Guide to FOOD

MAXIMUM ENERGY

What foods do ELITE CYCLISTS use?

Hello, my name is Patrick, I am a professional MTB and Road Cycling athlete and also a Physical Education Bachelor's student.

As an experienced athlete, I would like to share some valuable techniques that I have learned over time, which have helped me evolve in my sports career.

In our program, we have the participation of several professionals and athletes who are linked to cycling, to offer our followers the best possible content for success in this sport that is constantly growing in our country.

It is important to note that the nutrition guide and menus that we present are only options that I personally use and that they may not be suitable for all athletes. Each individual is unique and has different nutritional needs, depending on their goals, level of training and physiological characteristics. Therefore, it is always important to consult a sports nutritionist for personalized guidance and specific amounts regarding nutrition and supplementation.

I believe that providing the best possible content that has helped me evolve in relation to training, nutrition and other aspects of cycling is fundamental to helping athletes achieve their goals.

Our goal is to share knowledge and valuable information with our followers, always based on scientific evidence and the experience of renowned athletes and professionals in the world of cycling.

NUTRITION AND SUPPLEMENTATION IN CYCLING

IMPORTANCE OF NUTRITION IN CYCLING

Nutrition is one of the keys to maximizing a cyclist’s performance. When combined with exercise, a healthy diet is essential to promoting quality of life and overall health. In addition, good nutrition can help maintain or lose weight, prevent disease, and improve the disposition for physical activity.

However, it is important to remember that each individual has different nutritional needs, especially if they are involved in high-intensity sports such as cycling. It is common for cyclists, even experienced ones, to experience fatigue, discomfort and muscle pain after training, due to deficiencies in certain nutrients.

In general, it is recommended that cyclists consume a diet adequate in carbohydrates, proteins and fats, as well as nutrients such as vitamins and minerals.

Each food group has a different impact on the cyclist's body, and therefore, it is important to adopt an adequate and balanced diet for your physiological characteristics, goals and training level.

However, it is important to emphasize that the food options I present in this guide are based on my nutritional monitoring with professionals specialized in the subject, on my own experiences and scientific studies.

Finally, it is important to emphasize that nutrition is only one aspect of a cyclist's performance, and that proper training and other healthy lifestyle practices are also key to achieving maximum potential in the sport.

Carbohydrate

Carbohydrates are our main source of energy. After digestion and absorption, carbohydrates are stored in our body in the form of glycogen. This, in turn, is responsible for distributing energy to the muscles during exercise. In other words, the greater the muscle glycogen reserve, the better your performance during training.

In addition to improving training performance, carbohydrates are also essential for regulating the immune system and controlling skeletal mass.

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Some examples of carbohydrate-rich foods include pasta, rice, potatoes, sweet potatoes, bread, tapioca, cassava, yams, oats, granola, honey, among others. It is important to note that the amount of carbohydrates needed by each individual may vary, depending on their energy needs and factors such as: type, intensity, and duration of training.

According to a study published in the Journal of Applied Physiology, eating carbohydrates before exercise can improve performance and reduce fatigue during physical activity. The study suggests that eating carbohydrates before exercise increases the availability of glycogen in the muscles, which helps maintain energy during the workout.

Additionally, a study published in the European Journal of Clinical Nutrition shows that adequate carbohydrate intake can aid muscle recovery after exercise by reducing levels of cortisol, a stress hormone that can impair muscle recovery and growth.

In short, carbohydrates are essential for cyclist performance, providing the energy needed to pedal with intensity and endurance. The choice of foods and the appropriate amount depends on the individual needs of each cyclist, but it is essential to include a variety of carbohydrate-rich foods in your diet to optimize your performance and recovery.

Protein

Protein is considered an important and essential component in the diet, as it is related to several physiological functions responsible for the functioning of the body, but mainly in physical and muscular recovery.

Protein sources can be of animal origin, such as eggs, milk, beef, fish and chicken, or of plant origin, such as lentils, beans, peas, soybeans, oilseeds and cereals.

