

Alpha 1 Antitrypsin MZ Information & Research

News & Research Update

May 04, 2024

Website status and research update

Dear Subscribers,

Two subjects in this issue;

- Our organization
- Nutrition & Food

Organization

First I like to inform you (especially the new subscribers) a little bit about our organization.

Of course, we are a pure nonprofit organization with very motivated, hard-working volunteers who all have one single target in mind. This is to help all Alpha 1 patients around the world as best we can by providing them with information and research data and allowing them to learn as much as possible about their condition.

Our current focus is on the ~35 Million Alpha 1 MZ genotype group because a large number of people are typically not diagnosed as such, which is causing a lot of unnecessary health burdens. So we support/serve all Alpha 1 persons/groups, organizations, and medical professionals in all countries and in every language when possible (we are still working on this).

Nutrition and Food

Of course, it is not possible to advise you in detail on your personal food intake as this depends on many factors, including the availability of different foods in different continents/countries.

However, we would like to give you some general directions to allow you to navigate through your options and come up with a healthy choice that fits your individual needs

We all know that the MZ liver is under constant stress, and as such, it has a reduced capacity and impaired regeneration, which becomes worse as one ages (~50-70).

This means it is best to offload your liver as much as possible!

Also, when you have children who are MZs, raise them with a healthy diet/lifestyle. It is extremely difficult to change your diet/lifestyle at a later age.

Alcohol

First and most important, absolutely no alcohol. I think we all know this by now. Just stop and provide a good example; this stuff is just destroying your liver.

Fructose

What is not so much known is that “Fructose” has a similar effect on your liver as alcohol because Fructose is “Alcohol Without the Buzz.”

<https://www.sciencedirect.com/science/article/pii/S2161831322011073>

So avoid the corn syrup and all sweet stuff where Fructose is used.

You can eat whole fruits because they contain fiber, but don't overdo them. For example, don't take apple juice; instead, take an entire Apple. See also this study;

<https://pubmed.ncbi.nlm.nih.gov/30710884/>

Green Tea

We have seen clinical case reports which show that Green Tea is bad for your liver. We have reported on this before.

(There is a paper where an MZ was hospitalized with severe liver injury because she was using a slimming product that contained a lot of green tea extract.)

Fat

As mentioned, the Alpha1 MZ liver is under continuous Hepatocyte Endoplasmic Reticulum (ER) stress. It is in this “ER” where fatty acid synthesis and cholesterol metabolism are taking place. (This is also why most MZs have a fatty liver)

Conclusion: Reduce and/or avoid intake of fried and fat-rich foods, and stay away from fried foods, including fast food and restaurant meals.

Uncooked shellfish

This one is also new for us; Eating raw or undercooked oysters or clams can lead to serious illness or death in people with liver disease

<https://www.vdh.virginia.gov/epidemiology/epidemiology-fact-sheets/risks-of-eating-raw-oysters-and-clams/>

Biliary Tract related

Because most (older) MZs have Biliary Tract issues caused by reduced liver Bile Acid production (confirmed by Biobank data), we need to consider this when determining our food intake.

Please note that reduced Bile Acid affects the type of bacteria in your small intestine and causes SIBO (Small Intestinal Bacteria Overgrowth), a known problem under MZs. Bile Acid helps break down fats in the small intestine.

For this reason, (and your liver) reduce your fat intake.

I am reading on the liver foundation website that fat substitutes and kernel oil (e.g., canola, olive, corn, sunflower, peanut, and flax seed oils) should be used because they need less bile to break down fats than other types of oil.

Meats

Red meat is high in saturated fats and should be avoided, as it contributes to fatty liver disease. We already know that MZs are more susceptible to fatty liver disease because of continuous Hepatocyte ER stress.

Instead, it is better to get your protein from other sources like chicken, fish, turkey, etc.

Medication / Supplements

Avoid NSAID. They are known to be very bad for the Alpha1 liver!

When you need to take medication, discuss this with your MD

Be careful with supplements; when you use them because of shortages, dose them carefully and consult your doctor to make sure they understand your liver condition. Please note that over-the-counter supplements typically contain very high unwanted doses.

Be careful with vitamin D3 supplements. The liver needs to convert D3 to D25, and some prescribed doses are just way too high for the Alpha1 MZ liver to handle. Instead, talk to your doctor and supplement with a regular intake of normal low doses.

Bread

Bread made up of refined flour is not good for the liver and can worsen the fatty liver. Instead, use whole-grain breads, which are high in fiber,

General

Eat a balanced diet: Select foods from all food groups

Eat food with fiber: Fiber helps your liver work optimally. Fruits, vegetables, whole grain breads, rice, and cereals can feed your body's fiber needs. Drink lots of water (no soft drinks). It prevents dehydration and helps your liver to function better

<https://liverfoundation.org/health-and-wellness/healthy-lifestyle/liver-disease-diets/>

Conclusion

In conclusion, the Alpha1 MZ liver is under continued Hepatocyte ER stress, and Alpha1 MZs have a very high prevalence of biliary tract issues at a later age when the liver loses more capacity through aging or under a high load, like during pregnancy.

Offloading the liver through a healthy, liver-friendly diet will certainly help. It is also recommended to check your vitamin and mineral status on a regular basis and supplement when required in cooperation with your doctor. Also, when you need supplementation, do it in smaller, regular doses to avoid high liver loads.

And as a last remark, be careful with what you read on the internet; many commercial food companies are paying influencers to claim all kinds of benefits. Educate yourself as best as you can and use your knowledge and common sense to understand the physical condition and limitations of your liver and biliary tract.