



Enhanced acute HCV and HBV surveillance investigation toolkit

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Definitions

- **Acute case investigation:** Acute cases are defined as those acute HCV or HBV cases that meet “Confirmed” or “Probable” (for HCV only) CSTE case definition.
- **Case-contact investigation:** Case-contact is defined as any person identified by an acute HCV or HBV case with reported behavioral risk factors* within 2 weeks to 6 months of the acute case’s diagnosis date.
- **Acute case interview complete:** Complete (at least 70% of risk factors complete; does not include unknown variables) risk variable data available in UT-NEDSS based on case interview.
- **Blood draw:** Specimen is collected for needed bloodborne pathogen testing. The specimen is collected by the local health department (LHD) and sent to the Utah Public Health Lab (UPHL) for testing.
- **Reported behavioral risk factors for hepatitis C:**
 - Direct contact with the blood or open sores of an infected person;
 - Sharing razors, nail clippers, toothbrushes, or other household items where bleeding may occur;
 - Injecting illicit drugs with others;
 - Sharing needles and syringes (including getting tattoos from a non-licensed facility);
 - Sharing cookers, cottons, water, ties, alcohol swabs or other equipment used to prepare and inject drugs;
 - Being born to a mother who is hepatitis C positive;
 - Getting an accidental needle stick from used needles and syringes that are not properly discarded; and
 - Less commonly, sexual contact with a person who is hepatitis C positive.
- **Reported behavioral risk factors for hepatitis B:**
 - Direct contact with the blood or open sores of an infected person;
 - Sharing razors, nail clippers, toothbrushes, or other household items where bleeding may occur;
 - Sharing needles and syringes (including getting tattoos from a non-licensed facility);
 - Sharing cookers, cottons, water, ties, alcohol swabs or other equipment used to prepare and inject drugs;
 - Being born to a mother who is hepatitis B positive;
 - Getting an accidental needle stick from used needles and syringes that are not properly discarded; and
 - Sexual contact with a person who is hepatitis B positive.

Goals of enhanced acute investigations

The intent of the funding awarded to the Utah Department of Health and Human Services (DHHS) is to enhance HCV and HBV testing, linkage to care, and surveillance activities in Utah.

- ★ Increase hepatitis testing among at risk populations, specifically people who inject drugs (PWID)
- ★ Increase confirmatory testing for hepatitis C, specifically among PWIDs
- ★ Increase relationships between community members and LHDs, in an effort to increase service access to underserved populations
- ★ Solicit contacts of cases for testing to better reach hidden populations
- ★ Connect cases and contacts to community services

Enhanced acute HCV and HBV investigation protocol

All acute cases (confirmed and probable) of HCV and HBV should be investigated.

Conduct the following steps for each case of acute HCV/HBV:

1. Confirm acute HCV/HBV case classification
 - [Hepatitis B, Acute CSTE Case Definition \(2012\)](#)
 - [Hepatitis C, Acute CSTE Case Definition \(2020\)](#)
2. Attempt case contact a minimum of 4 times at different times of the day, on different days of the week.

If contact is made with the case:

- Complete a case interview
 - Update/confirm demographic information
 - Obtain clinical information on Clinical Tab in EpiTrax (pregnancy status, symptomatology, reason for testing, co-infections, vaccine history),
 - Complete Investigation Tab, Exposure History—Acute in EpiTrax
- Provide HCV/HBV education
 - Transmission
 - Disease progression
 - Testing (antibody vs. RNA)
 - Treatment and care
- Offer free blood testing for HCV RNA and HBV, as needed
 - Conduct point of contact blood draw, if applicable

- Provide linkage to care if the case does not already have a HCV/HBV treatment provider. Linkage to care can include:
 - Finding a provider for the case that accepts the proper insurance or uninsured patients
 - Help scheduling an appointment with a provider for care/treatment
 - Following up with cases to remind them of scheduled appointments
- Identify the need for other community services and refer, as needed. Services can include:
 - Housing
 - Transportation
 - Health insurance
 - Harm reduction services/syringe service programs (SSPs)/naloxone
 - Substance use treatment
- Recommend and/or provide vaccination for HAV and HBV, as needed
- Inquire about at-risk contacts with similar [behavioral risk factors*](#) and contact individuals provided:
 - Notify contact of potential exposure
 - Provide HCV/HBV education
 - Transmission
 - Testing (antibody vs. RNA)
 - Disease progression
 - Treatment and care
 - Recommend testing
 - Offer free blood testing HCV RNA and HBV, as needed
 - Conduct point of contact blood draw, if applicable

If contact with the case is unsuccessful the interview should:

- Obtain and/or request clinical notes and upload to EpiTrax
 - Complete case interview investigation questions as much as possible per clinical notes (Clinical and Investigation tabs in EpiTrax)

If the LHD does not have capacity to complete case investigations they can request a DHHS disease intervention specialist (DIS) to complete cases using the following steps:

- Route case to “Utah State” in EpiTrax
- Email CMR to hepatitis@utah.gov
- DHHS DIS completes case investigation
- DHHS DIS routes completed investigation back to the LHD and notify LHD of investigation outcomes
- LHD reviews and closes out case

DIS investigation tips

Communication tips to conduct investigations:

- Reiterate privacy and confidentiality
- Establish rapport
- Practice active listening
- Use open-ended questions
 - ◆ Use phrases such as, “tell me . . .” “explain . . .” “describe . . .” “who . . .” “what . . .” “when . . .” “where . . .” “why . . .” “how . . .”
- Communicate using plain language
- Give factual information
- Solicit patient feedback
- Offer options, not directions

Talking points to consider:

1. **Introduce yourself:** “Hello, my name is _____ and I work for the _____ health department.”
2. **State your purpose and role:** “I am calling you today to discuss some recent testing you had done for _____. In Utah, positive test results for _____ are reported to the local health department so the health department can follow up with you to answer any questions and concerns, help you manage your infection, and prevent additional infections. I am here to answer your questions and concerns and if it is okay with you, we can talk about how other friends or partners of yours may be infected.”
3. **Verify case (patient) identity:** “Can you verify your name and date of birth? What would you like me to call you today?”
4. **Explain confidentiality:** “Keep in mind that I will be taking notes, but these are for my eyes only. What we talk about today is between you and me.”
5. **Address any patient concerns:** “What are some questions or concerns that you have for me?” “What made you decide to get tested for _____?”
6. **Assess social history:** “In order for me to help you manage your infection in the best way possible, I am going to ask you a little about yourself and your lifestyle. I also may need to contact you in the next few days (to deliver more test results or follow up on medications) and I want to be able to do that as quickly and as confidentially as possible.”

