

# Contact Sports Nutrition

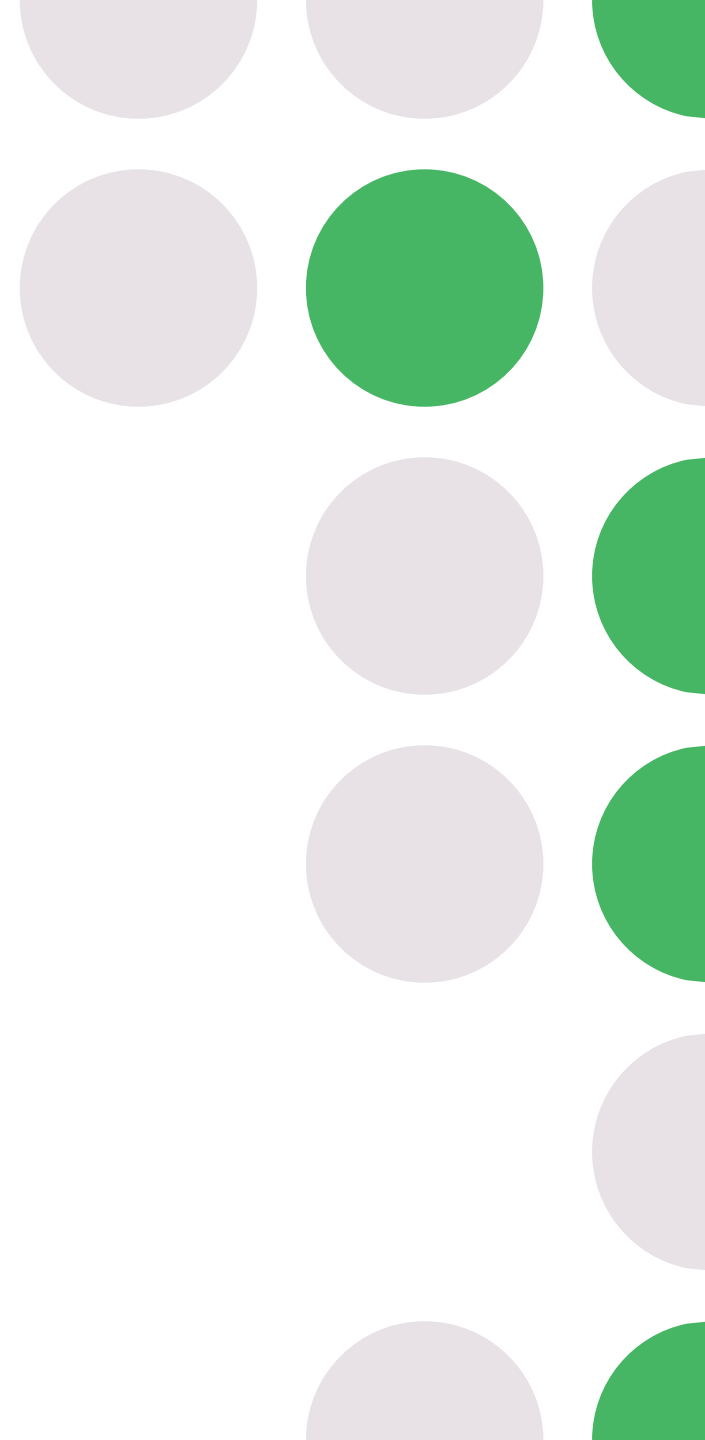
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# 3 Main Goals