The amount of protein needed by each individual can also vary depending on their energy needs and the intensity of their training. Some indicators that an individual is consuming too little protein can be related to lack of muscle growth, loss of muscle mass and muscle pain.

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Fat

Just like carbohydrates and proteins, “healthy” fat is one of the essential components of the human diet, because, in addition to providing energy to the body, it is a source of essential fatty acids, that is, those that are not produced by the body, but that must be present in the diet.
In addition to adding flavor to food, fat also helps regulate hormones and serves as a transport for the absorption of fat-soluble vitamins by the intestine.

Some sources of “healthy” fats are olive oil, vegetable oils, fish, avocado, nuts, seeds, eggs, and cheese.

PRE-WORKOUT FOOD AND SUPPLEMENTATION

The main objective of pre-workout nutrition is to prepare the individual to enter training with a good supply of muscle glycogen.

To increase muscle glycogen storage, we must prioritize carbohydrates. However, the process of digestion, absorption and storage of this glycogen in the muscle takes around 4 to 6 hours. In other words, you should not only worry about what you are going to eat 30 minutes / 1 hour before training, but also about your diet for the entire day.

If you have 1 hour or less before training, prioritize simple carbohydrates that are quickly absorbed, such as: dulce de leche, jelly, white bread, tapioca, concentrated fruit juice, honey and guava paste. Avoid fatty and fiber-rich foods, such as: peanut butter, whole-wheat bread, green juice and oatmeal. These foods are slow to digest and can cause intestinal discomfort and slow down the cyclist.

If you have between 1 and 3 hours before training, prioritize carbohydrates, fiber and fast-absorbing proteins, such as: yogurt with fruit, fruit smoothies, oatmeal, natural sandwiches and whole-wheat bread or tapioca with eggs.

If you have 3 hours or more before training, there is no problem in combining carbohydrates with slow-digesting foods, such as complete meals that contain proteins, fats and plenty of fiber.

In competition situations, have a regular consumption of proteins divided into small fractions during the previous days, an adequate consumption of carbohydrates to have a good store of muscle glycogen and avoid saturated fats.

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OPTIONS I USE AS PRE-WORKOUT CONSUMPTION

The bicycle's "engine", like that of other vehicles, needs energy to move. However, unlike a car or a motorcycle, where you just need to fill the tank with gasoline or alcohol, the human body functions better with the right food, at the right time.

So, if you are going to ride in the morning, after lunch, in the afternoon or at night, your diet should be different for each time. Imagine going to ride in the morning and eating a plate of food as if you were having lunch. Here are some examples of what I always use in my daily routine and suggestions of foods that you can eat at each time you train. Try them out and see what works best for you.

1 hour or less before training:

Ex1:
Tapioca + dulce de leche + banana + honey
Coffee without sugar

Ex2:
White bread + dulce de leche + banana + cinnamon
Unsweetened coffee

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Ex3:
White bread + fruit jam Dried fruit Unsweetened coffee

Ex4:
Apple + grape + banana + honey Concentrated fruit juice

Ex5:
Small roll + dulce de leche or jelly Fruit salad Coffee without sugar

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Between 1h and 3h before training:

Ex1:
Crepioca (egg + tapioca) + cheese Yogurt + fruits + granola + honey

Ex2:
Wholemeal bread + cheese + fruit jam Milk + fruit + oats

Ex3:
Wholemeal bread + scrambled egg Fruit + honey + granola

Ex4:
Tapioca + peanut butter + fruit Scrambled egg with cheese

Ex5:
Cheese + banana + honey Fruit salad

Ex6:
Oatmeal porridge (milk + oats + cocoa powder) Fruit + peanut butter

Ex7:
Banana Pancake (Egg + Banana + Oats + Cocoa Powder) Fruits + Honey

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3h or more before training:

Ex1:
Rice + beans + baked potatoes + fish + vegetables + greens

Ex2:
Pasta + natural sauce + ground meat + vegetables + greens

Ex3:
Rice + mashed cassava or yam + chicken fillet + vegetables + greens

Ex4:
Wholemeal bread + shredded chicken + cheese + vegetables

Ex5:
Wholemeal bread + ricotta cream + tuna + fruit salad

Ex6:
Tapioca + cream cheese + ground beef + vegetables + greens

Remember: the quantities of each food must be calculated by a nutritionist, according to each person's individual needs.

