

## **12. Infectious Diseases and Haemodialysis Patients**

As a haemodialysis patient, you want to learn all you can about your treatment and what you can do to maintain your health at its best. One important area you should know about involves infectious diseases. These are diseases that happen when harmful germs get into your body and make you ill. Kidney failure interferes with your body's natural immunity, making it easier for you to get some types of diseases like Hepatitis or AIDS through your dialysis treatments.

### **12.1. What is Hepatitis B?**

Hepatitis B is a viral infection that causes liver disease. Most people fight off this infection themselves, but up to 10 percent progress to chronic liver disease and possibly liver cancer. Hepatitis B is spread by contact with the blood of an infected person.

You may have an increased chance of getting Hepatitis B if you:

- have sex with an infected person
- inject illegal drugs
- live with an infected person and share items such as razors and toothbrushes with the person
- have been exposed to sharp instruments contaminated with infected blood, such as needles used for tattooing, body piercing and acupuncture (these needles should be carefully cleaned and disinfected before use, or disposable needles should be used)
- have hemophilia
- are a patient or work in a home for the developmentally disabled
- your parents were born in Southeast Asia, Africa, the Amazon Basin in South America, the Pacific Islands or the Middle East.

In addition, a baby can get Hepatitis B from an infected mother during childbirth.

### **12.2. Could I get Hepatitis B through my dialysis treatment?**

In the early years of dialysis, there was a danger of getting Hepatitis B through exposure to the blood of an infected person at the dialysis centre. However, today the chance of getting Hepatitis B through your treatment is very small because of two important advances. One of these advances is the use of strict infection control measures in dialysis centres. The second improvement is the availability of a vaccination for Hepatitis B.

### **12.3. Can I get Hepatitis B from a transfusion?**

The chances are very small. All donated blood is screened carefully for Hepatitis B as well as other blood borne infections, such as Hepatitis C and HIV.

### **12.4. How do you know if you have Hepatitis B?**

The only way to tell for sure is to have a blood test. Most people who get Hepatitis B have no symptoms at all.

However, some people may have flu-like symptoms including:

- loss of appetite
- nausea or vomiting
- fever
- extreme tiredness
- stomach or joint pain

In addition, you may have yellowish skin or eyes.

Some people may become carriers of Hepatitis B, which means they have no symptoms but can still infect others with the disease. The carrier state may last for years or even for life. Some carriers may eventually develop scarring of the liver, liver failure or liver cancer.

### **12.5. How can Hepatitis B be prevented?**

One of the best ways to prevent Hepatitis B is to be vaccinated. Hepatitis B vaccination is recommended for all children (including adolescents and teens), haemodialysis patients and staff. The vaccine works by causing your body to make special proteins called antibodies that protect you against Hepatitis B. Your response to the vaccine depends on your age, other medical conditions you may have and your general state of health, but most people will make enough antibodies to protect them against the disease. If you are vaccinated, your dialysis care team will check your blood periodically to make sure enough antibodies are present. If you have not yet been vaccinated, ask your dialysis staff about the vaccination.

You can also help to prevent Hepatitis B by following safe sex guidelines and by avoiding high-risk behaviors such as injecting drugs.

Some safe sex guidelines are:

- Use latex condoms to prevent the exchange of body fluids.
- Have only one sexual partner.

### **12.6. Is vaccination safe?**

Yes. Vaccines are made from baker's yeast and contain non-infectious particles called antigens. You cannot get Hepatitis from the vaccination. These vaccines have undergone extensive clinical testing and have been used on millions of people worldwide with few side effects. However, people with acute illness or a known allergy to yeast should not be vaccinated.

### **12.7. What is Hepatitis C?**

Hepatitis C is a viral infection that can cause liver disease. Hepatitis C is spread by contact with the blood of an infected person.

You may have an increased chance of getting Hepatitis C if you:

- inject illegal drugs
- received blood transfusions or solid organ transplants before 1992 when better testing of blood donors became available.

