4.7: Vaccine Facts

It is important for health professionals to equip themselves with the correct information about vaccines and vaccine safety. Table 4.7 provides quick facts for health professionals to promote evidence-informed discussions about vaccine safety.

**Table 4.7: Quick Facts for Vaccine Safety**

<table>
<thead>
<tr>
<th>Quick Fact</th>
<th>Description</th>
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| Vaccines are the most effective way to protect against vaccine-preventable diseases. | • Vaccines protect individuals and communities, especially people who are unable to receive vaccines due to medical conditions or age.  
  • Vaccines are a cost-effective strategy.                                    |
| Vaccines train the immune system to defend rapidly against vaccine-preventable diseases. | • Children are naturally exposed to many antigens; vaccines do not significantly add to their daily exposure.  
  • Vaccines help the body develop defenses against serious diseases.             |
| Vaccines are safe.                                                         | • Vaccines have been extensively tested in Canada.                                                                                    |
|                                                                           | • Health Canada supervises all aspects of vaccine production by manufacturers to ensure safety, efficacy, and quality.  
  • Vaccines are rigorously monitored after being authorized for                  |
Every batch of vaccine is tested for safety and quality.

Canada has a comprehensive vaccine safety monitoring system to alert public health to trends in reporting adverse events following immunization.

Ongoing quality and safety monitoring occurs after vaccines have been administered.

Serious adverse events are rare and are outweighed by the risk of the diseases and their complications.

Effective treatments for many vaccine-preventable diseases such as polio do not exist.

Most adverse events are minor and resolve quickly (e.g. injection site reaction).

Vaccine recipients are observed for 15 minutes to watch for signs and symptoms of adverse reactions.

There is no evidence that any vaccines cause chronic illnesses. This has been tested in large population studies and continues to be studied.

Evidence has shown that multiple injections at one visit cause less pain, discomfort, and disruption than waiting several days between vaccines.

Generally, infants have similar immune responses whether vaccines are given at the same time or different visits.

Even if a disease is uncommon in Canada, it can be imported from other countries to Canada by travellers. For example, outbreaks of measles in Canada continue to occur from importation of measles cases abroad.

It may not be possible to avoid exposure to a vaccine-preventable disease. For example, an unvaccinated person can get measles by breathing the air in a room that was occupied hours before by a measles-infected person.

The risks of vaccine-preventable diseases are many times greater than the risk of serious adverse reaction following immunization.

Vaccines are not linked to chronic conditions like autism, multiple sclerosis, asthma, or sudden infant death syndrome.

Multiple injections are an effective way of ensuring up to date immunization.

Vaccine-preventable diseases can occur at any time.

Unvaccinated people have a much greater chance of getting a vaccine-preventable disease.
Vaccine-preventable diseases re-appear quickly if immunization coverage drops.

- There is potential for re-emergence of vaccine-preventable diseases when vaccine coverage rates are low.

Vaccines may contain additional substances to ensure effectiveness and safety. These substances are safe.

- The main ingredients of vaccines are killed or weakened viruses or bacteria or their parts. Parts are called antigens and they train the immune system to recognize and prevent disease.
- Additional substances may be required in the vaccine to ensure effectiveness and safety.
- Very small amounts of preservatives, such as phenol, 2-phenoxyethanol, or thimerosal, may be added to a vaccine to prevent the growth of other disease-causing microbes in the vaccine when it is used.

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