NUTRITION AND SUPPLEMENTATION IN CYCLING

OPTIONS I ALWAYS USE IN TRAINING

As previously mentioned, the greater the muscle glycogen reserve, the better the performance during training. However, this reserve is limited, and when we think about long distances and high performance, we cannot rely solely on this reserve.

Therefore, exercises lasting more than 60 minutes require the consumption of carbohydrates during training.

What options should we eat? We have many options, but we must necessarily choose simple, fast-absorbing carbohydrates.

This way, the athlete can choose the option that he considers most practical and that pleases his taste.

Here are some more traditional options, I really like gel, isotonic and rapadura because of their practicality and digestion.

- *- Brown sugar*
- *- Guava paste*
- *- Banana*
- *- Jujube*
- *- Fruits*
- *- Milk cream*
- *- Small roll*
- *- Mel*
- *- Dried fruits*
- *- Carbohydrate gel*
- *- Isotonic*
- *- Maltodextrin*

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Options for the amounts of carbohydrates I use during training!

Exercise duration	Amount of food/supplement PER HOUR	Amount of water PER HOUR
1 hour to 2 hours	Average usage 30g	On average 500ml
2 hours to 3 hours	Average usage 60g	On average 500ml
3h or more	Average usage 60g a 90g	On average 700ml to 1l

Attention:

The quantities of the products are not the same as the quantities of carbohydrates, always look at the product's nutritional table.
Ex: Carbohydrate Gel product weight = 30g, however it will contain an average of 20g of carbohydrates per sachet.

The amount of carbohydrates that I use during tests and competitions I always choose to ingest more and avoid running out!

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Options for the amounts of carbohydrates I use during competitions.

During cycling competitions, attention must be paid to maintaining adequate blood concentration in the muscles and avoiding any unnecessary effort in the digestive process. To this end, I consume only easily digestible foods that do not overload the gastrointestinal system.

In this sense, I only use carbohydrate gels, isotonic drinks and mineral salt capsules, which are suitable options for replenishing energy and electrolytes, without compromising the cyclist's performance and health. It is important to emphasize that adequate hydration with water is essential to maintain the body's thermoregulation, which is crucial for physical performance in challenging environments.

Exercise duration	Amount of food/supplement PER HOUR	Amount of water PER HOUR
2 hours to 3 hours	Average usage 90g	500ml + isotonic
3h or more	Average usage 90g a 120g	700ml to 1l + isotonic

Attention:

In competitions I try to use quality products, there is no point in using a R$3.00 gel and wanting the same benefit as a R$13.00 gel.

Gel recommendations for competitions that I always use:

GU, EXCEED, FULL GAS and PROBIOTIC PRO LINE

ALIMENTAÇÃO E SUPLEMENTAÇÃO NO CICLISMO

OPÇÕES DAS MINHAS REFEIÇÕES ALMOÇO/JANTA - PÓS TREINO

A alimentação pós treino é tão importante quanto a alimentação pré treino, pois garantimos uma reposição do glicogênio muscular para a próxima seção de treinamento, adaptação e recuperação muscular.

Neste momento após um longo percurso de pedal, você precisa recuperar sua máquina, neste caso seu organismo! Para garantir uma boa recuperação, o pós treino deve conter, principalmente, carboidratos de alto índice glicêmico (arroz branco, batata inglesa, pão branco e integral, tapioca, purê de batata) para reposição do glicogênio e proteínas de alto valor biológico (carnes, ovos, leites e derivados) para melhorar a recuperação muscular. E sempre que possível prefira alimentos ao invés de suplementos.

Ao adotar uma postura mais responsável e dinâmica sobre a própria alimentação, você perceberá progressivamente os benefícios em todas as etapas de sua vida e será capaz de se organizar muito melhor em suas atividades.

