



A guide to contraindications to childhood vaccinations

The infant and childhood immunization program in Canada has led to extraordinary decreases in serious infections with diphtheria, tetanus, pertussis, polio, *Haemophilus influenzae* type b, hepatitis B, measles, mumps and rubella. There is a danger that this successful immunization program may lead to complacency about vaccine preventable illnesses such that parents, and sometimes physicians, may become too focused on potential adverse events of vaccination and lose sight of the serious and sometimes even fatal consequences of the disease being prevented. Physicians and parents need reliable accurate information on true contraindications so that opportunities to immunize an infant or child are not missed. In fact, there are very few true contraindications. Deferral or delay of immunization based on misconcep-

tions about contraindications puts an infant or child at risk. The following tables summarize the answers to the most frequently raised questions about contraindications. Tables 1 to 3 are based upon recommendations from the National Advisory Committee on Immunization (1) and the American Advisory Committee on Immunization (2). Additional information written for parents is available in the publication entitled, *Your Child's Best Shot* (3).

REFERENCES

1. National Advisory Committee on Immunization. Canadian Immunization Guide, 5th edn. Ottawa: Health Canada, 1998.
2. Recommended childhood immunization schedule – United States, 1999. MMWR Morb Mortal Wkly Rep 1999;48(01):12-6.
3. Canadian Paediatric Society. Your Child's Best Shot: A Parent's Guide To Vaccination. Ottawa: Canadian Paediatric Society, 1997.

TABLE 1: Contraindications to childhood vaccinations as recommended by the National Advisory Committee on Immunization and the American Advisory Committee on Immunization

Symptom or condition	Contraindication
Allergy	
Anaphylactic (life-threatening) allergy to:	
a) Previous dose of vaccine	That vaccine
b) Neomycin	Inactivated polio vaccine (IPV), DtaP-IPV- <i>Haemophilus influenzae</i> type b (Pentacel, Aventis Pasteur, Toronto, Ontario), measles-mumps-rubella (MMR) vaccine and varicella vaccine
c) Gelatin	Varicella vaccine and MMR vaccine
d) Baker's yeast	Hepatitis B vaccine
e) Egg ingestion	Influenza vaccine
f) Streptomycin	IPV
Immunodeficient state	
a) Recipient	
• congenital immunodeficiency, eg, severe combined immunodeficiency	MMR vaccine, varicella vaccine, oral polio vaccine (OPV)* and bacille Calmette-Guérin (BCG) vaccine
• acquired immunodeficiency, eg, HIV	OPV*, BCG vaccine and varicella vaccine; precaution with MMR
• immunosuppression, eg, acute lymphoblastic leukemia on chemotherapy	MMR vaccine, varicella vaccine, BCG vaccine and OPV*
b) Household contacts	
• congenital immunodeficiency	OPV*
• HIV	OPV*
c) Systemic steroids, high dose	Defer MMR, varicella vaccine, BCG vaccine and OPV*
Pregnancy	MMR and varicella vaccine

*OPV use is no longer recommended in Canada due to the risk, albeit low, of paralysis; IPV has no such associated risk. DtaP Diphtheria, tetanus, acellular pertussis

TABLE 2: Precautions to childhood vaccinations as recommended by National Advisory Committee on Immunization and the American Advisory Committee on Immunization

Symptom or condition	Precaution or action
Moderate or severe illness with or without fever	Defer only if the child is NOT in immediate danger of exposure to the disease or the child is likely to return to continue immunization in a timely fashion
Recent immunoglobulin administration	Intravenous and intramuscular gammaglobulin can interfere with measles-mumps-rubella (MMR) vaccine and varicella vaccine Delay MMR three to 10 months; time depends upon immunoglobulin amount Delay varicella vaccine for five months if intravenous immune globulin (IVIG) and varicella immune globulin (VZIG)
Pregnancy	Defer MMR and varicella vaccine until immediate postpartum

TABLE 3: Noncontraindications to childhood vaccination as recommended by National Advisory Committee on Immunization and the American Advisory Committee on Immunization

Symptom or condition	Action
Mild to moderate local reaction to previous injection of vaccine	Immunize
Mild acute illness with or without fever	Immunize
Currently taking antibiotics	Immunize
Recovering from an acute illness	Immunize
Premature infant	Immunize on time – do NOT delay
Recent exposure to an infectious disease	Immunize
Personal or family history of allergy to	
Penicillin	Immunize
Duck meat, duck feathers	Immunize
Molds, grasses, pollens, etc	Immunize
Eggs	Immunize except for influenza vaccine; NO contraindication to measles-mumps-rubella (MMR) vaccine
Tuberculosis (TB) or positive TB skin test	Immunize even with MMR and varicella vaccine
Simultaneous TB skin test	Immunize even with MMR and varicella vaccine
Fever 40.5°C or higher after first dose of DTP or DtaP	Immunize, give acetaminophen
Family history of sudden infant death syndrome	Immunize
Seizure within 48 h of the prior dose of DTP or DtaP	Immunize; give acetaminophen if seizure accompanied by fevers
Family history of seizures	Immunize
Persistent inconsolable crying 3 h or more within 48 h after prior dose of DTA or DtaP	Immunize
Pregnancy	Immunize with tetanus, hepatitis B, influenza and inactivated polio vaccines as required
History of <i>Haemophilus influenzae</i> type b disease	Immunize <i>Haemophilus influenzae</i> type b vaccine
Hypotonic-hyporesponsive state within 48 h after prior dose of DtaP containing vaccine	Not necessary to defer because episodes may occur with both DT, DtaP; continued immunization with all antigens is recommended

aP Acellular pertussis; D Diphtheria; P Pertussis; T Tetanus

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