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PATHWAYS INITIAL FEEDBACK REPORT

We are committed to helping you maximize your health.

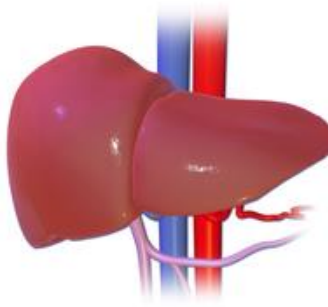
This report offers specific information about liver health, how alcohol affects liver health, your liver health status, your drinking, and how alcohol fits into your daily life.



ABOUT LIVER HEALTH

The liver filters toxic substances out of our blood. When something attacks and damages the liver, liver cells are killed, and scar tissue is formed. This scarring is called **fibrosis**. It happens slowly over many years. When the whole liver is scarred, it shrinks and hardens. This is called **cirrhosis**. Usually this damage cannot be undone. Because the liver becomes lumpy and stiff, blood cannot flow through it easily. Toxic substances that the liver normally filters escape into our blood stream, causing health problems.

Heavy drinking and viruses (like hepatitis C or B) are common causes of cirrhosis. There are other causes, such as fat buildup in the liver of people who are overweight. Some people inherit genes that cause liver disease.



Normal Liver



Liver Cirrhosis

WOULD I KNOW IF MY LIVER WAS IN POOR HEALTH?

Some people with fibrosis or cirrhosis may have no symptoms at all (this is called **compensated cirrhosis**). A person can live many years without being aware that their liver is scarred. But if nothing is done about the cause (if you continue to drink heavily, for example, or if hepatitis is not treated), you will eventually notice symptoms like low energy, poor appetite, weight loss, or loss of muscle mass. More serious problems may be internal bleeding, a buildup of fluid in the belly (called **ascites**), confusion from buildup of toxins in the blood (called **encephalopathy**), or yellowing of the eyes and skin (called **jaundice**). If you experience serious problems like these, the disease has progressed to **decompensated cirrhosis**. You are then at risk of dying unless your sick liver can be replaced with a healthy liver (**liver transplant**).

HOW DOES ALCOHOL AFFECT THE LIVER?

Alcohol damages the liver in two ways. First, it causes fat to collect in the liver. This fat can go away if drinking is stopped. Second, alcohol, especially in heavy amounts or over time, causes inflammation in and around liver cells. Just like when you get a cut on your skin that gets red, swollen, and then heals to form a scar, heavy drinking over time inflames the liver. In some people, this causes scarring and cirrhosis. If we continue drinking heavily, even with cirrhosis, we are much more likely to progress to those more serious problems (internal bleeding, ascites, encephalopathy, jaundice).

CAN MY LIVER GET BETTER IF I STOP DRINKING?

Yes! Many people think it doesn't matter if they stop or reduce their drinking because the damage has been done. **But it's not too late!** Just like scars on other parts of our body, the scarring of cirrhosis won't go away, but stopping drinking can prevent our liver disease from progressing. For people who have not already progressed to cirrhosis, the liver tissue can heal over time once they stop drinking. If we have progressed to cirrhosis, stopping drinking may help reduce our risk of having complications or serious problems, as described above.





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Know your standard drinks.



LIQUOR
40% alcohol
1.5 ounce shot



WINE
12% alcohol
5 ounce serving



CHAMPAGNE
12.5% alcohol
5 ounce flute



STANDARD BEER
5% alcohol
12 ounce glass



BEER
5% alcohol
12 ounce bottle



CRAFT BEER
6-9% alcohol
6-10 ounce glass

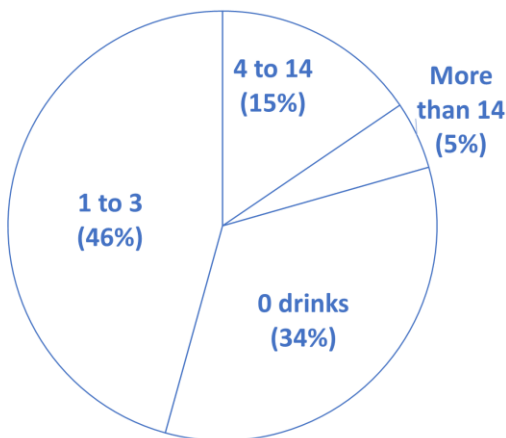
YOUR DRINKING STATUS REPORT

Alcohol use is common, but not everyone drinks alcohol or drinks in the same way. To understand our own drinking, it helps to have information on standard alcohol amounts, compare how much we drink to other people, and measure our drinking against levels that are likely to cause health problems.

