



COVID-19 and Liver Cirrhosis

Important Information for Patients and Their Families

The American Association for the Study of Liver Diseases (AASLD) is committed to helping you understand coronavirus disease 2019 (COVID-19) infection and prevention in people with liver cirrhosis.

What We Know

Our understanding of COVID-19 in people with liver cirrhosis is evolving. When making decisions related to COVID-19 infections or prevention, having up-to-date information is critical.

- Symptoms of COVID-19 infection include any of the following: **fever, chills, drowsiness, cough, congestion or runny nose, difficulty breathing, fatigue, body aches, headache, sore throat, abdominal pain, nausea, vomiting, diarrhea, and loss of sense of taste or smell.**
- People with underlying cirrhosis of the liver are at a higher risk of developing severe COVID-19 illness and/or more problems from their existing liver disease if they get a COVID-19 infection, with prolonged hospitalization and increased mortality. These patients need to take careful precautions to avoid COVID-19 infection. COVID-19 may affect the processes and procedures for screening, diagnosis, and treatment of liver cirrhosis.
- Cirrhosis, or scarring of the liver, can be caused by many chronic liver diseases, including viral hepatitis, as well as excessive alcohol intake, obesity, diabetes, diseases of the bile ducts, and a variety of toxic, metabolic, or other inherited diseases.

- Most people with liver disease are asymptomatic. Complications, such as yellowing of the skin and eyes from jaundice, internal bleeding (varices), mental confusion (hepatic encephalopathy), and/or swollen belly from ascites, may take years to develop, so patients are often unaware of the severity of their condition and the slow, progressive damage. Any of these complications should lead to an immediate referral to a liver specialist.
- Once diagnosed, treating the underlying cause may prevent further damage, and the patient's condition may stabilize or even improve. Left untreated, cirrhosis can lead to liver cancer, liver failure and, ultimately, death unless a liver transplant is performed. Many people function well if only one third of the liver is functioning adequately. But a patient can crash very quickly when they reach the tipping point or have another serious illness, such as COVID-19.
- People with liver cirrhosis who are older than 65 years of age or have other medical conditions, such as chronic lung disease, obesity, diabetes mellitus, heart disease, and kidney disease, are at a higher risk for severe illness from COVID-19.
- If you have cirrhosis from any cause or high-risk hepatitis B, screening for the development of hepatocellular carcinoma (HCC) with ultrasound and a blood test for the tumor marker alpha-fetoprotein is recommended every 6 months.
- All efforts to avoid exposure should be carefully followed and new symptoms immediately reported to the liver specialist.
- The safety of returning to work or other in-person activities depends on the severity of your liver disease, whether you have any other medical problems, current COVID-19 transmission in your community, and whether measures to prevent transmission are being practiced (physical distancing, wearing face coverings, handwashing or using a hand sanitizer, isolating COVID-19 cases). **Note:** All hand sanitizers are NOT safe and effective. Please follow the Food and Drug Administration's guidance at <https://www.fda.gov/consumers/consumer-updates/safely-using-hand-sanitizer>.
- The COVID-19 pandemic has increased stress and anxiety for many people—around health, family, economic security, and other issues. Reaching out for mental health support and maintaining healthy habits, such as exercising regularly, getting fresh air, eating wholesome foods, and getting regular sleep, remain very important during the pandemic.

What We Recommend

- Contact your medical provider and/or seek medical attention immediately if you think you or someone in your household may have COVID-19 or you develop complications from liver cirrhosis. Inform your medical provider that you have liver cirrhosis, as this may impact recommendations for your care.
- If you are experiencing **difficulty breathing, chest pain or pressure, confusion, inability to wake up or stay awake, bluish lips, face, or toes, loss of sense of taste or smell or any severe or concerning symptoms**, seek medical attention immediately.
- Do not stop or change your prescribed medications unless recommended by your health care provider. Stopping or changing medications could cause a flare of your liver disease or other health problems. Make sure your prescriptions are up-to-date and you have several months of medications on hand.
- Keep yourself safe, and help prevent COVID-19 transmission in your community:
 - Practice physical distancing (at least 6 feet), and avoid crowds—especially indoors.
 - Wear a cloth face covering over your nose, mouth, and chin when outside your home.
 - Frequent handwashing is also very important; however, wearing a face covering and practicing physical distancing appear to be the most effective methods for preventing COVID-19 transmission
- Regular follow-up by your liver team must be continued. If possible, blood tests and liver imaging to screen for worsening of your liver disease and development of cancer should be obtained locally, as directed by your liver health care provider. To reduce the risk of exposure to seriously ill patients in medical facilities, follow-up visits can be done by telemedicine or phone unless urgent problems arise.



- Upper endoscopy, unless emergent, may be temporarily postponed, and liver imaging may be safely delayed for a couple of months at the recommendation of your provider to further decrease your risk of COVID-19 exposure.
- Alcohol should be strictly avoided, as it can exacerbate any underlying liver disease, regardless of the cause.
- Review your medical/legal documents, including medical power of attorney, to be certain they are up-to-date and reflect your current wishes.

What You Should Discuss With Your Health Care Provider or Team

- Recommendations for your routine health care, including blood tests, x-rays, cancer screenings, endoscopies, and medically necessary treatments, as well as medical visits (telehealth, remote, or special procedures for in-person visits). Minimize routine blood tests and, if possible, schedule blood tests as close to home as possible or at home.
- Changes to your medications (do not change medication dosages or stop medications unless recommended by your health care team).
- Your prognosis and plans for future treatment.
- Safely returning to work, essential travel, and participating in other activities.
- Staying up-to-date on vaccines, including the flu vaccine this fall/winter, to protect you from other infections.
- The risks and benefits of any delay in screening, surveillance, or cirrhosis therapy due to COVID-19 infection, exposure, or center capacity limitations.
- Any new “medicine,” “natural” or otherwise, that you are considering taking (before taking the first dose).

Where to Find More Information

Much is still unknown about the relationship between COVID-19 and liver cirrhosis, and new information is accumulating rapidly. Keep checking back to this website as well as the Centers for Disease Control and Prevention (CDC) and AASLD sites for further updates.

- **COVID-19 and the liver from AASLD:**
<https://www.aasld.org/about-aasld/covid-19-and-liver>.
- **Liver disease and COVID-19 from the CDC:**
<https://www.cdc.gov/coronavirus/2019-ncov/need-extra-precautions/liver-disease.html>.
- **Coronavirus (COVID-19):** <https://www.coronavirus.gov/>.
- **What to know about liver disease and COVID-19:**
<https://www.cdc.gov/coronavirus/2019-ncov/need-extra-precautions/liver-disease.html>.
- **Protecting yourself and others from COVID-19:**
<https://www.cdc.gov/coronavirus/2019-ncov/prevent-getting-sick/index.html>.
- **Mental health and coping during COVID-19:**
<https://www.cdc.gov/coronavirus/2019-ncov/daily-life-coping/managing-stress-anxiety.html>.