Face Masks: The Key into Stopping the Spread

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During this unforeseen pandemic, face masks have become a key part of our daily lives, with the majority of the population having to wear them for at least 8 hours daily. There are various types of different of face coverings, so which ones should the public really be wearing in order to stop the spread? This project tested 5 of the most common variations of face coverings, them being, a surgical face mask, a cloth mask, a sponge mask, a polyester mask, and a bandana mask. In order to test the effectiveness of each mask, I used the distance at which respiratory droplets travel without the protective barrier that masks provide, that distance being about 2 meters, and in a closed environment, I used fluorescent paint diluted in water with a spray bottle to simulate the nose and to provide consistent sprays to simulate sneezes. Each trial used a new mask, and each mask, minus the surgical mask, were washed and dried before the experiment only with the same types washing and dried together. The surgical mask restricted the distance traveled by the paint to 2cm or less while the bandana covering allowed the paint to travel 51 cm through it. The other masks yielded results that ranged between the results of the surgical mask and the bandana covering. This experiment supported my hypothesis of the surgical masks being the most effective at stopping the spread of respiratory droplets, which is essential in making sure that this novelty virus is controlled and contained.

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