MCT Oil- Benefits and How to Use it

MCTs are a compound of three medium chain fatty acid molecules linked together by a glycerol molecule. There are three main forms of MCT fatty acids; caproic, caprylic, and lauric acid. Usually, MCT oils offer a mix of these forms, however, oils that are almost pure C8 have the highest conversion to ketone bodies, and therefore offer the highest potential for their unique functional and therapeutic properties.

HOW DO THEY WORK?

MCTs are easily digestible, as they are metabolized in the liver and do not require digestive enzymes (lipases and bile salts) to be broken apart. They easily pass through the mitochondrial membrane where they enter metabolic pathways to produce acetyl-CoA, which is oxidized by way of the tricarboxylic acid cycle or further converted to ketone bodies, beta-hydroxybutyrate and acetoacetate. Alternatively, acetyl CoA can be transported into the cytoplasm of the hepatic cell and used for new synthesis of long chain fatty acids.

Within minutes of ingestion, MCTs can be converted into ketones, which are considered to be a superior fuel for the brain, muscles and other organs. This is because they provide quickly available and long-lasting energy. MCTs also enhance thermogenesis and fat oxidation, which suppresses the deposition and accumulation of body fat.

MCTs are colorless, odorless, have minimal flavor and they stay liquid at room temperature, making them the perfect fat to add to food, coffee and smoothies in order to enjoy the vast array of benefits they have to offer.

WHAT ARE THE BENEFITS?

MCTs have a wide range of health and performance benefits, especially those associated with nutritional ketosis, but without having to follow strict dietary restrictions.

more easily digested by those struggling to digest other types of fat, such as those with malabsorption, leaky gut, Crohn's disease or in persons who have had their gallbladder removed. MCTs also appear to lower markers of systemic inflammation, such as IL-6, which may further improve these conditions. Other benefits include antimicrobial and antibacterial properties from C12 that help to combat various bacteria (for example the bacteria that causes ulcers), yeast and protozoa. MCTs also help balance gut bacteria by offering the digestive system a break while C12 further supports the growth of normal gut flora.

The same antiviral and antibacterial properties previously mentioned also make MCTs beneficial for the immune system. Healthy fats are important for proper immune function, and since MCTs can be more easily used by the body, this may be especially beneficial for those who have trouble absorbing fats and who struggle with impaired immune function.

Nutrient absorption-MCTs appear to enhance absorption of other substances such as calcium, magnesium and amino acids, potentially providing a nutritional advantage for those who have impaired fat metabolism and malabsorption syndromes.

Cardiovascular health. Previous studies have shown that MCTs help lower total lipid levels and improve cardiovascular health. Those people who regularly consume coconut oil (which naturally contains MCTs) have a lower incidence of heart attack compared to those who do not consume it at all.

Increased emerge-Since MCTs are processed in the liver, they are absorbed quickly and provide fast and sustained energy. MCTs move passively via the hepatic portal system to the liver without the

need for a longer digestive process. Unlike almost all other foods, MCTs do not require energy to be absorbed, stored or used in the body, making them an almost perfect source of natural energy. MCTs also have been shown to increase physical endurance and coupled with the increased immediate energy availability, would be useful to those who desire to enhance their athletic performance, as well as the elderly or frail who wish to have more energy.

Diabetes and glucose metabolism-A unique property of MCTs is enhanced glucose utilisation mediated by insulin both in diabetics and non-diabetics, thereby potentially providing improved glucose control in the diabetics and in people with insulin resistance. In addition, MCT oil has been shown to protect cognition in type 1 insulin-dependent diabetics during severe hypoglycemic episodes.

Neurological disorders. In several studies ketones have been shown to be neuroprotective. Ketones appear to be the preferred source of energy for the brain in people affected by Alzheimer's disease, Parkinson's disease and maybe even amyotrophic lateral sclerosis (ALS), because in these diseases, certain neurons have become insulin resistant or have lost the ability to efficiently utilise glucose. As a result, neurons slowly die if no other form of energy is available.

The dietary ketosis induced by the consumption of MCTs may effectively bypass the problem of insulin resistance and restore metabolic function in cells that are glucose-starved. Small-scale studies observing patients with Alzheimer's disease and mild cognitive impairment taking MCT oil have shown improved memory and cognitive performance in nearly 50% of participants. Studies with greater populations using MCT oil or a coconut and MCT oil combination are currently underway to further verify these results.

WHAT ARE THE DOSES TYPICALLY USED?

Depending on the goal to be achieved, the doses could vary. For an average healthy person, the daily dose of MCTs could be in the range of 30-90mL per day. This amount, if we consume it throughout the day, will induce dietary ketosis without restricting carbohydrate. For those with neurological diseases – such as Alzheimer's disease – using MCTs to supplement their diet was found to be beneficial when using a daily dose of 20g (4 tablespoons).

It is important to note that MCT should start low (e.g. 1 teaspoon) and gradually increase over a couple weeks to avoid gastrointestinal distress or upset. Too much MCT will not harm you, however, it may cause temporary gastrointestinal discomfort.

WHAT ARE THE CONCERNS OF USING MCT OIL

Many people don't know that concentrated MCT oils are often derived from the mix of coconut oil and palm oil. In recent years the palm oil industry caused intense deforestation for large parts of the rainforest to make room for palm production. Unfortunately, this affected many inhabitants of these forests and has also driven many animals out of their natural habitats, such as the orangutan or the Sumatran tiger, which are both in danger of extinction. If that was not enough, many native people who rely on the rainforest for their livelihoods find their homes and their sources of income destroyed by the large-scale production of palm crops.

When buying MCT oil, make sure to look for MCT oils that are sourced only from coconut oil or sustainable and rainforest friendly palm oil.

DIGESTION BOOST GREEN SMOOTHIE

A refreshing green smoothie made with fresh veggies and fruit with a hint of ginger and cilantro, and MCT oil to help jumpstart your morning.

INGREDIENTS

- 1 cup fresh spinach
- 2 tablespoons fresh cilantro
- 2 teaspoons fresh ginger (chopped)
- 1/2 cup coconut milk
- 1 cup cucumber (diced, peeled if desired)
- 1 medium green apple (cored, peeled if desired)
- ½ fresh Avocado
- 1-3 tsp Organic MCT Oil
- Ice if desired

INSTRUCTIONS

- 1. Place spinach, cilantro, ginger and coconut milk into blender.
- 2. Blend until smooth and leafy chunks are gone.
- 3. Add cucumber, apple, avocado, and MCT oil to blender.
- 4. Blend again until smooth.
- 5. Serve immediately.



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