# MASK FACTS

## *Shawn Stevenson and the Model Health Show*

Shawn Stevenson is a bestselling author and creator of The Model Health Show, featured as the #1 Nutrition and Fitness podcast on iTunes.

The below list of points was taken from Stevenson's MASK FACT program and was compiled by Nature's Pantry. The video and all the many referenced studies can be found here: https://themodelhealthshow.com/maskfacts/.

Stevenson thoroughly argues against long term mask use citing dozens of clinical studies that point to masks being both ineffective and harmful to physical, mental and emotional human health. Many of the studies and health facts below have been said to have been "debunked." Yet, does their fact checking hold up to the same rigors of the studies below? You'll have to answer that for yourself. At best we have conflicting information and each individual needs the freedom to choose what is best for them.

While the main purpose of this list is not to argue the ineffectiveness of masks, but rather to argue the health damages from long-term mask use, the real world studies that demonstrate masks ineffectiveness are still worth considering. The first half of this list deals with mask ineffectiveness, while the second half of the list deals with potential health consequences of long term mask use.

- Masks have little effectiveness at slowing the spread of COVID-19. In their article, Masks-for-all for COVID-19 not based on sound data, Dr. Brosseau, a national expert on respiratory protection and infectious diseases, and Dr. Sietsema, an expert on respiratory protection, say "A cloth mask or face covering does very little to prevent the emission or inhalation of small particles. As discussed in an earlier CIDRAP commentary and more recently by Morawska and Milton (2020) in an open letter to WHO signed by 239 scientists, inhalation of small infectious particles is not only biologically plausible, but the epidemiology supports it as an important mode of transmission for SARS-CoV-2."

- A human hair is 80 micrometers wide. A bacteria cell is 2 micrometers wide. A virus particle is too small to be measured in micrometers. Virus particles are measured in nanometers and range in size from 17 to 140 nanometers. You can fit hundreds and even thousands of virus particles inside a bacteria cell. The conventional pore size of a conventional cloth or surgical mask are gigantic compared to viruses.

- Viruses are spread via aerosols and droplets that we all emit continually whether coughing, yelling or just breathing. Droplets are about 5 micrometers in diameter, this is large enough to get caught by the filtering action of a conventional mask when you cough or exhale. While droplets fall to the ground or evaporate within a few feet of a person, aerosols can travel substantial distances in the air. When we breathe, talk, cough or sneeze into a mask, we are all still spreading millions of virus and bacteria particles into our environment. It only takes one virus particle to infect someone.

- A randomized peer reviewed study published in the British Medical Journal looked at the efficacy of masks to prevent viral infections in hospital health care workers in 15 different hospitals. The study found that participants were statistically more likely to become infected wearing cloth masks than wearing a surgical mask or even no mask at all. This is not to say that wearing a face mask cannot be helpful in acute situations but being advised to wear a cloth face mask over the long term could be outright dangerous. The researchers stated that moisture retention and poor filtration may result in increased risk of infection with cloth masks and that cloth masks should not be recommended.

- A 2015 study conducted by scientists at Oxford University found that the accumulation of moisture during prolonged usage may exacerbate the problem of infection risk by increase the resistance to airflow. Moisture accumulation is also thought to facilitate the movement of contaminants through the material of the mask itself. This was confirmed not only with cloth masks but also with surgical masks.

- A meta-analysis of 19 randomized control trials published in the International Journal of Nursing Studies examined the effectiveness of masks in reducing infections in eight community settings, six healthcare settings and five as source control. The study concluded that medical masks were not effective, and cloth masks even less effective. What's less effective than not effective? LOL.

- A meta-analysis published in the Canadian Medical Association Journal that included six clinical studies and 23 surrogate exposure studies, the scientists found no significant statistical difference between N95 respirators and surgical masks in associated risk of laboratory confirmed respiratory infection or influenza like illness.

- The study that claimed that masks can reduce the spread of COVID-19 by 75%, was done with hamsters in two boxes with a hole cut out in between them. In one setup the hole was left open and in another it was covered by a mask. Unlike the previous mentioned studies, the hamster study doesn't exactly replicate a real world scenario. The real world studies show just how effective these masks actually are. Not speculating or making gross assumptions. This is how things work in reality. Even the very best mask does not consistently outperform the most useless mask, because the entire premise of a mask is ignoring the nature of how pathogens actually spread throughout the environment.

