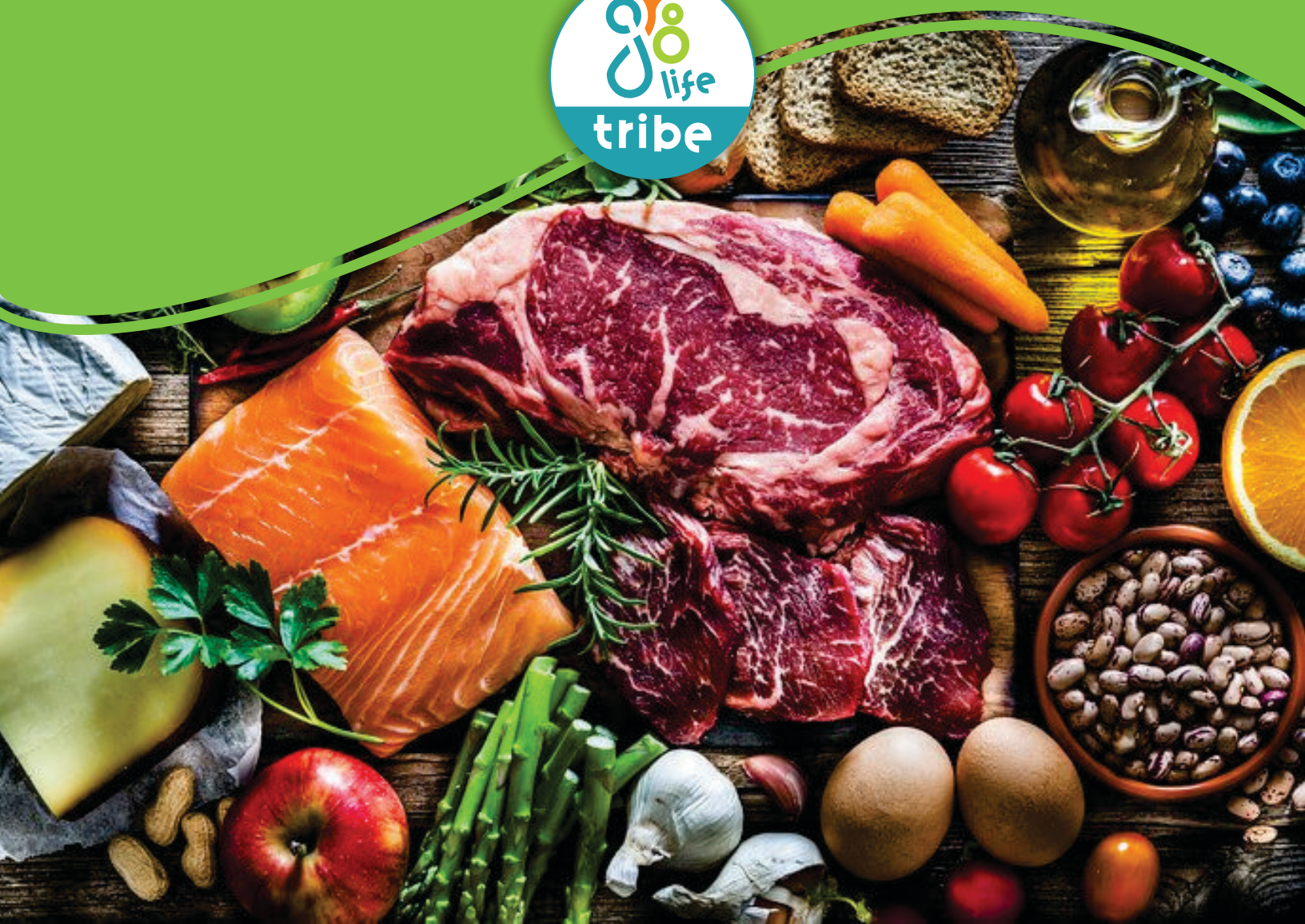
NUTRIENT DENSITY BASICS

MODULE 2 • BALANCED LIFE • WHOLE-PERSON PROGRAM



NUTRIENT DENSITY BASICS

No matter your dietary approach, basic nutrition science remains the same. There are many foundational nutrition principles to consider when choosing which foods to put on your plate.

In general, foods aren't "good" or "bad" – some are simply more nutrient-dense than others. Nutrient density refers to the amount of nutrients in a food relative to the amount of energy, or calories, it contains. Nutrient-dense foods provide essential nutrients – beneficial compounds the body doesn't make itself and needs to obtain from other sources. These nutrients include macronutrients and micronutrients.

MACRONUTRIENTS

Macro means "large," and macronutrients are nutrients you need in *large* amounts. The three macronutrients that provide energy for the body are carbohydrates, fats, and protein.

