



Athlete Nutrition: Fueling Your Body for Peak Performance

Unlock your athletic potential through nutrition. This presentation covers tailored nutrition strategies. Learn to optimise your diet for performance and recovery.

a **Dr.kacir Abderrezzak**

Understanding Athlete Energy Needs

Calorie Needs

Vary by sport and intensity. Endurance athletes may need 3,000–6,000 kcal/day. Strength athletes need 3,000–4,000 kcal/day.

Energy Balance

Achieve energy balance. Consume enough calories to fuel training and recovery. Avoid deficits that impair performance.



Macronutrient Foundations



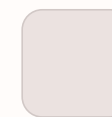
Carbohydrates

50-60% of total energy. Primary fuel for exercise, especially high-intensity.



Protein

1.2–2.0g/kg body weight/day. Supports muscle repair and growth.



Fats

20-30% of diet. Essential for hormone production and long-duration energy.

The Critical Role of Hydration



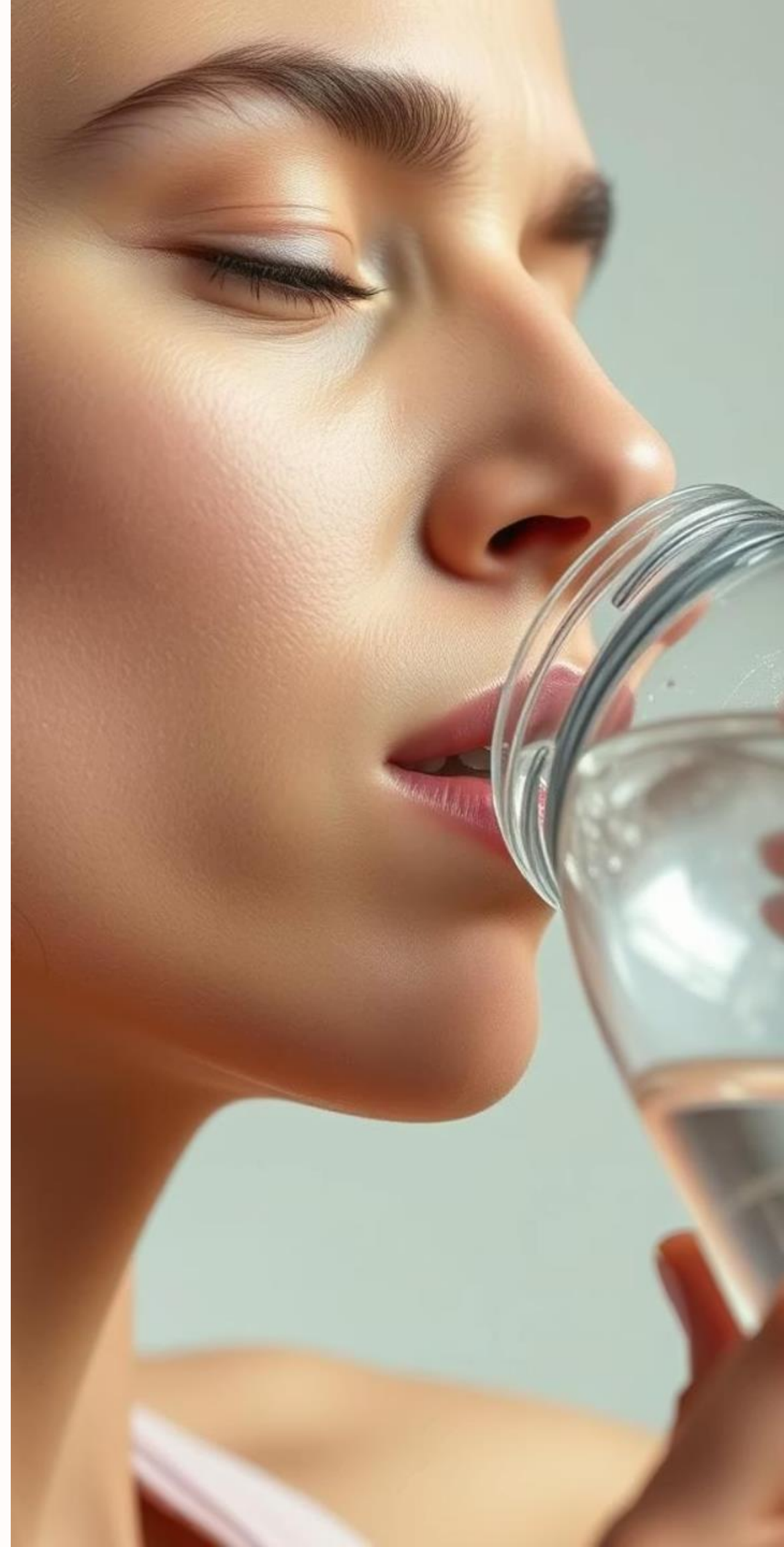
Stay Hydrated

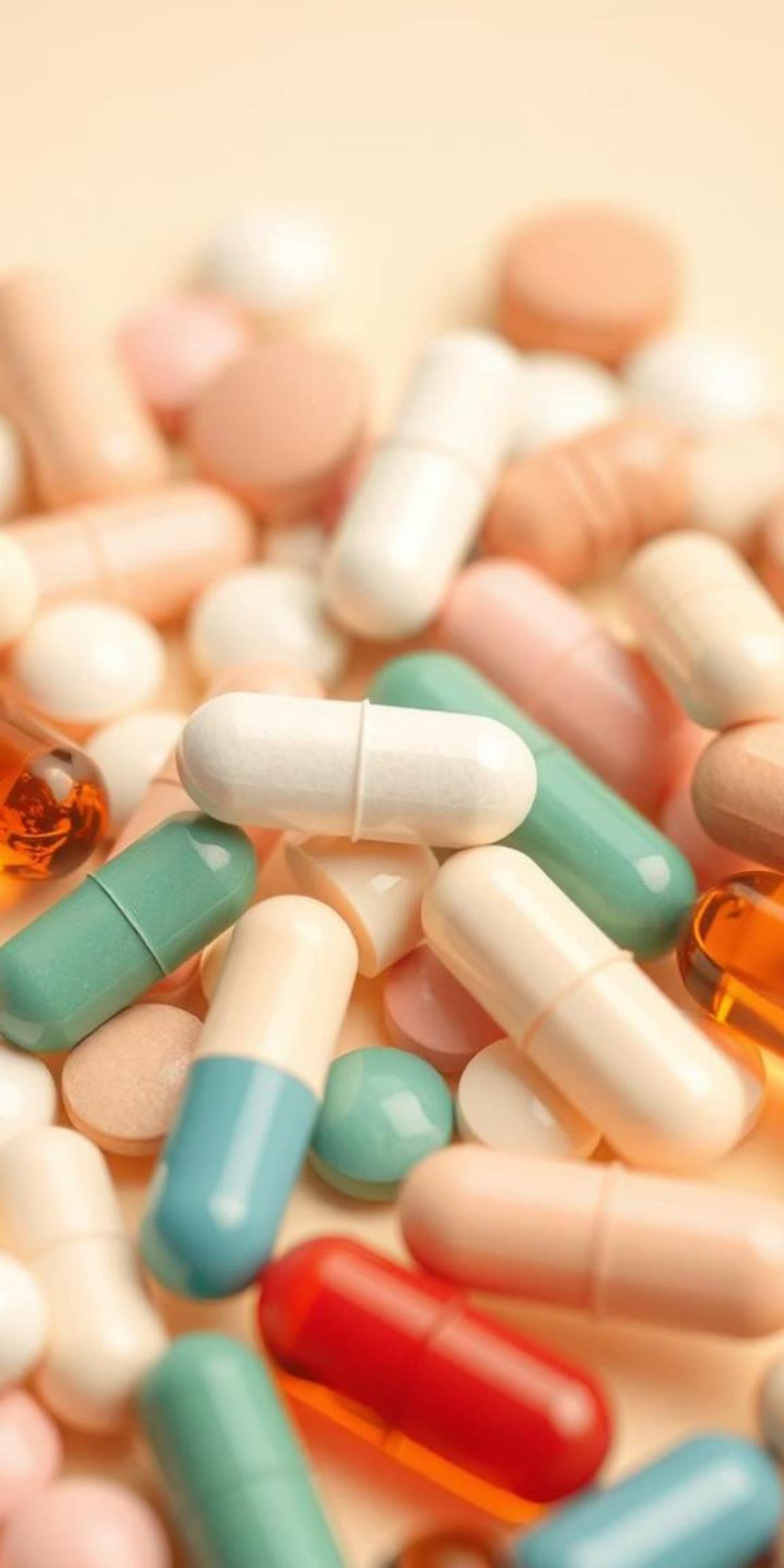
Dehydration can lower performance by 2-3%. Drink 500–750 mL of water/hour during exercise.



