

# Medical Issues and Alcohol Use Disorder

## Introduction

While you will not be treating most medical complications of alcohol use, it's important to ask patients about these things, especially as part of the motivational interviewing strategy. Identifying significant medical sequelae during an interview can be a powerful incentive for patients to consider the negative consequences of drinking. In essence, this comprehensive medical survey will help to "scare them sober."

## Common Alcohol-Related Complications and Questions to Ask

- *Cardiovascular*: Hypertension, cardiomyopathy, arrhythmias: "Have you had any chest pain or palpitations?"
- *Gastritis and bleeding*: "Have you had ulcers? Have you ever noticed dark stools or blood in your stool?"
- *Liver injury (hepatitis and cirrhosis)*: "Have you had belly pain, especially on your right side, after drinking heavily? Have you had yellow eyes (jaundice)?"
- *Low levels of clotting factors due to liver disease*: "Do you have a tendency to bruise or bleed easily?"
- *Neuropathy*: "Have you noticed numbness or tingling in your feet?"
- *Dementia*: "Have you had memory or concentration problems?"
- *Anemia*: "Has your energy level or stamina been low?"

## Labs to Order (see table for more comprehensive list)

- *Liver function tests*: Alanine and aspartate transaminases (ALT and AST). Elevation of these enzymes is caused by leakage from damaged liver cells. Mild elevations (less than four times the upper limit of normal) are common and usually reversible with abstinence. Elevations of four or more times the upper limit of normal (usually >200 depending on the lab) are most concerning (they indicate acute alcohol-induced hepatitis).
- *Coagulation studies*: Prothrombin time (PT) or international normalized ratio (INR). Elevation in these results indicates more serious liver damage. In such a state, the liver is so damaged that it is not making coagulation factors, and a person will bruise easily due to "thin" blood that doesn't clot well.
- *Complete blood count (CBC)*: Anemia may be caused by the direct toxic effect of alcohol on bone marrow, or by low levels of thiamine, folate, and vitamin B12 due to drinking. This is usually reversible with abstinence and adequate nutrition; patients don't generally need to be on vitamin supplementation long term.

## Labs for Medical Consequences of Alcohol Use

Lab Type	Effect in Alcohol Use Disorder
<b>Markers of Liver Inflammation</b>	
Alanine transaminase (ALT)	More elevated in non-alcoholic fatty liver
Aspartate transaminase (AST)	More elevated in alcoholic liver disease
Gamma-glutamyl transferase (GGT)	Most sensitive for alcoholic liver disease
<b>Markers of Liver Synthetic Function Problems</b>	
Albumin	Decreased in alcoholic liver disease
Direct bilirubin	Increased in alcoholic liver disease
Indirect bilirubin	Increased in alcoholic liver disease and malnutrition
Prothrombin time or international normalized ratio (INR)	Increased in alcoholic liver disease
<b>Other Relevant Labs</b>	
Iron panel	Iron accumulates in alcoholic liver disease
Hematocrit	Decreased in anemia
Mean corpuscular volume	Elevation indicative of B12 deficiency
Platelet count	Decreased in alcoholic liver disease
White blood cell count	Decreased in alcoholic liver disease