Less commonly, Hepatitis C may be spread by:

- passing from an infected mother to her baby during childbirth
- having sex with an infected person
- living with an infected person and sharing items such as razors and toothbrushes
- exposure to sharp instruments contaminated with infected blood, such as needles used for tattooing, body piercing and acupuncture (these needles should be carefully cleaned and disinfected before use, or disposable needles should be used).

### **12.8. Can I get Hepatitis C through my dialysis treatment?**

The chance of getting Hepatitis C through your treatment is small because of the strict infection control measures used in dialysis centres today. However, there have been some reports that Hepatitis C has been spread between patients in haemodialysis centres where supplies or equipment may have been shared between patients. If you are a long term haemodialysis patient, you should be tested for Hepatitis C.

### **12.9. Can I get Hepatitis C from a blood transfusion?**

The chances are small because of better testing of blood donors, which became available in 1992.

### **12.10. How do I know if I have Hepatitis C?**

Blood tests are available to check for Hepatitis C. People who are at increased risk should be tested. The doctor may do a combination of tests to make the diagnosis. Many people who have Hepatitis C have no symptoms and feel well. For some, the most common symptom is extreme tiredness.

### **12.11. Is Hepatitis C a serious illness?**

Hepatitis C is serious for some people but not for others. Most of the people who get Hepatitis C carry the virus for the rest of their lives. Most of these people have some liver damage, but many do not feel sick from the disease. Some of those with liver damage due to Hepatitis C may develop scarring of the liver and liver failure, which may take many years to develop. Others have no long term effects.

### **12.12. How to prevent Hepatitis C?**

At present, no vaccine is available for Hepatitis C. In the meantime, the following steps can help to prevent Hepatitis C:

- do not inject illegal drugs
- do not share toothbrushes, razors or other personal care articles that might have infected blood on them
- follow safe sex guidelines
- if you are considering getting tattoos or body piercing, make sure the tattoo artist or piercer follows good health practices such as washing hands and using disposable gloves

### **12.13. What is HIV?**

HIV is the human immunodeficiency virus. It can lead to a disease that causes progressive damage to your body's immune system, called Acquired Immunodeficiency Syndrome (AIDS). This disease increases your chances of getting serious infections that people normally can resist. The most common one is pneumonia that is hard to treat.

People with AIDS are also more likely to develop certain cancers, such as Kaposi's sarcoma. This cancer is usually limited to the skin, but may become widespread in AIDS patients, affecting the skin, lymph nodes and abdominal organs. The first sign of Kaposi's sarcoma is red to purple bruises or sores on the body or inside of the mouth or nose. Other types of cancer may occur, including lymphoma, a cancer of the lymph nodes.

### **12.14. How is HIV spread?**

The most common ways HIV is spread from one person to another include:

- having sex with an infected person
- injecting illegal drugs

- passing from an infected mother to her baby during childbirth or breast feeding after birth.

In addition, tattooing or body piercing can be a source of HIV infection if the instruments used are contaminated with infected blood. These instruments should be used once and disposed of or cleaned and sterilized thoroughly after each use.

### **12.15. What are the symptoms of AIDS?**

About half the people infected with HIV develop AIDS within 10 years after becoming infected. This time varies greatly from person to person. Many people who are infected with HIV do not have any symptoms for many years. The only way to tell for sure whether you are infected is to be tested for HIV infection.

The following may be warning signs of infection with HIV:

- rapid weight loss
- dry cough
- continuing fever or night sweats
- feeling very tired and run down for no reason
- swollen lymph glands in the armpits, groin or neck
- diarrhea that lasts for more than a week
- white spots or unusual blemishes on the tongue, in the mouth or in the throat
- red, brown, pink or purplish blotches on or under the skin or inside the mouth, nose or eyelids
- memory loss, depression and other neurological symptoms.

However, you should not assume you are infected if you have any of these symptoms. The symptoms of AIDS are similar to those of many other illnesses. AIDS is a medical diagnosis made by a doctor and based on specific criteria.

### **12.16. Can I get AIDS through my dialysis treatment or a blood transfusion?**

The chances are very small. The strict infection control measures used by your dialysis care team protect you against this infection. All donated blood is carefully screened for the infection before transfusions are done.