SPORTS NUTRITION GAME PLAN

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DURING-WORKOUT AND COMPETITION FUELING

During exercise fluid and carbohydrate needs are based on the intensity and duration of the training session. While athletes might power through shorter, less intense workouts on water, longer workouts often require carbohydrates and electrolytes.

What happens to the body during exercise?

1. Energy from carbohydrate is being burned as fuel

- Catabolic (breakdown) hormones are released during exercise to trigger the breakdown of stored carbohydrate and fatty acids as a source of fuel.
- When glycogen (stored carbohydrate) levels decrease, amino acids become a greater source of fuel used for exercise.
- To reduce the amount of amino acids being burned as energy during long workouts (>90 min), an athlete should consume carbohydrates during exercise.

2. The body is sweating, losing fluid and electrolytes

- As the body becomes more dehydrated, it burns through glycogen (stored carbohydrate) more quickly, further decreasing energy stores.
- Sodium, potassium, and trace minerals are lost in sweat, which can contribute to muscle cramping.
- Sweating leads to thicker blood plasma, making the heart work harder to pump blood to working muscles, ultimately leading to the onset of fatigue.

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