Electrolytes

Key for maintaining fluid balance. Replace electrolytes lost in sweat.





Vitamins and Minerals: Essential Support

1

Iron

Prevents fatigue. Critical for female athletes.

2

Calcium & Vitamin D

Supports bone strength. Aids recovery.

3

Magnesium

Reduces muscle cramps post-workout.



Strategic Meal Timing Around Training

1

Pre-Training

High-carb, low-fat meal 2-3 hours before.

2

During Training

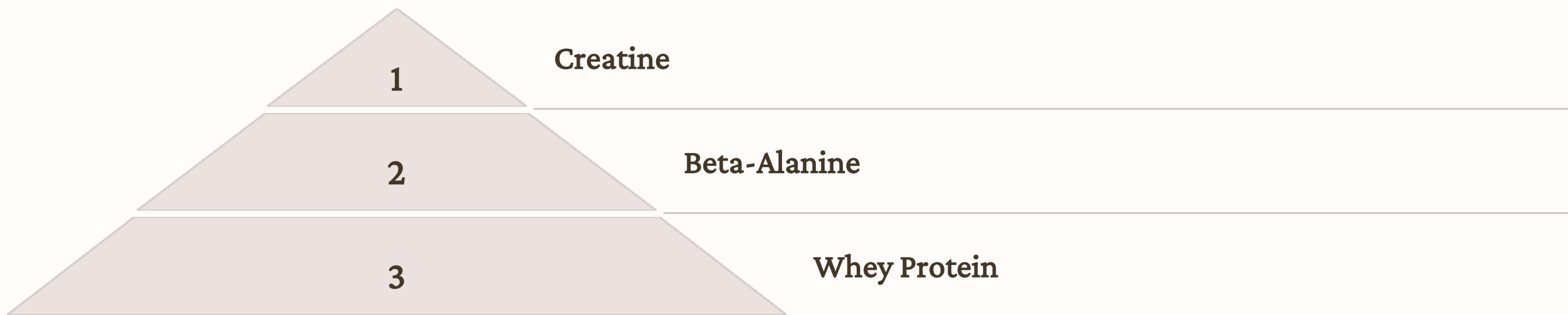
Carb intake for endurance, 30-60g/hour.

3

Post-Training

Protein-carb balance within 30 minutes.

Supplements for Peak Performance



Consider creatine for strength. Use beta-alanine for endurance. Whey protein aids muscle synthesis.

