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MACRONUTRIENTS. WHAT ARE THEY?

Education is key. Therefore, we're going to do all we can to prepare you for the results of your genetic profile. It all starts with the basic components, your macronutrients.



WHAT ARE MACRONUTRIENTS?

Macronutrients (carbohydrates, proteins & fat) are the three basic food groups required by the human body in large amounts. Macronutrients supply us with energy, in addition to essential vitamins and minerals, and are the building blocks of all meals and snacks, and should be consumed in balanced quantities to achieve optimal nutrition. When consumed together, macronutrients work together as a powerful "team" to positively impact a variety of bodily functions, including: the absorption of nutrients, insulin production, fat storage, satiety, and other factors important to achieving optimal health.

When you submit your cheek swab for genetic testing, your genotype is applied to standardized Acceptable Macronutrient Distribution Ranges & your personalized Genetic Dietary Profile is created. When you understand the importance of this profile and adhere to your unique macronutrient needs, you will provide your body with the nutrition it needs. Doing so will help you maintain and repair major organs, boost energy and mood, moderate cholesterol levels, build lean muscle, balance blood sugar levels, feel fuller longer, control food cravings & much more.

PROTEIN

Protein is a critically important component to every cell of the human body. In fact, your DNA is what instructs the cells in your body to create the proteins that are essential to your existence. Along with carbohydrates and fat, protein is a macronutrient that needs to be consumed in larger quantities (vs micronutrients that are needed in smaller quantities).

The human body uses protein to build and repair tissue. Hair and nails are mostly made of protein. We also use protein to make bones, enzymes, hormones, and other body chemicals. It is an important building block of skin, muscles, cartilage, and blood. Unlike carbohydrates and fat, the body does not store protein, and therefore has no reservoir to draw on when it needs a new supply.

But how much is required? The answers to that question is truly unique to every individual and will be revealed in your genetic profile. This is one example where one size does <u>not</u> fit all.







CARBOHYDRATES

Carbohydrates are the body's most readily available energy source and an essential part of a healthy diet. On a chemical level, carbohydrates contain carbon, hydrogen, and oxygen. Once consumed, they break down, are converted to glucose, and transported via the bloodstream to be used by every cell in the body.

There are two main categories of carbohydrates:

- 1. Complex Carbohydrates (Fiber & Starches)
- 2. Simple Carbohydrates (Sugars)

In general, it is always best to consume healthier complex vs simple carbohydrates. They provide the body with essential nutrients like vitamins, minerals, and fiber. Since complex carbohydrates take longer for the body to digest, they promote satiety and a feeling of fullness.

In additional to immediate and stored energy, other key benefits of consuming a diet rich in complex carbohydrates include: normalizing blood sugar levels, preserving lean muscle mass, promoting digestive health, increasing heart health, preventing diabetes, and positively impacting brain function, mood, and sleep patterns.

Good sources of complex carbohydrates include fruits with skin, vegetables, berries, brown rice, 100% whole grain breads and pasta, peas, beans, nuts, legumes, quinoa, oats, unsweetened dairy products, and more.

FATS

All are not created equal.

Like carbohydrates and protein, the consumption of healthy fats is critically important to a healthy life. A number of biological functions depend on fat. It is utilized by every cell in the human body. Contrary to popular beliefs, consuming the right kinds of healthy fats - in their ideal proportions - will NOT make you "fat" or cause you to gain excess weight. The key is understanding what types & quantities of these essential macronutrients are best for you.

Advancements in genetic sciences have revealed that different genotypes respond better to different types of healthy fats. This information will help you choose the right fats for YOU and can actually help keep you from gaining or maintaining stubborn weight. It's true!

The "Your Fats" section of the report reveals how your body responds to both MONO and POLY unsaturated fats (a.k.a. MUFAs and PUFAs). When considered in combination with the AGS Genetic Dietary Profile, you can begin to make changes to the food & fat choices that are best suited to your personal biology. If you are actively working to change your existing body composition, we encourage you to take this section of the report very seriously!

In short, all food you consume falls into one of the three macronutrient categories.

Our goal at Sarasota Sports Medicine is to determine not only the ratios that work best for you, but the types of macronutrients to help you perform and feel your best.