

MACRO- AND MICRO-NUTRIENTS 101

Every bite of food contains both macro-and micro- nutrients

Macronutrients are energy providing substances we need in fairly large amounts each day. We cannot live without all three of these macronutrients.

Whether we call meat and fish “proteins”, and vegetables and legumes “carbohydrates”, is usually due to which macronutrient is found in the highest levels in the particular food. Many foods contain more than one type of macronutrient. Some can be classified in more than one macronutrient category, such as lentils, which contain carbohydrates in the highest percentage, but also contain a significant amount of protein.

The three primary macronutrient categories are:

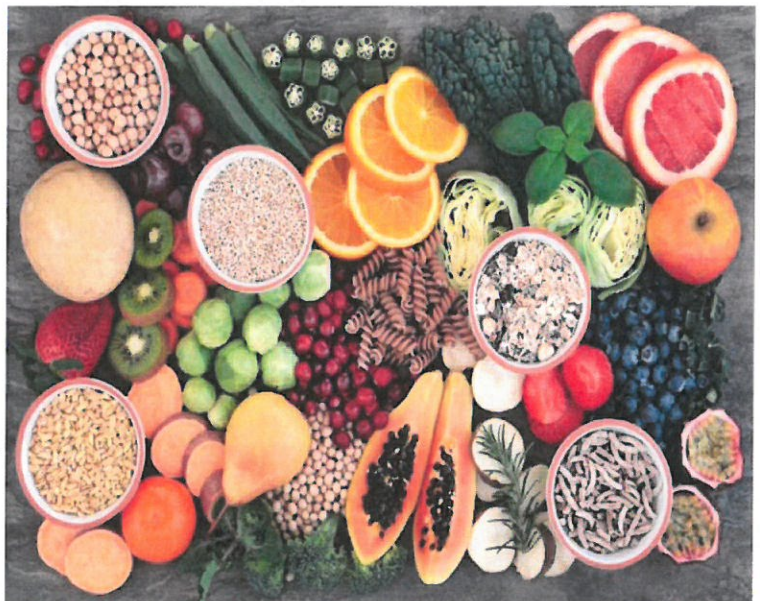
#1:

Carbohydrates: high quality sources include vegetables, fruits, 100% whole grains, and legumes.

The body breaks carbs down into glucose which is a quick energy source. The speed at which carbs are digested depends on how much fiber,

and other macronutrients are present. If carbs are digested quickly, glucose is released into the blood stream in a rush, causing a sugar high, which leads to an eventual crash. This rollercoaster of blood glucose levels over time can lead to cravings, overeating, brain fog, and even diabetes. Health promoting carbohydrates have lots of fiber to keep blood glucose levels stable and avoid the health damaging highs and lows. These types of carbohydrates are not refined or processed.

CARBOHYDRATE





#2

Fats: high quality sources include nuts/nut oils, seeds, avocados/avocado oil, olives/olive oil, raw dairy, pastured butter/ghee, wild fish, and grass-fed meats/wild game. The body breaks down fats for long-lasting sustained energy. Fats help to control your appetite by keeping you full longer than the other macronutrients. Health promoting fats provide brain fuel, regulate hormone production, aid in absorption of the fat soluble vitamins A, D, E, and K, and protect your organs. There are several different types of health promoting fats: monounsaturated such as that found in avocados and olive oil; polyunsaturated such as omega-3s found in nuts and fish; saturated fats found in coconut oil/milk, grass fed beef, and wild game. These types of fats will not raise your risk of heart disease. Instead, they will help to raise your "good" cholesterol levels (HDL), while lowering your "bad" cholesterol (LDL) levels, in addition to the other benefits listed above. These good quality fats do not make you fat. As with carbohydrates, the most health promoting types of fats are not highly refined or processed.

#3

Proteins: high quality sources include: grass fed meats/wild game, bone broth, some legumes, pastured free range eggs, wild fish, pastured chicken, and raw dairy. The body breaks down protein into amino acids. The body's proteins are constantly broken down and used in bodily processes, so it is important to consume quality protein sources daily. Amino acids are the building blocks of our tissues and organs. There are 20 amino acids that our bodies need to function properly. Eleven of the twenty we may be able to manufacture ourselves if our body systems and genetics are in optimal working order. Nine of the twenty we must get from our food. These nine are called the "essential amino acids". Health promoting protein maintains muscles, helps joints remain flexible, promotes growth of hair, skin, and nails, positively affects mood, concentration, and sleep. As with carbohydrates and fats, health promoting proteins are not refined or highly processed.



Micronutrients are various types of chemicals found in small amounts in the foods we eat. They are commonly known as vitamins and minerals, and must be in balance for optimal health and function. Some are listed below with a picture showing a couple of foods in which they are found :



Balance is the key here, as a deficiency in one may aggravate or create a deficiency in another.

For example: **Magnesium (Mg)** is required to convert **vit. B1** to its active form, enhance the uptake of **vit. B6**, activate **vit. D**, get **potassium** (mineral **K**) into the cells, and assist in over 300 other bodily functions and processes. **Magnesium** deficiency is unfortunately quite common. Health issues such as insomnia, high blood pressure, and cardiac arrhythmias can potentially be connected to a magnesium deficiency.

One of the best ways to optimize your ability to get all of these essential vitamins and minerals is to eat a rainbow of colorful foods every day.



Food, not nutrients, is the fundamental unit of nutrition.

References

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