

BESITY & LIVER DISEASE

Non-alcoholic fatty liver disease (NAFLD) affects 1 in 3 U.S. adults... and it's cause for concern.

What is NAFLD?

non-alcoholic fatty liver disease is the accumulation of significant amounts of excess fat in the liver not related to alcohol consumption

RISK FACTORS

poor diet
physical inactivity
gut dysbiosis
corticosteroids
toxin exposure

advanced age
genetics
oxidative stress
immune dysfunction
errors of metabolism



OBSITY
INSULIN RESISTANCE
HYPERLIPEDEMIA

3.5x higher risk of developing NAFLD among persons with obesity, compared to those without obesity



Fatty liver (steatosis)



80 million Americans with NAFLD



20% experience liver-related death

inflammation

~ 20% of NAFL cases progress to NASH



50% require a liver transplant

17% of patients on the transplant waitlist die annually

Non-alcoholic steatohepatitis (NASH)



~ 25% of NASH cases progress to cirrhosis

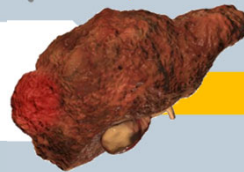


7% develop hepatocellular carcinoma (liver cancer)

damage is irreversible



Cirrhosis
scar tissue replaces liver cells



within 10 years...

among those with NAFLD-related cirrhosis

There is currently no cure for advanced liver disease.

The American Liver Foundation recommends these steps to reverse or slow the progression:

Consume 800 units of vitamin E daily



Minimize alcohol consumption

Weight loss diet, with low carbohydrates



If diabetes is present, tight control of glucose level

Regular aerobic activity of at least 50 minutes, 3 times per week



Lose 7-10% of excess body weight

[1] Shaker M, Tabbaa A, Albeldawi M, Alkhouri N. Liver transplantation for nonalcoholic fatty liver disease: new challenges and new opportunities. *World J Gastroenterol.* 2014;20(18):5320-5330.
[2] American Liver Foundation. NAFLD. Dec 2016. <http://www.liverfoundation.org/abouttheliver/info/naflid/>
[3] National Institutes of Diabetes and Digestive and Kidney Diseases. Definition & Facts of NAFLD & NASH. Nov 2017. <https://www.niddk.nih.gov/health-information/liver-disease/naflid-nash/definition-facts>
[4] National Institutes of Diabetes and Digestive and Kidney Diseases. Nonalcoholic Steatohepatitis." Nov 2006. <https://www.niddk.nih.gov/-/media/00F92108F7104341B3F03ABFA132C5A8.ashx>