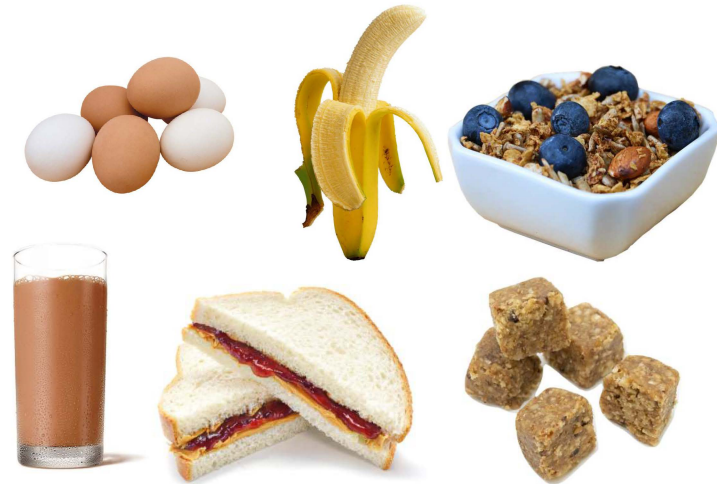


## Fueling Before Competition

Athletes need to consume adequate carbohydrate to optimize carbohydrate stores (glycogen) in the liver and muscle. This helps maintain blood sugar levels and fuels muscle contraction. Insufficient carbohydrate intake decreases the ability to sustain heavy loads / high intensity exercise, mood state, mental acuity, and power output during intermittent high intensity performance, and has the potential to negatively influence immune function.

During sleep, carbohydrate stores in the liver are used to maintain blood sugar levels, leaving glycogen stores low upon waking. Fueling and hydrating before competition are essential to replenish energy stores and optimize hydration status.



### Not accustomed to eating early?

- ▶ Athletes can train the stomach to tolerate food & fluid before competition.
- ▶ Practice introducing foods & fluids during training in the weeks prior to competition to see how they will be tolerated.
- ▶ Start with easily digestible foods & fluids - toast, a banana, water or juice - and gradually add additional foods over time.
- ▶ If solid foods are not tolerated, try a liquid snack or meal, such as a sports drink or smoothie

## Develop a Fueling Plan

Your fueling plan needs to be individualized and depends on...

- ▶ Duration
- ▶ Intensity
- ▶ Type of competition
- ▶ Ability to consume additional fuel during the competition
- ▶ Previous day's intake

TIP: Practice your fueling plan during training before utilizing it during competition

**A good RULE OF THUMB is to avoid trying anything new on the day of competition!**

## Fueling Strategies for Competition

Feel comfortable ★ Top off fluids - start hydrated ★ Top off carbohydrate for brain and muscle

### Days Leading up to Competition

- ▶ If taper in training, consider small reduction in energy intake
- ▶ No need to carb load unless competition duration is > 2-3 hr; make sure carbohydrate intake is adequate at each meal and snack
- ▶ Consider reducing fiber intake if bowel function becomes an issue during competition
- ▶ Maintain adequate hydration levels
- ▶ No "special" meal required, stick to familiar foods and fluids
- ▶ Be mindful of food safety and only eat foods from trusted sources and restaurants
- ▶ Sleeping at altitude or in a hot environment may increase the risk for dehydration; increase fluid intake upon waking to top off fluid levels

### Day of Competition

- ▶ Choose familiar foods trialed during training
- ▶ Eat a balanced meal **3-4 hours** before or a smaller meal/larger snack **2 hours** before
  - Adding protein to your meal can help delay the onset of hunger during competition
  - If you eat a meal 3-4 hours before competition, then top up on familiar and easily digestible carbohydrates within **15-60 minutes** of competing, such as a sports drink, carbohydrate chews/gel, fruit, or a granola bar
- ▶ Foods higher in fat and fiber slow digestion and may cause stomach distress if consumed too close to competition
  - Spicy or acidic foods eaten close to competition may also lead to indigestion and heartburn
- ▶ Ensure fueling plan is adaptable to different competition times and food availability / travel
- ▶ If you are particularly nervous before competition you may prefer to consume a meal or snack in liquid form rather than solid
- ▶ Maintain adequate hydration in the 24 hours prior to competition and sip on fluids leading up to competition

### Caffeine

If using any performance enhancing aids (e.g. caffeine), make sure you are aware of the effects and potential side effects. Every athlete responds differently to varying amounts of caffeine, so dosing for performance should be done gradually and tested in training before use in competitions.