- But the ineffectiveness of masks is not the only issue. The health consequences of wearing a masks especially over long periods of time are alarming. A peer-reviewed study published in 2004, fitted patients with N95 masks and monitored the physiological impact the mask had on their bodies. 70% of the patients showed a significant reduction in partial pressure of oxygen (PA02), which reflects how well oxygen is able to move from the lungs to the blood. PA02 is usually reduced by severe illness, but in this case, it's being reduced by suffocating ones face with a mask. It's dangerous and a major component of hypoxemic respiratory failure.

- A study on the respiratory consequences of N95 masks on pregnant healthcare workers found that even during low-intensity activity, wearing the N95 mask reduced their normal volume of air displaced between inhalation and exhalation by 23%. The volume of gas inhaled or exhaled specifically from their lungs each minute was reduced by 25.8%. Their volume of overall oxygen consumption was reduced by 13.8%. The ability to expire carbon dioxide was reduced by 17.7%. And this was not after a prolonged period but only after low-intensity activity for 15 minutes.

- A study published in the Journal of Ergonomics found that even at low work rates wearing a mask contributed to significantly higher levels of C02 rebreathing with notable side effects such as dizziness, fatigue, headaches, and muscular weakness.
- Reduced levels of oxygen can damage your heart, lungs and brain.

- These effects are not just seen in N95 masks either. Another peer-reviewed study from 2008 reported that surgical masks induced deoxygenation of physicians in surgery. While another study conducted by the CDC revealed that by wearing a mask, the highly sensitive thermal nature of the face and breathing pathways can be inhibited leading to increased anxiety, elevated stress hormone, false suffocation alarm in the central nervous system and panic attacks. Even within minutes of putting on a mask dangerous effects begin to set in whether you realize it conscientiously or not, and the longer masks are worn the more devastating their affects can be. This should be particularly alarming to us as schools are requiring our children to wear masks for hours per day.

- This isn't just a physical health issue, this is a mental health issue as well. A study published in the Journal of Neuroscience affirmed how the brain immediately seeks out facial data to determine how trustworthy someone is and accordingly how safe or threatened we should feel.

- Instinctually and subconsciously when someone approaches us and we can't see their face, they pose an immediate threat. Sure we are getting used to it and we can consciously think its ok, but turning off our instincts and our sympathetic fight-or-flight nervous system isn't so easy.

- In developing children it's critical that they can see the faces of their peers as part of their mental and social development. As noted earlier, researchers have already documented a rise in child mental health issues resulting from the social lockdown. Some researchers have said that the full toll of COVID-19 on children's mental health won't be known for years.

- A study on the effects of wearing an N95 mask on heart rate, thermal stress and subjective sensations found that there is a micro-climate created within the mask that causes high breathing resistance making it difficult to breathe and take in sufficient oxygen. This shortage of oxygen hyper-stimulates the sympathetic fight-or-flight nervous system.
- Wearing a mask negatively effects your immune system. Scientists at the University of Edinburgh found that immune cells become overactive when oxygen levels are deranged and they respond excessively to infection in a harmful way.

- A study published in the Journal of Evolutionary Biology found that hyperactivity of the fight-or-flight nervous system does increase immune gene expression, but it does not increase in a way that helps to fight infection. The scientists noted that abnormal stress like what is caused by self-suffocation by a mask is not an adaptive immune response. A short burst of inhibited breathing will have a nominal impact on your breathing, but the longer a mask is obstructing your breathing, the more abnormal levels of stress hormones are produced and the more this activity becomes immunosuppressive.

- Researchers at RationalGround.com, a clearinghouse of COVID-19 data trends run by a grassroots group of data analysts, computer scientists, and actuaries, did an analysis of all 50 states divided by those that had mask mandates and those that did not from May 1 to Dec 13, 2020. According to their report there were an average of 27 cases per 100,000 people per day in states with a mandate in effect, and an average of 17 cases per 100,000 people per day in states without a mandate in effect. The researchers report this trend is consistent in urban and rural areas, when mask mandates were in place early, and when mask mandates were in place for long periods of time. In his article, Comprehensive analysis of 50 states shows greater spread with mask mandates: How long do our politicians get to ignore the results, Daniel Horowitz says, "We can turn the numbers upside down and inside out, but no matter how we examine them, there is no evidence of masks correlating with reduced spread. If anything, the opposite is true. And it sure as heck is not because of a lack of compliance."

We all have different bodies, different minds and we all have to learn about ourselves in order to make the best health choices for ourselves. Health freedom, the freedom to choose the health measures that are best for you and avoid the things that hurt you, is an important and inalienable human right. Mandated masks (and/or vaccines) at best threaten this freedom and at worst are a direct violation of it.