



How to Prepare for Flu Season

This week, we spoke to our chief medical officer, Dr. John Georgio, M.D., about flu. What preparations are necessary to be ready once flu season hits? How does it interact and relate with COVID? What can we expect from flu season this year? Let's get into it!

A Few Basics about Influenza (Flu)

The actual influenza virus has several different strains, rather than just one. This means there is a bit more for scientists and medical professionals to keep track of, but thankfully, they have the yearly process of doing so nearly perfected. Influenza is usually called the "seasonal flu" due to it changing from year over year. A particular strain of influenza that was prevalent in one year may not be very frequently seen in the year after. As a result, there is a large amount of research and preparation that goes into formulating a response to the flu every year.

How Do Scientists Prepare?

A key part of preparation for an oncoming flu season is to monitor how influenza strains are doing on the other side of Earth. Particularly, if you're trying to gather data early for an expected flu season and you live in the Northern Hemisphere (such as we do here in the U.S.), you would turn your attention to what's happening flu-wise in the Southern Hemisphere. The reason for this is that the seasons between the Northern and Southern Hemispheres are what you could call "opposites". When it is winter in one hemisphere, it's summer in the other, and vice versa.

Scientists in the Northern Hemisphere take note of influenza trends in the Southern Hemisphere during their flu season, which would be winter for them and summer for us. This allows them to get a bit of a jumpstart on planning for the upcoming flu season. Notably, the data gathered from the opposing hemisphere is used to determine what the top four strains of influenza are during the course of their flu season. This is perhaps one of the most crucial bits of information to gather, as scientists denote the top four strains and then begin to prepare a quadrivalent (meaning it tackles all four strains) vaccine for the upcoming flu season.

Do the Scientists and Medical Professionals Always Nail It?

The vaccine is prepared as according to trends from the opposite hemisphere and using the best available knowledge at the time of creation, but it's very possible that a strain or two that were frequently seen during a Southern Hemisphere winter might not be at all prevalent in a Northern Hemisphere winter that same year. However, this should not be taken at all as a sign of that year's flu vaccine being completely useless. In fact, regardless of what strains the vaccine focuses on, there is enough crossover in coverage between specific strains that the vaccine would be beneficial regardless. For example, a vaccine involving strain A would provide some modicum of protection against strain B, wherever the two may overlap genetically.

Do I Need to Get a Vaccine Every Year Then?

It's important to note that because of the possibility of different strains being prevalent each year, one should aim to get their flu vaccination every year, since the vaccine itself will likely be entirely different and better prepare you for the upcoming season. Vaccines also decrease in efficacy over time, so that's another major reason to make sure to schedule your yearly vaccination. You'll only need one vaccination per year for your best chance at coverage. In regard to when the "best" time is to receive your influenza vaccine, you should try to aim for early September to mid-October. Even if you're not able to make it within that timeframe, getting the vaccine at some point later is better than not having it at all. If you've had to wait until late November (around Thanksgiving), it's still very much encouraged that you go out and get your yearly flu vaccination.

Where Do Influenza and COVID Overlap?

Influenza is something that science has known about and been prepared for over the course of several decades, while COVID is still a bit more novel. However, because of all of the attention (and funding) within the past few years, our knowledge on COVID is quickly catching up to where our flu knowledge is. If the funding for COVID research slows down, it will likely also slow down the perfection of the COVID vaccination and treatment processes. In the future, it's predicted that the world will be dealing with COVID in a yearly manner similar to the flu, where you would get an annual COVID vaccination around the same time as your flu vaccination. It's thought to be possible that perhaps both vaccinations could be combined into one, but that aspect remains to be seen.

COVID and influenza coexist, which has caused our past few flu seasons to be lighter due to the prevalence of COVID. As of the time of writing this post, the current expectation is that this year will be an average flu season. Even if you live in a location where there is no true "winter" temperature-wise (as most of us Californians could definitely understand), there hasn't been any data to show that either COVID or influenza

are greatly affected by warmer temperatures. COVID has been seen to be a bit more resistant to weather conditions than influenza, but largely, there's not a huge difference in prevalence when changing the temperature of a climate by a few degrees. Instead, there's more difference found between two places of vastly different average temperatures and climates, like comparing a winter in Norway to a winter in southern California. This isn't to say that global warming will never have any measurable or meaningful effect on COVID and influenza, but that the temperature differences would need to be quite a bit more extreme in order to see much change.

All in all, flu season should not be a huge cause for concern for the average person. The best method is to be mindful of getting your annual flu vaccine in early Fall, as well as following all traditional basic "rules" of preventing the spread of sickness. Wash your hands, cover your cough, and don't go out to large gatherings if you feel under the weather. Together, we can all make flu season a breeze!