Para uma melhor síntese proteica o ideal é realizar a refeição até 2 horas após o treino. No meu caso, eu faço no máximo meia hora depois que minha pedalada termina. Obs: essas refeições eu uso no dia-a-dia no meu almoço e jantar.

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Ex1:
Mandioca + arroz + feijão + filé de frango + alface + tomate + beterraba

Ex2:
Batata inglesa + arroz + feijão
+ filé de peixe + salada e legumes

Ex3:
Purê de batata + macarrão +
carne moída + brócolis + cenoura

Ex4:
Crepioca (tapioca + ovo) + frango desfiado
+ alface + cenoura ralada

Ex5:
Pão integral + carne bovina + queijo
+ rúcula + tomate

Eu sempre vario o consumo de carne, peito de frango, carne de boi, filé de peixe são ótimas opções de fonte de proteína.

Lembre-se: as quantidades de cada alimento devem ser calculadas, por um nutricionista, de acordo com as individualidades de cada um.

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MY MEAL OPTIONS LUNCH/DINNER - POST WORKOUT

Post-workout nutrition is just as important as pre-workout nutrition, as it ensures muscle glycogen is replenished for the next training session, adaptation and muscle recovery.

At this point, after a long cycling trip, you need to recover your machine, in this case your body! To ensure good recovery, your post-workout meal should contain mainly high glycemic index carbohydrates (white rice, potatoes, white and wholemeal bread, tapioca, mashed potatoes) to replenish glycogen and high biological value proteins (meat, eggs, milk and dairy products) to improve muscle recovery. And whenever possible, choose food instead of supplements.

By adopting a more responsible and dynamic approach to your diet, you will gradually notice the benefits at all stages of your life and will be able to organize your activities much better.

For better protein synthesis, it is best to eat your meal up to 2 hours after your workout. In my case, I eat it no later than half an hour after my bike ride ends. Note: I use these meals on a daily basis for lunch and dinner.

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Ex1:
Cassava + rice + beans + chicken fillet + lettuce + tomato + beetroot

Ex2:
Potato + rice + beans + fish fillet +
salad and vegetables

Ex3:
Mashed potatoes + pasta +
ground beef + broccoli + carrots

Ex4:
Crepioca (tapioca + egg) +
shredded chicken + lettuce + grated carrot

Ex5:
Wholemeal bread + beef + cheese + arugula + tomato

I always vary my meat intake; chicken breast, beef, and fish fillets are great options for protein sources.

Remember: the quantities of each food must be calculated by a nutritionist, according to each person's individual needs.

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HYDRATION IN CYCLING

In addition to nutrition, hydration is essential to optimize the cyclist's performance and prevents or delays some complications during training caused by dehydration. During competition periods, try to pay special attention to hydration.

Your hydration should begin before training to start cycling with your body in hydroelectrolytic balance and avoid a possible state of dehydration.

According to the Brazilian Society of Exercise and Sports Medicine, it is recommended to drink around 250 to 500 ml, 2 hours before training.

During training, it is also important to replenish fluids to avoid complications. And remember that after finishing your training, water consumption should continue through fractional intake, consistently and in small doses.

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SUPPLEMENTATION IN CYCLING

As a cycling athlete, I am always concerned about keeping my body healthy and constantly replenishing nutrients, especially during endurance activities.

Although supplements for cyclists can be a good option to complement the diet, it is important to emphasize that a healthy and balanced diet is the key to success.

I always opt for a nutrient-rich diet and avoid relying solely on supplements for energy.

Supplementation is just a complement to my diet, which means I have more precise gains.

It is worth noting that the daily routine often makes it difficult to prepare an adequate diet, so supplementation can be an alternative, but always opting for natural and healthy foods.

Next, we will talk about the main supplements used by cyclists, as well as their advantages.

MULTIVITAMINS

Multivitamin supplements help replenish the body's vitamins and minerals, acting as a dietary supplement.

The ideal is to take it as soon as you wake up. This way, it can be very helpful in the cyclist's routine, improving physical performance and boosting immunity.

