



TEAM FONTES · OFFICIAL GUIDE

# Sports Nutrition Applied to Performance

The practical guide to train with more energy,  
recover faster and evolve with strategy

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DEFINITIVE EDITION · VOLUME  
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NUTRIÇÃO · PERFORMANCE · VELA

# The New Variable of Performance

In modern training, nutrition is no longer just about health support. It directly influences available energy, injury prevention and physiological adaptation.

**75%**

do tempo de regata em hiking ativo

**4–6h**

de jornada numa regata olímpica

**12–18kg**

de força isométrica sustentada

**TRAINING**

Generates the stimulus

**NUTRITION**

Provides the raw material

**RECOVERY**

Enables adaptation

- ✓ Maintaining muscle glycogen stores.
- ✓ Reducing central and peripheral fatigue.
- ✓ Improving strength and power capacity.


**COACH'S TIP**

Training generates the stimulus; nutrition determines the quality of adaptation.

# The Athlete's Fuel

<p><b>5-7</b> g/kg/dia de CHO em treino</p>	<p><b>10</b> g/kg/dia de CHO em competição</p>	<p><b>1.6-2.0</b> g/kg/dia de proteína</p>
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**Carbohydrates**  
ENERGY



Primary energy substrate. Endurance athletes need 5-7g/kg/day in training and up to 10g/kg/day in competition.

**FONTES PRIORITÁRIAS**  
*White rice, sweet potato, cassava, oats, banana, pasta, carb gel.*


**Proteins**  
BUILDING



Protein synthesis and muscle repair. Target: 1.6-2.0g/kg/day. On intense training days, prioritize 0.4g/kg per meal.

**FONTES PRIORITÁRIAS**  
*Chicken, eggs, fish, tuna, whey protein, Greek yogurt.*

**Fats**  
SUPPORT



Hormonal production and low-intensity energy. Target: 20-35% of total calories. Prioritize unsaturated fats.

**FONTES PRIORITÁRIAS**  
*Extra virgin olive oil, avocado, nuts, sardine, salmon, seeds.*

**COACH'S TIP**  
No macronutrient is the villain. The sailor who cuts carbs to 'lean out' loses the last leg. Energy comes first.

# Glycogen: The Stored Fuel

Before knowing what to eat, you need to understand where energy is stored — and why that changes everything in a race.

- 01 What is Glycogen**  
 Glycogen is the storage form of carbohydrates in the human body. Muscles store 300–500g and the liver 80–100g — totaling about 400–600g or 1,600–2,400 kcal available.  
**Muscles: 300–500g · Liver: 80–100g**
- 02 How Long to Recover**  
 After intense training, replenishment occurs at a rate of 5% per hour with adequate carbohydrate intake. Partial recovery (50%): 4–6 hours. Full recovery: 12–24 hours. After total depletion: up to 48 hours.  
**4h race = 50–80% muscle depletion**
- 03 How It Works**  
 Glycogenesis: dietary carbohydrates are converted to glycogen and stored. Glycogenolysis: during exercise, glycogen is broken down into glucose to generate energy (ATP). When stores run out, intensity drops — that's 'hitting the wall'.  
**Glycogenesis (replenishment) ↔ Glycogenolysis (use)**

## RECUPERAÇÃO DO GLICOGÊNIO MUSCULAR APÓS DEPLEÇÃO



### CONTEXTO VELA OLÍMPICA

In a 4–6 hour Olympic race, a sailor depletes 50–80% of muscle glycogen stores. Without intra-race replenishment, power in the final upwind drops up to 20%. Nutrition is not a detail — it's a competitive advantage.

### COACH'S TIP

There's no fatigue at the end of a race. There's glycogen shortage. Those who eat right the day before and between races arrive whole at the last upwind.

# Pre-Training Strategy

**Objetivo:** Maximize energy availability and delay fatigue without causing gastrointestinal discomfort.

## 60–90 min

BEFORE

### Solid Meal

Medium/high GI carb + light protein. No excessive fat.

***White bread + scrambled eggs; white rice + chicken; Greek yogurt + honey + fruit.***

## 30–45 min

BEFORE

### Quick Snack

Fast-absorbing carbs. ZERO fiber and fat — real gastrointestinal risk.