- **Contact information** (phone, email, in person, facebook, etc.): “What is your email address?” “What is your phone number?”
 - **If I need to follow-up with a case with case/patient:** “What is the best time to reach you?” “Where is the best place to reach you?” “In case of an emergency or if I have to contact you very quickly, is there someone who could take a message for you? What is their number?”
 - **Where case/patient lives and who they live with:** “Where are you staying?” “What is your address? “In order to keep this as private as possible, I need to know who else might answer the door or phone. Who are you staying with?” “Who lives in your household?”
 - **Pregnancy status/perinatal care (reproductive aged sexual females only):** “When was the last time you were pregnant?” “What are the chances that you are pregnant now?” Do you receive prenatal care?” “Where?”
 - **Tell me about any previous tests and results**
 - **Tell me about your drug use:** “What kind of drugs have you taken in the past year?” If applicable, “How often do you share drug injection equipment (works), including cottons, cookers, tourniquets, needles/sharps/points?”
 - If applicable, “How often do you share pipes or sniffers?”
7. **Assess disease comprehension and provide prevention education:** “Tell me what you know about HCV/HBV and how they are spread?”
 8. **Solicit information for at-risk contacts:** “Now that we have talked about your status, let’s privately talk about partners and social contacts who may also have or be at risk for HCV/HBV.”
 - “Who have you shared injection drug equipment within the last 6 months?”
 - “Are there any other individuals who you feel could have or are at risk for HCV/HBV?”
 - “What is the best way to contact these individuals?”
 - “If you would like, you can tell your partners/social contacts on your own, or I can contact them, while keeping your information anonymous (secret).”
 - “Would you like help figuring out how to tell your partners/social contacts?”
 9. Review what you discussed and let patients know they can contact you with any follow-up questions or concerns.

When to collect a blood sample

- During suspect acute HCV investigations
 - Antibody or viral load seroconversion within 12 months, OR
 - Elevated LFTs (ALT >200, Bilirubin >3.0)
- During suspect acute HBV investigations
 - HBsAg negative to either positive HBsAg, HBeAg, or HBV NAT within 6 months, or
 - Elevated LFTs (ALT >100, Bilirubin >3.0)
- After a positive HCV antibody from a rapid HCV test kit

Blood collection instructions

Note: The immunology tests covered under this funding include hepatitis C antibody, HCV RNA testing, and hepatitis B surface antigen. If you have already determined that the client is hepatitis C antibody positive, you can select HCV RNA testing only.

Specimen: Minimum of 1 mL (HBV and HCV) serum per test (ideally 6 mLs total, filling the vacutainer tube). A minimum of 1 mL of serum is also required for HCV NAT send out. One container is fine for this. Just as long as there is at least 2 mLs total.

Collect in: Vacutainer tube (gold, tiger, or red top only)

Processing: Centrifugation at the collection site is preferred (if possible). Allow blood to completely clot, spin at 3200 rpm for 10 minutes to remove lipids and bacterial contaminants. After serum or plasma separation ship to the lab refrigerated or frozen (if HCV NAT is requested). Serum and plasma can be potentially shipped at room temperature if only antibody/antigen tests are ordered. If unable to prepare serum/plasma on site submit the whole blood sample immediately to the lab (refrigerated if HCV NAT is requested). Do not freeze whole blood.

Transport: Serum is stable at ambient temperatures (70-75 F) for 1 day or 3 days at refrigerated temperature (~4 F). Serum is stable >3 days if frozen. For example, if samples are drawn on Fridays and Saturdays and are placed into a cooler at ~4F and delivered to UPHL Monday morning (i.e., within 72 hours), where they will be placed into the freezer at -80F, sample(s) will be sufficient to send to ND for NAT testing.

Time critical: Serum is stable at ambient temperatures (70-75 F) for 1 day or 3 days at refrigerated temperature (~4 F). Serum is stable >3 days if frozen.

Label: Patient's full name (or unique ID number), birth date, and collection date. (For CLIA, all 3 are required.)

In summary, if you send whole blood or serum refrigerated it needs to get to the lab within 3 days. If not refrigerated the samples need to get to the lab within 1 day. HCV NAT can be kept at room temperature up to 1 day.

Ship to UPHL (with UPHL requisition with project code VHP17) using IHC courier or you can drop it off at: 4431 South 2700 West, Taylorsville, UT 84129-8600

Education, referrals, and resources

Education

HCV education

What is hepatitis C?

Hepatitis C is a contagious liver disease that varies in severity from a mild illness that lasts a few weeks to a serious, lifelong illness that attacks the liver. It results from infection with the hepatitis C virus (HCV), which is spread primarily through contact with the blood of an infected person. Hepatitis C can be either “acute” or “chronic.”

Acute hepatitis C virus infection is a short-term illness that occurs within the first 6 months after someone is exposed to the hepatitis C virus. For most people, acute infection leads to chronic infection.

Chronic hepatitis C virus infection is a long-term illness that occurs when the hepatitis C virus remains in a person's body. Hepatitis C virus infection can last a lifetime and lead to serious liver problems, including cirrhosis (scarring of the liver) or liver cancer.

