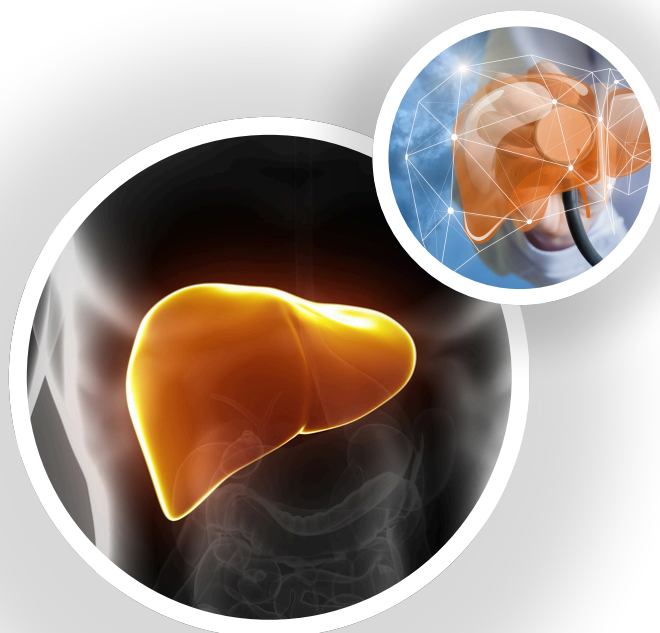




# FATTY LIVER (NON-ALCOHOLIC)

Non-alcoholic fatty liver (NAFL) is a condition where fat builds up in the liver without alcohol use, often without symptoms. In severe cases, it can lead to liver inflammation and progress to non-alcoholic steatohepatitis (NASH), causing liver damage.



## Possible Contributing Factors



- Obesity (excess fat makes proinflammatory cytokines leading to inflammation & oxidative stress)
- Insulin resistance/elevated blood sugar (type 2 diabetes or prediabetes)
- Hypothyroidism
- Poor diet:
  - High consumption of refined carbs & sugar, especially high fructose corn syrup & soft drinks
- Toxic chemical exposures:
  - Pesticides (e.g., organophosphates), Bisphenol A (BPA), Phthalates, Polychlorinated biphenyls (PCBs), Heavy metals (e.g., lead, mercury, cadmium), Solvents (e.g., carbon tetrachloride, toluene), Perfluorooctanoic acid (PFOA), etc
- Sedentary lifestyle
- Choline deficiency – needed to transport fat out of the liver
- Leaky gut & toxins from opportunistic bacteria can cause mild liver inflammation & fat accumulation
- Sleep apnea

## Lifestyle & Dietary Recommendations



- If blood sugar is an issue, limit starchy carbs to ½ cup cooked grains and 1 cup root vegetables daily, and 1-2 low fructose whole fruits per day. Avoid all other forms of sugar, sweeteners, alcohol & flour
- Focus on a whole foods VPF diet with quality proteins, vegetables & healthy fats
- Eliminate processed & refined foods, fried foods, and hydrogenated fats/oils
- Consume choline rich foods like eggs, liver, fish, and meat (and other lipotropic compounds like methionine, betaine, folate (B9), and methylcobalamin (B12) to help support the liver in breaking down and transporting fats)
- If needed, track calories in MyFitnessPal to help manage portions and create a calorie deficit for weight loss
- Increase daily activity level; walking program, resistance training
- Consider castor oil pack over the liver/gallbladder; 4-5 days per week for 30-45 minutes
- Consider dandelion root tea infusions (steep herb in boiling water for minimum 4 hours or overnight)
- Sweat daily through exercise and/or sauna
- Visit EWG.org for non-toxic personal hygiene and skin care products
- Air purifier with Ultra HEPA technology for home or office space such as IQ Air

## Supplement Considerations



- Toxin and/or heavy metal binder
- NAC or Glutathione
- Blood sugar support formula
- D-limonene for biliary tract congestion
- Liver-Liver/gallbladder support formula