HEPATITIS D
AND HIV DISEASE

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ways to prevent and treat hepatitis d disease

PUBLISHED BY
PROJECT INFORM
OCTOBER 2007

Hepatitis D is a liver disease caused by the hepatitis D virus, or HDV. It cannot cause illness on its own. HDV needs to use parts of the hepatitis B virus (HBV) to grow, so HBV must be present for HDV to make people sick. When a person gets both of them at the same time, it is called *co-infection*. When a person gets HDV after already having HBV, it is called *super-infection*.

Hepatitis D acts a lot like hepatitis B. It is passed in similar ways and it can cause both short-term (*acute*) and lifelong (*chronic*) disease. However, because it lives with HBV at the same time, the acute and chronic disease that HDV causes tends to be more severe than in people who only have HBV.

Hepatitis is a major health issue for many people living with HIV. It is inflammation and swelling of the liver. It can lead to liver scarring (*cirrhosis*), cancer, liver failure, liver transplant and even death. Hepatitis can also be caused by other viruses, bacteria, alcohol, legal and illegal drugs, among others. For people living with HIV, having both HDV and HBV can pose special problems.

This publication provides information on HDV. Other materials are also available from Project Inform. They include *Towards a Healthy Liver*, *Hepatitis and HIV Disease*, *Hepatitis B*, *Hepatitis C*, and *Hepatitis D*.

Can you prevent hepatitis D?

Yes. The best way to prevent getting HDV is by taking the HBV vaccine, which is safe to use in people with HIV. This is because HDV cannot live without HBV. So if you've never had HBV, talk to your doctor about taking the vaccine. Otherwise, if you have HBV, do not engage in personal habits that put you at risk, like those found in the next section, How do you get hepatitis D? You can also read the section How do you prevent hepatitis B? in Project Inform's publication, Hepatitis B. Hopefully, a vaccine can be developed that will keep HDV disease from developing in people with chronic hepatitis B.

How do you get hepatitis D?

First, the only way you can get HDV is if you get or already have hepatitis B. If you have been vaccinated against HBV or have already had and cleared it, you will not get HDV.

HDV is passed in similar ways as HBV. It is most often passed through blood and blood products. This includes sharing personal items like a toothbrush or razor, touching blood, or sharing drugs or works (cotton, cookers, water) when doing drugs. (Hepatitis D most often affects injecting drug users.) It is less often passed through sex and is rarely passed from a mother to her baby during birth.

People with chronic hepatitis D can pass the virus on to others. Hepatitis D is not spread through food or water; by casual contact like shaking hands, hugging or kissing; or by sharing eating utensils, nursing, coughing or sneezing.

Who is at risk for hepatitis D?

The same people at risk of getting HBV are also at risk for HDV. This is because HDV is often present with HBV. Some groups are at higher risk due to their work, actions or lifestyles. HDV infection affects adults more often than children. HDV more often infects injecting drug users and people from the Mediterranean area. Other groups include household contacts of people with chronic disease, men who have sex with men, sex contacts of infected persons, and people with jobs who handle blood or body fluids. For more information about risk and prevention, read Project Inform's publication, *Hepatitis B*.

What are the symptoms?

Symptoms, when they are present, are flu-like. When people first get HDV, most of them (9 in 10) will not feel symptoms. However, the older you are the more likely you may have symptoms. In acute disease, symptoms usually occur about 4–6 weeks after exposure to the virus. Illness can last from a couple of weeks to up to six months. In chronic disease, symptoms may be more severe and occur off and on as the illness returns over time. People living with HIV can face even more troubling bouts of illness.

In both acute and chronic disease, if symptoms do appear they may include fever, tiredness, loss of appetite, body aches, nausea, vomiting, stomach pain and itching. More severe symptoms include yellowing of the skin and eyes (jaundice), dark urine and changes in stool. Some people may have less frequent and lighter symptoms while others have symptoms that linger. Some may need to stop work or school in order to recover.

A very small number of people, most often older adults or those with chronic liver disease, can quickly develop a severe form of liver failure when they get HDV. This is called fulminant hepatitis. Although it's serious, most people will recover from the condition.

How do you find out you have hepatitis D?

