

## Variants and Vaccines

### Variants of Concern (VOC)

Every time the COVID-19 virus replicates, it can change to a new form of the virus. Most often the changes are minor and don't affect how the virus infects people. Sometimes, however, the changes produce a form that is more contagious, more deadly, or with unique means of evading the immune system. We call these new forms "variants of concern" (VOC). The current VOC are not to be taken lightly: they are **56% more deadly**, cause **63% more hospitalizations**, and lead to **100% more ICU admissions** compared to the original strain of COVID-19.

Although discouraging, this "third wave" should be called a "first wave" of VOC. They are highly contagious and are very difficult to contain.

### What can you do?

- Take it seriously. Know the risks. Being young and otherwise healthy is no longer as protective as we thought.
- Get vaccinated at your first opportunity. Encourage those around you to get vaccinated.

### Vaccines

Health Canada has currently approved four vaccines for Canada: Pfizer, Moderna, AstraZeneca and Johnson & Johnson. Although there are differences between these vaccines, all are nearly 100% effective at preventing hospitalization and death from the original form of COVID-19. They also seem to work very well against B117, the prominent VOC currently in Canada.

### What about side effects?

Side effects are expected because we want our immune systems to be stimulated to make antibodies against this potential threat. The process releases chemicals that may cause fatigue, muscle aches, and headache. These minor side effects can be managed with fluids, rest, acetaminophen and time.

There are some rare undesirable side effects. These occur when the immune system goes into overdrive and starts to produce too many inflammatory compounds or antibodies. Thankfully these reactions are infrequent; nevertheless, they are worth mentioning.

- **Anaphylaxis:** In about 1 in 100,000 cases, an allergic reaction can occur, usually within the first thirty minutes post-vaccine. It is treatable with an EpiPen, and health care providers in vaccine clinics are prepared to deal with it. Worldwide, there have been no deaths from anaphylaxis.

- **Blood clots:** Clotting issues post-vaccination have been reported with the AstraZeneca vaccine. This has led to some pauses in its global rollout while the concerns are being investigated.
- The incidence of deep vein thrombosis (DVT) and pulmonary embolism (PE) appear to be the same for those with or without the vaccine. If you have a history of DVT or PE, you may still get the AZ vaccine.
- The concern with the AZ vaccine is a particular type of clot called VIPIT. The risk of this clot is between 1/125,000 to 1/1,000,000. This clot primarily affects women under 55 years of age, which is why AZ is only being offered to people over 55 years. For those of you over 55 years who are eligible for AZ, please remember that, if you get COVID, your risk of all forms of clotting (DVT, PE, heart attack, stroke) vastly outweighs the risk of VIPIT.

**Vaccination is the only way out of this pandemic.** When thinking about your risk of vaccination or your concerns about vaccination, remember that catching COVID has risks too. Furthermore, don't forget that life is not without risk every day: we do not stop riding our bikes even though our lifetime risk of death is 1/4919; we do not stop eating despite the 1/2,535 chance of choking to death; and we do not stop walking on the street despite a lifetime risk of dying of 1/556.

You can find everything you need to know about vaccines in Durham region at [COVID-19 Vaccines - Region of Durham](#). Keep an eye on this website daily to see when you are eligible based on your age, job, health risks, and living situation. Please consider helping elderly neighbours and friends to navigate booking their appointment.

Three pharmacies in Uxbridge— Pharmasave, Rexall, and Walmart—have now been approved to administer AstraZeneca vaccines to adults 55 years of age and over. Call or visit their website to book an appointment.

Presently, our family physician offices do not have vaccines.

This is our perspective. This is our reality. We hope these facts help you navigate the decisions you need to make in the coming months.

Happy Spring, Uxbridge!

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