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ISOTONIC

Isotonic drinks are water-based drinks that usually contain carbohydrates, minerals and vitamins. Therefore, this supplement can be a good alternative to improve the quality of your cycling, since dehydration causes our body to lose a lot of sodium through sweat, causing complications such as muscle cramps.

Electrolytes

Electrolytes are minerals that transport water to cells. It is possible to become dehydrated even after drinking water, as there is an imbalance in the concentration of sodium in the body, which is eliminated through sweat.

Therefore, this supplementation becomes necessary for long-duration training (on average 3 hours or more), such as cycling, due to the large loss of electrolytes through sweat, causing electrolyte imbalance. This imbalance can cause dehydration, dizziness and muscle cramps.

Therefore, electrolyte supplementation in capsules is a very efficient alternative for replacing sodium and other minerals that are important for the body's functioning, as they have more concentrated doses than many isotonic drinks.

WHEY PROTEIN

It is a protein with high biological value extracted from whey, found in the form of a powdered supplement. It is usually recommended for those who cannot meet their protein needs through diet, and can help in the muscle mass gain phase.

Whey can be consumed at any time of the day and not necessarily after training. The important thing is to reach the daily protein recommendation.

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Creatine

Creatine is used to increase strength and power, resistance to fatigue and consequently increase lean mass due to improved training. Highly recommended for sports with repeated and high-intensity efforts.

It can be consumed at any time of the day, as long as its use is chronic, that is, it should be consumed every day, even on days without training. The ideal is to consume it together with carbohydrates to increase the entry of creatine into the muscle.

Beta-Alanine

This supplement has been shown to improve sports performance. Its effect increases the synthesis of carnosine in the muscle, which regulates pH and reduces muscle fatigue, allowing you to increase training time and greatly improve your training performance.

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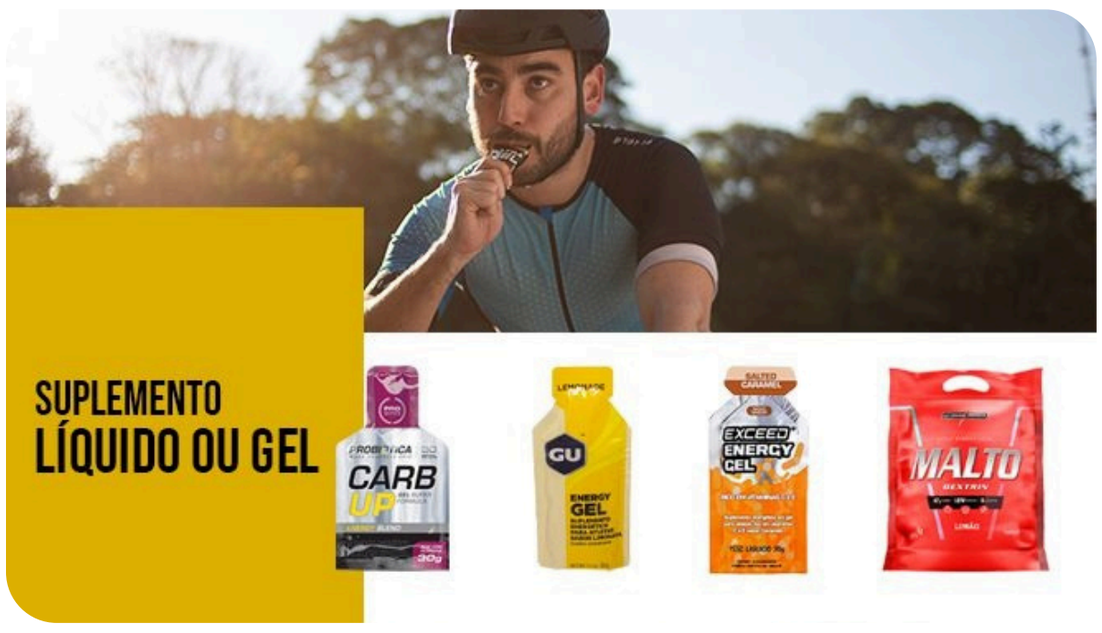
CARBOHYDRATE GEL

It is a supplement that serves to quickly replace carbohydrates that are lost during physical activity, providing maintenance of energy levels and maintaining performance and intensity throughout the exercise.

