What is hepatitis B?

Hepatitis B is a serious inflammation of the liver that is caused by a viral infection. It is spread by contact with blood and body fluids. If you have long-term hepatitis B you can infect other people with the disease, even if you are well.

Around 1 in 5 people with long-term hepatitis B will develop scarring of the liver over 10-20 years. This is known as cirrhosis. 1 in 10 people who have cirrhosis will develop liver cancer.

The risk of liver failure (decompensated cirrhosis) if hepatitis B infection is left untreated is 1 in 5 people over a 5 year period.
Why are people with chronic kidney disease at more risk of hepatitis B?

People with chronic kidney disease are at an increased risk of hepatitis B infection because they are exposed to blood and body fluids during haemodialysis.

Some countries outside the UK have a higher rate of hepatitis B, so it is particularly important to be immunised if you plan to have haemodialysis abroad.

The Oxford Kidney Unit has procedures in place to reduce the risk of hepatitis B infection, but it cannot be removed completely.

The Department of Health recommend that people with chronic kidney disease are immunised against the hepatitis B virus. You will not have to pay for the vaccinations.

People who will need dialysis or may have a kidney transplant in the future are all offered immunisation. People who have had a kidney transplant need to take medicines which dampen their immune system (immunosuppressive drugs). This makes it more difficult for their body to fight infection and can increase the risk of them developing a more severe hepatitis B infection. The vaccine is also safe for people on the kidney transplant waiting list.

Immunisation also prevents the disease spreading and causing harm to other people.
How is the vaccination given?

The treatment involves a course of injections, which will be given in your upper arm over a number of months. The pre-dialysis nurse or dialysis nurse at your Kidney Unit will give you the injections.

The vaccination that will be given is in the table below. However, there are other makes of vaccination available, so this may change.

<table>
<thead>
<tr>
<th>Vaccination:</th>
<th>Engerix B</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dose:</td>
<td>40 micrograms</td>
</tr>
<tr>
<td>Total number of injections:</td>
<td>8 (2 injections for each dose)</td>
</tr>
<tr>
<td>Injection schedule:</td>
<td>• 1st dose</td>
</tr>
<tr>
<td></td>
<td>• 1 month after 1st dose</td>
</tr>
<tr>
<td></td>
<td>• 2 months after 1st dose</td>
</tr>
<tr>
<td></td>
<td>• 6 months after 1st dose</td>
</tr>
</tbody>
</table>

The doses of the vaccine used for people with chronic kidney disease are slightly higher than those used for people without kidney disease.
What happens when I have the vaccine?

The vaccination will encourage your body to produce antibodies to fight the hepatitis B virus if it enters your bloodstream.

Your kidney doctor or pre-dialysis/dialysis nurse will arrange for you to have a blood test to measure your antibody level, once you have completed the course of injections.

For your protection, it is recommended that your antibody level is greater than 100mIU/ml. If the level is between 10 and 100mIU/ml you will still have some protection, but your kidney doctor or pre-dialysis/dialysis nurse may recommend a further injection (a booster).

If you are on haemodialysis, your hepatitis B antibody levels will be measured every year. If the level drops below 100mIU/ml your haemodialysis nurse will advise you to have a booster injection.

For the immunisation to be the most effective, it is really important that you have the injections at the recommended time and complete the course. Your kidney doctor or pre-dialysis/dialysis nurse will remind you when your injections are due. You may want to keep your own record of the immunisations.
Does the vaccine have any side effects?

As with any vaccine, you may have a reaction or suffer from side effects. These may include the following:

<table>
<thead>
<tr>
<th>Symptoms:</th>
<th>Common (about 1 in 10 people)</th>
</tr>
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<tbody>
<tr>
<td></td>
<td>Redness, tenderness, pain and swelling at the injection site. This usually only lasts a few days.</td>
</tr>
<tr>
<td></td>
<td>Headache</td>
</tr>
<tr>
<td>Uncommon (about 1 in 100 people)</td>
<td>Fever or flu-like symptoms</td>
</tr>
<tr>
<td>Very rare (less than 1 in 10,000 people)</td>
<td>Severe reaction: Swelling of your face with difficulty breathing (anaphylactic reaction)</td>
</tr>
</tbody>
</table>

Your pre-dialysis/dialysis nurse or kidney doctor will discuss these with you.

Who should not have the vaccine?

Before you have the first dose of hepatitis B vaccine, please tell your kidney doctor or pre-dialysis/dialysis nurse if you have had a severe reaction to any vaccine in the past.

If you have a severe reaction to the hepatitis B vaccine you should not have another hepatitis B vaccination.

If you have a high fever or severe infection when your vaccination is due, the vaccine should be given after you have recovered. If you have a minor infection, such as cold, this should not be a problem, but talk to your kidney doctor or pre-dialysis/dialysis nurse first.

There is no evidence of any risk from vaccinating pregnant or breastfeeding women against hepatitis B.
How to contact us

**Pre-dialysis Teams**

**Oxford**
Tel: 01865 226 158  
Tel: 01865 225 359  
Tel: 01865 223 796

**Wycombe**
Tel: 01494 426 347

**Milton Keynes**
Tel: 01908 996 989

**Swindon**
Tel: 01793 605 291

All the units have an answerphone available, so please leave a message and we will call you back.

**Renal Ward**
Tel: 01865 225780

Use this number in the evenings, at the weekend and on Bank holidays.

**Further information**

Please speak to your kidney doctor or pre-dialysis/dialysis nurse if you have further questions.

**NHS website**
Website: www.nhs.uk/conditions/Hepatitis-B/Pages/Introduction.aspx

**Oxford Kidney Unit**
The website has lots of information about the Oxford Kidney Unit for patients and carers.
Website: www.ouh.nhs.uk/OKU
If you need an interpreter or would like this information leaflet in another format, such as Easy Read, large print, Braille, audio, electronically or another language, please speak to the department where you are being seen. You will find their contact details on your appointment letter.