- Fuel
    - Proper fueling to enhance and maintain stamina, strength, and mental clarity. (main focus = adequate carbohydrates)
  - Hydrate
    - Prevent dehydration and fatigue
  - Recovery
    - Proper fueling to support glycogen repletion and muscle repair
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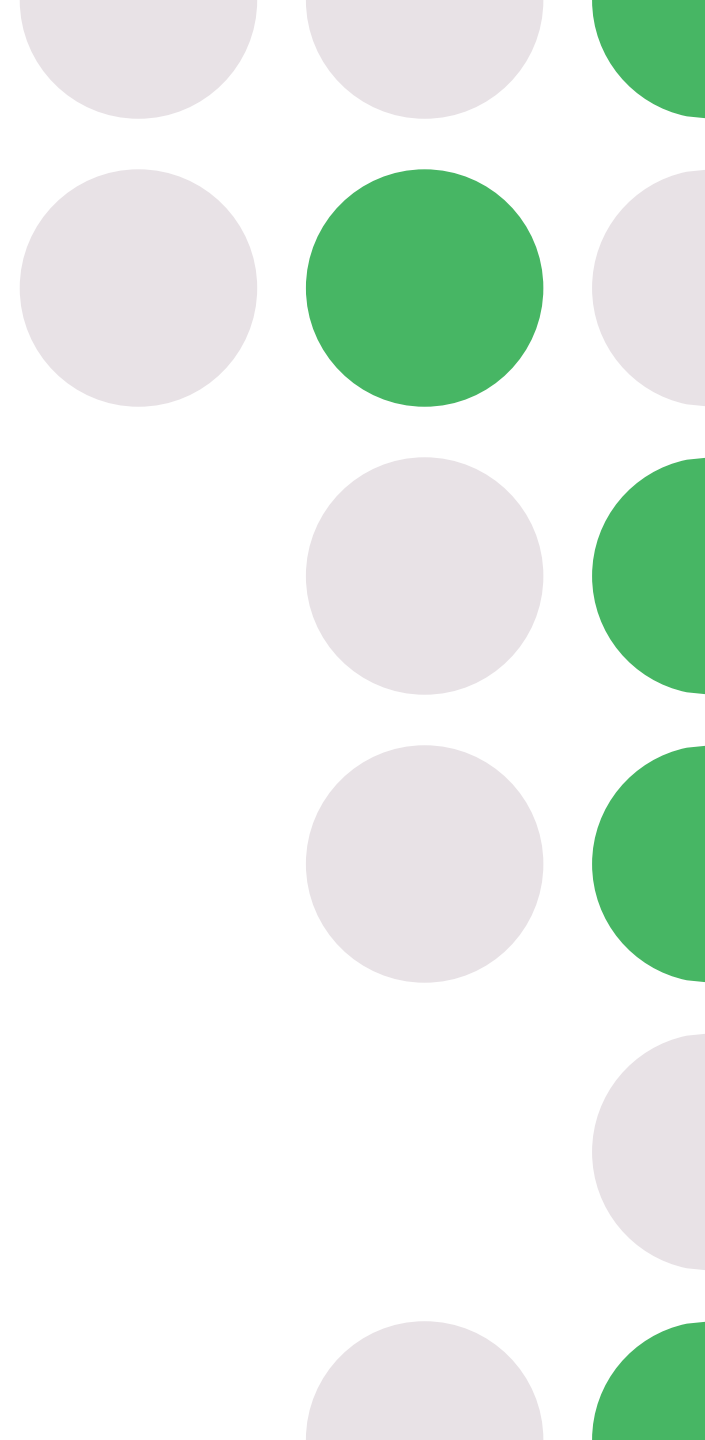
# Fuel

***\*The energy demands of exercise dictate that carbohydrates are the predominant fuel for exercise.***

Muscle glycogen & blood glucose provide half of the energy for moderate intensity exercise. (65% VO<sub>2</sub> Max)

Muscle glycogen & blood glucose provide up to two-thirds of the energy for high-intensity exercise. (85% of VO<sub>2</sub> Max)

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# Fuel

***\*It is impossible to meet the ATP requirements for high-intensity or high-power output when these carbohydrate fuels are depleted.***

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# Fuel

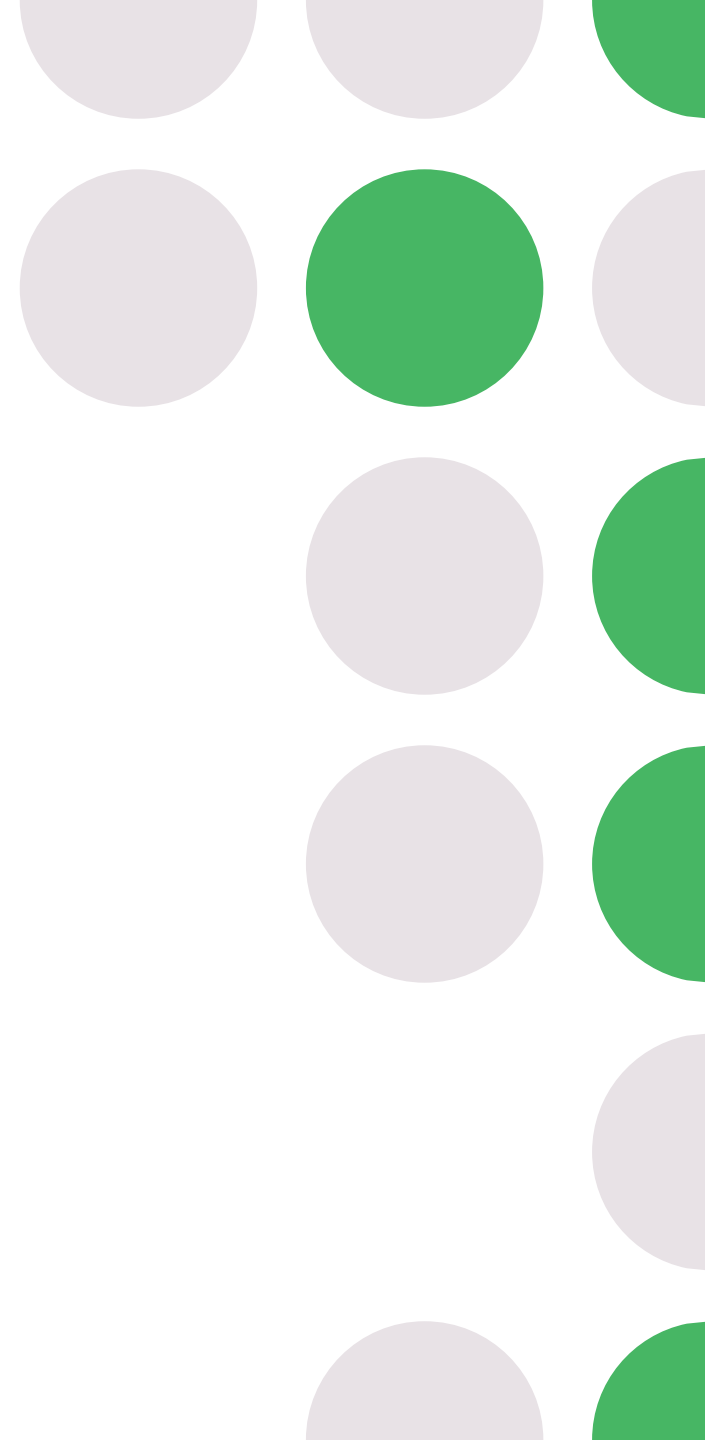
- Carbs should make up at least 55% of calories from carbohydrates to maintain performance and recovery.
- For Moderate to High-Intensity Exercise = 8-12 grams/kg/day
- 1 hour before training/practice 1g/kg carbohydrates