How is hepatitis C spread?

Hepatitis C is transmitted through blood and spread when blood from a person infected with the hepatitis C virus enters the body of someone who is not infected. Today, most people become infected with the hepatitis C virus by sharing needles or other equipment to inject drugs. Before 1992, when widespread screening of the blood supply began in the United States, hepatitis C was also commonly spread through blood transfusions and organ transplants.

People can become infected with the hepatitis C virus during such activities as:

- Sharing needles, syringes, or other equipment to inject and prepare drugs
- Needlestick injuries in healthcare settings
- Being born to a gestational parent who has hepatitis C
- Sharing personal care items that may have come in contact with another person's blood, such as razors or toothbrushes
- Having sexual contact with a person who is infected with the hepatitis C virus

Symptoms: Approximately 70% to 80% of people with acute hepatitis C do **not** have any symptoms. Some people, however, can have mild to severe symptoms, including:

- Fever
- Fatigue
- Loss of appetite
- Nausea
- Vomiting
- Abdominal pain
- Dark urine
- Clay-colored bowel movements
- Joint pain
- Jaundice (yellow color in skin/eyes)

How soon after exposure to hepatitis C do symptoms appear?

If symptoms occur, the average time is 6–7 weeks after exposure, but this can range from 2 weeks to 6 months. If a person has been infected for many years, his or her liver may be damaged. In many cases, there are no symptoms of the disease until liver problems develop.

Can a person spread hepatitis C without having symptoms?

Yes, even if a person with hepatitis C has no symptoms, he or she can still spread the virus to others.

What are the long-term effects of hepatitis C?

Chronic hepatitis C is a serious disease that can result in long-term health problems, including liver damage, liver failure, liver cancer, or even death. It is the leading cause of cirrhosis and liver cancer and the most common reason for liver transplants in the United States.

Approximately 19,000 people die every year from hepatitis C related liver disease.

Of every 100 people infected with the hepatitis C virus, about:

- 75–85 people will develop chronic hepatitis C virus infection; of those,
- 60–70 people will go on to develop chronic liver disease,
- 5–20 people will go on to develop cirrhosis over a period of 20–30 years,
- 1–5 people will die from cirrhosis or liver cancer.

Pregnancy and hepatitis C

Are pregnant persons tested for hepatitis C?

All pregnant people should be screened for hepatitis C during each pregnancy.

Can hepatitis C be transmitted from gestational parent to baby?

Yes. Hepatitis C can be transmitted from a mother to her baby. Identifying hepatitis C in pregnant people allows them to access treatment and identifies at-risk infants in need of testing and ongoing monitoring, as needed. There are recommended timelines for HCV RNA screening of infants born to HCV-positive gestational parents. These include not testing until at least 2 months of age and, in some cases, recommending repeat serial testing of infants if they test positive on 1 test, if done prior to 12 months of age (CSTE, 2017). Testing for anti-HCV at <18 months of age is not recommended as a positive result could be caused by trans-placental maternal anti-HCV.

HBV education

What is hepatitis B?

Hepatitis B is a contagious liver disease that varies in severity from a mild illness that lasts a few weeks to a serious, lifelong illness. It results from infection with the hepatitis B virus. Hepatitis B can be either “acute” or “chronic.” For many people, hepatitis B is a short-term illness. For others, it can become a long-term, chronic infection that leads to serious, even life-threatening health issues like cirrhosis or liver cancer. Risk for chronic infection is related to age at infection: about 90% of infants with hepatitis B go on to develop chronic infection, whereas only 2% to 6% of people who get hepatitis B as adults become chronically infected.

How is hepatitis B spread?

Hepatitis B is spread when blood, semen, or other body fluid infected with the hepatitis B virus enters the body of a person who is not infected. People can become infected with the virus during activities such as:

- Pregnancy and birth (spread from an infected gestational parent to baby during pregnancy or birth)
- Sex with an infected partner
- Sharing needles, syringes, or other drug-injection equipment
- Sharing items such as razors or toothbrushes with an infected person
- Direct contact with the blood or open sores of an infected person
- Exposure to blood from needlesticks or other sharp instruments

Hepatitis B virus is **not** spread by sharing eating utensils, breastfeeding, hugging, kissing, holding hands, coughing, or sneezing.

Symptoms:

- Fever
- Fatigue
- Loss of appetite
- Nausea
- Vomiting
- Abdominal pain
- Dark urine
- Clay-colored bowel movements
- Joint pain
- Jaundice (yellow color in the skin or the eyes)

How soon after exposure to hepatitis B will symptoms appear?

On average, symptoms appear 90 days (or 3 months) after exposure, but they can appear any time between 6 weeks and 6 months after exposure. Some people have ongoing symptoms similar to acute hepatitis B, but most individuals with chronic hepatitis B remain symptom free for as long as 20 or 30 years. Between 15% to 25% of people with chronic hepatitis B develop serious liver conditions, such as cirrhosis (scarring of the liver) or liver cancer. Even as the liver becomes diseased, some people still do not have symptoms, although certain blood tests for liver function might begin to show some abnormalities.

Can a person spread hepatitis B without having symptoms?

Yes. Many people with hepatitis B have no symptoms, but these people can still spread the virus.

How serious is chronic hepatitis B?

Chronic hepatitis B is a serious disease that can result in long-term health problems, including liver damage, liver failure, liver cancer, or even death. Approximately 1,800 people die every year from hepatitis B-related liver disease.

Pregnancy and hepatitis B

How does a baby get hepatitis B?

A baby can get hepatitis B from an infected person during childbirth.

Are pregnant persons tested for hepatitis B?

Yes. When a pregnant person comes in for prenatal care, they will be given a series of routine blood tests, including one that checks for the presence of hepatitis B virus infection. This test is important because persons infected with this virus can pass hepatitis B to their babies during birth.

