

How Contaminating is a Cough?

Putting Masks to the Test

Sometimes seeing is believing. That's what Shannon Egli hopes when it comes to how contaminating a cough can be.

"It's just people learning about the bacteria that's in their environment and how it can affect them. And even though you can't see it, it's there," he said.

Egli is the anatomical coordinator at OSF [Jump Trading Simulation and Education Center](#). He is also an educator for Jump's online summer [STEAM at Home](#) courses.

These online classes expose budding scientists in 3rd-12th grades to STEAM (science, technology, engineering, and mathematics) education and hands on experiments at a distance.

Egli recently added a timely bonus video to the coursework – an experiment to see what grows from a single cough, first with and then without a mask.

"Because of the entire COVID-19 situation people are more conscious of microbes in the environment, and this lets them see what they can't see," explained Egli. "Sometimes we're afraid of what we can't see and we don't understand it. This is a way of actually seeing what things are, and understanding where they are around you, and then you can better control the situation."

For the experiment, 6-year-old Lily Crossett, donning a protective face covering, first coughed onto a homemade Petri dish. She then coughed on a second dish, this time mask-free.

Both Petri dishes were stored in a warm environment, along with a clean control sample. About a week later, the sample that endured a mask-free cough was growing mold, while both the control sample and the masked cough sample remained mold-free.

These findings go hand-in-hand with what the Centers for Disease Control and Prevention (CDC) has been advising for months – that cloth face coverings are a critical tool in the fight against COVID-19, and could reduce the spread of the disease.

There is increasing evidence that cloth face coverings help prevent people who have COVID-19 from spreading the virus to others. Egli agrees. When it comes to mask wearing, this experiment is a lesson for everyone to take to heart.

"I think the masks make a difference. It's kind of like smoking in a store or not wearing shoes in a store. It's just one of those basic courtesies to the other people around you, not just because of you, the whole world doesn't revolve around just this person. We are wearing masks because we're protecting other people around us, not just us," urged Egli.

You can learn more about Jump STEAM at Home and sign up to be alerted about upcoming classes and activities by clicking [here](#).