

What Is Acute Alcohol-Associated Hepatitis (AH)?

- A **life-threatening acute alcohol-associated liver disease (ALD)** caused by chronic heavy alcohol use and a recent increase in alcohol consumption (e.g., a binge)^{1,2}
- Characterized by **severe inflammation and destruction of liver tissue** (i.e., necrosis)¹
- AH **may occur suddenly** after binge drinking, potentially leading to life-threatening complications including liver failure, acute renal injury, and multi-organ failure³



AH causes more than ~158,000 US hospitalizations per year⁴



Charges related to treating AH are estimated at >\$66,000 per patient per hospitalization⁴



Increasing numbers of young adults have been diagnosed with AH in recent years⁵



Prognosis: Average 28-day overall mortality rate of 26%⁶



AH can affect both women and men⁷



More than half of the people diagnosed with AH are between 40 and 60 years old⁷

AH patients typically have a history of daily alcohol use of⁹

>40 g alcohol/day (female), which is about 3 standard drinks, for 6 months or longer^{6,7}

or

>60 g alcohol/day (male), which is about 4 standard drinks, for 6 months or longer^{6,7}

What Is a Standard Drink?^{9,*}



12 fl oz of regular beer

about 5% alcohol



8-9 fl oz of malt liquor

about 7% alcohol



5 fl oz of table wine

about 12% alcohol



1.5 fl oz shot of distilled spirits

about 40% alcohol

Individuals with a sudden increase in alcohol intake or intermittent heavy drinking may also be affected⁸

AH can also develop in patients with a much shorter history of heavy alcohol use¹⁰

Common symptoms include⁷:

- Rapid onset of jaundice (yellowing of skin or eyes)
- Nausea
- Vomiting blood
- Loss of appetite
- Fever
- Fatigue and weakness
- Negative changes in mental state



Severe cases may lead to life-threatening complications, including acute renal injury, liver failure, and multi-organ failure associated with systemic inflammatory responses¹¹

Current Treatments

No FDA-approved therapies



Stopping alcohol consumption may not be sufficient for recovery in many moderate and severe patients¹²

Treatments to reduce liver inflammation, such as corticosteroids, do not improve 90-day or 1-year survival (STOPAH Trial) and only 25-45% of patients are eligible for these drugs^{1,13}

ALD, including AH, is now the leading indication for liver transplant in the US; the procedure costs over \$875,000 on average and patients require lifelong immunosuppressive therapy to prevent organ rejection¹⁴⁻¹⁶

No improvement in AH mortality in >4 decades⁶

1. Singal AK, et al. *J Hepatol*. 2018;69:534-543. 2. Mitchell MC, et al. *Gastroenterol Hepatol*. 2020;16:178-189. 3. Mandrekar P, et al. *Hepatology*. 2016;64:1343-1355. 4. Marlowe, N. et al. Epidemic within pandemic: alcohol-related hepatitis and COVID-19. Poster presented at: European Association for the Study of the Liver (EASL) Congress; June 21-24, 2023; Vienna, Austria. 5. Medscape. Alcoholic hepatitis admissions of young adults spike in pandemic. Accessed February 22, 2022. <https://www.medscape.com/viewarticle/962918>. 6. Hughes E, et al. *PLoS One*. 2018;13:1-10. 7. Cleveland Clinic. Alcoholic hepatitis. Accessed February 22, 2022. <https://my.clevelandclinic.org/health/diseases/17853-alcoholic-hepatitis>. 8. Crabb DW, et al. *Gastroenterology*. 2016;150:785-790. 9. NIAAA. What is a standard drink. Accessed February 22, 2022. <https://www.niaaa.nih.gov/alcohol-effects-health/overview-alcohol-consumption/what-standard-drink>. 10. Friedman SL. Alcoholic hepatitis: clinical manifestations and diagnosis. UptoDate. Accessed February 22, 2022. <https://www.uptodate.com/contents/alcoholic-hepatitis-clinical-manifestations-and-diagnosis/contributors>. 11. Michelena J, et al. *Hepatology*. 2015;62:762-772. 12. Singal AK, et al. *Clin Gastroenterol Hepatol*. 2014;12:555-564. 13. Thursz MR, et al. *N Engl J Med*. 2015;372:1619-1628. 14. Cholanikeril G, et al. *Clin Gastroenterol Hepatol*. 2018;16:1356-1358. 15. Bentley TS and Ortner N. 2020 U.S. organ and tissue transplants: cost estimates, discussion, and emerging issues. Milliman Report. February 18, 2020. Accessed February 22, 2022. <https://www.milliman.com/en/Insight/2020-us-organ-and-tissue-transplants>. 16. Jiang Y, et al. *Front Immunol*. 2020;11:1-16.

*Each beverage portrayed above represents one drink (or one alcohol drink equivalent), defined in the United States as any beverage containing 0.6 fl oz or 14 grams of pure alcohol. The percentage expressed here as alcohol by volume (alc/vol) varies within and across beverage types. Although the standard drink amounts are helpful, they may not reflect customary serving sizes.⁹