Can a baby be protected from getting hepatitis B from their gestational parent during birth?

Yes. Nearly all cases of hepatitis B can be prevented if a baby born to an infected person receives the necessary shots at the recommended times. The infant should receive hepatitis B immune globulin (HBIG) and the first dose of hepatitis B vaccine within 12 hours of birth. Two or 3 additional shots of vaccine are needed over the next 1–6 months to help prevent hepatitis B. The timing and total number of shots are influenced by several factors, including the type of vaccine and the baby's age and birth weight. In addition, experts recommend the baby get an antibody test 1–2 months after completion of the vaccine series at age 9–12 months to make sure he or she is protected from the disease. To best protect your baby, follow the advice of his or her doctor.

What happens if a baby gets hepatitis B?

Most newborns who become infected with hepatitis B virus do not have symptoms, but they have a 90% chance of developing chronic hepatitis B. This can eventually lead to serious health problems, including liver damage, liver cancer, and even death.

Do babies need the hepatitis B vaccine even if a pregnant person does not have hepatitis B?

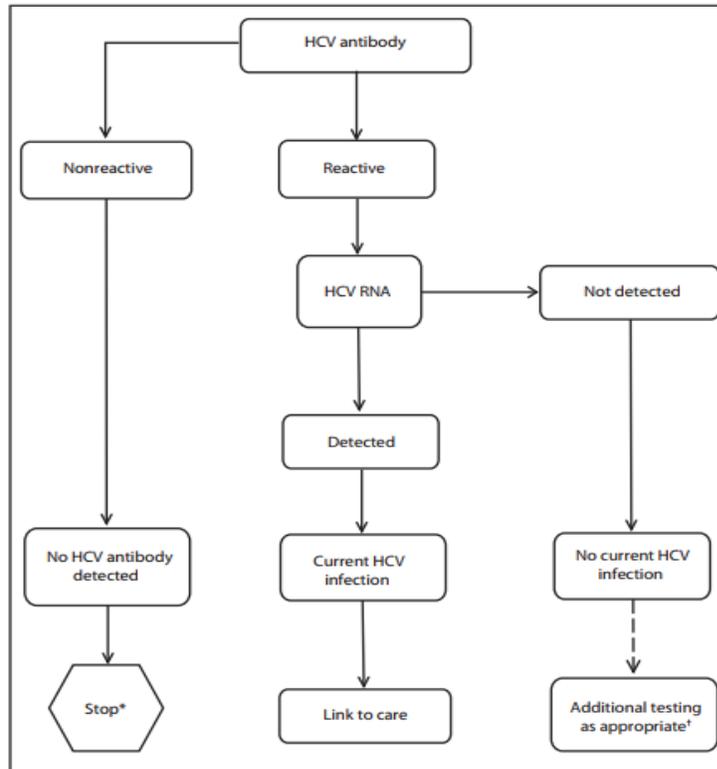
Yes. The hepatitis B vaccine is recommended for all infants. The Advisory Committee on Immunization Practices (ACIP) recommends an infant get the first shot before they leave the hospital. Babies and young children are at much greater risk than adults for developing a chronic infection if infected, but the vaccine can prevent this.

Testing

HCV diagnostic testing

1. **HCV antibody test:** A positive result means at some point, the patient contracted hepatitis C. However, this test alone cannot determine whether the patient had a past resolved infection or is currently infected. To determine current infection, follow-up with a HCV RNA confirmatory test.
2. **HCV RNA/confirmatory test:** A positive result detects the virus in the blood and confirms the patient is currently living with hepatitis C. Infection may be acute or chronic.

FIGURE. Recommended testing sequence for identifying current hepatitis C virus (HCV) infection



* For persons who might have been exposed to HCV within the past 6 months, testing for HCV RNA or follow-up testing for HCV antibody is recommended. For persons who are immunocompromised, testing for HCV RNA can be considered.

† To differentiate past, resolved HCV infection from biologic false positivity for HCV antibody, testing with another HCV antibody assay can be considered. Repeat HCV RNA testing if the person tested is suspected to have had HCV exposure within the past 6 months or has clinical evidence of HCV disease, or if there is concern regarding the handling or storage of the test specimen.

(Centers for Disease Control and Prevention, <https://www.cdc.gov/mmwr/pdf/wk/mm62e0507a2.pdf>)

HBV diagnostic testing

Only one sample of blood is needed for a hepatitis B blood test, but the “Hepatitis B Panel” includes 3 parts. All 3 test results are needed to fully understand whether a person is infected or not. Below is an explanation of the 3-part “Hepatitis B Panel” of blood test results.

1. **HBsAg (Hepatitis B surface antigen)**—A “positive” or “reactive” HBsAg test result means the person is infected with hepatitis B. This test can detect the actual presence of the hepatitis B virus (called the “surface antigen”) in the blood. If a person tests “positive,” further testing of IgM anti-HBc is needed to determine if this is a new acute infection or a chronic hepatitis B infection. A positive HBsAg test result means the person is infected and can spread the hepatitis B virus to others through their blood.

2. **Anti-HBs or HBsAb (Hepatitis B surface antibody)**—A positive or reactive anti-HBs (or HBsAb) test result indicates the person is protected against the hepatitis B virus. This protection can be the result of receiving the hepatitis B vaccine or successfully recovering from a past hepatitis B infection. This test is not routinely included in blood bank screenings. A positive anti-HBs (or HBsAb) test result means the person is immune and protected against the hepatitis B virus and cannot be infected or spread hepatitis B to others.
3. **Anti-HBc or HBcAb (Hepatitis B core antibody)**—A positive or reactive anti-HBc (or HBcAb) test result indicates a past or current hepatitis B infection. The core antibody does not provide any protection against the hepatitis B virus (unlike the surface antibody described above). This test can only be fully understood with the results of the first 2 tests (HBsAg and anti-HBs). A positive anti-HBc (or HBcAb) test result requires a discussion with a healthcare provider for a complete explanation of the hepatitis B status.

