

Update on the Omicron Variant & Review of Mitigation Strategies for COVID-19

In the less-than-a-month since the Omicron Variant has emerged in North America, it has become the dominant variant in the US (currently > 73% of known COVID cases) and, while rapidly rising in Canada, Delta is reported to still be dominant there.

Since there has been so little time since the first case in the world was first identified, it is difficult to be scientifically sure about Omicron's traits and how it differs from previous COVID strains. Many scientists & public health authorities are studying Omicron, providing more and more data, and developing sound science in regard to it. However, much of it is still based on modeling and preliminary studies, from a few countries, that do lots of surveillance (S. Africa, Israel, Germany, UK) with more data & case studies being added from other countries including the US.

Why a paragraph to explain all that? It's important to realize that scientists & public health authorities are careful when they are asked questions about Omicron because many of their answers are very educated guesses, based on the limited data that they have. Most of them are quick to point that out. For example, early cases suggest that Omicron causes milder disease than Delta, with perhaps many individuals without any symptoms, while others have cold or flu like symptoms. Many of the cases studied in depth, have come from S. Africa where the population is young, healthy and widely either previously infected or vaccinated. **The question is whether those that are unvaccinated and with no previous COVID infection, or children, or those that can't mount an immune response, or have conditions that put them at risk for severe disease will also have no symptoms or mild illness? Or, will Omicron cause the same hospitalizations and deaths associated with earlier infection?**

We already know that it spreads much faster than previous strains and that it escapes a few COVID tests, as well as some previous COVID infections and vaccinations, even in some who are "fully vaccinated" and received boosters. Read the articles below for specifics on the differences seen so far in Omicron and the mitigations that are needed to try to contain it. Because, even IF Omicron is milder across the board, there is no guarantee that other mutations will not occur, and become more dangerous, as long as there is any replication of virus going on in any animal – human or otherwise. Remember, the Omicron virus has more than 50 different mutations, with around 30 on the spike protein alone. That's why the experts are so concerned that vaccines won't be effective enough, the virus will evade more testing or treatments, that it is able to travel farther in the air, won't need close contact, or 15 minutes of sustained contact in 24 hours to be transmitted.

Now, just a little more about those that cannot protect themselves well, at least up until now. Please read the first two blue starred links. One reminds you of how many people fit the category of immunocompromised and not able to mount an immune response against COVID (or any/many other germs), while the other category is the conditions adding to an increased risk of severe disease because of their heart disease, diabetes, obesity (even just a few pounds overweight), over age 60, 70, or 80, since each decade

add greater risk, the very young, which is typically up to 2 years old but, until vaccination is given to those less than 5 years old, will be included too. The second article is to remind you about older individuals. Your parents, grandparents, favorite boss or teacher. The list goes on, but you should read each of them for yourself, and think of all the family, friends, coworkers, as well as those that you may see in the grocery store, doctor's office, or apartment elevator, that may be in either group and at great risk. There are plenty of otherwise healthy people that have died of COVID, but the majority of them are in one of these two groups. And, you might not even know it.

Note: a ★ indicates an article that's important information in an easy-to-read format.

Individuals at Greater Risk for Severe Disease if Exposed to COVID-19

★ CDC – List of Medical Conditions that Increase Risk for Severe Disease (designed for the General Public; updated 12/14/21): <https://www.cdc.gov/coronavirus/2019-ncov/need-extra-precautions/people-with-medical-conditions.html>

★ The New York Times – *The Morning: Ready to Give Up on COVID? COVID's Risk to Older Adults*: <https://www.nytimes.com/2021/12/23/briefing/covids-risk-to-older-adults.html>

CDC – List of Underlying Medical Conditions at Increased Risk for Severe Disease and the Data behind It (designed for Health Care Professionals; updated 10/14/21): <https://www.cdc.gov/coronavirus/2019-ncov/hcp/clinical-care/underlyingconditions.html>

The Omicron Variant - The Known & the Not So Sure

CDC – COVID Data Tracker - Variants with Data & Maps: <https://covid.cdc.gov/covid-data-tracker/#variant-proportions>

★ Katelyn Jetelina – *Your Local Epidemiologist - Omicron Dec 22, 2021*: <https://yourlocalepidemiologist.substack.com/p/omicron-update-dec-22>

★ The Atlantic -- *Don't Be Surprised When You Get Omicron America is in for a lot more breakthrough infections. Here's what to do if you fall sick.*

by Yasmin Tayag: <https://www.theatlantic.com/health/archive/2021/12/omicron-breakthrough-vaccine-testing/621014/>

★ CDC – The Omicron Variant (12/20/21): <https://www.cdc.gov/coronavirus/2019-ncov/variants/omicron-variant.html>

CDC – Omicron & Delta Variants (12/13/21):

