

## Diet and Liver Disease

70-100 million Americans have Nonalcoholic Fatty Liver Disease (NAFLD). NAFLD is excess fat in the form of triglycerides deposited in the liver cells. NAFLD progresses to Nonalcoholic Steatohepatitis (NASH) in the presence of oxidative injury or inflammation. 10 to 25% of individuals with NAFLD will develop NASH, which can progress to cirrhosis. It can also raise the risk of liver cancer. NASH is the most common cause of cirrhosis in the US.

To help promote good liver health, consider the following diet guidelines:

1. Know the **risk factors** for NASH, which include:
  - a. Older age.
  - b. Diabetes mellitus.
  - c. Elevated liver enzymes.
  - d. Body Mass Index (BMI) greater than or equal to 28.
  - e. Higher visceral adiposity, which is weight around the middle or an “apple” body shape.
2. **Health risks** of NASH include cirrhosis and liver failure, liver cancer, and an increased risk for death from coronary artery disease.
3. The **cause** of both NAFLD and NASH is the rapid absorption of sugar and fat from the gut and inflammation from reduced dietary antioxidants.
4. The **treatment** of NAFLD is reducing or eliminating refined carbohydrates and fats while increasing fiber and dietary polyphenolic antioxidants.
5. To **prevent** NAFLD from progressing to NASH:
  - a. Avoid oxidized cholesterol.
  - b. Increase antioxidants in the diet, such as by eating colorful plants.
  - c. Lose weight through a high-fiber diet.
  - d. Lower triglyceride intake and production.
6. **Be cognizant of other diseases and avoid organic solvents** (ETOH, benzene, toluene, and acetone):
  - a. **Hemochromatosis:** Avoid foods containing iron and limit use of iron pots.
  - b. **Cirrhosis:** Limit salt, and eat adequate protein (but not too much). Nutritional assessments may help.
  - c. **Bile Duct Disease:** Follow a high-fiber, low saturated fat diet. Use kernel oils (canola, corn, olive, flax, or sunflower) which need less bile to break down than other fats.
  - d. **Wilson’s Disease:** Limit copper-containing foods, such as oysters, shiitake mushrooms, lobster, leafy greens, and dark chocolate.

- 1 can of soda per day increases the risk of NAFLD by **70%**.
- 14 chicken nuggets per day **triples** the risk of NAFLD progressing to NASH.

**IMPORTANT NOTE:** This information in this document is provided for your education and enrichment and should not be used for diagnosing and treating a health problem or issue. It should not be relied upon for personal diagnosis, treatment, or any other medical purpose. This list does not constitute an endorsement of the information contained in the resources. If you believe that a particular diagnosis or therapy applies to your situation, please contact your doctor or healthcare provider to discuss it further.