# Hydration

- Preventing dehydration before it happens
  - After a period of dehydration it can take up to **6 hours to achieve fluid and electrolyte balance.**
  - Dehydration of just 3-4% causes a reduction in muscle strength of approximately 2%, and muscle high-intensity endurance of approximately 10%.
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# Practical Application

- Hydration = Fluid + Electrolytes
- Replacing Sweat loss
- Use Urine Charts

## URINE COLOR CHART

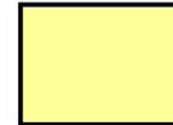
**NO COLOR. TRANSPARENT**  
You're drinking a lot of water



**PALE STRAW COLOR**  
You're normal & well hydrated



**TRANSPARENT YELLOW**  
Normal



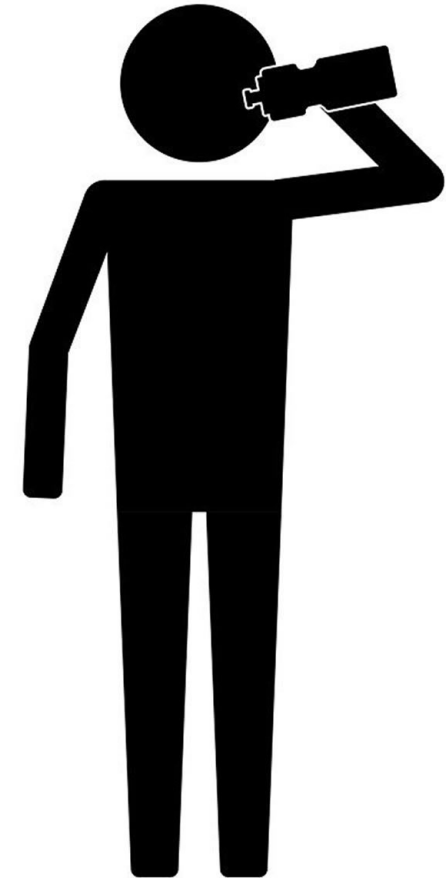
**DARK YELLOW**  
You need to drink some water soon



**AMBER OR HONEY**  
Your body isn't getting enough water.



**SYRUP OR BROWN ALE**  
You need to drink water. NOW & A LOT!





|   |  |
|---|--|
| <p>Pre-Workout Snacks (30-45 grams carbs) – about 1-hour prior to training, practice, or games.</p> <p>1 medium or large banana or 3-4 cuties</p>  | <p>Post Workout Snacks (30-45 grams carbs + 30-45 grams protein) – ideally within 1 hour after training &amp; Practice.</p> <p>1 medium or large banana + whey protein shake</p>  |
| <p>2 cups pretzels or one small bag</p>    | <p>2 cups pretzels + 2 string cheese</p>   |
| <p>1-2 kid's cliff</p>   | <p>1 kid's cliff + 6 ounces Greek yogurt</p>   |
| <p>1 cup dried mangoes</p>   | <p>1 cup dried mangoes + 1 cup cottage cheese</p>    |
| <p>1 slice of whole wheat toast + PB</p>   | <p>PB&amp;J + 8 ounces milk</p>   |

# Recovery

- Post Workout Protein:
  - 3:1 Carbs:Protein
- Energy Repletion
  - Carbs, Fats, Protein

# Practical Application

- Maintenance + Performance = Calories in = Calories out (small frequent meals, cannot afford to get behind)
  - Muscle Building = Calories in > Calories out
  - Fat Loss = minor calorie deficit (manage hunger hormones, not to be done "in-season")
  - Balancing meals with protein, fat, & carbohydrates
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