It comes in sachets containing single doses, which can be easily carried and consumed during physical activity. Carbohydrate gel is highly recommended for those who practice long-term physical activity, such as cycling.



RECOVERY

This supplement, as its name suggests, helps cyclists recover after a long ride. It is developed with four parts carbohydrates for one part protein. This allows cyclists to recover physically faster and remain ready for the next workouts.

The main function of this supplement is to act in energy replacement and muscle recovery, which is why it is recommended for those who exercise for longer periods of time.

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Caffeine

Caffeine has a stimulating effect on the Central Nervous System, which is why it is capable of increasing energy and delaying fatigue, allowing the individual to exercise with greater intensity and for a longer period, indirectly influencing the improvement of sports performance.

The properties of caffeine are very effective in aerobic exercise, such as cycling. When a cyclist ingests caffeine, they can complete a workout without feeling as exhausted. This means they can cycle longer distances.

In addition to helping with strength, this substance also helps with fat loss by mobilizing free fatty acids from adipose tissue.

As we have shown, supplements bring several benefits to cyclists. However, it is worth mentioning that before using any of the supplements mentioned in this guide, it is recommended that you seek nutritional guidance or monitoring to check whether there is a need for them, as well as adjust the quantities required for each individual.

The incorrect use of these supplements, instead of helping, can harm sports performance and even cause harm to the athlete's health.

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Beetroot Supplements

Beetroot juice is often mentioned as a beneficial drink for cyclists due to its potential positive effects on performance and recovery. Here are some of the benefits associated with drinking beetroot juice while cycling:

- Improved endurance: Beetroot juice is rich in nitrates, which can be converted to nitric oxide in the body. Nitric oxide helps to dilate blood vessels, improving blood flow and thus oxygen delivery to the muscles. This can result in improved endurance while cycling, allowing you to pedal for longer before feeling fatigued.

- Reduced oxygen consumption: Studies have shown that beetroot juice can reduce oxygen consumption during exercise, which is particularly useful in endurance sports like cycling. This means you can maintain a similar workout intensity but with reduced effort.

- Improves high-intensity performance: In addition to improving endurance, beetroot juice can also help with high-intensity exercise performance, such as sprinting during a cycling course. This is because nitric oxide improves the efficiency of energy metabolism in fast-twitch muscle fibers.

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- *Muscle recovery: The antioxidants in beets, such as vitamin C and carotenoids, can help with muscle recovery after an intense workout. They can reduce inflammation and oxidative stress, helping your muscles recover faster.*

- *Lowering blood pressure: Beetroot juice can help lower blood pressure, which is beneficial for cardiovascular health and can increase the efficiency of the cardiovascular system during cycling.*

- *Boosting brain function: Some studies suggest that beetroot juice may improve brain function due to its ability to increase blood flow to the brain. This may be helpful in maintaining focus and concentration during long rides.*

It's important to note that responses to beet juice can vary from person to person, and the amount and frequency of consumption can influence its benefits. Before incorporating any new food or supplement into your diet, it's a good idea to consult a healthcare professional or nutritionist to ensure it's appropriate for your individual needs.

CONCLUSION AND RESPONSIBLE PARTIES

Now you know the main tools to definitely start from scratch and raise the level of your pedaling, after everything you have seen, the next step is to put everything into practice in your day to day life.

Know that your current condition is not something that determines you, but rather what you will do from now on. I'm not saying it will be easy, but if you apply everything I taught, what seemed impossible will soon become possible. Don't waste time and start now.

This ebook is the beginning of a new journey. In addition to changing your performance on the bike, it will positively impact other areas of your life. All of these foods are examples of what I use in my day-to-day life. They do not replace a diet prescribed in specific quantities by a nutritionist.

elite PERFORMANCE
Assessoria Esportiva

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And remember discipline to study and courage to apply.