

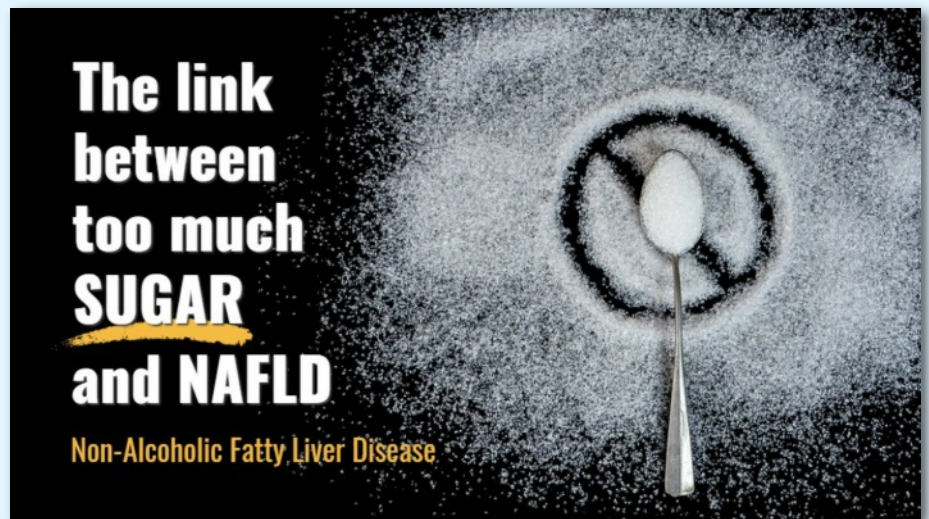
# The Silent Disease NAFLD

## Non-Alcoholic Fatty Liver Disease

“25% of people have early stages of NAFLD. Sadly, they often don't know about it until it is too late.”

Metabolic Syndrome, Fatigue, or Non-Alcoholic Fatty Liver Disease abbreviated as NAFLD have some common threads you may not be aware of. The problem is most people are not being tested appropriately, and early detection and treatment is not applied. I was surprised as I read the “Scientific America” article on non-alcoholic fatty liver disease as the author predicts 25% of people have early stages of NAFLD. Sadly, they often don't know about it until it is too late.

You see, the liver is so adaptable that it can function with non-alcoholic fatty liver disease or NAFLD without breaking down for 5-10 years. The author of the article, Dr. Hyder Jamal, MD, who is board certified in both gastroenterology and internal medicine says that “not only do 1 out of 4 people have the silent disease NAFLD but an estimated 20% of that statistic are children who have never had a drop of alcohol.”



The reason for this accumulation of fat is a result of the way the liver processes simple carbohydrates, most notably fructose. Fructose is similar to alcohol in the damage that it can do to your liver. Unlike glucose, which can be used by virtually every cell in your body, fructose can only be metabolized by your liver. Since nearly all fructose gets shuttled to your liver, fructose ends up taxing and damaging your liver in the same way alcohol and other toxins do.

In another Tuesday Minute, which you can see to the

right, we discussed the dangers of fructose based on Dr. Johnson's work, author of "The Sugar Fix". Dr. Johnson emphasizes that increased levels of fructose have been associated with increases in uric acid. He says increased uric acid is also a precursor for hypertension. He believes serum uric acid should be 3.0 - 5.5. Levels above 5.5 suggest an increased risk for diabetes, obesity, hypertension, and kidney disease.

Dr. Lustig, Professor of Pediatrics in the Division of Endocrinology at the University of California goes a step further by saying,

"fructose is a chronic, dose-dependent liver toxin." And just like alcohol, fructose is metabolized directly into fat - not cellular energy like glucose. Excess sugar, particularly fructose, will have a deleterious effect on our liver.

By the way, fructose from fruit can be a problem, but the big problem is the high fructose corn syrup that is present in processed foods. Let's discuss some lab tests and why they can be helpful. We want to treat the liver when non-alcoholic fatty liver disease is developing as opposed to waiting for inflammation, scarring, and severe liver dysfunction. I've included a longer list of functional signs that indicate if the physiology of the liver is compromised as well as nutrients to support the weaknesses; but for now, if you see: elevated triglycerides over 50% of the cholesterol, reduced albumin below 4.0, decreased SGPT levels below 10 or increased SGPT levels above 30, you can be pretty sure trouble is brewing.

But here is another piece to the diagnostic puzzle most people have not identified. Insulin. Insulin causes the body to burn sugar and then store it as fat. A diet high in refined carbohydrates will cause an increase in insulin. Remember, fructose is a refined carbohydrate. Insulin increases, but as cells become saturated, they become resistant to insulin. They can only metabolize so much sugar. So, sugar is then stored as fat.

Different tissues are less insulin resistant than others. According to Dr. Rosedale in his book, The Rosedale Diet, guess which organ becomes resistant first? You guessed it, the

liver. Now it all makes sense. The liver makes cholesterol and triglycerides to deal with excess sugar. You can see an earlier discussion on insulin in more detail to the right. But let me encourage you to add fasting insulin to your list of markers to alert you that trouble is brewing. Levels of 10 or greater warrant attention and treatment. However, Dr. Russell Jaffe and others suggests getting as close to 5 as possible.

The three major nutrients to support a fatty liver are: a rice-based Inositol as Balanced-B8 at 3 grams per day, a mixture of organic beets and ox bile as Beta Plus at 2 with each meal, and a source of choline as Phosphatidylcholine, 3 with each meal.

Dr. Carl Pfeiffer and others have found Inositol to reduce total lipids and cholesterol. Organic beets provide methyl groups for liver detox as well as help thin sluggish bile allowing the liver to release toxins via bile into the gallbladder. Inositol, choline, and betaine from beets are lipotropic factors.

Methylation factors like folate and enough B6 until patients remember their dreams should also be considered. I don't know about you, but when I see all these common variables fall into a pattern that has clinical applications, I get excited. Don't be afraid to share that excitement with your patients. Most of them need hope, and whether you know it or not, you inspire them. Sometimes we must believe in them even when they don't believe in themselves.

Thanks for watching. I look forward to being with you again next Tuesday.