HBsAg anti-HBc anti-HBs	negative negative negative	Susceptible
HBsAg anti-HBc anti-HBs	negative positive positive	Immune due to natural infection
HBsAg anti-HBc anti-HBs	negative negative positive	Immune due to hepatitis B vaccination
HBsAg anti-HBc IgM anti-HBc anti-HBs	positive positive positive negative	Acutely infected
HBsAg anti-HBc IgM anti-HBc anti-HBs	positive positive negative negative	Chronically infected
HBsAg anti-HBc anti-HBs	negative positive negative	Interpretation unclear; four possibilities: 1. Resolved infection (most common) 2. False-positive anti-HBc, thus susceptible 3. "Low level" chronic infection 4. Resolving acute infection

Adapted from: A Comprehensive Immunization Strategy to Eliminate Transmission of Hepatitis B Virus Infection in the United States: Recommendations of the Advisory Committee on Immunization Practices. Part I: Immunization of Infants, Children, and Adolescents. MMWR 2005;54(No. RR-16).

(Centers for Disease Control and Prevention,
<https://www.cdc.gov/hepatitis/HBV/PDFs/SerologicChartv8.pdf>)

Treatment

HCV treatment

Can acute hepatitis C be treated?

Yes. Acute hepatitis C can be treated. Acute infection can clear on its own without treatment in about 25% of adults. If acute hepatitis C is diagnosed, treatment reduces the risk that acute hepatitis C will become a chronic infection. Acute hepatitis C is treated with the same medications used to treat chronic hepatitis C. However, the optimal treatment and when it should be started varies. AASLD and IDSA HCV Guidance: Recommendations for Testing, Managing, and Treating Hepatitis C can be found here: <https://www.hcvguidelines.org/>

Can chronic hepatitis C be treated?

Yes. There are several medications available to treat chronic hepatitis C, including new treatments that appear to be more effective and have fewer side effects than previous options. The Food and Drug Administration (FDA) maintains a complete list of approved treatments for hepatitis C.

Is it possible to clear hepatitis C without treatment?

Yes. Approximately 15%–25% of people who get hepatitis C will clear the virus from their bodies without treatment and will not develop chronic infection. Experts do not fully understand why this happens for some people.

What can a person with chronic hepatitis C do to take care of his or her liver?

People with chronic hepatitis C should be monitored regularly by an experienced doctor. They should avoid alcohol because it can cause additional liver damage. They also should check with a health professional before they take any prescription pills, supplements, or over-the-counter medications, as these can potentially damage the liver. If liver damage is present, a person should check with his or her doctor about getting vaccinated against hepatitis A and hepatitis B.

<https://www.cdc.gov/hepatitis/hcv/cfaq.htm>

There have been new advances in treatment for HCV. Treatment is also easier than in the past because it usually involves pills only (no injections), there are fewer to no side effects, and treatment typically takes only 8–12 weeks.

Keep in mind:

- Once the virus is cured, it's no longer present in the body and can't be passed to others.
- Take preventive measures to prevent re-infection
- Some people may be initially denied access to treatment based on drug/alcohol use or degree of liver damage. If the patient is denied access to treatment by an insurance company, they have the right to an appeal.
- HIV Medications and hepatitis C treatment: HIV medications may need to be adjusted for people who have hepatitis C.

For more information and a printable brochure in English or Spanish follow this link:

<http://harmreduction.org/hepatitis-c/hcv-basics/>

HBV treatment

How is acute hepatitis B treated?

There are medications available to treat chronic hepatitis B, but they are not considered a cure. These treatments control the virus to decrease damage to the liver. People with chronic hepatitis B should be monitored regularly for signs of liver disease and evaluated for possible treatment. Several medications have been approved for chronic hepatitis B treatment, and new drugs are in development.

How is chronic hepatitis B treated?

It depends. People with chronic hepatitis B virus infection should seek the care or consultation of a doctor with experience treating hepatitis B. This can include some internists or family medicine practitioners, as well as specialists such as infectious disease physicians, gastroenterologists, or hepatologists (liver specialists). People with chronic hepatitis B should be monitored regularly for signs of liver disease and evaluated for possible treatment. Several medications have been approved for hepatitis B treatment, and new drugs are in development. However, not every person with chronic hepatitis B needs to be on medication, and the drugs may cause side effects in some patients.

What can people with chronic hepatitis B do to take care of their liver?

People with chronic hepatitis B should be monitored regularly by a doctor who is experienced in caring for people with hepatitis B. They should avoid alcohol because it can cause additional liver damage. They also should check with a healthcare professional before taking any prescription pills, supplements, or over-the-counter medications, as these can potentially damage the liver.

Vaccination

HCV vaccination

Currently there is no vaccination for hepatitis C.

HBV vaccination

Can hepatitis B be prevented?

Yes. The best way to prevent hepatitis B is to complete the hepatitis B vaccination series. The hepatitis B vaccine is safe and effective and is usually given as 3-4 shots over a 6-month period.

What is the hepatitis B vaccine series?

The hepatitis B vaccine series is a sequence of shots that stimulate a person's natural immune system to provide long-term protection against HBV. After the vaccine is given, the body makes antibodies to protect a person against the virus. An antibody is a substance found in the blood that is produced in response to a virus invading the body. These antibodies are stored in the body and fight off the infection if a person is exposed to HBV in the future.

Who should get vaccinated against hepatitis B?