If you think that you were exposed to HDV or other hepatitis virus, talk to your doctor as soon as possible and explain why. Your doctor can diagnose hepatitis D by doing a physical exam, liver function tests (LFTs) and an antibody blood test.

Diagnosing hepatitis D can be difficult though. The blood test looks for HDV antibodies—what your immune system makes in response to the HDV. However, these may not be found until after 30 days after your symptoms first appear. Also, the test can only tell if HDV is present but not the state of the illness—not as well as the tests do for HBV. A new test is being developed to help diagnose hepatitis D faster and easier.

Your doctor may also rely upon other signs to help make the diagnosis. If your acute HBV infection seems rather severe, it may point to co-infection with HDV. As well, should your chronic hepatitis B suddenly get worse, it may point to super-infection with HDV. In some people with super-infection, their LFTs can peak twice—once when HBV infection starts and again at the time of getting HDV.

What happens when you have both hepatitis D and B?

CO-INFECTION: When a person gets both viruses at the same time, it is called *co-infection*. If this happens, then nearly everyone (more than 9 in 10) recovers fully. Few people go on to develop chronic disease. HDV may keep HBV from reproducing as fast as it would if the HBV were alone, so chronic infection is less likely. Again, because the two viruses are present, the acute disease may cause more severe illness in some people, as well as in people living with HIV.

SUPER-INFECTION: When a person gets HDV after already having HBV, it is called *super-infection*. This is a more serious state of health. Once the liver cells contain a large amount of HBV, HDV tends to be much more active. More than half of those with super-infection go through severe acute disease. Nearly 9 in 10 with super-infection will develop more severe chronic hepatitis. Cirrhosis and liver failure are more common as well. Preventing super-infection is a real concern.

How do you treat hepatitis D?

Hepatitis D is usually not treated on its own. For people living with both HIV and HBV, it's important to keep HBV disease under control. This, in turn, can help keep hepatitis D under control since HDV needs HBV to live. In theory, less HBV equals less HDV. Keeping CD4+ cell counts above 200 or higher can also help.

Interferon-alpha, which can be used to treat hepatitis B and C, has not been helpful in treating hepatitis D. Some studies suggest that a higher dose than what is usually used for HBV may work better.

It's important to drink lots of water and other fluids, especially if you have vomiting, diarrhea or a fever. It's also important to eat even though you may not feel like it. Eating smaller meals more often may help. Another thing that helps is to stop taking or cut down on alcohol, drugs and herbs. These can make your illness worse and last longer. It also helps to rest and match what you can do during a usual day to your energy level. More information can be found in Project Inform's publication, *Towards a Healthy Liver*.

Concerns for people living with HIV

People living with HIV are at higher risk than others for getting HDV since they both are passed in similar ways. If they do get HDV then they will also have HBV. This means that their livers are fighting three different diseases at the same time. This can be quite difficult for some to overcome. A severe case of hepatitis D may force a person to stop their meds in order to recover from the HDV.

People living with HIV may face more severe symptoms, illness and longer time to recover than HIV-negative people, both in acute and chronic disease. This can be due to taking anti-HIV and other meds or herbs that the liver breaks down as well as other liver disease that they may have, like hepatitis C. Cirrhosis, liver failure and death are also more likely to occur in chronic disease.

At times, a decision will need to be made to start treating the HBV first or the HIV first, or even at the same time. This can be a difficult decision for both you and your doctor for various reasons. Learning about all your options can help. Read more about this topic in Project Inform's publication, *Hepatitis B*.

For these reasons, it's recommended that people living with HIV get the vaccines for HBV and HAV if they haven't had hepatitis B or A. By preventing hepatitis B, people cannot get HDV. The vaccine is safe to use and is best done when CD4+ cell counts are above 300.

Concerns for women, children and people over 50

In general, the concerns for women, children and people over 50 are about the same as those for HBV. (For more detailed information, read Project Inform's publication, Hepatitis B.) HDV infection in a pregnant woman does not put the unborn baby at risk. Although children get HDV infection less often than adults, if a child with viral hepatitis develops cirrhosis, HDV infection is often the reason. Adults aged 60 years and older with HDV will more likely face more severe illness and death.

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