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Vaccination for children with heart diseases

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Children with a heart disease must be vaccinated according to the usual vaccination schedule.

It is highly likely that blood products (whole blood, packed red blood cells, platelets) are used during heart surgery. Therefore, certain precautions must be taken regarding live vaccines:

- ▶ The child must not receive live vaccines (measles or chickenpox) for the 3 weeks prior to surgery, nor during the 7 months after surgery, with the exception of the rotavirus vaccine;
- ▶ There is an 11-month waiting period if the child has received immunoglobulins to treat Kawasaki disease;
- ▶ For other blood products, the child's treating physician should be consulted. This precaution will protect the immunity produced by the vaccine.

The flu (influenza) vaccination must be administered every year to children who have a significant heart defect or who take aspirin on a continuous basis (regardless of the dose) if they are 6 months of age or older. It is also recommended that all family members who are in close contact with the child be vaccinated.

It is also recommended that the antibodies against bronchiolitis (Synagis) be given to children under 12 months of age who have significant heart malformations.

Immunoglobulins (IG) and vaccines

- ▶ Inactivated vaccines can be administered either during a single visit, or before or after the immunoglobulins without altering the immune response.
- ▶ Measles and chickenpox vaccines should be given at least 2 weeks before the immunoglobulins or at the earliest 11 months after administration of intravenous immunoglobulins, given that passive immunization can affect the response to these vaccines.
- ▶ There is no minimum interval between an inactivated or living vaccine and palivizumab (Synagis).

Age	Vaccines (see legend below)	Nature	Time frame before/ after surgery
2 months	DTaP, HB, IPV, Hib, Pneu-C-13, Rota	Inactivated	No time frame prescribed
4 months	DTaP, HB, IPV, Hib, Pneu-C-13, Rota	Inactivated	No time frame prescribed
6 months	DTaP, IPV, Hib, Pneu-C-13, Inf (2 nd dose 1 month later, for the first year of life)	Inactivated	No time frame prescribed
1 year of age	MMR	Live	21 days/7 months
	Pneu-C-13, Men-C-C	Inactivated	No time frame prescribed
18 months	MMR, Var	Live	21 days/7 months
	DTaP, HB, IPV, Hib	Inactivated	No time frame prescribed
Between 4 and 6 years of age	Var	Live	21 days/7 months
	DTaP, IPV	Inactivated	No time frame prescribed
4th grade	HB, HPV (girls)	Inactivated	No time frame prescribed
Between 14 and 16 years of age	DTaP, Men-C-C	Inactivated	No time frame prescribed
Annually	Inf (injectable)	Inactivated	No time frame prescribed
	Inf (intranasal) (over 2 years of age)	Live	2 weeks before/ no time frame

* The meningococcal serogroup B vaccine is strongly recommended. However, it is not covered by the Régie de l'assurance maladie du Québec (RAMQ), except for residents of the Saguenay-Lac-Saint-Jean region.

Légend:

DTaP: Diphtheria, tetanus, acellular pertussis
 IPV: Poliomyelitis
 HB: Hepatitis B
 Hib: Haemophilus influenzae type B
 Inf: Influenza
 Pneu-C-13: Conjugate pneumococcal vaccine
 Rota: Rotavirus/live vaccine whose interaction with blood products or immunoglobulins (IG) is minimal or none at all
 MMR: Measles, mumps and rubella
 Men-C-C: Meningococcal conjugate vaccine for serogroup C
 Var: Varicella (chickenpox)
 HPV: Human Papillomavirus vaccine