Hepatitis B vaccination is recommended for:

- All infants, starting with the first dose of hepatitis B vaccine at birth
- All children and adolescents younger than 19 years of age who have not been vaccinated
- People whose sex partners have hepatitis B
- Sexually active persons who are not in a long-term, mutually monogamous relationship
- Persons who seek evaluation or treatment for a sexually transmitted disease
- Men who have sexual contact with other men
- People who share needles, syringes, or other drug-injection equipment
- People who have close household contact with someone infected with the hepatitis B virus
- Healthcare and public safety workers at risk for exposure to blood or blood-contaminated body fluids on the job
- People with end-stage renal disease, including predialysis, hemodialysis, peritoneal dialysis, and home dialysis patients
- Residents and staff of facilities for developmentally disabled persons
- People who travel to regions with moderate or high rates of hepatitis B
- People with HCV infection

- People with chronic liver disease
- People with HIV infection
- Anyone who wishes to be protected from hepatitis B virus infection

In order to reach individuals at risk for hepatitis B, vaccination is also recommended for anyone in or who seeks treatment from the following:

- Sexually transmitted disease treatment facilities
- HIV testing and treatment facilities
- Facilities that provide drug-abuse treatment and prevention services
- Healthcare settings that target services to injection drug users
- Healthcare settings that target services to men who have sex with men
- Chronic hemodialysis facilities and end-stage renal disease programs
- Correctional facilities
- Institutions and nonresidential day care facilities for developmentally disabled persons

When should a person get the hepatitis B vaccine series?

Children and adolescents

- All children should get their first dose of hepatitis B vaccine at birth and complete the vaccine series by 6–18 months of age.
- All children and adolescents younger than 19 years of age who have not yet gotten the vaccine should also be vaccinated. Catch-up vaccination is recommended for children and adolescents who were never vaccinated or who did not get the entire vaccine series.

Adults

- Any adult who is at risk for hepatitis B virus infection or who wants to be vaccinated should talk to a healthcare professional about getting the vaccine series.

Harm reduction

Injection drug use (IDU) is the most common way people get HCV. Even a tiny amount of blood, that may be invisible to the naked eye, can contain the virus. This is why it can be transmitted by sharing ANY equipment that may come into contact with someone's blood while injecting. Get tested, talk about your status, and use safe injection practices to reduce the risk of contracting or passing the virus to others.

Safer injection strategies:

- Use sterile injection equipment (syringes, cookers, cottons, water, ties) and don't reuse or share.
- Have a new spare sterile syringe to split drugs and avoid drawing up from a cooker if someone else has used it.
- If you reuse equipment, mark it as yours and only reuse your own works.
- If you share a syringe or other equipment, clean with bleach and sterile water:
 - Step 1: Rinse syringe/equipment with sterile water
 - Step 2: Rinse syringe/equipment with bleach
 - Step 3: Rinse again with new sterile water

Additional prevention strategies:

- Use sterile tattoo and piercing equipment
- Avoid sharing toothbrushes, razors, and nail clippers
- Do not share snorting straws or crack pipes (Snorting straws can cause irritation on the inside of the nose that can lead to bleeding. Crack pipes may burn or crack lips, which can cause bleeding).
- Use condoms/lubrication and get tested. HCV can be transmitted through sex that involves blood-to-blood contact, such as during anal sex, rough vaginal sex, or while a woman is menstruating. Risks increase if the patient has multiple sex partners, or has been diagnosed with any STIs, including HIV. Using condoms/lubrication and getting tested/treated for STIs can protect both you and your sexual partners.
- Reduce alcohol consumption to decrease risk of fibrosis and cirrhosis.
- Get hepatitis A and hepatitis B vaccinations to protect the liver.
- Review medications with a doctor or pharmacist to decrease stress on the liver.

Naloxone information and resources

Ways to respond to an overdose

1. Assess the person
 - a. Determine if someone is in an overdose.
 - b. Warning signs include: limp body and pale face, blue lips/fingertips, slowed breathing or no breathing, choking or gurgling sounds, no response to stimulation (yelling, sternal rub)
2. Call 911
 - a. Describe what you see: an unconscious person not breathing
 - b. If you have to leave the person, put them in the recovery position (supported on their side) and leave the naloxone container if used

3. Perform rescue breathing
 - a. Lay the person on his/her back on a flat surface
 - b. Tilt the chin to open the airway
 - c. Check the airway
 - i. Remove anything blocking the airway
 - ii. Remember to LOOK, LISTEN, and FEEL
 1. Look for chest rise/fall
 2. Listen for breath w/ ear
 3. Feel for air with your cheek
 - d. Pinch the person's nose so it closes completely
 - e. Cover his/her mouth with your mouth (or a fist) and blow 2 regular breaths about 1 second each
 - f. Breathe again. Give 1 breath every 6 seconds.
4. Administer naloxone
 - a. Naloxone can be administered 2 ways—intramuscular (manual) and nasal spray (Narcan).
 - b. Keep in mind naloxone:
 - i. Acts within 2–5 minutes
 - ii. Lasts for 30–90 minutes
 - iii. Blocks the effects of all opioids
 - iv. Is harmless with no effects if the person does not have opioids in their system
 - v. Will not reverse overdoses caused by cocaine, alcohol, benzodiazepines, methamphetamine
5. Monitor and support
 - a. Continue rescue breathing until the person revives or paramedics arrive
 - b. Place the person in recovery position when not performing rescue breathing
 - c. Stay with the person until medical help arrives
 - d. Provide an additional dose of naloxone if overdose recurs

Where to get naloxone in Utah

Anyone can obtain naloxone from one of the many pharmacies that do not require a written prescription from a doctor. A full list of locations offering naloxone in stock can be found at opidemic.utah.gov/naloxone. If you do not see your primary pharmacy on the list, they can likely order naloxone if prescribed by a doctor, but do not typically carry the drug in the store. The cost of naloxone depends on the source and product type. In situations where insurance

does not offer coverage for naloxone, Utahns can expect to pay anywhere from \$50–\$200 out of pocket for the antidote. However, many agencies offer free kits and training.

