THE IMPORTANCE OF **VACCINES**

Help protect yourself and others around you

Pfizer

The **Vaccinate Debate**

The amount of information about vaccines can be overwhelming. How do you know what information is correct?

We understand that you may have some concerns around vaccinating yourself or your child. By providing some background information and facts, we hope to help you sort through fact vs. fiction.

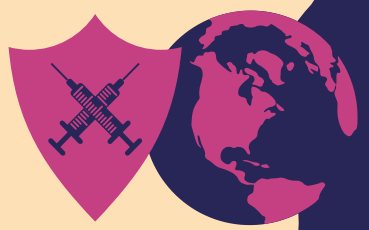
Some of the questions we hope to answer in this book:

- What are vaccines?
- What is immunity?
- Are vaccines safe?
- Can someone get sick from a vaccine?
- Do children receive too many vaccines?
- Are vaccines necessary?

An **introduction** to **vaccines**

Vaccines are used to prevent the spread of contagious, serious, and deadly diseases. Before the discovery of vaccines, people were at risk of catching and dying from many of these common diseases. Widespread use of vaccines has led to the decline and near disappearance of many diseases that existed in our grandparents' and great-grandparents' time.

Did you know? The first successful vaccine was discovered in 1796 for smallpox. During the 1900s, smallpox killed between 300 million and 500 million people around the world. After the vaccine was given to people around the world, smallpox eventually disappeared by 1980. It's the only disease to be completely eradicated, although other diseases, like polio, are nearly there.

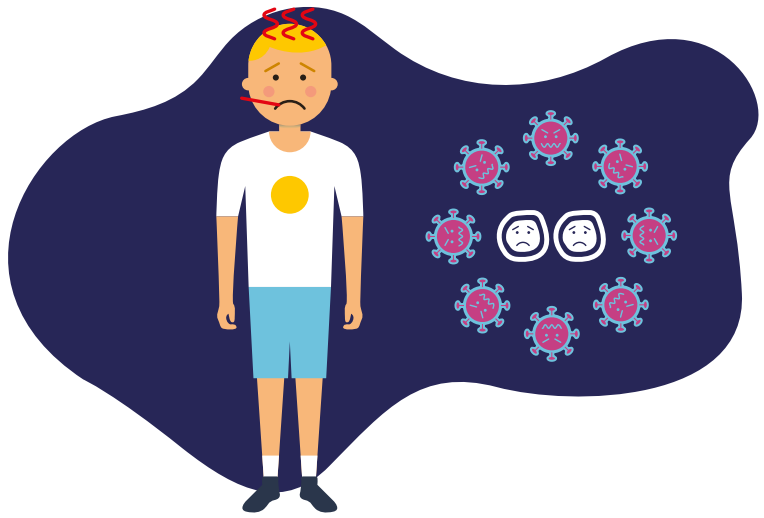


Vaccines help you to develop ***immunity*** against a disease by imitating the virus or bacteria ***without causing the disease itself.***

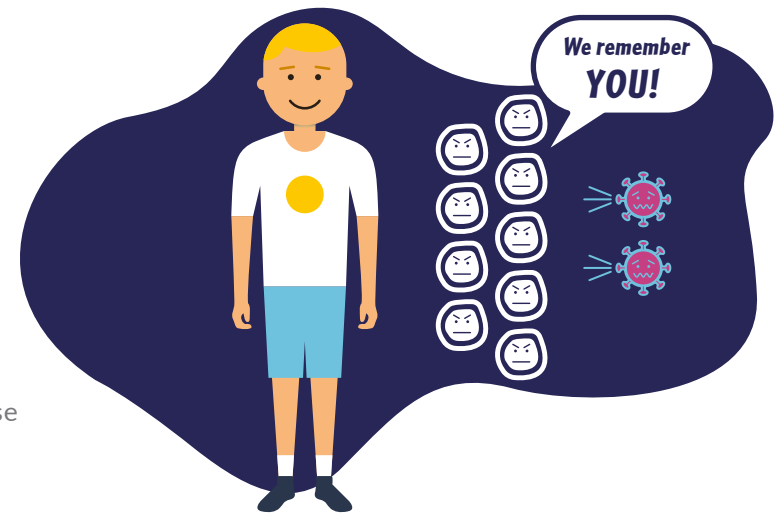
What does it mean to have immunity?