<https://www.cdc.gov/coronavirus/2019-ncov/variants/about-variants.html>

MMWR/CDC – Report on VOC Omicron for Dec 1-8, 2021 (12/17/21):

<https://www.cdc.gov/mmwr/volumes/70/wr/pdfs/mm7050e1-H.pdf>

Layered Protection - Things You Can Do to Help Prevent COVID Infection Protection

Face Coverings for Protection of Yourself & Others (see the last section for other links):

★ **NPR – *With Omicron, You Need a Mask that Means Business:***

<https://www.npr.org/sections/health-shots/2021/12/23/1066871176/mask-n95-omicron-contagious>

CDC -- *Science Brief: Community Use of Masks to Control the Spread of SARS-CoV-2* (12-6-21): <https://www.cdc.gov/coronavirus/2019-ncov/science/science-briefs/masking-science-sars-cov2.html>

FDA – Face Coverings FAQs for COVID-19 Mitigation:

<https://www.fda.gov/medical-devices/coronavirus-covid-19-and-medical-devices/face-masks-barrier-face-coverings-surgical-masks-and-respirators-covid-19#basics>

Journal of Exposure Science & Environmental Epidemiology – Effect of Beard Length with Different Face Masks as Protective Equipment during COVID-19:

<https://doi.org/10.1038/s41370-021-00337-1>

Other Mitigation (Protection) Strategies that Should Be Included in a Layered Approach:

These are the same layered strategies that have been identified, recommended, or even mandated, during certain behaviors (e.g., riding public transportation, in specific geographic areas, or by employers or other industries (i.e., a doctor's office, school building, or store).

Importantly, many of these strategies are practiced daily in homes/offices/businesses where not everyone is vaccinated, is eligible to be vaccinated, has a competent immune system, is as protected from severe illness, should they be exposed and/or infected with COVID-19.

Since Omicron is dramatically more infectious than even Delta, it is important to remind every person of each of these recommendations. **The first link is a general one which lists & briefly describes each mitigation and contains links to related infographics.** Subsequent links are provided for more detailed information on the listed topic.

★ **CDC – Protecting Yourself & Others (11/29/21):**

<https://www.cdc.gov/coronavirus/2019-ncov/prevent-getting-sick/prevention.html>

CDC -- Get Vaccinated (and Boosted):

<https://www.cdc.gov/coronavirus/2019-ncov/vaccines/index.html>

CDC -- Wear a Mask: https://www.cdc.gov/coronavirus/2019-ncov/prevent-getting-sick/masks.html?CDC_AA_refVal=https%3A%2F%2Fwww.cdc.gov%2Fcoronavirus%2F2019-ncov%2Fprevent-getting-sick%2Fdiy-cloth-face-coverings.html

Physical Distancing, Avoid Crowds & Poorly Ventilated Spaces:

Johns Hopkins Medicine – *Coronavirus, Social & Physical Distancing and Self-Quarantine:* <https://www.hopkinsmedicine.org/health/conditions-and-diseases/coronavirus/coronavirus-social-distancing-and-self-quarantine>

CDC – Ventilation at Home: <https://www.cdc.gov/coronavirus/2019-ncov/prevent-getting-sick/Improving-Ventilation-Home.html>

COVID-19 Testing:

CDC -- <https://www.cdc.gov/coronavirus/2019-ncov/testing/index.html>

Med Tech Dive—FDA Finds 3 COVID Tests that Fail to Find Omicron:

<https://www.medtechdive.com/news/fda-update-covid-tests-fail-detect-omicron-variant/611617/>

The Lancet – *Diagnostic Tests for COVID-19 – Moving from Pandemic to Control:*

[https://doi.org/10.1016/S0140-6736\(21\)02346-1](https://doi.org/10.1016/S0140-6736(21)02346-1)

Hand Washing & Sanitizer:

CDC -- <https://www.cdc.gov/handwashing/when-how-handwashing.html>

Cover Your Coughs & Sneezes:

CDC - https://www.cdc.gov/healthywater/hygiene/etiquette/coughing_sneezing.html

Cleaning & Disinfecting:

CDC – Your Home: <https://www.cdc.gov/coronavirus/2019-ncov/prevent-getting-sick/disinfecting-your-home.html>

CDC – Your Workplace & Other Spaces: <https://www.cdc.gov/coronavirus/2019-ncov/community/clean-disinfect/index.html>

Monitor for Signs & Symptoms of Illness:

CDC – Omicron (anecdotal/fully vaccinated):

<https://www.nbcnews.com/health/health-news/omicron-symptoms-covid-what-to-know-rcna9469>

CDC – COVID – Non-Specific: <https://www.cdc.gov/coronavirus/2019-ncov/symptoms-testing/symptoms.html>

What to Do If You Are Sick:

CDC - <https://www.cdc.gov/coronavirus/2019-ncov/if-you-are-sick/steps-when-sick.html>