No prescription is necessary to get naloxone

- Utah law allows pharmacists to dispense naloxone without a doctor’s written prescription. Anyone can get naloxone—family members, friends, and caregivers of at-risk individuals.
- Good Samaritan Act: If you see or come across someone in an overdose, you can administer naloxone without fear of legal liability.

For more information on naloxone, visit opidemic.utah.gov/naloxone.

Syringe service provider information and resources

Syringe service providers (SSPs) are community-based programs that provide access to harm reduction services, free of charge. These programs aim to reduce HIV and hepatitis C among people who inject drugs. They offer disease prevention services and education, overdose prevention services and education, referral to substance use treatment, and testing for HIV and hepatitis C. They also facilitate safe disposal of used needles and syringes, provide access to medical care, connect clients to treatment services, and decrease crime.

Syringe service providers

- Utah Harm Reduction Coalition (UHRC), www.utahharmreduction.org
- Utah Naloxone, Salt Lake City, opidemic.utah.gov/naloxone
- Salt Lake Harm Reduction Project (SHRP), shrpexchange.org
- Martindale Clinic, odysseyhouse.org
- Utah AIDS Foundation, utahaids.org
- Southeast Utah Health Department, seuhealth.com
- Soap 2 Hope, soap2hopeut.com

*For more information see, sites.google.com/utah.gov/usen/home

Recovery and substance use treatment resources

Salt Lake City and surrounding areas

- **Daylight Recovery**
672 East Union Square, Sandy, (801) 566-2468
- **First Step House (Men only)**
Residential, 411 North Grant Street, Salt Lake City, (801) 359-8862
Outpatient, 2200 South State Street (Second Floor), Salt Lake City, (801) 359-8862
Veterans Recovery Campus, 440 South 500 East, Salt Lake City, (801) 359-8862
REACH, 660 South 200 East, Salt Lake City, (801) 359-8862
- **Fit to Recover**
789 West 1390 South, Salt Lake City, (801) 410-8988
- **Fourth Street Clinic (Homeless)**
409 West 400 South, Salt Lake City, (801) 364-0058
- **The Haven**
974 E. South Temple, Salt Lake City, (801) 533-0070
- **House of Hope (Women Only)**
857 East 200 South, Salt Lake City, (801) 487-3276
- **Odyssey House**
344 East 100 South, Suite 301, Salt Lake City, (801) 322-3222
- **Pathways Real Life Recovery**
8706 South 700 East, Suite 205, Sandy, (801) 277-7591
- **Sundance Behavioral Resources LLC**
845 East 4800 South, Murray, (801) 264-9522
- **Utah Support Advocates for Recovery Awareness (USARA)**
180 East 2100 South, Suite 101, Salt Lake City, (385) 210-0320
- **Valley Mental Health- Alcohol and Drug Program**
5965 South 900 East, Suite A250, Salt Lake City, (888) 949-4864
- **Volunteers of America (VOA)**
447 West Bearcat Dr., Salt Lake City, (801) 355-2846
- **VOA Detox Program**
252 West 1025 South, Salt Lake City, (801) 363-9400
- **Psychiatry Assessment & Referral Services (ARS)**
450 South 900 East, Suite 300. Salt Lake City, (801) 587-2770
- **University Neuropsychiatric Institute (UNI)**
501 Chipeta Way, Salt Lake City, (801) 583-2500
- **Veterans Affairs Medical Center Substance Use Disorder (SUD) Program**

500 Foothill Drive, Salt Lake City, (801) 582-1565

- **Utah Department of Health & Human Services**
195 North 1950 West, Salt Lake City, (801) 538-4171
- **Utah Addiction Medicine**
1377 East 3900 South, Suite 200, Salt Lake City, (801) 852-9440
- **Salt Lake County Behavioral Health Services**
2001 S. State St., Suite S2-300, Salt Lake City, (385) 468-4707

Summit County

- Valley Mental Health–Summit. (435) 649-8347

Wasatch County

- Wasatch County Family Clinic–Wasatch Mental Health, (435) 654-3003

Box Elder, Cache, and Rich counties

- Bear River Health Department, (435) 792-6420
- Bear River Mental Health, (435) 752-0750

Weber– Morgan counties

- Weber Human Services, (801) 625-3700

Davis County

- Davis Behavioral Health, (801) 544-0585

Utah County

- Utah County Division of Substance Abuse, (801) 851-7128
- Utah Addiction Medicine, (801) 852-9440
- Wasatch Mental Health, (801) 373-4760

Carbon, Emery, and Grand counties

- Four Corners Community Behavioral Health, Inc., (435) 637-7200

Tooele County

- Valley Mental Health–Tooele, (435) 843-3520

Tri-County (Duchesne, Uintah, Daggett)

- Northeastern Counseling Center, (435) 789-6300

Central Utah counties

- Central Utah Counseling and Substance Abuse Center, (435) 462-2416

Southwest Utah counties

- Southwest Behavioral Health Center, (435) 634-5600

San Juan County

- San Juan Counseling, (435) 678-2992

HCV/HBV treatment resources

Treatment providers

County	City	Healthcare facility	Phone	Address
Carbon	Helper	Helper Clinic	(435) 472-7000	125 South Main St., Helper, UT 84526
Emery	Castledale	Emery Medical Center	(435) 381-2305	90 West Main St., Castledale, UT 84513
Davis	Layton	Tanner Clinical: Utah Digestive Health Institute	(801) 773-4840	2132 N 1700 W, Layton, UT 84041
Grand	Moab	Moab Family Medicine	(435) 259-7121	476 Williams Way, Ste. A, Moab, UT 84532
		Moab Free Clinic	(435) 259-1113	121 W 200 S Suite A, Moab, UT 84532
		Moab Regional Recovery Center	(435) 719-3970	382 W Care Campus Dr, Moab, UT 84532
Salt Lake	Midvale	Mid-Valley Community Health	(509) 839-6822	8446 S Harrison St., Midvale, UT 84047
		U of U: Greenwood	(801) 213-9400	7495 S State St, Midvale, UT 84047
	Salt Lake City	Fourth Street Clinic	(801) 364-0058	409 W 400 S, Salt Lake City, UT 84101
		First Step House	(801) 359-8862	439 S 500 E, Salt Lake City, UT 84102

