



BEGINNER'S GUIDE TO SUPPLEMENTS



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A woman with blonde hair, wearing a dark purple athletic top and leggings, is shown in profile drinking from a brown reusable cup. The background is a soft, out-of-focus outdoor setting. The text is overlaid on the right side of the image.

INTRODUCTION TO SUPPLEMENTS

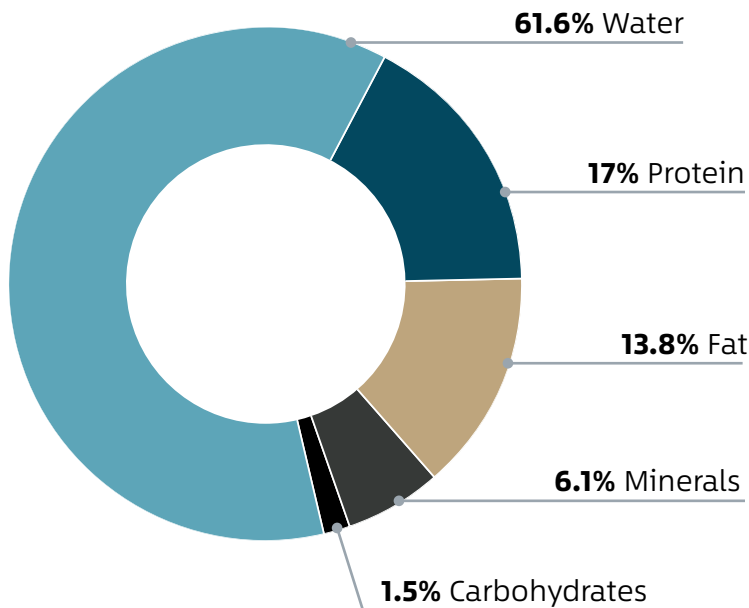
Only a few decades ago, nutritional supplements had a strong association with bodybuilders, weightlifters and athletes. There were only a few brands on the market, and the only items available were low-quality protein powders and vitamins. How times have changed.

Today, supplements are not just for bodybuilders. In fact, far from it. Regardless of an individual's fitness level, almost anyone can benefit from the inclusion of supplements on a daily basis. Modern considerations include busier lifestyles, greater stress, higher pollution, food allergies and less sleep. If you experience any of these circumstances, you can be assured that your need for nutritional supplements will be greater.

In a situation where you're in excellent health, you'll still benefit from daily consumption of high-quality supplements. Whether you're very active in the gym, or simply someone who enjoys a gentle walk three times a week, you can accentuate your results if you combine your training with high-quality, natural supplements. In addition to protein, today's supplements include amino acids like l-glutamine, branched-chain amino acids (BCAAs) and creatine.

PROTEIN BASICS

A healthy adult human has a body composition as follows:



Trace amounts of vitamins and other substances make up less than 1%.

As you can see, protein is the second highest nutrient and is vital for your existence, regardless of your level of physical activity.

BREAKING DOWN PROTEIN

Protein is composed of 22 amino acids, nine of which are called “Essential” because your body cannot manufacture them they must come from nutrition and supplementation.

The remaining 13 are considered “Non-Essential”.

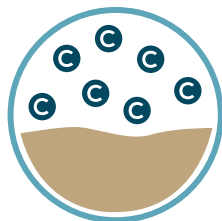
Proteins are one of the building blocks of body tissue, act as a fuel source and are needed to form blood cells. Protein is found in all cells of your body and is their major structural component. It is also substantially responsible for the structure of your bones, organs, tendons and ligaments. For example:



Hair fibre is
65-95% protein



Bones are
50% protein¹



Skin collagen is
75% protein²

By comparison, muscle is only 20% protein. This gives you an idea of how important protein is for everyone, not just people who work out a lot and want to build muscle.

GENERAL POPULATION PROTEIN REQUIREMENTS

At present, the Recommended Dietary Allowance (RDA) of protein is 56 grams per day for an average sedentary man and 46 grams per day for an average sedentary women. However, these numbers rapidly increase when things such as bodyweight and activity level are considered.

To anyone who is even moderately active, the numbers quickly double and more. And, if you're not getting all you need from your diet, supplementing with protein is a great alternative.

¹ By volume.

² Based on dry weight.