- A **standard drink** is a serving of beer, wine, or liquor that has the same amount of alcohol in it. A 12-ounce beer has the same amount of alcohol as a 5-ounce glass of wine and as a 1.5-ounce shot of liquor.
- **Moderate drinking** has many definitions. In the U.S., we define moderate drinking as 1-2 drinks per day.
- **Binge drinking** is a particularly harmful pattern of drinking that brings blood alcohol levels up to the legal limit (.08 g/dL). This typically occurs after 4-5 standard drinks in about 2 hours.
- **Many adults (1 in 3) do not drink at all.** Of those who drink, **most** have 1 to 3 drinks per week, **few** have 4 to 14 drinks per week, and **very few** have more than 14 drinks per week.

SOURCE: National Center for Health Statistics, 2018.

DRINKS PER WEEK FOR U.S. ADULTS



In the past 3 months:

You drank about

[XX] days per week, [XX] drinks per week,
[XX] drinks on days when you drank, and
[XX] drinks on your heaviest drinking day.

Moderation isn't for everyone. Learning about lower-risk drinking helps us to understand more about how alcohol and health, but does not mean that moderated drinking is the right choice for everyone. A fair number of people find that trying to reduce or limit their drinking is more challenging than stopping altogether. Drinking some alcohol can increase desire to drink more. **People with prior unsuccessful attempts to stop or limit drinking, those who depend on alcohol, and those with signs of liver damage or other health problems are advised to stop all drinking.**



YOUR LIVER HEALTH STATUS REPORT

Liver function tests are blood tests that check for signs of poor liver health. There is no one blood test that tells us whether we have liver disease. Typically, a combination of tests is used. Some tests measure how well our liver is doing its job of clearing blood waste products, and other tests measure enzymes and proteins in our blood that liver cells release when they are damaged. **Blood tests alone cannot guarantee that our liver is in good (or bad) health.** If your results of your tests are abnormal, they will be reviewed by our study doctor for safety reasons. If you have any concerns about your health, you should consult your doctor.

Blood test	What is that?	What is normal?	What is my value?
Alanine transaminase (ALT)	An enzyme found in the liver that converts proteins into energy.	15 – 45 IU/l	[XX]
Aspartate transaminase (AST)	An enzyme that helps metabolize amino acids.	15 – 42 IU/l	[XX]
Alkaline phosphatase (ALKP)	An enzyme found in liver and bones that breaks down proteins.	30 – 130 IU/l	[XX]
Total Bilirubin (TBIL)	A yellowish pigment made when red blood cells break down.	< 21 μ mol/l	[XX]
Albumin (ALB)	A protein made by the liver that helps keep fluid out of other tissues.	35 – 50 g/l	[XX]
Gamma-glutamyl transferase (GGT)	Enzyme in blood with higher values indicating liver or bile duct damage.	11 – 55 IU/l	[XX]

FIB-4

The Fibrosis-4 (FIB-4) scoring system uses your age, blood cell (platelet) count, and two liver enzymes (AST and ALT). A FIB-4 score > 3.25 typically indicates advanced liver fibrosis. A score > 1.45 may still indicate risk, and you should contact your doctor for a more specific test, often a scan of the liver. **Your FIB-4 score is [X.XX].** [This means that this scoring system did not show signs of liver damage right now. This is a positive sign that your drinking has not yet caused permanent damage. Cutting down or stopping drinking can prevent future liver damage.]





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WHAT MATTERS TO YOU

Self-monitoring is one way to help us learn about ourselves. If you had alcohol, you told us your reasons why you drank that day. If you did not have alcohol, you told us your reasons why you did not drink.

Your Reasons for Drinking	Your Reasons for Not Drinking
[List of reasons]	[List of reasons]

You also told us how important it was for you to avoid or limit drinking and how confident you were in your ability to avoid or limit drinking. Your average **importance** was [XX]. Your average **confidence** was [XX].

YOUR DAILY LIFE

Do we know what leads to our drinking? When we look at the numbers, what we say leads to our drinking and what actually leads to our drinking are not always the same. Your reports can help us to learn about why and when you drink. The figure on the right shows how your craving for alcohol each day compares to the number of standard drinks you had that day.



For some of us, being hungry, angry, lonely, or tired will trigger us to want to drink. Tracking these feelings can help us learn more about what leads to our drinking. We used your reports to make a figure that compares your hunger, anger, loneliness, and tiredness on days you drank alcohol and days you did not drink.