Diphtheria, tetanus, and pertussis (DTaP) are serious diseases caused by bacteria.

**TRANSMISSION:**

Diphtheria and pertussis spread from person to person. Tetanus does not spread from person to person but the bacteria are usually found in soil, dust, and manure and enter the body through breaks in the skin – usually cuts or puncture wounds caused by contaminated objects.

**SIGNS & SYMPTOMS:**

- Diphtheria causes a thick covering in the back of the throat.
- Tetanus (lockjaw) causes painful tightening of the muscles, usually all over the body.
- Pertussis is a highly contagious respiratory tract infection. Coughs may eventually turn more serious, particularly in infants.

**POSSIBLE COMPLICATIONS:**

- Diphtheria can lead to breathing problems, paralysis, heart failure and even death.
- Tetanus can lead to “locking” of the jaw so that the victim cannot open their mouth or swallow.
- Pertussis can lead to pneumonia, seizures, brain damage and death.
**Haemophilus influenzae type b**

**DISEASE:**

*Haemophilus influenzae type b (Hib)* is a bacterium that can cause a severe infection, occurring mostly in infants and children younger than five years of age.

**TRANSMISSION:**

The germs spread from person to person by direct contact or through respiratory droplets from coughing and sneezing.

**SIGNS & SYMPTOMS:**

Symptoms will depend on the type of illness and may include:

- Fever
- Headache
- Stiff neck
- Vomiting
- Coughing
- Breathing difficulties
- Tender skin
- Swelling
- Redness in a joint
- Ear pain

**POSSIBLE COMPLICATIONS:**

- Pneumonia (lung infection)
- Bacteraemia (bloodstream infection)
- Meningitis (infection of the covering of the brain and spinal cord)
Poliomyelitis

**DISEASE:**

Poliomyelitis (polio) is a highly infectious disease caused by a virus that invades the nervous system.

**TRANSMISSION:**

Humans are the only known reservoir of poliovirus. The virus lives in an infected person’s throat and intestines. It spreads through contact with the faeces (stool) of an infected person and less commonly through droplets from a sneeze or cough.

**SIGNS & SYMPTOMS:**

Most people who get infected with poliovirus will not have any visible symptoms. About 1 out of 4 people with poliovirus infection will have flu-like symptoms that may include:

- Sore throat
- Fever
- Tiredness
- Nausea
- Headache
- Stomach pain

A smaller proportion of people with poliovirus infection will develop other more serious symptoms that affect the brain and spinal cord.

**POSSIBLE COMPLICATIONS:**

- Life-long paralysis

Even children who seem to fully recover can develop these complications as adults, 15 – 40 years later:

- New muscle pain
- Weakness
- Paralysis
Hepatitis B is a contagious liver disease that results from infection with the hepatitis B virus.

**TRANSMISSION:**

Hepatitis B spreads through blood or other body fluids that contain small amounts of blood of an infected person. Babies and children can get hepatitis B in the following ways:

- At birth from their infected mother
- By touching open cuts or sores of an infected person
- Through sharing toothbrushes or other personal items used by an infected person
- Unlike hepatitis A, it is not spread routinely through food or water.

**SIGNS & SYMPTOMS:**

Adults and children over the age of 5 years are more likely to have symptoms. Symptoms include:

- Fever
- Fatigue
- Loss of appetite
- Nausea
- Vomiting
- Abdominal pain
- Dark urine
- Clay-coloured bowel movements
- Joint pain
- Jaundice (yellow colour in the skin or the eyes)

**POSSIBLE COMPLICATIONS:**

- Chronic hepatitis
- Cirrhosis
- Liver failure