***Refer to our Caffeine Fact Sheet for more information on timing and dosing.***

*Athlete Recommendations:*

## Fueling Plan Examples

Olympic Triathlon Early Morning Race	
<b>Saturday</b>	
<b>7:00 pm Dinner</b>	4 oz salmon 1-1.5 cups couscous 1 cup grilled veggies 8 oz water
<b>Sunday</b>	
<b>4:00 am Awake</b>	
<b>4:30 am Breakfast</b>	1 cup oatmeal 1 Tbsp peanut butter 1 banana 6 oz greek yogurt 8-16 oz water
<b>6:30 am</b>	carb gel/chews, water
<b>7:00 am Race Start</b>	
<b>7:30 am</b>	carb gel/chews, water
<b>8:30 am</b>	sports drink, water
<b>9:00 am</b>	sports drink, water
<b>9:30 am Finished!</b>	water & recovery

Volleyball Afternoon Match	
<b>7:00 am Awake</b>	
<b>7:30 am Breakfast</b>	3 scrambled eggs 2 pieces whole wheat toast 2 Tbsp peanut butter, honey 1 cup strawberries 8-16 oz water
<b>11:00 am Lunch</b>	turkey sandwich baby carrots with hummus 1 cup pretzels 6 oz greek yogurt 8 oz milk, 8-16 oz water
<b>1:30 pm Snack</b>	1 banana or granola bar 8-16 oz water
<b>2:00 pm Match Start</b>	
<b>2:00 – 4:00 pm Fueling</b>	16-32 oz sports drink, water OR 16-32 oz water, gel/chews
<b>4:00 pm Finished!</b>	water & recovery

## Special Considerations by Sport

**Continuous Endurance** - cycling triathlon, distance running, distance swimming, cross-country skiing, biathlon

- If eating breakfast 3-4 hours before morning competition is not possible, eat a carbohydrate-rich dinner the night before and a light breakfast
- The aggressiveness of fueling before competition depends on the ability to ingest additional carbohydrate during the event
- Fueling during the event should be addressed

**Intermittent High Intensity, Team Sports** - volleyball, basketball, hockey, water polo, soccer

- If the competition is in the afternoon or evening, eat balanced meals leading up to competition
  - Top up with water and a carbohydrate-rich snack before the game

**Long Duration, Low Intensity, Technical** - archery, shooting, curling

- Eat a balanced meal 3-4 hours before competition
- Choose small carbohydrate-based snacks and water during competition

**Multiple Short Duration, High Intensity Events** - track & field, swimming & diving, alpine skiing, snowboarding, rugby 7s

- Refueling between events is the key to performing repeatedly throughout the same day

**Combat Sports** - boxing, judo, taekwondo, wrestling

- After weigh ins replenish fluid and glycogen stores before competing
- Consume sports drinks and small, high carb meals between events
- Add salt to foods in the evening to ensure adequate replenishment of fluid and electrolytes

## Multi-Event Fueling Plan Examples

Swim Races – AM Preliminaries & PM Finals	
<b>Saturday evening</b>	
<b>7:00 pm Dinner</b>	4 oz chicken 1-1.5 cups whole grain pasta 1 cup roasted veggies 8 oz water
<b>Sunday</b>	
<b>4:00 am Awake</b>	
<b>4:30 am Breakfast</b>	1 bagel 1 Tbsp peanut butter 1 orange 6 oz cottage cheese 8-16 oz water
<b>6:30 am</b>	carb gel/chews, water
<b>7:00 am 200 m Prelims Race Start</b>	
<b>7:30 am 2<sup>nd</sup> Breakfast (Recovery)</b>	fruit smoothie (water, Greek yogurt, spinach, frozen pineapple & mango)
<b>9:30 am Snack</b>	bar or banana
<b>11:00-11:30 am Lunch</b>	1-2 cups brown rice 4-6 oz chicken 1 cup veggies 16 oz water
<b>12:00 – 2:00 pm</b>	water, sports drink
<b>3:00 pm 200 m Finals Race Start</b>	
<b>3:30 pm Finished!</b>	water & recovery

Freestyle Wrestler – 74 kg Athlete	
<b>Friday</b>	
Note: Avoid high fiber foods and if you can tolerate more food than below, go for it!	
<b>2:00 pm Weigh In</b>	
<b>Step Off Scale</b>	8 oz Pedialyte
<b>Next 30 minutes</b>	5-8 salty crackers, 12-24 oz sports drink (add in pinch of salt) - sip
<b>1-2 hours post weigh in</b>	1-2 bananas or plain bagel with jam or honey 12-24 oz sports drink - sip
<b>Dinner</b>	1.5-2 cups whole grain pasta 3 oz lean ground turkey, marinara 12-24 oz sports drink - sip
<b>After Dinner</b>	8 oz chocolate milk or granola bar or fruit 12-24 oz sports drink - sip <i>*Be sure to urinate before going to bed!</i>
<b>Saturday Matches</b>	
<b>Wake up</b>	12-24 oz sports drink and water <i>*Check urine color</i>
<b>Breakfast</b>	2 packets oatmeal 1 Tbsp honey 2-3 hardboiled eggs 8 oz Pedialyte
<b>Between Matches</b>	Follow 'Fueling Between Events' Urine color should be light
<b>9:00 am 1<sup>st</sup> Match</b>	
<b>9:15 am</b>	12-16 oz sports drink
<b>10:00 am 2<sup>nd</sup> Match</b>	
<b>Large snack</b>	PB&J sandwich banana low fat fruit greek yogurt
<b>1:15 pm Finished!</b>	water & recovery

### Fueling Between Events

- If < 1 hr, stick to fluids (e.g. water and sports drink)
- If 1-2 hr, small snack (e.g. 1/2-1 bar or banana plus fluids)
- If > 2 hr, more substantial snack with protein (e.g. sandwich, chocolate milk, fruit, yogurt)
- If 24 hr or more, good recovery snack then normal eating throughout rest of day