Endurance Athlete Strategies

1

Glycogen loading

Maximize energy stores

2

Sodium bicarbonate

Buffer lactic acid

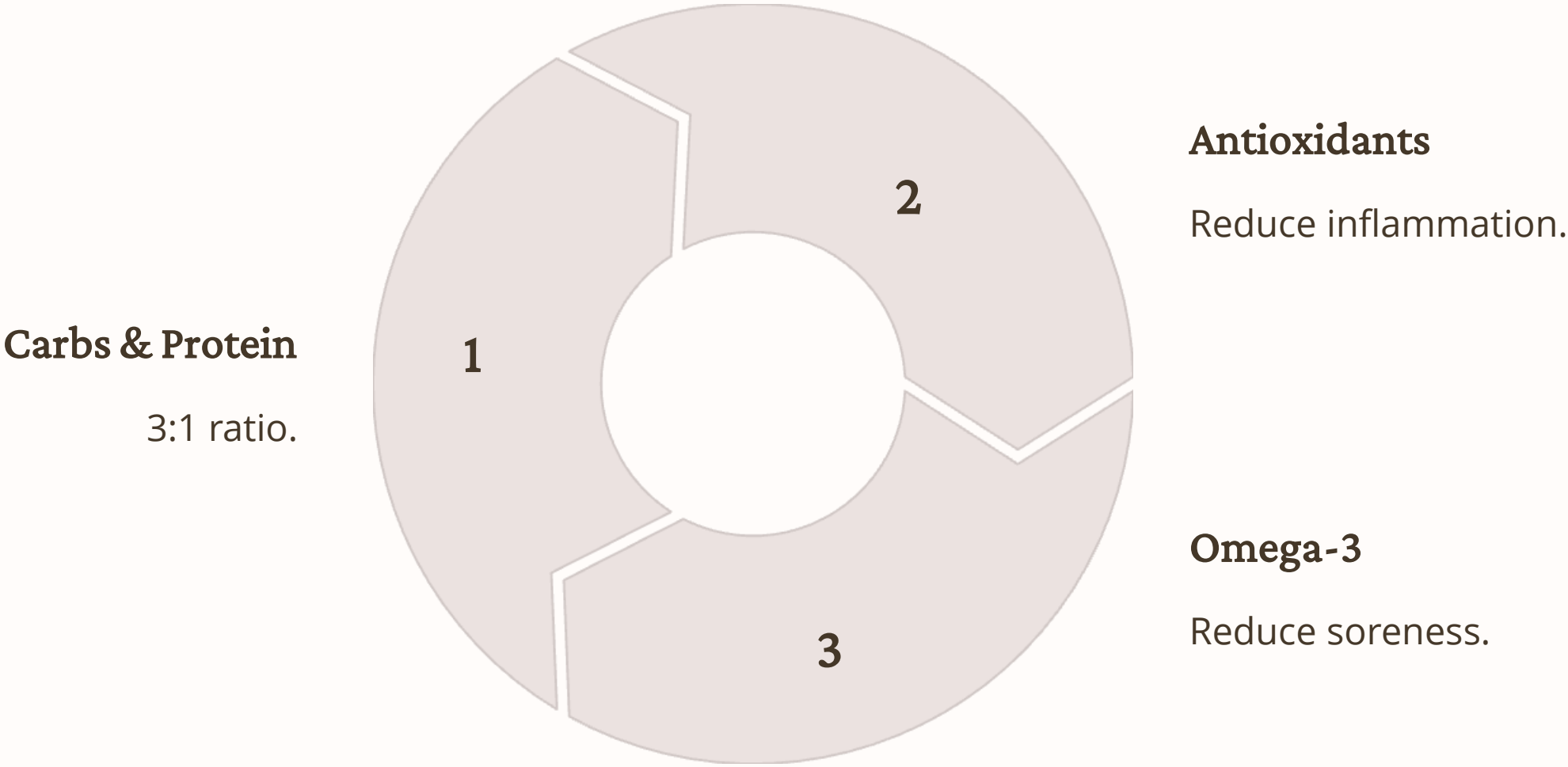
3

Carb-heavy meals

Before events

Increase muscle energy with glycogen loading. Buffer lactic acid with sodium bicarbonate.

Optimising Nutrition for Recovery





Customise Your Nutrition Plan

1

Individualise

Assess unique needs.

2

Dietitian

Work with experts.

3

Optimise

Gain advantage.