

Childhood Immunizations

Vaccines are good! There is no reason to suffer from a disease if there is a safe, effective way to prevent it, and vaccines have proven their utility and effectiveness time and time again. Vaccination programs are considered to be the most cost-beneficial health intervention and one of the few that systematically demonstrate far more benefits than costs.

The range of immunizations available in Canada continues to expand as new vaccines are licensed, and improvements in or modifications to currently available preparations are made.

This brochure will provide you with general information about the mechanism, safety, side effects and current recommendations for childhood immunizations.

The Purpose of Vaccines

Modern vaccines are designed to prevent disease by producing immune responses without the risk of illness or death associated with the infection. The principle of vaccination is simple. Exposing the immune system to a vaccine (containing weakened germs, dead germs, or parts of germs) causes the immune system to respond just as it would to the actual infection and induces so called "immune memory". This immune memory protects the body from serious illness, when it is exposed to the real germ in the future.

Sponsored vs. Non-Sponsored Vaccines

Recommendations for vaccination are produced by non-governmental medical bodies, and based on the best scientific information available. Unfortunately, government budgets do not always cover newer vaccines. There may be a delay of several years between the time a vaccine is released and recommended for general use and the date at which the government decides to sponsor it. The cost of these non-sponsored vaccines must unfortunately be borne by the public.

Common Side Effects

Both local and systemic reactions may follow the use of vaccinations. Most of them occur shortly after immunization while others appear later. Mild vaccine-associated adverse events (e.g., swelling, tenderness, or redness at the injection site, fever or irritability) are relatively common, predictable and self-limited. Serious or unexpected adverse reactions such as seizures can, very rarely, develop. Allergic reactions, such as hives, wheezing and anaphylaxis, are very rare. They may be due to a specific allergy to any component of the vaccine (which may include antibiotics, egg protein, stabilizers such as gelatin, or a preservative). Severe reactions, local or systemic, may indicate that additional doses of the same agent should be avoided.

Treatment Of Side Effects

For local inflammation or discomfort, apply a cool compress to the affected area. If pain is severe use acetaminophen or ibuprofen at the manufacturers recommended dosage. For fever, use acetaminophen or ibuprofen. A rash may occur following vaccination with MMR and Varicella vaccines. This is usually a temporary and non-infectious rash that will resolve without any treatment. Please note that if your child has fever and a rash, you should seek medical attention.

Contraindications

The only absolute contraindication to vaccination is an anaphylactic (or severe allergic) reaction to a previous dose of vaccine or to a constituent of a vaccine. Vaccination is usually deferred in those children suffering from moderate to severe illness with or without fever. A local reaction to previous vaccine, a mild illness with or without fever, or current antibiotic therapy is not a contraindication to vaccination.

Vaccine Safety

The vaccines used in Canada are extremely effective and extremely safe. Serious adverse reactions are rare. The dangers of vaccine-preventable diseases are many times greater than the risks of a serious adverse reaction to the vaccine. Health authorities worldwide take vaccine safety very seriously and expert committees in Canada investigate reports of serious adverse events.

There is no evidence that vaccines cause chronic diseases, autism or sudden infant death syndrome. Alleged links — for example between hepatitis B vaccine and multiple sclerosis — have been disproved by rigorous scientific study.

All childhood vaccines (with the exception of the influenza vaccine) are thimerosal-free.

Disclaimer

The information contained in this pamphlet represents our recommendations and reflects the current AAP/CPS/NACI consensus at the time of publication. For further information please contact your Pediatrician. Product monographs are available upon request.

Further Reading

For more information, you may consult either:

- The Canadian Immunization Guide available from either Health Canada or the Canadian Pediatric Society or on the internet at www.hc-sc.gc.ca/pphb-dgspsp/publicat/cig-gci/
- Your Child's Best Shot available from the Canadian Pediatric Society.

On The Web

The following websites may provide you with further relevant information:

- Canadian Immunization Awareness Program at <http://www.immunize.cpha.ca>
- Health Canada, Population and Public Health Branch at <http://www.hc-sc.gc.ca/hpb/lcdc/bid/di/index.html>
- U.S. Centers for Disease Control and Prevention, National Immunization Program at <http://www.cdc.gov/nip/>
- World Health Organization at <http://www.who.int/vaccinesdiseases/safety/infobank/infobank.shtml>
- U.K. Public Health Laboratory Service at <http://www.immunofacts.com/>
- National Advisory Committee on Immunization (NACI) at <http://www.phac-aspc.gc.ca/naci-ccni/>