

Ministry of Health

Infant and High-risk Children Respiratory Syncytial Virus (RSV) Prevention Program – Immunity, Monoclonal Antibodies and Vaccination

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This fact sheet provides basic information only. It is not intended to provide or replace medical advice, diagnosis, or treatment. You should talk to a health care professional about health concerns and illness.

Immunity

Immunity against diseases is achieved by the presence of antibodies in the body. Antibodies are proteins the body produces to neutralize or destroy harmful organisms, such as viruses and bacteria, that cause disease. These antibodies are specific to each disease (e.g., measles antibodies will only help protect a person exposed to measles).

Immunity is divided into two types: **active** and **passive**.

Active immunity arises when the immune system is prompted to produce antibodies in response to exposure to a disease organism. This can happen through natural infection or vaccination.

- Natural immunity develops when a person is exposed to and infected by a disease organism.
- Vaccine-induced immunity occurs when a person is vaccinated with a killed or weakened form of the disease organism or part of it (e.g., protein).

In both cases, the immune system remembers the disease and can quickly produce antibodies if exposed again. Active immunity takes time to develop (usually several weeks) but tends to be long-lasting, sometimes providing life-long protection. However, some diseases, like respiratory syncytial virus (RSV), do not provide long-lasting natural immunity.

Passive immunity is obtained when a person is given ready-made antibodies rather than their immune system producing them.

- Newborns receive passive immunity through the placenta before birth and through breastfeeding. For instance, when a pregnant person is vaccinated, their body creates antibodies that can cross the placenta and provide immediate protection to the baby. This ensures the newborn has some defence against diseases right from birth.
- Antibody-containing products, such as immune globulins and monoclonal antibodies, provide passive immunity when immediate protection from a specific disease is needed.

The key benefit of passive immunity is its immediate effect. However, this type of immunity is temporary, lasting only a few weeks or months, unlike the longer-lasting protection provided by active immunity.

Protecting Your Infant from RSV: Understanding Your Options

Two safe and effective ways to help protect against RSV infections in infants are available in Ontario (see Table 1 below for a comparison of these options).

- Immunization with the monoclonal antibody, Beyfortus[®] (Nirsevimab), given to infants soon after birth during the RSV season, young infants born before the RSV season, and high-risk children who remain vulnerable from RSV during their second RSV season (generally November to April).
- Vaccination during pregnancy with Abrysvo[™] given to pregnant individuals between 32 and 36 weeks of pregnancy if they will deliver near the start of or during RSV season.

Generally, only one product is recommended. Using both the vaccine and the monoclonal antibody is not necessary unless the infant is high-risk (e.g., certain medical conditions such as cardiac disease).

The National Advisory Committee (NACI) recommends Beyfortus[®] be used rather than vaccinating pregnant individuals based on its efficacy (i.e., how well it works), duration of protection, and safety profile.

There is currently no RSV vaccine authorized for use for infants and children.

For more information about these publicly-funded immunizations, please see the following resources:

- Infant RSV Prevention Program – Monoclonal Antibody for Infants and High-risk Children
- Infant RSV Prevention Program – Vaccine for Pregnant Individuals

Table 1: Comparison of the Monoclonal Antibody and Vaccine for Infant RSV Prevention

	Monoclonal Antibody Provided to Infant	Vaccine Provided to Pregnant Individuals
Immunizing Agent	Beyfortus® (Nirsevimab)	Abrysvo™
Indication for use	Infants and high-risk children up to 24 months of age (to be administered during RSV season).	Pregnant individuals between 32-36 weeks gestation who will deliver during RSV season.
Type of immunity for infant	Passive	Passive
How it works	Through injection, provides ready-made antibodies for immediate protection	Stimulates the pregnant individual's immune system to produce antibodies. Antibodies are transferred to the infant through the placenta and breastfeeding.
Timing of Administration	Just prior to or during RSV season	Just prior to or during the RSV season
How long it takes to be effective	Protection immediately after administration	Approximately 2 weeks following administration – given at 32 to 36 weeks gestation for antibody transfer to infant
Duration of Infant Protection	Short-term, up to 6 months	Up to 6 months from birth

Additional Information

For more information about RSV, RSV prevention products, or the province's RSV prevention program, please refer to the ministry's [RSV website](#) or contact your local public health unit. You may also contact a primary health care provider.