



**Hepatitis B Infection and Fertility Treatment
Patient Information Leaflet**

1. What is Hepatitis B?

Hepatitis B is a liver disease caused by the Hepatitis B virus (HBV). It can lead to liver failure, liver cancer and can be transmitted to your children. People who are found to have Hepatitis B infection in their blood without any complications of the infection are known as Hepatitis B carriers.

2. How is Hepatitis B transmitted?

Hepatitis B is spread mainly through contact with blood, semen or bodily fluids of an infected person.

- Babies can be infected during birth if their mothers are carriers of the Hepatitis B infection (mother to child transmission).
- Babies can also be infected directly through their father, theoretically (Viral DNA present in the sperm).
- Other means of infection include sharing items which can cause cuts such as razors and toothbrushes, contact with blood or sores of a carrier, sharing of needles, syringes or other injection equipment.
- Having sex with an infected person.

3. What will be done if I am found to have Hepatitis B?

You will be referred to a liver specialist (gastroenterologist) who will assess your condition via blood tests and scans and advise you on the necessary actions needed to help control your condition. This may include surveillance or medication to reduce the HBV levels in your blood.

Your husband will also be recommended to undergo testing for infection by HBV as this can be spread through sexual intercourse.

4. When can I proceed with fertility treatment?

Being a Hepatitis B carrier does not exclude you from undergoing fertility treatment. However, you will need to see the gastroenterologist for assessment of your condition. You will need to be certified fit for a pregnancy by the specialist before starting fertility treatments.

If your husband is not a carrier, he will be recommended to screen for Hepatitis B antibodies in his blood and will be offered Hepatitis B vaccination if he does not have the antibodies.

5. What is the chance of my baby having Hepatitis B infection from either myself or my husband?

Mother to child transmission is the most common cause of Hepatitis B infection. If you are found to have the Hepatitis B virus (Hepatitis B Antigen [HbsAg] positive on blood test), you will be tested for a specific protein called Hepatitis B e antigen (HbeAg) to predict the risk of transmission.

If you are HbsAg positive and HbeAg negative, the chance of transmission to your child is about 2-15%. However, this risk increases up to 80-90% if you are HbsAg and HbeAg positive. The rates of transmission from IVF procedures are similar to spontaneous pregnancy.

If your husband is infected, there may be a small theoretical risk of Hepatitis B transmission to your baby via the sperm.

6. What can be done to reduce the risk of passing the infection to my children?

Transmission of HBV to babies during delivery can be prevented in 95% of infants. Certain steps can be taken to reduce the risk of transmission to the baby and these include:

- All babies should receive Hepatitis B vaccine as per national immunization guidelines.
- Babies should be given Hepatitis B immunoglobulin (a special protein to neutralize antigens) as soon as possible after birth. It will provide immediate protection to the baby.
- Antiviral medications may be recommended for you if the amount of virus in your blood (viral load) is high. These medications help to decrease the level of virus in your blood and should be taken before starting fertility treatment.

7. What if I do not have the infection but my husband is found to have Hepatitis B infection?

You will be recommended to test your blood for Hepatitis B antibodies to ascertain if you are protected against the virus. If you are found to have the antibodies, you do not need further treatment. If you do not have the antibodies, we will recommend Hepatitis B vaccination which is given in 3 doses (0 month, 1 month and 6 month).

Even if you have been vaccinated, there is a small theoretical risk that the virus may be incorporated in the sperm DNA which may be transmitted to your baby.

8. Will we still be able to proceed with assisted reproductive techniques (ART) if either one of us is infected with Hepatitis B?

If you or your husband has Hepatitis B, we will need a letter from the gastroenterologist to certify that you are fit for fertility treatment before you can proceed with ART.

References:

1. Centers for Disease Control and Prevention. Vaccine Information Sheet – Hepatitis B. <https://www.cdc.gov/vaccines/hcp/vis/vis-statements/hep-b.pdf>.
2. The Immunisation Guidelines for Ireland. Chapter 9 – Hepatitis B (updated 17 September 2015). <https://www.hse.ie/eng/health/immunisation/hcpinfo/guidelines>.
3. The Practice Committee of the American Society for Reproductive Medicine. Recommendations for reducing the risk of viral transmissions during fertility treatment with the use of autologous gametes: a committee opinion. Fertil Steril 2012; 99: 340-346