

Third Millennium Challenge: Hepatitis C

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An estimated 4 million people in the United States and 202 million people worldwide may carry the hepatitis C virus (HCV). As such, HCV will likely be a serious public health threat well into the 21st century. HCV is the leading cause of liver transplants in the United States, and it causes cirrhosis and hepatocellular carcinoma. The virus is usually asymptomatic for years, so many do not know they are infected until after they have sustained irreparable liver damage. Experts are unsure whether all who are infected with HCV will develop a progressive disease. HCV, which has proven difficult to study because it does not grow well in laboratories, is a positive single-stranded RNA with six different genotypes and 100 subtypes. A single patient may have many closely-related but distinct viral variants, called quasispecies. Quasispecies may elude the body's immune surveillance, worsening chronic infections and causing a lack of immunity after infection. Quasispecies may also be associated with the progression of HCV and may influence treatment. High risk factors for HCV include blood transfusions or blood products given before 1990, intravenous drug use, and multiple sex partners.

[See the topic on aegis.org](http://aegis.org)