PROTEIN TYPES

NOW THAT YOU UNDERSTAND HOW IMPORTANT PROTEIN CONSUMPTION IS FOR EVERYONE, REGARDLESS OF GENDER OR ACTIVITY LEVEL, LET'S EXAMINE SOME OF THE MOST WIDELY CONSUMED TYPES OF PROTEIN AVAILABLE IN SUPPLEMENT FORM. YOU KNOW THAT PROTEIN IS A GOOD THING; HERE'S A GLANCE AT WHAT YOU SHOULD LOOK FOR IN A PROTEIN SUPPLEMENT AND A BRIEF ANALYSIS OF SOME OF THE DIFFERENT TYPES OF PROTEIN AVAILABLE.

WHAT TO LOOK FOR

Ideally, it is best to purchase and consume a protein product that:

- Provides high-quality protein that's clean and pure.
- Contains no added fillers.
- Has no artificial flavours or colours.
- Is sweetened with only natural ingredients.
- Is third-party certified for quality assurance.
- Mixes easily for convenience.

WHEY PROTEIN

The Biological Value (BV) of whey protein outranks the former benchmark of 100 which is based on egg whites. Whey protein falls around 106 on the BV scale, meaning it's superior in terms of more amino acids and nitrogen retained by your body. Whey is the ideal choice for vegetarians looking to get more protein into their daily nutrition, as well as individuals with gluten intolerance.

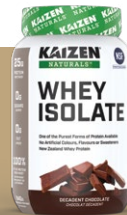
A pure, clean product like Kaizen® Naturals™ Whey Protein comes loaded with 24 grams of high-quality New Zealand whey protein per serving. It has no artificial colours or flavours and is sweetened with stevia. The whey is sourced from grass-fed cows and is produced using low temperature filtration to preserve the integrity of the protein.



WHEY ISOLATE

Taking the concept of Biological Value to an even higher level, whey isolate protein comes in at an incredible 159 on the same scale. This means you're getting a whopping 59% higher retention of amino acids and nitrogen than from egg whites. Whey isolate protein will tend to be slightly more expensive, because when it comes to protein quality, it's the undisputed champ.

The Whey Isolate product from Kaizen® Naturals™ contains clean, pure protein from New Zealand and is virtually lactose free (with levels less than 0.5% per serving). Its enhanced micro-filtration process makes it one of the best protein formulas available. It contains no artificial colours or flavours and is sweetened with stevia.



VEGAN

Protein is certainly not just for carnivores. If you happen to avoid animal-based protein, you can still meet and exceed your daily requirements with vegetable-based protein. In an ideal situation, a plant-based vegan protein will come from multiple sources and provide all nine of the essential amino acids.

The Kaizen® Naturals™ Vegan Protein formula provides all nine essential amino acids. It combines plant-based protein from five different sources while simultaneously providing 20% of your daily fibre requirements as an added bonus. It's also dairy-free, soy-free and gluten-free.



HOW TO CONSUME YOUR PROTEIN

THANKFULLY FOR THE GENERAL PUBLIC, THE DAYS OF CLUMPY, HARD-TO-BLEND PROTEIN POWDERS ARE OVER. MODERN MANUFACTURING PROCESSES HAVE HELPED READY YOUR PROTEIN FOR EASY MIXABILITY.

HERE ARE FOUR WAYS TO MAKE YOUR PROTEIN PREPARATION EASY:

1. For most people, a simple blender will easily mix your protein within seconds.
2. Many proteins can also be assimilated in liquids easily with a spoon, though it will take you a little longer.
3. Whey protein and milk are very compatible for easy mixing, though some people enjoy the powder simply mixed with water, or in a smoothie.
4. For added convenience, shaker cups designed for easy mixing of your protein powder on-the-go are available.

WHEN TO CONSUME

Supplemental protein is ideally consumed mid-morning or mid-afternoon, between meals. On training days, consuming a protein shake post-workout is a wise choice.

PROTEIN SMOOTHIE RECIPES

Although protein shakes are the most common form of consumption, you also have the freedom to turn your protein into a delicious smoothie. Following are two simple recipes to ensure you get your protein while giving your taste buds a thrill!

