



island health

Chicken Pox (Varicella Zoster)

What is Varicella Zoster Virus (VZV)?

- First exposure to VZV results in primary infection called chickenpox
- After a primary infection with chickenpox, the virus is not eliminated from the body, but lies dormant in the nervous system.

Chickenpox - Primary infection with VZV :

- Initially presentation: acute, generalized viral disease with sudden onset of slight fever and lethargy
- Small red bumps appear, often starting on the face, stomach and back, and spread over the body. These bumps become itchy and fluid filled (blisters)
- Next 3 to 5 days: blisters break, a crust or scab forms while the skin heals. New “crops” of bumps may appear during this time
- The incubation period between 10 – 21 days. It usually takes 7 to 10 days from the beginning of chickenpox until the last “crop” of blisters crust over
- The virus is present in blister fluid and respiratory secretions (which are a potent source of airborne infection making patients highly infectious from approximately 48 hours before the rash occurs until all the blisters have dried and crusted)

Did You Know... There is now a vaccine available to prevent infection with chickenpox and another vaccine to prevent re-activation of the virus later in life (Shingles). Talk to your doctor, Occupational Health Nurse or local Public Health Nurse to find out more.

Island Health: Infection Prevention & Control (IPAC)

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How is chickenpox Spread?

- In **chickenpox** the virus can be spread through **direct contact** with blister (or vesicle) fluid
- Indirectly through contact with items soiled by fluids from the blisters or mucous membranes of infected people
- Through **airborne** spread from respiratory secretions
- Mothers can pass the virus to their unborn child through the placenta

Additional Precautions for Chickenpox or Disseminated Shingles:

- Maintain both **AIRBORNE and CONTACT** precautions until all the lesions are dry and crusted
- Place the patient in an **Airborne Isolation room with negative pressure**
- When outside of the room for tests or transfers, the patient will wear a surgical grade (120mm Hg) fluid resistant mask (without visor), if their respiratory status permits
- Talk to Infection Control before removing precautions as some patients may be infectious for longer periods





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Exposure to Chickenpox in Pregnancy

- Immunity should be assessed as soon as possible after exposure
 - Immune status can be determined by self-reported history of previous infection after the age of 1 year, varicella vaccination, or varicella zoster positive serology (IgG)
 - Varicella vaccination should not be administered in pregnancy
- People in the peri-natal period who are non-immune and have been exposed to varicella in the 21 days before admission, must be isolated on Airborne Precautions and be given Varicella Immune Globulin (VZIG) as soon as possible after the exposure to decrease the risk of developing varicella infection
- In rare cases intrauterine exposure could result in congenital varicella syndrome which occurs when the pregnant parent is infected between 8- 20 weeks gestation. Possible complications included intrauterine growth restriction, ocular defects, limb abnormalities, seizures and intellectual disability

Chickenpox Case in Pregnancy/Peri-natal period

- Airborne and Contact Precautions are to be used when caring for a person with varicella and for a newborn born to a person with varicella. Parent and babe should be kept together in an Airborne precaution room, isolated from other patients on the unit

Patients exposed to Chickenpox should be placed on Airborne Precautions from 8 days after first exposure to 21 days post exposure (or 28 days if given VZIG).

Exposure to Chickenpox in Newborn

- The greatest risk of infection to neonates is exposure to the virus just before or during delivery as there is not enough time for the pregnant parent to develop and transfer antibodies to the fetus
- Exposed infants in the NICU usually are cohorted and placed on Airborne Precautions for 21 days after exposure. If the newborn has been given VZIG, the precautions must remain in place until the newborn is 28 days old
- Breastfeeding is encouraged in newborns exposed to or infected with varicella because the antibodies in breast milk may be protective

Chickenpox Case in Newborn

- Airborne and Contact Precautions should be used for infants with varicella. Continue the precautions for exposed infants for 21 days from the last exposure and for 28 days for infants given varicella-zoster immune globulin (VZIG) or intravenous immune globulin (IVIG)