

# Diphtheria:

## What you need to know

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### What is diphtheria?

Diphtheria is a contagious bacterial infection caused by strains of bacteria called *Corynebacterium diphtheriae*. The bacteria infect the upper airways of the respiratory system (nose and throat) and release a toxin that makes us sick. The bacteria can also infect the skin.

While diphtheria is rare in Canada, it is common in Asia, the South Pacific, the Middle East, Eastern Europe, and in Haiti and the Dominican Republic. **Death occurs in up to 1 out of 10 cases**, with most deaths occurring in very young children and elderly persons who are unimmunized.

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### What are the symptoms?

Symptoms of diphtheria include:

- mild fever,
- sore throat,
- weakness,
- loss of appetite,
- difficulty swallowing, and
- the presence of a thick grey-white coating that can cover the tonsils, tongue, throat, and tissue in the nose.

In severe cases, diphtheria can lead to heart and nerve damage, and can cause breathing difficulties and suffocation in young children. In cases where the skin is infected, rashes and ulcers may appear.

### How is it spread?



Diphtheria is spread through close contact with others, such as coughing or sneezing next to someone. It can also be spread through sharing personal items such as drinks, cutlery, and clothing.

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### Who is at risk?

Persons of any age can catch diphtheria. However, it is most serious in infants and very young children. In fact, **diphtheria used to be one of the most common causes of death in children under 5 in Canada**, until the introduction of routine immunization programs against diphtheria in the 1930s.

## Who should be immunized?

- Infants, children and adolescents, according to the childhood immunization schedule in their province/territory
- Adults who have not previously been vaccinated against diphtheria, or who have not been fully vaccinated against diphtheria
- Routine booster doses are required every ten years throughout the lifespan, with the first booster dose administered in adolescents at 14 to 16 years of age.

Publicly funded immunization schedules for diphtheria may vary between provinces and territories.

## Are you protected against diphtheria?

**Diphtheria vaccines are safe and the most effective way to protect against diphtheria infection.**

The diphtheria vaccine is combined with other vaccines – commonly tetanus and pertussis vaccines – which means that you get protection against multiple diseases in one shot.

Talk to your doctor, nurse, pharmacist or public health office about getting the diphtheria vaccine for you or your child.



**For more information, visit: [immunize.ca/diphtheria](https://immunize.ca/diphtheria)**

## Did you know?

The diphtheria vaccine is made using what is called a “toxoid”. Toxoids are created when toxins produced by bacteria are inactivated. The toxoid is the part of a vaccine that triggers your immune system to create protective proteins called antibodies. For the diphtheria vaccine, the diphtheria toxin is inactivated by scientists, and the resulting toxoid is used in the vaccine. The antibodies produced by this toxoid specifically target the diphtheria toxin, to protect you against this disease.

### References

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