



# Vaccines — myths and facts



Immunisation is one of the safest and most cost-effective ways to end vaccine-preventable child deaths.  
Picture: <https://www.unicef.org>

**W**E have all experienced it in our childhood, receiving vaccinations at school from a young age, leaving a small mark or scar on our upper arm or deltoid.

We have the benefit from the Public Health Immunisation program that provides immunity from most diseases, but ensuring security from diseases such as smallpox that have plagued and almost eradicated populations in the past.

While this extreme may not be probable in the present, the minority of people who refuse vaccinations only increase the chances of diseases spreading, especially to our youngest members of society and has in extreme cases, the ability to develop into a mass epidemic.

**History of vaccines**  
According to the CDC, during an outbreak of smallpox in England in the late 1700s the concept of a vaccine was theorised and successfully administered by Dr. Edward Jenner in 1796.

Touring his theories into facts and successfully inoculating the working class, he documented and published his findings in his book *On the Origin of the Vaccine Inoculation*.

This led to the development of many other vaccines and global campaigns to inoculate the populous. Below are some common vaccine preventable diseases;

- Smallpox;
- Influenza;
- Measles;
- Mumps;

- Chickenpox;
- Tuberculosis;
- Typhoid;
- Yellow fever;
- Meningococcal;
- Hepatitis;
- Tetanus;
- HPV;
- Shingles; and
- Whooping cough

In Fiji, BCG injection initially faced lot of resistant from the communities when the immunisation program was introduced.

The vaccine was introduced to reduce the number of Tuberculosis incidence and death associated with TB.

Today, it is evident by the number of TB incidence and death associated with TB had drastically reduced.

It not only has proven itself effective, but accepted by the communities and people.

**Misconceptions about vaccines**

Currently there is a small movement overseas, referred to as “Anti-Vaxxers” or people opposed to vaccines and prefer to have the choice to refuse immunisation and not to have the government force vaccines on individuals, especially children.

This preference is not due to ignorance of vaccines or the evident history of its benefits, but misconceptions and misinformation spread by misguided politicians, public figures and of course the internet.

Some common misconceptions are that pharmaceutical companies invented the idea to make

money or that vaccines cause autism or that natural immunity is better or that the actual diseases preventable by vaccines are not as serious as purported by an exaggerating media or that all vaccinated people are also affected during an outbreak.

**Outbreak of eradicated diseases**

This is evidently the cause of a Measles outbreak in the US.

According to the American CDC, Measles were considered eradicated in the year 200, where the last known outbreak occurred in the mid 1990s, however, as of January to May, 2019, there have been 880 reported cases and rising, surpassing all reported cases in the 1990s.

If such trends continue more diseases once thought eradicated have the potential to spread to a global stage as not all countries vaccinate against all diseases, only those prevalent to that country or region.

**Facts about vaccines**

**Myth 1:** Vaccines contain many harmful ingredients.

**Fact:** Vaccines contain ingredients that allow the product to be safely administered.

Any substance can be harmful in significantly high doses, even water.

Vaccines contain ingredients at a dose that is even lower than the dose we are naturally exposed to in our environment.

**Myth 2:** Vaccines cause autism and sudden infant death syndrome (SIDS).

**Fact:** Vaccines are very safe.

Most vaccine reactions are usually temporary and minor, such as a fever or sore arm.

It is rare to experience a very serious health event following a vaccination, but these events are carefully monitored and investigated.

You are far more likely to be seriously injured by a vaccine-preventable disease than by a vaccine.

For example, polio can cause paralysis, measles can cause encephalitis (inflammation of the brain) and blindness, and some vaccine-preventable diseases can even result in death.

The benefits of vaccination greatly outweigh the risk, and without vaccines many more injuries and deaths would occur. There is no evidence to link vaccines as the cause of autism or SIDS.

**Myth 3:** Vaccine-preventable diseases are just part of childhood. It is better to have the disease than become immune through vaccines.

**Fact:** Vaccine-preventable diseases have many serious complications that can be avoided through immunisation. For example, more than 226,000 people are hospitalised from influenza complications including 20,000 children.

About 36,000 people die from influenza each year. Vaccines stimulate the immune system to produce an immune response similar to natural infection, but they do not cause the disease or put the immunised person at risk

of its potential complications.

**Conclusion**

Vaccination has achieved much since the original work of Jenner 200 years ago, and many new vaccines are likely to be developed within the next decade, including some directed at non-infectious diseases.

Which of these new vaccines are cost effective and affordable is likely to generate much debate.

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