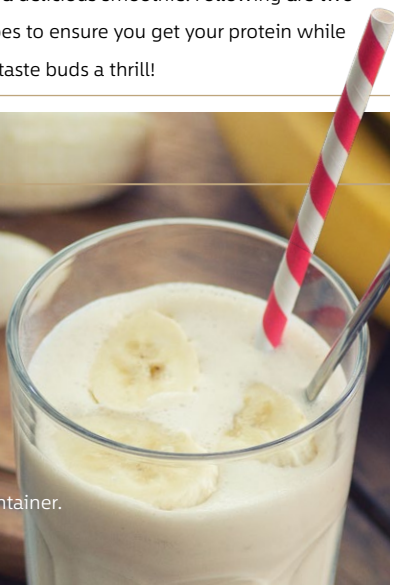
BASIC BANANA SMOOTHIE

Ingredients

- 1 scoop of protein powder
- 1 cup of mashed bananas
- 8-10 ounces of milk or water
- 3 or 4 ice cubes

How to Make

- Set your blender to "Smooth".
- Simply combine all ingredients into blender container.
- Blend until you achieve a smooth texture.



POWER BERRY YOGURT SMOOTHIE

Ingredients

- 1 scoop of protein powder
- ½ cup of frozen berries
- ¼ cup of low-fat yogurt
- 8-10 ounces of milk or water
- 3 or 4 ice cubes

How to Make

- Set your blender to "Smooth".
- Simply combine all ingredients into blender container.
- Blend until you achieve a smooth texture.





PRE-WORKOUT

A PRE-WORKOUT DRINK CONTAINS SEVERAL INGREDIENTS, WHICH IN BASIC TERMS, HELPS IMPROVE THE QUALITY OF YOUR WORKOUT. SOME PRE-WORKOUTS CONTAIN CREATINE WHICH HELPS TO IMPROVE STRENGTH IN REPETITIVE BOUTS OF BRIEF, HIGHLY-INTENSE PHYSICAL ACTIVITIES. OTHERS MAY INCLUDE CAFFEINE WHICH HELPS TO RELIEVE FATIGUE AND PROMOTE ENDURANCE. SOME HAVE INGREDIENTS WHICH COMBINE THESE TWO POTENTIAL EFFECTS.

WHAT WILL IT DO FOR ME?

When you consume a pre-workout drink before working out, you may expect:

- Enhanced motor performance
- Enhanced cognitive performance

Whether weight training or performing cardio, the quality of your workout should be improved.





WHAT'S IN IT?

Pre-workout blends contain several ingredients to help you make the most of your workouts. When making a decision to purchase, look for blends that have a myriad of high-quality pre-workout ingredients which help perform these roles:

- **BETA-ALANINE** increases carnosine levels which helps delay neuromuscular fatigue in intermittent, high intensity exercise.
- **CREATINE** increases strength, power and performance in repetitive bouts of brief, highly-intense physical activity.
- **L-ARGININE** supports muscle protein synthesis.
- **L-TYROSINE** helps to decrease cognitive fatigue due to physically stressful situations.
- **CAFFEINE** helps provide energy by reducing your perception of fatigue.

HOW DO I TAKE IT?

Taking a pre-workout is easy. Simply combine the product with water, mix, and drink. Aim to consume it about 30-45 minutes before you intend to workout. Remember to take only on workout days, otherwise if you consume it daily you'll develop an immunity and the desired effects will be blunted. Also, take on an empty stomach for faster and better absorption.



CREATINE

AFTER PROTEIN, CREATINE IS ONE OF THE MOST POPULAR SUPPLEMENTS ON THE MARKET AND IS THE UNDISPUTED CHAMP FOR IMPROVING PERFORMANCE IN THE GYM. CREATINE IS A SUBSTANCE FOUND IN YOUR MUSCLE CELLS, AND ABOUT 95% OF ALL CREATINE IN YOUR BODY IS FOUND IN YOUR MUSCLES. SUPPLEMENTING INCREASES YOUR STORES OF PHOSPHOCREATINE, WHICH IS A FORM OF STORED ENERGY. IN TURN, YOUR BODY WILL THEN PRODUCE MORE OF THE HIGH-ENERGY MOLECULE ADENOSINE TRIPHOSPHATE (ATP) WHICH IS REQUIRED FOR MUSCLE CONTRACTION.



WHAT WILL IT DO FOR ME?

Creatine improves muscle strength and power. By taking it as directed, you can expect to see your strength levels rise, particularly with regard to your "one-rep max" or 1RM. That is, your maximum power output for just one repetition of an exercise like the bench press. Over time, your ability to lift heavier weights should lead to an increase in lean body mass; this will cause your muscles to grow fuller and larger.

