



## IMMUNIZATION - TALKING SHEET

<p><b>Infectious diseases</b> have plagued humans since the beginning of known history from childhood diseases like measles and mumps to the Bubonic Plague to Covid 19. These diseases have been responsible for millions of deaths and disabilities. For about 500 years there have been attempts to immunize people to help them lessen or prevent these diseases. In Canada, we have around 20 diseases that are classified as vaccine preventable diseases.</p>	<p><b>Vaccine Preventable Diseases</b> - In Canada, the diseases that are identified as “Vaccine Preventable Diseases” include – Cholera, Diphtheria, Haemophilus Influenza Disease, Hepatitis A, Hepatitis B, Human Papillomavirus (HPV), Influenza, Invasive Meningococcal Disease, Invasive Pneumococcal Disease, Japanese Encephalitis, Measles, Mumps, Pertussis (Whooping Cough), Poliomyelitis (Polio), Rabies, Rotavirus, Rubella (German Measles), Shingles (Herpes Zoster), Smallpox, Tetanus, Tick-Borne Encephalitis, Tuberculosis, Typhoid, Varicella (Chickenpox), Yellow Fever. Canada has not yet added Covid 19 to this list although vaccines have been developed and used recently.</p>
<p><b>Vaccine History</b> - In the 1600’s, Buddhist monks in China would suck out venom from poisonous snakes to become immune from their bites. In 1721, Lady Mary Wortley Montagu brought smallpox inoculation to Europe asking for her daughters to be given a vaccine derived from cowpox. She had seen this done in Turkey and wanted protection for her children. Over the next centuries, other vaccines were developed and refined to aid in helping to prevent over 20 diseases across the world and research continues today.</p>	<p><b>Seniors Immunization</b> - For seniors, Canada has identified 5 vaccines that are recommended to maintain immunization status for diseases that need attention through their life or need to be added since they affect senior’s health more adversely as they age – Shingles, Pneumonia, Influenza, DTP (Diphtheria, Tetanus, Pertussis) and Covid 19. In Ontario the vaccines are free from the Ministry of Health for DTP, Influenza, Covid 19, Shingles (age 65-70 and 2<sup>nd</sup> dose must be given before 71<sup>st</sup> birthday), Pneumonia (age 65 and over). Some private health insurance plans partially or completely cover cost of the Shingles and Pneumonia vaccines. You need to consult your Health Care Provider or Pharmacist about your immunization needs.</p>
<p><b>Side Effects</b> - As with any pharmaceutical, there are possible side effects. For the most part these side effects are minor (e.g. sore arm or low-grade fever) and go away within a few hours or days. Anything of major concern should be handled by calling your Health Care Provider (HCP) or if serious call 911. Some people can have an allergic reaction called anaphylaxis and usually happens shortly after a person receives a vaccine and it requires medical treatment. This is why a HCP will ask you to stay for a period of time on location so you and they can watch for unusual reactions and treat them quickly. Some people become overly stressed about receiving an injection – “getting a needle” or “getting a shot”.</p>	<p><b>Misconceptions &amp; Myths</b> - People are sometimes adverse to receiving vaccines based on misconceptions or myths. Some of the most common ones are:</p> <ul style="list-style-type: none"><li>- Immune System Overload – that especially in children that their immune system cannot handle the multiple vaccinations given and so parents refuse or delay them</li><li>- Extinct Diseases – successful eradication of some diseases leads to a false security that vaccines against them are redundant and unnecessary</li><li>- Vaccinated people get sick too – without doing the proper math, people tend to look at some vaccinated people who still get sick and mistakenly conclude that vaccines are ineffective</li></ul>

<p><b>Side Effects continued</b></p> <p>A person may become pale, sweaty, feel faint, etc. Make sure that the HCP knows if you get this way or are prone to fainting. It is important to listen to any verbal instructions or read a handout related to aftercare.</p>	<p><b>Misconceptions &amp; Myths continued</b></p> <ul style="list-style-type: none"> <li>- Hygiene and Nutrition vs Vaccine – while improved hygiene and nutrition do play a part in reducing incidence of some diseases, vaccines have been proven to show the sharpest decline in disease rate</li> <li>- Natural is Best – there are those who think that surviving a disease naturally is better, lasting prevention; however, the risks of going through a disease naturally far outweigh the benefits</li> <li>- Contaminated Vaccines – there are those who believe that components are added to a vaccine that will modify their core genetic components, introduce nanobots to control them or some other “conspiracy idea”. Bioethics and approval processes are in place to not allow these to occur.</li> </ul>
<p><b>Vaccination vs Immunization</b> - There is a difference in the terminology of vaccination and immunization and they are not interchangeable. Vaccination is the literal action of getting the vaccine into the body, either through an injection, orally or by other means. Immunization covers the process of receiving the vaccine and developing immunity within the body to the disease the vaccine aims to prevent.</p>	<p><b>Children &amp; Immunization</b> - In Canada and in most countries, vaccines are administered following age tables with some given in infancy, childhood, and adolescence to develop core immunization then adults are given booster shots to maintain immunity and then as adults age and some other diseases become a concern, other vaccines are given to protect that age group from those diseases.</p> <p>Immunization across the world has had a huge impact on the number of cases and the number of deaths in these Vaccine Preventable Diseases (VPD) especially in children. This is why Ontario has the “Immunization of School Pupils Act” that requires certain vaccines to be given to a child to attend school in Ontario making sure all school aged children are protected from VPD (if under 18 years of age). Provision is made for valid exemptions based on medical, religious or conscience reasons. This legislation applies to primary and secondary schools – public and private.</p>
<p><i>As with any medical decision, immunization needs to be evidenced based – get information from trusted sources, talk to the professionals, consider the benefits and risks.</i></p>	<p><b>Summary</b> - Research and development is continuing to improve existing vaccines, find new ways to administer them, easier ways to store or eliminate storage requirements (refrigeration), find new vaccines, etc. Who knows what will be available in the future? Disease prevention is always better than health treatment and disease’s resulting consequences.</p>