Carbohydrates

When you hear the word *carbohydrates*, you might think of bread, pasta, and cookies. However, fruits, vegetables, and dairy are also sources of carbohydrates. Carbohydrates are the body's most immediate energy source and tend to make up the largest percentage of one's diet.

There are two main types of carbohydrates: simple and complex. Simple carbohydrates are small compounds that break down rapidly, providing the body with a quick boost of fuel when consumed. Sugar is one example of a simple carbohydrate. Sugar and

other simple carbohydrates are often added to foods. Being mindful of added sugar consumption is important as it offers little nutritional value and excess amounts have been linked to health concerns.

Complex carbohydrates are larger compounds that require more time to break down. They include starches and fiber found in foods like whole grains, beans/legumes, fruits, and vegetables. Dietary fiber helps reduce the risk for cardiovascular disease. It also supports digestive health and weight management.

Fats

Fats, or lipids, also play an important role in overall health. Healthy fats promote weight balance and support cardiovascular health. You also need dietary fat to absorb fat-soluble vitamins A, D, E, and K.

The simplest form of lipids are fatty acids. Fatty acids may be classified as unsaturated or saturated, depending on their chemical structure.

Unsaturated fats are considered heart-healthy and are liquid at room temperature. They come in two forms: monounsaturated fats and polyunsaturated fats.

Monounsaturated fatty acids, sometimes referred to as MUFAs, support healthy cholesterol levels. Olive oil, avocado, and most nuts and seeds are rich in these fats. Polyunsaturated fatty acids are sometimes called PUFAs. PUFAs include both omega-3 and omega-6 fatty acids. These are typically referred to as “essential” fatty acids because they can’t be made in the body; it’s “essential” for us to get them from our diet.

Omega-3 fatty acids help reduce inflammation and support heart health. They also may reduce symptoms of depression. Sources of omega-3 fatty acids include fatty fish, walnuts, and flaxseeds. Omega-3s were abundant in traditional diets, but they aren’t as present in modern diets, which tend to be higher in omega-6 fatty acids. This is why eating plenty of foods rich in omega-3s is recommended.

Saturated fats are solid at room temperature. They're generally found in animal-based foods, like fatty meat, lard, and dairy, but they're also present in tropical oils, like coconut and palm oils. Although the effects of saturated fat on health remain controversial, research has shown that foods rich in saturated fat can be part of a healthy diet.

Artificial trans fats, or partially hydrogenated oils, on the other hand, do appear to put health at risk. Trans fats are often found in highly processed packaged food items.

Protein

Protein helps with everything from synthesizing hormones and maintaining cell structure to creating antibodies that support immunity. The building blocks of protein are called amino acids. The body can synthesize some amino acids, but the ones it can't make on its own need to come from the diet. These are called essential amino acids.

Animal-based proteins contain all the essential amino acids, which is why they're sometimes called "complete" proteins. Plant-based proteins tend to lack or be low in one or two essential amino acids and are sometimes called incomplete proteins. If you're not eating animal-based proteins, consuming a variety of plant-based proteins daily can help ensure you're getting all the amino acids you need.

Plant-based diets tend to be higher in fiber and antioxidants, while animal protein is more bioavailable and contains vital nutrients like vitamin B12 and omega-3 fatty acids, which can be trickier to obtain from plant-based foods. Research has shown that both dietary patterns can be healthful as long as they include a variety of whole, plant-based foods and minimize intake of highly processed foods and added sugar.

MICRONUTRIENTS

Micro means "small," and micronutrients are nutrients you need in relatively small amounts for the body to function optimally. Micronutrients are important for growth, development, biological processes, and fighting disease. Vitamins and minerals are the two types of micronutrients.

Vitamins

Vitamins are organic compounds made by plants or animals and are important for supporting immune function and chemical reactions in the body. There are two types: fat-soluble (vitamins A, D, E, and K) and water-soluble (vitamin C and the B vitamins). Water-soluble vitamins are excreted more easily than fat-soluble vitamins. In excess amounts, fat-soluble vitamins can reach toxic levels in the body.

Minerals

Minerals are inorganic compounds that exist in soil or water. They're essential for cell processes, fluid balance, nervous system function, and bone structure. There are two types of minerals: major and trace minerals. Major minerals are needed by the body in larger amounts and include calcium, potassium, and magnesium. Trace minerals are needed in lesser amounts and include copper, iron, and zinc.

You may be wondering what and how much to eat to meet all your nutrient needs. The answer, though, is truly bio-individual: It will depend on your state of health, age, and activity level – among many other factors. Many people can obtain most of the nutrition they need from food. However, it's important to note that not all foods are rich in micronutrients or phytonutrients. Phytonutrients, such as flavonoids, are compounds found in plant foods that aren't essential but provide an added layer of health. That's why nourishing yourself with a varied, well-balanced diet is so beneficial.