Fatty Liver

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With the traditional Western diet rich in processed foods, junk food, refined bakery goods and sugar, many diseases are linked to what is called fatty liver disease.

In the USA the incidence of fatty liver is 15 to 20% of the general population and is much higher than this in obese individuals.[1] A condition that used to occur almost exclusively in people who drank excessively, fatty liver disease epidemics have now increased with the rise of diabetes and obesity.

Non-alcoholic fatty liver disease, also known as nonalcoholic steatohepatitis (NASH), is a condition where the cells of triglyceride fat accumulate in liver cells. This accumulation is due to impairment of elimination of triglyceride fat. Non-alcoholic liver disease can lead to permanent liver damage. The liver may enlarge, and over time, liver cells may be replaced by scar tissue, which is then called cirrhosis. If cirrhosis becomes severe, a liver transplant may be needed. Risk factors associated with this disease include diabetes mellitus, obesity, protein malnutrition, hypertension, and irritable bowel disease.

An article published in *The New England Journal of Medicine* in late 2009 argued that the inflammatory factors of a fatty liver promote atherosclerosis, a process that damages the insides of arteries, and makes blood more likely to clot - a combination that can lead to heart attack or stroke.[2] The authors of this article pointed to a study showing that, "People with NASH are twice as likely to die from heart attack or stroke as people without it. And NASH seems to add to the risks that come with excess weight."[2]

Alcoholic induced fatty liver disease affects 90-100% of the 15 million people in the U.S. who abuse or overuse alcohol.[3] When alcohol is metabolized in the liver, a cascade of events occur where free radicals damage mitochondria in the liver cells which also creates a depletion of oxygen for energy in the cells.[4] One of the byproducts of alcohol metabolism is fat. This damage promotes the formation of fatty deposits which can progress to cirrhosis. At this stage, fatty liver disease can be treated by discontinuing the consumption of alcohol.

Fructose: Plumping up liver cells

Fructose is more commonly found in the traditional Western diet than it was before. It's used as a major source of refined sugar in the making of breakfast cereals, pastries, sodas, fruit drinks, and other sweet foods and beverages. According to Manal Abdelmalek, MD, of Duke University, greater fructose consumption is associated with younger

Are you getting sick more than once per year? A comprehensive blood analysis includes many markers that can determine how severe an illness may be, if there are conditions developing and what the body needs to help fight off infections.

Underlying causes of inflammation, infection, and environmental exposures can be recognized with a complete metabolic analysis. Supplement dosages will vary according to age, weight and severity of the condition.

Getting tested lends objective guidance to developing a lifestyle program and supplement recommendations which are unique for each individual person.

age, male sex, high triglycerides, low HDL cholesterol, decreased serum glucose, increased caloric intake, and hyperuricemia.[5] Excessive dietary consumption of fructose has been linked to obesity and non-alcoholic liver disease.

Consumption these days mostly comes from high-fructose corn syrup, particularly in soda. A detailed process on how high-fructose consumption might influence liver disease, as described by Dr. Abdelmalek, involves an elevation of uric acid occurring due to chronic Adenosine Triphosphate (ATP) destruction within the cell of the liver.[5] ATP is used by cells for the transportation of energy for metabolism. The breakdown of fructose can elevate triglycerides, raise harmful LDL cholesterol, promote visceral fat, increase blood pressure, and can lead to diabetes - all, which you may have noticed, are signs of fatty liver disease.

Reversing a fatty liver

A fatty liver can be reversed, but it can take some time. The liver is one of the main organs that help us burn fat. Although the stomach is responsible for breaking down and processing fats, it is the gallbladder and liver which are the organs at work.

As Nancy Desjardin, RHN and weight loss expert says, "Don't even try and think about losing weight until you are sure that the gallbladder and liver are both clean and working as they should."[6] The liver and gallbladder produce bile to help with the digestion of fats. Fats will start building up if the liver and gallbladder are not working efficiently. If you do not have a gallbladder then a digestive enzyme is recommended.

Dr. Sandra McRae M.D., who specialized in liver diseases and who also works with naturopaths, suggests that gradual weight reduction with as little as a 5-10% loss of initial body weight over 6 months is recommended.[1] A study published in the *European Journal of Gastroenterology and Hepatology* in 2006 also found that three months worth of nutritional guidance, plus a pair of one-hour exercise sessions each week, helped obese teens improve fatty liver disease.[7]

The body needs to be provided with the correct nutrients required by the metabolic and detoxification pathways to effectively improve the liver function. This needs to be a combination of correct eating principles that should be followed generally as a way of life and the correct supplementation to give the liver what it needs. Dietary guidelines and supplementation recommendations based on a comprehensive blood analysis can give you a detailed description of exactly what your body needs.

Get tested today to start making healthy lifestyle changes towards optimal wellness!

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