WHAT'S IN IT?

Clean, natural brands of creatine keep it simple and pure. Each serving should provide 5 grams of creatine monohydrate that's micronized for efficient absorption and delivery. Look for brands with no added fillers, preservatives or sweeteners.

HOW DO I TAKE IT?

Creatine consumption is very simple. Mix one serving in water or fruit juice and drink immediately. In order to get the most out of your supplementation, follow this easy method:

- **First 5 days:** take one serving 3-4 times daily, spaced evenly throughout the day.
- **Thereafter:** take one serving daily, about 30-45 minutes prior to your workout.

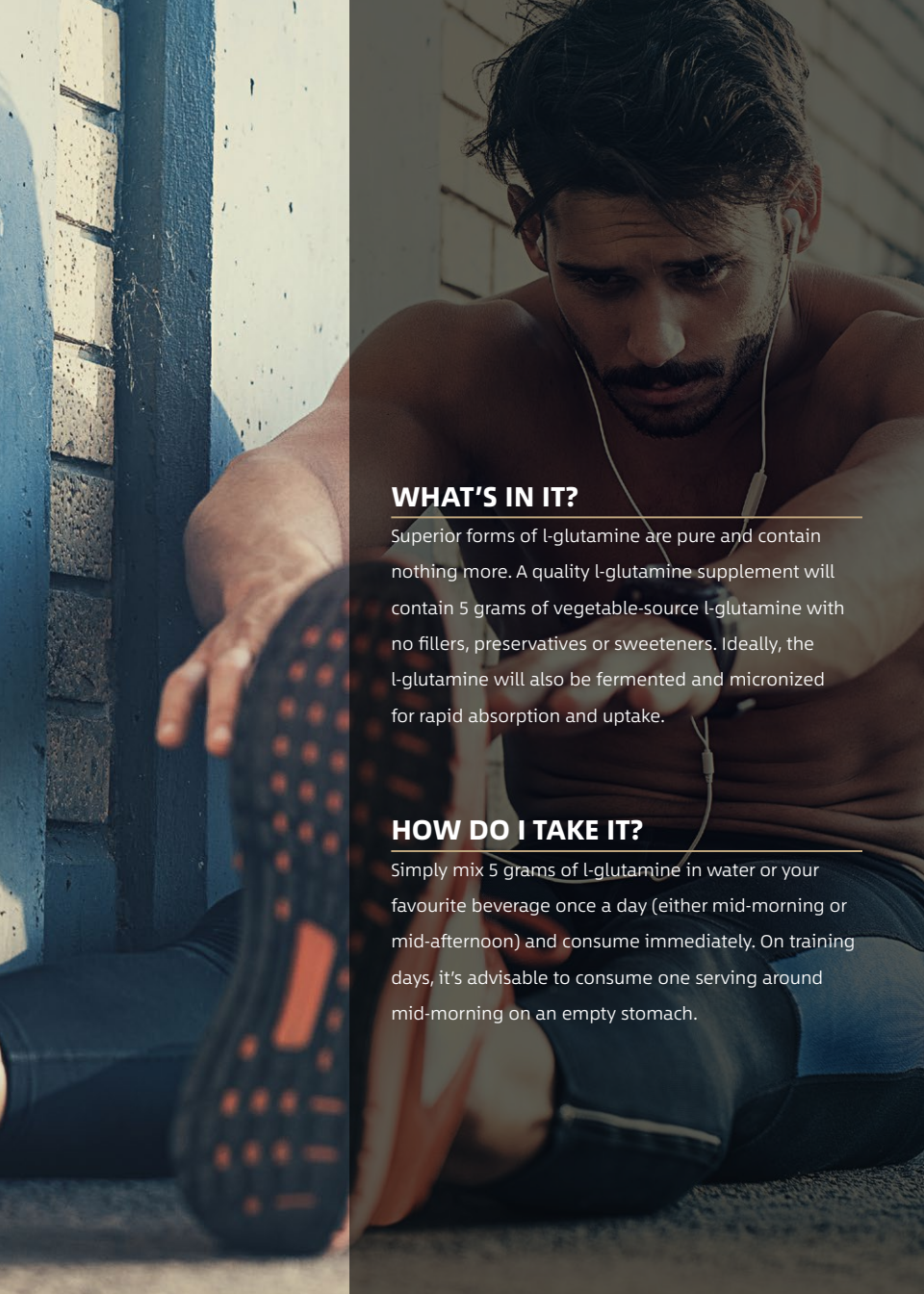


L-GLUTAMINE

L-GLUTAMINE IS A BUILDING BLOCK OF PROTEIN AND THE MOST ABUNDANT FREE AMINO ACID IN YOUR BODY. IT IS PRODUCED IN YOUR MUSCLES AND IS DISTRIBUTED THROUGH THE BLOODSTREAM TO ORGANS THAT NEED IT. L-GLUTAMINE ALSO PROVIDES ONE THIRD OF THE NITROGEN NEEDED BY YOUR BODY, WHICH HELPS HEALING AND RECOVERY OF YOUR MUSCLES.

WHAT WILL IT DO FOR ME?

L-glutamine is a highly effective supplement that assists with muscle recovery after your workout. During training, your body uses up glutamine as a source of fuel, and your stores of plasma glutamine need to be replenished; otherwise, you could experience "muscle wasting". Simply put, your muscles may actually decrease in size. Consuming a glutamine supplement will help prevent this and allow you the freedom to work out intensely so your muscle cells repair efficiently. L-glutamine also supports your immune and digestive systems.



WHAT'S IN IT?

Superior forms of L-glutamine are pure and contain nothing more. A quality L-glutamine supplement will contain 5 grams of vegetable-source L-glutamine with no fillers, preservatives or sweeteners. Ideally, the L-glutamine will also be fermented and micronized for rapid absorption and uptake.

HOW DO I TAKE IT?

Simply mix 5 grams of L-glutamine in water or your favourite beverage once a day (either mid-morning or mid-afternoon) and consume immediately. On training days, it's advisable to consume one serving around mid-morning on an empty stomach.