***Ripe banana + whey protein; carbohydrate gel; dates or dried fruit.***

### COACH'S TIP

Oats and high-fiber foods within 45 minutes of training increase the risk of cramps and reflux. Ripe banana is the safest and most effective choice.

# Full Tank

Intra-Training Nutrition: sustaining intensity while you train.

## SCENARIO A

**Sessions  $\leq$  60 min · low intensity**

### PROTOCOLO

**Water: 400–600ml/hour. In intense heat or high-intensity training, add electrolytes even below 60 minutes.**

### FOCO

Hydration and electrolyte maintenance.

## SCENARIO B

**Sessions  $>$  60 min · high intensity**

### PROTOCOLO

**Water + Electrolytes (300–700mg sodium/hour) + Liquid Carbohydrates (30–60g/hour). In extreme heat or racing, up to 1,000mg sodium/hour.**

### FOCO

Maintain blood glucose, prevent hyponatremia and sustain power.

## COACH'S TIP

In sailing, you don't feel the sweat because wind and water evaporate everything. But sodium loss is real — and a cramp on the upwind means the race is over.

# Recovery

Post-Training Strategy — window of up to 2 hours



 <p><b>QUICK OPTION</b></p> <p>Whey + banana or high GI fruit. Ideal in the first 30 min.</p>	 <p><b>MEAL OPTION</b></p> <p>White rice + chicken + vegetables. Complete and efficient.</p>	 <p><b>FISH OPTION</b></p> <p>Rice + salmon or tuna + salad. Omega-3 accelerates recovery.</p>
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**COACH'S TIP**

The anabolic window doesn't close in 30 minutes — it lasts up to 2 hours. But the sooner you eat, the faster you recover for the next race.

# Routine and Organization

The Foundation of Success

Consistency beats occasional intensity. The athlete needs planning.

- ✓ Weekly grocery planning.
- ✓ Preparation of strategic meal preps.
- ✓ Functional snacks always at hand.

## COMMON MISTAKES

- ✗ Low caloric intake (eating less than you burn).
- ✗ Excessive carbohydrate restriction (fear of eating).
- ✗ Lack of regularity in meals.

## COACH'S TIP

There is no perfect nutrition without consistency. A structured week is worth more than one perfect day.

# Supplementation Philosophy

Evidence-based optimization.

Supplements do not replace food, but optimize performance, recovery and health when properly applied.

## FOOD BASE

The irreplaceable foundation — without it, no supplement works.

## STRATEGIC SUPPLEMENTATION

Whey, Creatine, Electrolytes, Omega-3 — amplify what's already good.

## COACH'S TIP

The pyramid starts at the base. Those who invert the order waste money and don't evolve.

# Energy and Endurance

## Carbohydrates

GEL / POWDER

LEVEL A · ISSN

### FUNÇÃO

For training sessions above 60 minutes, races and intense sessions. Provide fast energy and spare muscle glycogen.

### USO

*30–60g carbs/hour during effort.*

**Essential for hiking sessions and long races.**

## Sodium

ELECTROLYTES

LEVEL B · ACSM

### FUNÇÃO

Prevention of cramps, dehydration and hyponatremia. Essential in maritime environments with high sweating and heat.

### USO

*300–700mg/hour in normal training. In extreme heat races: up to 1,000mg/hour.*

**In sailing, wind + water spray mask sweat. Sodium loss is greater than it seems.**

### COACH'S TIP

A common and indispensable strategy for endurance and intense metabolic training.

# Strength and Muscle Building



## Whey Protein

LEVEL A · ISSN

### FUNÇÃO

Stimulate protein synthesis and accelerate recovery. Fast absorption — ideal for the post-training window.

### USO

*0.4g/kg per dose (min. 20g). Post-training or between races.*

**Whey Isolate (WPI) has better digestibility and lower GI risk.**



## Creatine

LEVEL A · ISSN

### FUNÇÃO

Increase strength, power and repeated effort capacity. Level A evidence.

