

Auckland Regional Public Health Service

Rātonga Hauora ā Iwi o Tamaki Makaurau



Working with the people of Auckland, Counties Manukau and Waitemata

Slapped cheek / Parvovirus B19 infection: Information Sheet

Background

“Slapped cheek” is caused by a virus called **parvovirus B19**. Other names for the illness are erythema infectiosum and “fifth disease”.

In children the infection initially causes symptoms similar to those of the common cold, and may be followed by the characteristic deep red rash on the face and a red lace-like rash on the body and limbs. Children with the infection are not particularly unwell and the rash usually disappears within 10 days.

Adults are often immune to parvovirus B19 infection because they have already had the infection as a child. Adults who do become infected may not develop the typical rash, but may develop joint pain and swelling which can last from a week to several months. A quarter or more of infections in adults occur without any symptoms.

Parvovirus B19 is spread by contact with respiratory secretions (such as saliva, sputum, or nasal mucus) of infected persons *before* the onset of rash, when they appear to “just have a cold.” The virus is probably spread from person to person by direct contact with those secretions, for instance by handling used tissues or by sharing eating or drinking utensils. Transmission occurs more easily in households than in a classroom or early childhood education centre setting.

Is parvovirus B19 infection serious?

For most people, parvovirus B19 infection causes a mild illness of short duration. However, infection is of more concern in two particular groups: those with poor immunity, and women in the first half of their pregnancy.

Parvovirus B19 can cause more severe illness in those who have immune deficiency associated with conditions such as leukaemia or chemotherapy or increased red blood cell destruction, (e.g. sickle cell disease). In these groups, parvovirus B19 can cause severe anaemia (reduction in red blood cells). Specialist advice should be sought.

Around 50-60% of young adult females have immunity to parvovirus B19 due to infection in childhood, so are safe from further infection. However, for women who are pregnant and who are not already immune to parvovirus B19, the risk of miscarriage among those who are infected in the first half of the pregnancy is increased by approximately 9%, and anaemia in the unborn baby may occur in 3%. There is no evidence that parvovirus B19 infection in pregnancy causes birth defects.

Protecting yourself from parvovirus B19 infection

There is no vaccine or medicine that prevents parvovirus B19 infection. Good hand hygiene (regular washing and drying the hands) is recommended as a practical and probably effective method to decrease the chance of becoming infected by viruses that are spread via respiratory secretions. Hand-washing is likely to be particularly useful after handling used tissues or wiping a child's nose.

In schools or early childhood education centres (ECECs) where there are children with parvovirus B19 infection, further general measures should be emphasised. Encourage children to sneeze or cough into the crook of their elbow or into tissues, to discard tissues in a lined rubbish bin, to wash and dry their hands regularly, and to avoid sharing eating or drinking utensils. Frequent cleaning of door handles and other frequently touched surfaces may also reduce the spread of infection.

Excluding persons with parvovirus B19 infection from work, early childhood education centres (ECECs), schools, or other settings is not likely to prevent the spread of parvovirus B19, since ill persons are contagious before they develop the characteristic rash.

Recommendations for pregnant women exposed to parvovirus B19

Pregnant women who are concerned that they have been exposed to parvovirus B19 should seek advice from their lead maternity care provider: midwife, general practitioner or specialist obstetrician. A blood test can be performed to check whether previous immunity to parvovirus B19 exists. If the person is susceptible (non-immune) the blood test may be repeated one month later, or sooner if an illness suggestive of parvovirus B19 develops, to assess whether infection has occurred.

Infection with parvovirus B19 in the second half of pregnancy does not endanger the baby, however advice should still be sought in case there are errors in the estimate of gestational age.

Infection with parvovirus may resemble rubella. Reviewing previous antenatal rubella immunity results is also suggested.

Further information

Further information can be obtained from the following internet resources:

http://www.cdc.gov/ncidod/dvrd/revb/respiratory/parvo_b19.htm

<http://www.cdc.gov/ncidod/dvrd/revb/respiratory/B19&preg.htm>

http://www.hpa.org.uk/infections/topics_az/parvovirus/gen_info.htm

<http://www.womens-health.co.uk/parvo.asp>