BCAAs

BRANCHED-CHAIN AMINO ACIDS (BCAAs) ARE IDENTIFIED AS THE ESSENTIAL AMINO ACIDS LEUCINE, ISOLEUCINE AND VALINE. THEY ARE SOLD SEPARATELY FROM PROTEIN AND OTHER AMINOS BECAUSE OF THEIR POWERFUL EFFECTS ON MUSCLE PROTEIN SYNTHESIS. THE BCAA LEUCINE, IN PARTICULAR, HAS A SIGNIFICANT INFLUENCE ON THE PRESERVATION AND GROWTH OF MUSCLE AND IS KNOWN AS THE IGNITION FOR PROTEIN SYNTHESIS.



WHAT WILL IT DO FOR ME?

BCAAs have many benefits related to training and muscle growth. In simple terms, BCAAs assist in the building of lean muscle when combined with regular training and a healthy, balanced diet.

WHAT'S IN IT?

Look for brands that deliver just what you want: BCAAs in their purest form. Scientific research has determined that the ideal ratio of BCAAs when taken together is 2 parts leucine to 1 part isoleucine and 1 part valine. A suitable brand of BCAAs will contain exactly this, with each serving providing 2.5 grams of leucine, 1.25 grams of isoleucine and 1.25 grams of valine. Ideally, you'll benefit from a BCAA supplement that's fermented, vegan and non-GMO.

HOW DO I TAKE IT?

BCAAs mix easily and a simple serving once daily is all you need. Mix 5 grams in water or your favourite beverage at a consistent time each day and consume immediately. On training days, a serving consumed immediately post-workout is advisable.

SAMPLE DAILY CONSUMPTION TIMELINE

HERE'S A SUGGESTED TIMELINE OF HOW YOU CAN EFFECTIVELY SCHEDULE YOUR SUPPLEMENT CONSUMPTION THROUGHOUT YOUR DAY. ON THIS PARTICULAR DAY, YOU'LL PERFORM A WEIGHT-TRAINING WORKOUT IN THE EARLY EVENING.

8:00am	Breakfast
10:30am	L-Glutamine serving
12:00pm	Lunch
3:00pm	Creatine serving
5:30pm	Dinner
6:30pm	Pre-Workout serving
7:00pm	WORKOUT
8:00pm	BCAAs serving (immediately post-workout)
8:30pm	Protein serving
10:30pm	Bedtime

TO HELP YOUR SUPPLEMENTS ASSIMILATE EFFECTIVELY, REMEMBER TO DRINK ABOUT FOUR LITRES OF WATER DAILY IF YOU'RE MALE, OR ABOUT THREE LITRES OF WATER DAILY IF YOU'RE FEMALE.