		Project Reality	(801) 364-8080	150 E 700 S, Salt Lake City, UT 84111
		Martindale Clinic	(801) 428-3500	743 E 300 S, Salt Lake City, UT 84102
		Midtown Community Health Center- South Salt Lake	(801) 486-0911	2253 State St, Salt Lake City, UT 84115
		St. Mark's Family Medicine	(801) 265-2000	3900 S 1250 E, Ste. 260, Salt Lake City, UT 84124
		U of U Health: Sugarhouse Family Health Clinic	(801) 213-8880	1280 E Stringham Ave, Salt Lake City, UT 84106
		U of U Health: Liver Clinic	(801) 581-6709	50 N Medical Dr, Salt Lake City, UT 84132
		U of U Health: Clinic 1a	(801) 581-2121	50 N Medical Dr, Salt Lake City, UT 84132
		U of U Health: Redwood	(801) 213-9900	1525 W 2100 S, Salt Lake City, UT 84119
	South Jordan	SUPeRAD	(801) 581-8425	5126 West Daybreak Parkway, South Jordan UT 84009
Sanpete	Gunnison	Gunnison Family Medicine	(435) 528-7227	95 E Center St, Gunnison, UT 84634
Summit	Coalville	Coalville Health Center	(435) 336-4403	142 S 50 E, Coalville, UT 84017

	Park City	People's Health Center	(435) 333-1850	650 Round Valley Dr, Park City, UT 84060
Tooele	Tooele	Skull Valley	(435) 850-1825	929 North Aaron Dr., Ste. i, Tooele UT 84074
Utah	Provo	Mountainland Medical Center	(801) 429-2000	589 S State St, Provo, UT 84606
		Revere Health: Provo Gastroenterology	(801) 374-1268	1055 N 500 W Bldg. B Ste. 100, Provo, UT 84604
	Orem	U of U Health: Parkway Health Center	(801) 234-8600	145 W University Pkwy, Orem, UT 84058
Weber	Ogden	Midtown Community Health Center- Ogden	(801) 393-5355	2240 Adams Avenue, Ogden, UT 84401
		Mckay-Dee Porter Family Clinic	(801) 387-5300	4403 Harrison Blvd, Ste. a700, Ogden, UT 84403
		Ogden Gastroenterology	(801) 475-3680	4403 Harrison Blvd, Ste. 4410, Ogden, UT 84403
		Tanner Clinical: Utah Digestive Health Institute	(801) 773-4840	6028 S Ridgeline Dr, Ste. 201, Ogden, UT 84405
Washington	St. George	Family Healthcare	(435) 986-2565	25 N 100 E, Ste. 102, St. George, UT 84770
		Utah Gastroenterology	(435) 673-1149	368 E Riverside Dr Suite A, St. George, UT 84790

	Hope Rising	(435) 215-7533	671 1000 E St, St. George, UT 84790
Cedar City	Family Healthcare	(435) 986-2565	245 E 680 S, Cedar City, UT 84720

Project ECHO

Project ECHO-HCV uses interactive web-based videoconferencing to connect healthcare providers and encourage them to share medical knowledge. This partnership makes it easier to deliver care to patients in their local surroundings. It also keeps providers up to date on new developments in hepatitis treatment and research.

Community providers are organized into learning networks that meet on a weekly basis to present patient cases and learn from didactic education sessions. Sessions are held every Friday 11:30-1:00 PM Mountain Time.

<https://physicians.utah.edu/echo/clinical-support-areas/hepatitis-clinic>

Patient assistance programs

Gilead

Support Path

The Support Path program helps patients understand their coverage and identify financial support options to access their Gilead hepatitis C (HCV) and hepatitis B (HBV) medicine. The program offerings include:

- Access to program navigators who can help answer insurance-related information and provide answers to questions regarding coverage options.
- Access to a nursing support line.
- Gilead HCV and HBV co-pay coupon programs, which provide co-pay support for eligible patients with commercial insurance who need help paying for their out-of-pocket medicine costs. Eligible patients could pay as little as \$5 per month. The co-pay coupon program is not available for people who are enrolled in government healthcare prescription drug programs, such as Medicare Part D and Medicaid.
- Support Path patient assistance program, which provides Gilead HCV and HBV medicines at no cost for qualified patients who meet the program's eligibility criteria.

The Support Path program supports the following medicines:

- Epclusa® (sofosbuvir/velpatasvir)
- Harvoni® (ledipasvir/sofosbuvir)
- Sovaldi® (sofosbuvir)
- Vosevi® (sofosbuvir/velpatasvir/voxilaprevir)
- Vemlidy® (tenofovir alafenamide)

To learn more about Support Path, visit mysupportpath.com or call 1-855-769-7284.

Abbvie

[Patient Access Support](#)

MAVYRET® (glecaprevir/pibrentasvir)

MyAbbvie Assist provides free medicine to patients who qualify. Participation in the program is free; there are no fees from people who seek assistance. Medication assistance depends on your ability to meet the eligibility criteria for the program as determined by myAbbvie Assist.

Program eligibility:

- Under treatment by a licensed U.S. health care provider on an outpatient basis and prescribed an AbbVie medicine that is included in the assistance program
- Have limited or no health insurance coverage
- [Demonstrate qualifying financial need](#)
- Live in the United States

Patients who have commercial insurance plans that requires them to apply to myAbbvie Assist as condition of, requirement for, or prerequisite to coverage of relevant AbbVie products commonly known as alternate funding programs, are not eligible for myAbbvie Assist.