



Blood Borne Viruses (BBV) Fact Sheet

What are Blood-borne viruses (BBV)?

Blood-borne virus (BBV) infections are spread by direct contact with the blood or certain bodily fluids of an infected person.

The main blood-borne viruses of concern are:

- **Human immunodeficiency virus (HIV)**, which causes acquired immune deficiency syndrome (AIDS).
- **Hepatitis B virus (HBV)** and **Hepatitis C virus (HCV)** which cause hepatitis (**inflammation of the liver**).

These three viruses are considered together because infection control requirements are similar, due to similarities in their transmission routes.

Human immunodeficiency virus

Human immunodeficiency virus (HIV) is a virus that damages the cells in the immune system and weakens the ability to fight everyday infections and disease.

Acquired immune deficiency syndrome (AIDS) is the name used to describe several potentially life-threatening infections and illnesses that happen when the immune system has been severely damaged by HIV.

After 2 to 6 weeks following HIV infection most people will experience a short flu like illness which lasts a week or two. After these **symptoms disappear HIV may not** cause any further symptoms for many years, although the virus continues to damage the immune system. Individuals with HIV may not have any symptoms and may be unaware of their infection.

A HIV test involves sampling a person's blood for the signs of the infection.

Treatment for HIV - antiretroviral medicines are used to treat HIV, they work by stopping the virus replicating in the body, allowing the immune system to repair itself and preventing further damage.

Hepatitis B

Hepatitis B (HBV) is a virus that replicates in the liver but is also present at very high levels in the blood of people who are infected. **HBV** causes hepatitis (**inflammation of the liver**) and can also cause long term liver damage. **It is vaccine preventable.**

Exposure to HBV causes an acute infection. This can present as asymptomatic or may cause a non-specific illness with nausea, vomiting, loss of appetite and jaundice. Children rarely develop acute symptomatic HBV infection whereas up to a third of adults are symptomatic during this acute stage of infection, individuals are infectious to others.

If Hepatitis B virus persists for greater than 6 months, the person has developed chronic (persistent) HBV infection. During chronic infection many people have no symptoms but will remain persistently infected and infectious to others. The risk of developing chronic HBV infection depends on the age at which infection is acquired and the risk is increased in those whose immunity is impaired. Progressive chronic infection is characterised by ongoing liver disease. The long-term complications of chronic HBV infection include cirrhosis and primary liver cancer.

Treatment for Hepatitis B depends on how long you have been infected for:

- short-term (acute) HBV does not usually need specific treatment, but may require treatment to relieve the symptoms
- long-term (chronic) HBV is often treated with medication to keep the virus under control

Hepatitis C

Hepatitis C (HCV) is another virus which can damage the liver. Most individuals with HCV have no symptoms and are unaware of their infection. Some may develop a flu-like illness and jaundice. HCV often does not have any noticeable symptoms until the liver has been significantly damaged. This means many people have the infection without realising it.

Early diagnosis and treatment can help prevent or limit any damage to the liver, as well as help ensure the infection is not passed on to others. A blood test can be carried out to test for the infection.

Treatment for HCV is with medicines that stop the virus multiplying inside the body, these usually need to be taken for several weeks.

Hepatitis B and Hepatitis C are notifiable diseases.

Transmission

HIV and HBV are spread by direct contact with an infected person's blood or certain body fluids e.g.

- Blood.
- Semen.
- Vaginal fluid.
- Anal mucus.
- Breast milk.

Main routes of transmission:

- Sexual intercourse with an infected person, particularly without using a condom.
- Sharing contaminated needles or other injecting equipment.
- Mother-to-child transmission during pregnancy.
- Tattooing, body piercing or acupuncture with unsterilised equipment.
- Blood transfusion in a country where blood donations are not screened for HIV.
- Sharing razors and toothbrushes.
- Occupational exposure through sharps injuries or other mucosal or nonintact skin exposure.

HIV and HBV cannot be passed on by:

- Kissing.
- Hugging.
- Shaking hands.
- Sharing space with someone.
- Sharing a toilet.
- Sharing household items such as cups, plates, cutlery, or bed linen.
- Any other general social contact.

Hepatitis C is a virus that can cause long lasting infection and is transmitted when blood from an infected person gets into the bloodstream of another.

Main route of transmission:

- Sharing unsterilised needles- particularly needles to inject recreational drugs.
- Sharing razors or toothbrushes.
- From a pregnant woman to her unborn baby.
- Through unprotected sex – although this is rare.

In the UK, most Hepatitis C infections happen in people who inject drugs or have injected them in the past.

Hepatitis C is **not spread** by normal daily activities e.g.

- Kissing.
- Sharing food.
- Crockery.
- Sharing bathroom facilities.

Since we do not usually know who has the infection and can have the virus with no symptoms, we should treat all blood and certain bodily fluids from anyone with care and respect.

Prevention focuses on minimising lifestyle risks, early recognition of cases to facilitate early treatment, advice for cases, and screening in pregnancy.

Precautions to prevent inoculation of blood and certain body fluids will prevent transmission of these viruses e.g.

- Good practice in the management of sharps
- Protection of clinical and other relevant staff with the Hepatitis B vaccination.
- A vaccine that offers protection against Hepatitis B is routinely available for all babies born in the UK. It is also available for people at high risk of the infection or complications from it.

The isolation of residents is unnecessary unless there is a risk of bleeding and possible environmental contamination, or unless isolation is indicated because of other reasons.

The implementation of standard infection control precautions is usually all that is required, and no extra precautions are required for residents known to carry these viruses.

- Keep cuts or broken skin covered with waterproof dressings.
- Protect eyes, mouth, and nose from blood splashes where there is a risk of splashing.
- Avoid direct skin contact with blood and blood-stained body fluids (if blood/blood-stained body fluids are splashed on to the skin, wash off with liquid soap and warm running water).
- Wear disposable gloves when contact with blood or blood-stained body fluid is likely (vinyl gloves are not recommended for contact with blood).
- Always clean hands before putting on and after removing gloves.
- Always clean hands before and after giving first aid.
- Contain and promptly clean and disinfect surfaces contaminated by spillages of blood and blood-stained body fluids with a chlorine based cleaner e.g., 10,000 ppm (parts per million).
- Never share razors or toothbrushes as they can be contaminated.
- Clean up body fluid spillages, such as urine, faeces, and vomit promptly. The affected area should be cleaned and then disinfected to reduce the risk of infection to others. Urine, faeces, sputum, sweat, tears, and vomit **are not** considered to pose a risk of BBV infection unless contaminated with blood.

In the event of an injury with a bloodstained sharp object e.g., needle or if a bite breaks the skin, take action and report the injury to your manager immediately.

For further information on Blood borne viruses:

[Click the link for further information on HIV and AIDS.](#)

[Click the link for further information on Hepatitis B.](#)

[Click the link for further information on Hepatitis C symptoms.](#)