This routine is for more advanced users who want to incorporate all supplements. You do not need to use all of the supplements listed to enjoy the benefits.



OTHER FITNESS/HEALTH CONSIDERATIONS

SUPPLEMENT DOS AND DON'TS

Here are some key considerations to make the most of your supplementation:

DOS

- Do consult a physician prior to beginning a workout program; if you're pregnant or breastfeeding, speak with your doctor before consuming supplements.
- Do take your supplements as directed and on a regular basis.
- Do be patient in building long-term, lasting results which often take weeks or months to materialize.
- Do record your numbers (measurements, weight, sets, reps, time, distance, qualitative data) as it is the best way to track your gains.
- Do consume plenty of water for better absorption and overall health.
- Do remember to workout regularly so supplements can do their job.
- Do get plenty of sleep to allow your muscles time to build and recover.

DON'TS

- Don't consume alcohol excessively; you're actually better to avoid it altogether.
- Don't give up if you do not see immediate gains.
- Don't (actually, never) think that if a supplement works well, that you can simply double the dosage for even better results; it doesn't work that way and can be dangerous.
- Don't leave your supplements in an open spot where children may gain access to them.

THIRD-PARTY CERTIFICATION

THIRD-PARTY CERTIFICATION IS ASSOCIATED WITH SUPERIOR BRANDS IN ORDER TO GIVE YOU PEACE OF MIND. THIS PROCESS ASSURES YOU THAT YOU'RE RECEIVING ALL THE QUANTITIES AND QUALITIES OF INGREDIENTS THAT YOU'RE PAYING FOR.

For a supplement manufacturer to achieve third-party certification, an independent organization has reviewed the manufacturing process of their products and has independently determined that the final product complies with specific standards for safety, quality and performance. Such a review typically includes formulation and material reviews, testing and facility inspections. Most certified products bear the certifier's mark on their packaging in order to help consumers and other buyers make educated purchasing decisions.





ABOUT NSF

WHEN IT COMES TO QUALITY AND SAFETY CERTIFICATIONS FOR PUBLIC HEALTH PROTECTION, NSF INTERNATIONAL IS THE GOLD STANDARD. IN THE WORLD OF SPORTS NUTRITION, WHERE NOT ALL SUPPLEMENTS ARE CREATED EQUALLY, NOR ARE ALL MANUFACTURERS HELD TO THE SAME STANDARDS AS OTHER INDUSTRIES, KAIZEN® NATURALS™ VOLUNTARILY OPTED TO PURSUE NSF INTERNATIONAL'S CONTENTS TESTED & CERTIFIED PRODUCT CERTIFICATION.

Professional leagues such as the NHL, NFL, MLB and NBA only allow their athletes to take products that are certified by NSF. Professional strength coaches in the aforementioned leagues can only recommend NSF certified supplements as they have been third party certified to only contain the ingredients and doses listed on the label and nothing else.

With today's focus on human health and well-being, NSF meets the needs of safety and quality for the dietary supplements industry. NSF ensures product and ingredient safety, giving both industry and consumers peace of mind through GMP compliance, accredited certification programs, testing services and training capabilities.

Good Manufacturing Practices (GMP) are guidelines that provide a system of processes, procedures and documentation to assure a product has the identity, strength, composition, quality and purity that appear on its label.

NATURAL VS ARTIFICIAL SWEETENERS

You're more likely to consume a supplement consistently if you enjoy its taste. Such is the logic behind added ingredients which enhance the sweetness of a product. However, It's important to observe that there's a big difference between natural sweeteners and the artificial chemical compound sweeteners used by some manufacturers.

Stevia, as found in Kaizen® Naturals™ products, is a clean, natural-source sweetener. Sucralose, aspartame and saccharin are artificial sweeteners. Keep it natural; you'll do your body a world of good.

WHAT GETS ME **HERE**



It's a commitment to a better life.

Kaizen® Naturals™ is committed to clean, high-quality nutrition to keep you fit and fuelled for your better life, wherever it takes you.

KAIZENNATURALS.COM



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Available at retailers across Canada.

For a full list of our retail partners, please visit:

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