wearing masks is considerably compromised and they may unconsciously come closer

Wearing a mask makes the exhaled air go into the eyes. This generates an impulse to touch the eyes. If your hands are contaminated, you are infecting yourself

Face masks make breathing more difficult.⁴ Moreover, a fraction of carbon dioxide previously exhaled is inhaled at each respiratory cycle. Those phenomena increase breathing frequency and deepness, and they may worsen the burden of covid-19 if infected people wearing masks spread more contaminated air. This may also worsen the clinical condition of infected people if the enhanced breathing pushes the viral load down into their lungs

The innate immunity's efficacy is highly dependent on the viral load.⁵ If masks determine a humid habitat where SARS-CoV-2 can remain active because of the water vapour continuously provided by breathing and captured by the mask fabric, they determine an increase in viral load (by re-inhaling exhaled viruses) and therefore they can cause a defeat of the innate immunity and an increase in infections.

The context of the current covid-19 pandemic is very different from that of the "parachutes for jumping out of aeroplanes."^{1,6} It is necessary to quantify the complex interactions that may well be operating between positive and negative effects of wearing surgical masks at population level. It is not time to act without evidence.

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Full response at: www.bmj.com/content/369/bmj.m1435/rr-40.

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