Immunity is the body's way of protecting itself from disease.

It's the job of the immune system to attack germs like viruses and bacteria to help prevent them from making us sick.



The ***first time*** you are infected with a specific germ, the immune system can't always work quickly enough to prevent it from causing disease, so you get sick.



If the same germ enters the body a ***second time***, the immune system now "remembers" that germ and can quickly fight it off to keep it from causing sickness again.

Vaccines are designed to help a person's immune system create that response at first exposure ***without*** having to get sick at all.

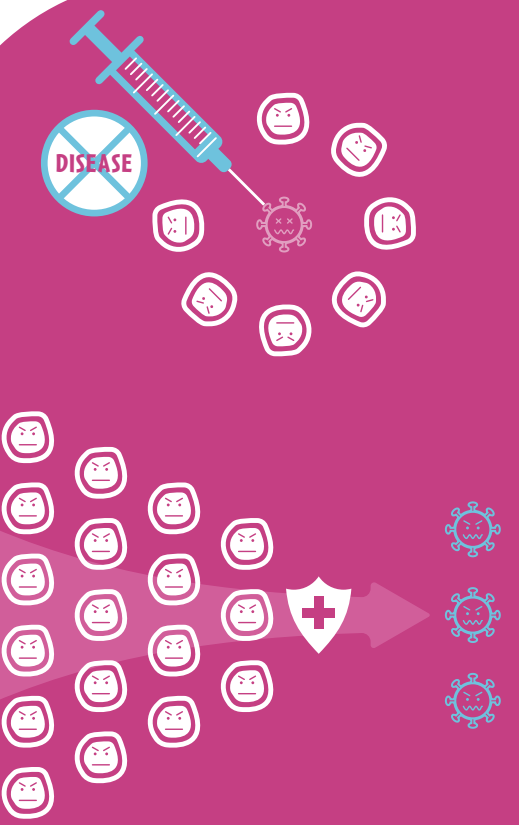
How do vaccines work?

Vaccines can be one of the most effective ways to prevent diseases. Several diseases that can cause serious complications can be prevented by routine childhood and adult vaccines.

Vaccines work by mimicking disease-causing viruses and bacteria in order to train the immune system to recognise and fight these germs.

Vaccines often contain a small amount, or even just a tiny part, of killed or weakened virus or bacteria, which is enough to stimulate the immune system but not enough to cause disease.

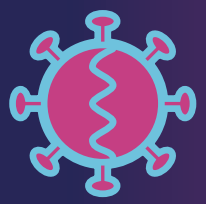
This prepares the immune system so that it can respond quickly and strongly if that virus or bacteria ever enters the body in the future.



Fact vs. **Fiction**

ARE VACCINES **SAFE?**

Vaccines go through careful evaluation by the TGA (Australia) and MedSafe (NZ) to show they're safe and effective prior to release to the public. But misinformation can raise concern among people. We explain why some common fictions aren't true.

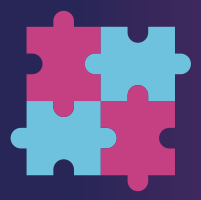


FICTION:
People can get sick from a vaccine.

People cannot catch the disease from the vaccine.

The small amount of germ or genetic code (called RNA) inside a vaccine is killed or weakened and cannot cause disease.

Because a vaccine stimulates the immune system, you may have a mild reaction (low-grade fever, redness, soreness) that goes away in 1-2 days.



FICTION:
Vaccines cause autism.

No scientific studies have found a link between vaccines and autism. The only paper that suggested a link was proven to be false.

FICTION:
Vaccines contain harmful ingredients.

Vaccines contain small amounts of substances that could be harmful in very large amounts, but the amount used in the vaccines is so small that they are not harmful.

All vaccine ingredients play a necessary role in activating the immune system and in making sure the vaccine is safe and effective.

FICTION:
A baby's immune system can't handle too many vaccines at once.

A baby's immune system is designed to handle much more than what's in a vaccine. Babies are naturally exposed to numerous bacteria and viruses every day.

Vaccines are just as safe when given in combination than when given separately. In fact, delaying vaccines puts a child at risk of catching preventable diseases.

Vaccines that are given together in one shot means fewer shots for the child!

Fact vs. Fiction

ARE VACCINES NECESSARY?

FICTION:
Children's immune systems will be stronger if they catch the disease naturally.

