



# The Vital Role of Nutrition in Athletic Performance

This presentation explores the critical link between nutrition and athletic success. We will explore athletes' unique physiological needs. Aligning nutrition with athletic goals is essential for optimal performance.

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# Nutritional Foundations for Athletes

## Macronutrients

Carbohydrates, proteins, and fats provide energy and support bodily functions.

## Micronutrients

Vitamins and minerals are crucial for overall health and performance.

## Proportions

Aim for balanced intake (e.g., ~55% of energy from carbs).



# Carbohydrates: The Athlete's Primary Fuel

## Energy Source

Carbs are the main energy source for endurance activities.

Glycogen storage and utilization are key.

## Strategic Intake

Implement pre- and post-training carbohydrate strategies.

Optimize glycogen levels for sustained energy.





# Protein and Muscle Repair



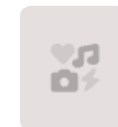
## Muscle Recovery

Protein aids in muscle recovery and growth.



## Protein Sources

Choose high-quality animal and plant-based options.



## Intake

Aim for 1.5–2g/kg/day of protein.



# Fats and Long-Distance Endurance



## Secondary Fuel

Fats serve as a secondary energy source.

2

## Intake

20–35% of total energy should come from fats.

3

## Omega-3s

Reduce inflammation with omega-3 fatty acids.



# Hydration and *Electrolyte Balance*

## Hydration

Hydration is essential for optimal performance.

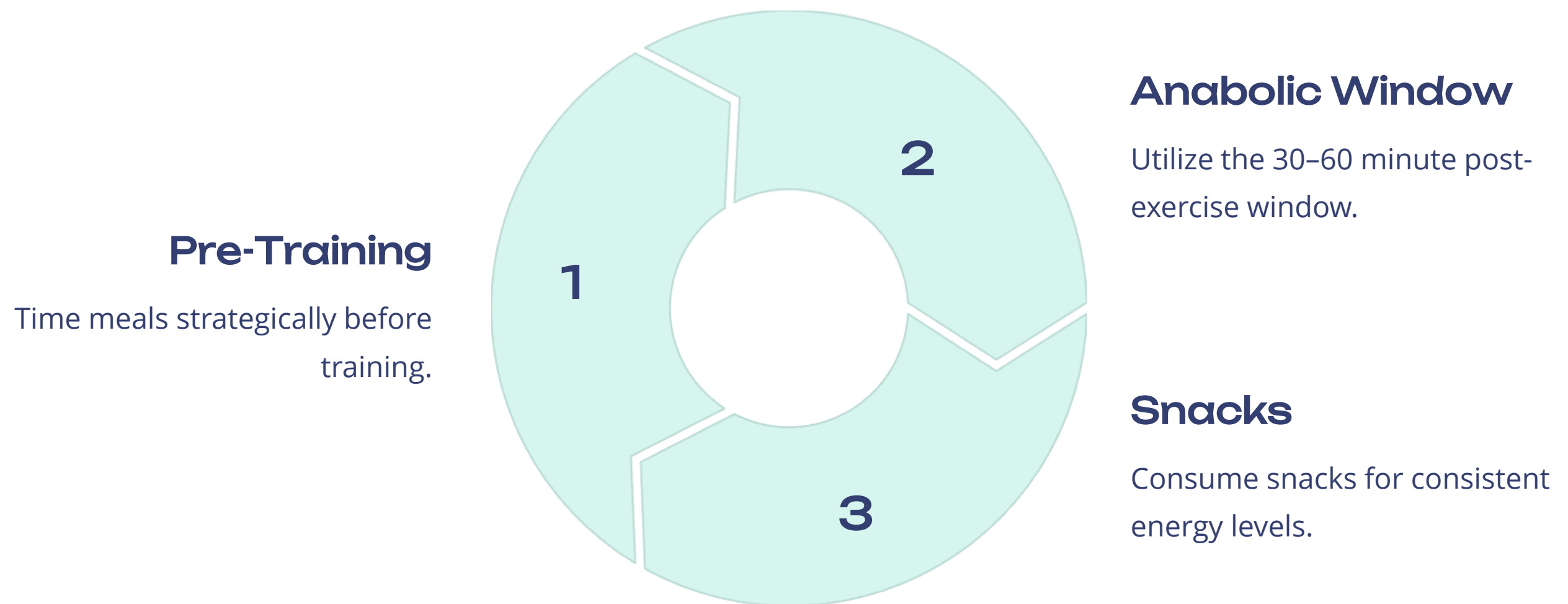
## Dehydration Signs

Recognize dehydration and its impact.

## Electrolytes

Replenish electrolytes during and after competition.

# Meal Timing and Frequency





# Nutrition for Specific Sports and Training Goals

1

**Strength vs. Endurance**

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2

**Marathon vs. Weightlifting**

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3

**Tailored Diets**

Nutritional needs vary based on sport and goals. Marathon runners have different diets than weightlifters. Tailor your diet for optimal results.





# Supplements and Performance Enhancers

1

## Common Supplements

Creatine, beta-alanine, and caffeine can play a role.

2

## Scientific Support

Distinguish between science and myths.

3

## Risks

Be aware of contamination and ensure quality.

# Conclusion: Nourish to Flourish



Nutritional preparation is key to peak performance. Personalize your nutrition strategies for success.