### USO



*Loading: 20g/day for 5–7 days. Maintenance: 3–5g/day — every day, including rest days.*

**The most studied supplement in sport. Safe, effective and without contraindications.**

### COACH'S TIP

Whey + Creatine is the base combination for any serious athlete. There is no more studied shortcut than this.

# Health, Anti-Inflammation and Recovery

 <p><b>VITAFOR</b></p>	<h2>Omega-3</h2> <p><b>LEVEL A · ISSN</b></p> <p><b>FUNÇÃO</b> Natural anti-inflammatory, cardiovascular health and accelerated muscle recovery. Level A evidence for endurance athletes.</p> <p><b>USO</b> <i>2–3g EPA+DHA per day. With a meal containing fat for better absorption.</i></p>
 <p><b>VITAFOR</b></p>	<h2>Turmeric CURCUMIN</h2> <p><b>LEVEL B · BJSM</b></p> <p><b>FUNÇÃO</b> Reduction of muscle soreness, joint health and inflammatory response to training.</p> <p><b>USO</b> <i>400–600mg curcumin/day. Combine with black pepper (piperine) for 20× greater absorption.</i></p>
 <p><b>VITAFOR</b></p>	<h2>Magnesium</h2> <p><b>LEVEL B · ACSM</b></p> <p><b>FUNÇÃO</b> Neuromuscular function, cramp prevention and sleep quality for recovery.</p> <p><b>USO</b> <i>300–400mg/day. At night, 1h before sleeping. Prefer chelate or bisglycinate.</i></p>

**COACH'S TIP**  
The invisible support that ensures you're ready to train hard again tomorrow.

# Protocols by Training Type

TIPO DE TREINO	OBJETIVO	SUPLEMENTOS INDICADOS
<b>Strength / Hypertrophy</b>	Strength, lean mass	<b>Whey, Creatine</b>
<b>Metabolic / HIIT</b>	Energy and intensity	<b>Carb gel, Sodium</b>
<b>Endurance / Sailing</b>	Prolonged energy	<b>Carb gel, Electrolytes, Omega-3</b>
<b>Recovery</b>	Inflammation reduction	<b>Omega-3, Turmeric, Magnesium</b>

**COACH'S TIP**

In Olympic sailing, 4–6 hour hiking training demands the Endurance protocol without negotiation.

# Strategy Evolution

## Level Protocols

### BEGINNER PROTOCOL

*Foco: Adaptation*

- Whey Protein (1 dose post-training)
- Creatine (3–5g/day)
- Magnesium (Daily)



### PERFORMANCE PROTOCOL

*Foco: Maximum Output*

- Whey Protein (post-training)
- Creatine (Daily)
- Carb powder/gel (Intense intra-training)
- Omega-3 (Daily)

### COACH'S TIP

Start simple. Consistency at the base is worth more than premature complexity.

# Race Day

Nutrition to perform from warm-up to podium.

**REGRA DE OURO**

**No new foods on race day.**

<b>24-48H BEFORE</b>	<b>PRE-EVENT</b>	Carbohydrate and hydration adjustment.
<b>IMMEDIATELY BEFORE</b>	<b>BEFORE</b>	Carbohydrate-rich meal, low in fat and fiber.
<b>BETWEEN RACES</b>	<b>DURING</b>	Carbohydrate gel + Water + Sodium based on heat and sweat.
<b>AFTER THE LAST RACE</b>	<b>POST-EVENT</b>	Whey Protein + Carbohydrate + Magnesium + Complete meal.
<b>COACH'S TIP</b>		
In racing, every upwind board demands energy. Those who underestimate race-day nutrition lose on the final leg.		



FROM THE COACH

# The Complete Strategy

Performance is not luck. It is the integration of structured training, adequate nutrition and intelligent supplementation. The next step is to apply it consistently.

INDICADOR	SEM PROTOCOLO	COM PROTOCOLO
Glicogênio no fim da regata	Esgotado	<b>30-50% disponível</b>
Potência no último upwind	Queda de 20%	<b>Mantida</b>
Recuperação entre provas	48h+	<b>12-24h</b>
Risco de câimbras	Alto	<b>Reduzido 80%</b>

*"Eating strategically is a choice. Performing better is the consequence."*

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WE DON'T STOP