Hepatitis C
What is it, who should be tested and why?

**What is it?**
Hepatitis C is caused by the hepatitis C virus (HCV). The hepatitis C virus is spread through contact with the blood of an infected person and (rarely) through sexual contact.

**Who should be tested and why?**
HCV testing is recommended for anyone at increased risk for HCV infection, including:
- Persons born from 1945 through 1965 ("baby boomers")
- Persons who have ever injected illegal drugs, including those who injected only once many years ago
- Persons who received an unregulated tattoo
- Recipients of clotting factor concentrates made before 1987
- Recipients of blood transfusions or solid organ transplants before July 1992
- Patients who have ever received long-term hemodialysis treatment
- Persons with known exposures to HCV, such as
  - Health care workers after needle sticks involving HCV-positive blood
  - Recipients of blood or organs from a donor who later tested HCV-positive
- All persons with HIV infection
- Patients with signs or symptoms of liver disease (e.g., abnormal liver enzyme tests)
- Children born to HCV-positive mothers (to avoid detecting maternal antibody, these children should not be tested before age 18 months)

**Blood tests used to test for hepatitis C**
A person will first get a screening test that will show whether he or she has developed antibodies to the hepatitis C virus. (An antibody is a substance found in the blood that the body produces in response to a virus.)

Having a positive antibody test means that a person was exposed to the virus at some time in his or her life. If the antibody test is positive, a second blood test assesses for the presence of the hepatitis C virus in the blood.
- If the initial hepatitis C antibody test is negative, no further testing is needed.
- If the HCV antibody and HCV RNA (viral) test are both positive, then the diagnosis of hepatitis C is confirmed.

Most Swedish primary care clinics are running both hepatitis C blood tests from the same specimen, preventing the need to return for a second blood test.
Symptoms of hepatitis C
Most people with hepatitis C have no symptoms or only mild nonspecific symptoms that are difficult to attribute to the infection. Most people notice no problems until they develop liver disease years later. Among those who do have symptoms, the most frequent complaint is fatigue.

Symptoms include the following:
• Flu-like problems (fatigue, nausea, vomiting, diarrhea and sore muscles and joints)
• Tenderness in the upper right abdomen
• Jaundice (yellowing skin)
• Swelling in the abdomen
• Itching
• Dark urine

How serious is hepatitis C?
Hepatitis C is a serious disease that can result in long-term health problems, including liver damage, liver failure, liver cancer or even death.

Hepatitis C is the leading cause of cirrhosis and liver cancer and the most common reason for liver transplantation in the United States. Avoiding alcohol, losing weight and taking other steps to protect the liver greatly reduces the chances of having life-threatening liver problems.

Deaths associated with hepatitis C reached an all-time high of 19,659 in 2014, according to new surveillance data released by the Centers for Disease Control and Prevention.

After hepatitis C diagnosis
All patients with hepatitis C should undergo additional testing to determine the hepatitis C genotype, the hepatitis C viral load (level), assess the degree of liver damage, determine the need for hepatitis A and B vaccination and exclude HIV and hepatitis B. This information is obtained through additional blood testing.

All patients with hepatitis C should abstain from alcohol and undergo hepatitis A and B vaccination (if no evidence of prior exposure in the blood). They should not share razors, nail clippers, nail files, dental supplies or other equipment that might transmit HCV to others. They should also speak with a hepatitis C specialist regarding evaluation and treatment.

Hepatitis C evaluation, treatment and treatment regimes
Evaluation: All patients with hepatitis C should undergo evaluation to determine the degree of liver damage (scarring). Methods include blood testing (usually FibroSure), ultrasound elastography (FibroScan, not available everywhere) and liver biopsy.

The degree of liver damage (or fibrosis) is assessed on a scale of none to mild (F0 or F1), mild to moderate (F1 or F2), advanced (F3) and cirrhosis (F4).

Treatment: There are several forms of the virus — called genotypes — each of which must be treated differently. In the United States, genotype 1 is the most common, but genotypes 2 and 3 and, less commonly, 4 also occur. The HCV genotype is determined through a blood test and does not change over time.

Since late 2013, interferon-free, highly effective treatment regimens have been available, with cure rates of 95 percent and higher for most HCV genotypes.

Decision to treat and treatment regimens:
People diagnosed with hepatitis C should decide — in conjunction with their health care providers — whether and when to treat their infection. Factors that go into deciding whether treatment is appropriate include the condition of the person’s liver, the person’s overall health and the genotype the person has.

People who undergo treatment use one or more medications for several months. The specific combination of agents and the duration of treatment are determined based on the genotype involved and the person’s individual characteristics.

Most hepatitis C medications can interact with other medications. The hepatitis C specialist will review all medications, including herbal and non-prescription medications.

Some insurance companies are prioritizing patients for hepatitis C treatment, limiting access to those with F2 or greater fibrosis. The hepatitis C specialist will discuss treatment options with the patient.

Additional resources
- Hepatitis Education Project (HEP)
  Hependucation.org/support-groups
- Public Health – Seattle and King County
  Kingcounty.gov/healthservices/health/communicable/diseases/HepatitisC.aspx
- Center for Disease and Prevention (CDC)
  Cdc.gov/hepatitis/hcv/patientedu/hcv.htm