Natural immunity may last longer in some cases, but the risks of catching the actual disease, including the risk of death from some diseases, outweigh any benefits.

With a vaccine, a child develops immunity without getting the disease.

FICTION:
Certain diseases are so uncommon that we no longer need those vaccines.

Many diseases are uncommon in countries where the majority of people are vaccinated. However, those diseases aren't completely gone from the world and can be carried over by people travelling from other countries.

If too many people aren't vaccinated against a disease, that disease can spread and local outbreaks can occur.

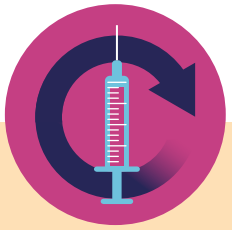
Did you know?
Measles was declared to be gone from the United States in 2000, but an outbreak occurred in a New York City community from September 2018 to July 2019 where over 600 children were infected. The outbreak, which began when an unvaccinated child returned from travelling abroad, affected mostly unvaccinated children in the area.

FICTION:
Vaccines are just for children.

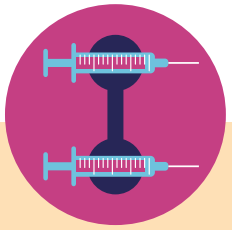
Vaccines are needed and are given when we need protection the most.

Certain vaccines, like the flu shot, are needed every year. Other vaccines, like tetanus, require a booster shot because the protection you received as a child can wear off with time.

Why do some vaccines require more than 1 shot?

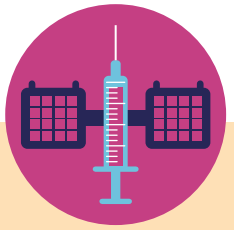


Some vaccines provide lifelong immune protection from a disease with a single shot.



Other vaccines require more than one shot to make sure you develop enough immunity to fight off the germ.

You may also need booster shots for certain vaccines because immunity can wear off over time. Booster shots help to restimulate, or retrain, the immune system.



In the case of the ***flu vaccine***, a shot is needed every year because the flu virus can change each year and immune protection weakens over time.

Vaccines aren't just for children

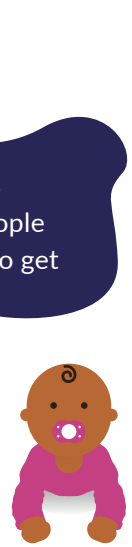
Although most vaccines are recommended during childhood, there are certain vaccines also recommended for adolescents, teens, and adults, such as the annual flu vaccine. You may also need to receive booster shots for certain vaccines as a teen or adult. Ask your doctor about what vaccines are recommended for you.

Have you heard of herd immunity?

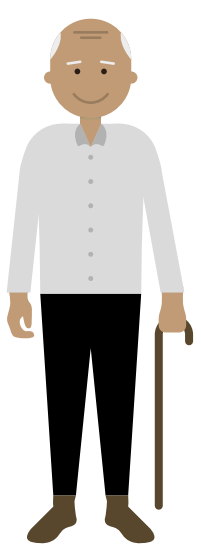
Getting yourself vaccinated protects not only yourself, but also the broader community.

If enough people are vaccinated against a certain disease, it will have difficulty spreading.

Herd immunity is important for people who aren't able to get vaccines:

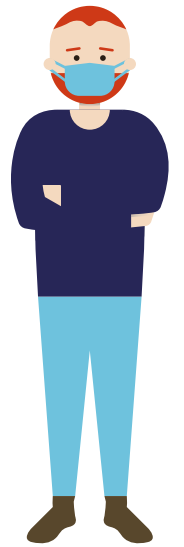


Young infants

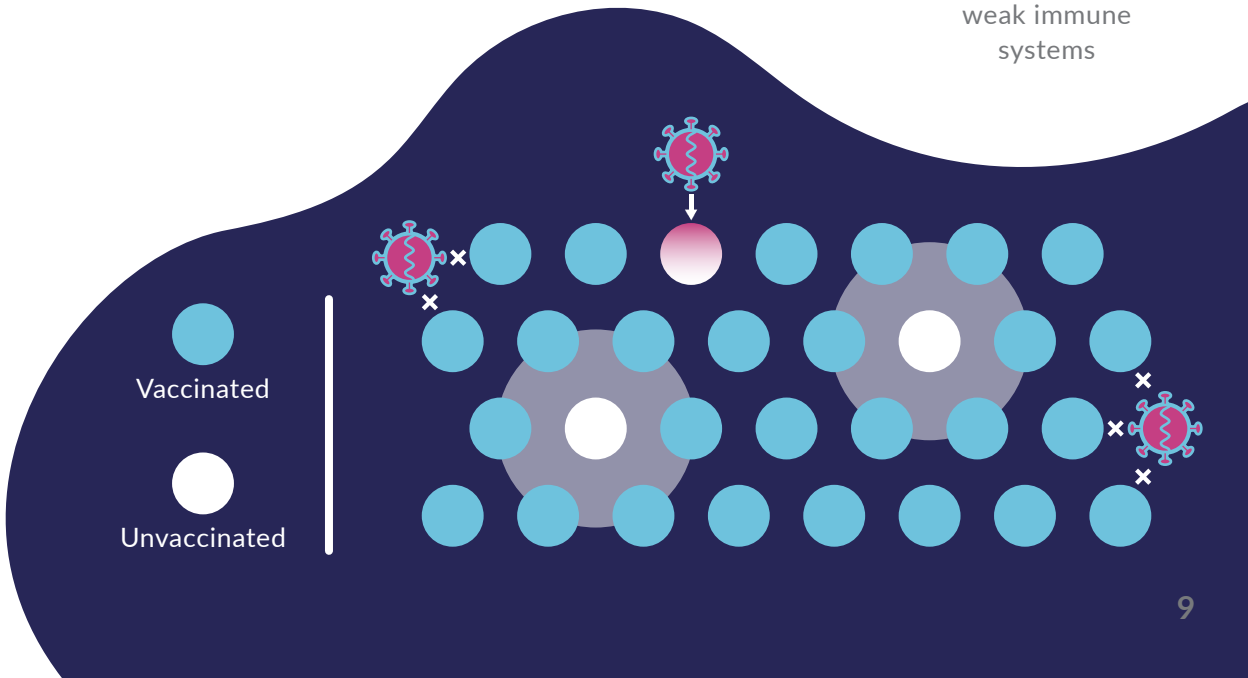


Elderly

Pregnant women and unborn babies



People with certain medical conditions or weak immune systems



Key Points

Vaccines are essential to preventing the spread of contagious, serious, and deadly diseases.

Vaccines help you develop immunity against a disease by imitating the virus or bacteria ***without*** causing the actual disease.

You ***cannot*** catch a disease from a vaccine.

No scientific studies have found a link between vaccines and autism.

If enough people are vaccinated against a certain disease, it will help to protect the people around them who aren't able to get vaccines.

If too many people aren't vaccinated against a disease, that disease can spread and local outbreaks can occur.

Additional Resources (AU):

Australian Department of Health
https://www.health.gov.au/health-topics/immunisation/about-immunisation/are-vaccines-safe

Immunisation Coalition
https://www.immunisationcoalition.org.au/

Additional Resources (NZ):

Immunisation Advisory Centre
https://covid.immune.org.nz/

National Immunisation Schedule Handbook
https://www.health.govt.nz/publication/immunisation-handbook-2020

Glossary

Antibody A protein made by cells of the immune system that binds to and destroys foreign substances, such as viruses and bacteria, in the body.

Booster An extra dose of a vaccine needed to reactivate the immune system to maintain immunity against a disease.

Contagious Means that a disease can spread from one person to another.

Epidemic An outbreak of disease that spreads quickly and affects many people at the same time.

Immune System The body's defense system against foreign substances like viruses and bacteria.

Immunity Protection from a contagious disease. If you are immune to a disease, you can be exposed to it without becoming sick. People can develop immunity by getting infected or through vaccines.

Immunisation The process of becoming immune, or protected, against a certain disease through vaccination.

Infection Is when germs invade and grow in the body, causing harm and sickness.

Outbreak A sudden increase in the occurrence of a disease beyond what is normally expected.

Pandemic Occurs when a disease for which people have no immunity has spread to different countries all over the world.

Vaccines The most effective way to prevent contagious diseases. They contain a tiny portion of killed or weakened germs to train your immune system to fight the germs if you are exposed to them in the future.

Vaccination The process of receiving a vaccine into the body with the goal of producing immunity against a certain disease.

Talk to your doctor for more information on vaccines.

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