

# Hepatorenal Syndrome with Acute Kidney Injury (HRS-AKI)

## What is HRS-AKI?

Hepatorenal Syndrome with Acute Kidney Injury (HRS-AKI) is a serious, life-threatening complication of liver disease requiring immediate medical attention. It occurs when liver disease affects blood vessels in the kidneys, causing the kidneys to stop working well because they don't get enough blood. HRS-AKI can quickly progress to life-threatening kidney failure.

## Who experiences HRS-AKI?

HRS-AKI is most common in people with advanced cirrhosis (scarring of the liver), particularly those with ascites (fluid buildup in the abdomen and lower extremities).



**1-2 of every 10 people** hospitalized with cirrhosis and acute kidney injury will have HRS-AKI



**40-50k**

**estimated cases of HRS-AKI per year in the United States**



## Signs and Symptoms

Signs of worse kidney function may include:



**decrease in amount of urine**



**confusion**



**swelling (most often arms/legs) caused by the buildup of fluid inside the body (edema)**



**unusual test results with high creatine and other body waste compounds (azotemia)**

People with HRS-AKI may have fatigue, abdominal pain, and general discomfort. They may also have symptoms of advanced liver disease .



**Diagnosis** relies on multiple factors, including a creatinine blood test to check kidney function, and ruling out other possible causes of kidney failure, such as from medicines which can damage kidneys.



**Treatment** starts with kidney care and may involve medication and supportive care. Because liver failure causes HRS-AKI, liver transplant is the ultimate treatment. Some people may need a liver-kidney transplant. Other people may not be able to have organ transplants because of their overall health.



## What is the outlook for people with HRS-AKI?

Untreated, HRS-AKI is often fatal, with death occurring in weeks to months. This is why early detection and treatment are so critical. People with less severe disease who respond to treatment tend to have the best outlook.



**1 in 10 people diagnosed with HRS-AKI** historically would survive



**About half** of people diagnosed with HRS-AKI survive\*, due to better medical care

\*Survival 90 days from diagnosis

[Looking for more information?](#)

[American Liver Foundation](#)

[Learn more about HRS-AKI](#)

[Questions to Ask Your Doctor](#)

# Actions to Take if You Might Be at Risk for HRS-AKI

Hepatorenal Syndrome with Acute Kidney Injury (HRS-AKI) is a serious, life-threatening complication of liver disease requiring immediate medical attention. If you or a loved one has advanced liver disease, consider taking these action steps:



## Ask Your Doctor about HRS-AKI

Here are important questions to ask:

### Risk Factors for HRS-AKI

- Am I at risk of developing HRS-AKI? Why or why not?
- Is there anything I can do to lower my chances of developing HRS-AKI?

### Monitoring Kidney Function

- What is creatinine, and what does it have to do with my liver and kidney function?
- Will you be checking my creatinine level? How often?
- If my creatine level gets higher, at what point would you be concerned about my kidney function?

### When to Seek Care

- Beyond monitoring creatinine, what are other signs or symptoms of HRS-AKI to watch for?
- When should I seek emergency care?



## Ask a Family Member or Friend for Help

Serious liver disease and HRS-AKI can make it more difficult to understand and remember information. Ask someone you trust, such as a friend or family member, to help watch for signs of worsening health, and to come to important doctor's appointments with you.



## Use the American Liver Foundation Navigating Hepatorenal Syndrome Journal

Keep track of important medical contacts; medications; and changes in mood, behavior, and abilities to identify important changes in one's health. This information can be shared with health care professionals.

[Hepatorenal Syndrome Journal](#)