



Fueling Before Competition

Athletes need to consume enough carbohydrates to fill up the stores (glycogen) in the liver and muscles. This helps maintain blood sugar levels and fuels muscle contraction.

Insufficient carbohydrate intake decreases the ability to sustain heavy loads, 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 being used to maintain blood sugar levels, leaving glycogen stores low upon waking.

Fueling and hydrating before competition are essential to replenishing energy stores and optimizing hydration status.



Developing a Fueling Plan

A 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!

Not accustomed to eating early?

- Athletes can train the stomach to tolerate food before competition
- Practice introducing foods during training in the weeks prior to competition to see how they will be tolerated
- Start with easily digestible foods like toast or a banana 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



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 stores



Days 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 cereal 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
- Athletes who are particularly nervous before competition 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





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

Multi-Event Fueling Plan Example

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





Recovery

A sound recovery nutrition protocol will ensure you can optimize training adaptations and perform at 100% of your body's potential in the next training bout or in preparation for competition.

Are you practicing the 4 R's of recovery?

Replenish muscle glycogen (carbohydrate stored in muscle) after practice. Eat 0.5 g/pounds of body weight

Repair and regenerate muscle with high quality protein. Eat 25 g (variable depending on the athlete).

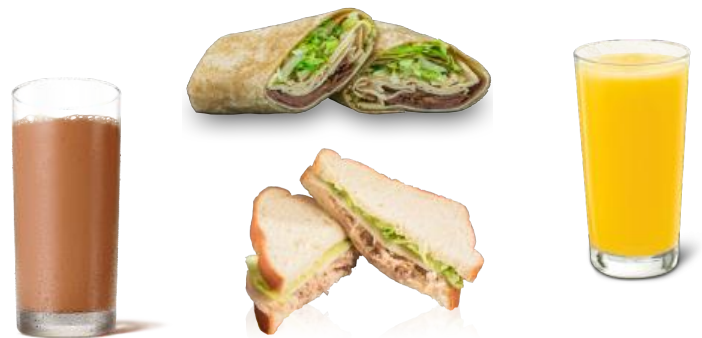
Reinforce muscle cells and immune system with colorful and anti-oxidant rich foods (e.g. fruits, veggies, whole grains, fish, nuts, olive oil). Eat at least 2 cups of fruit and 3 cups of veggies daily.

Rehydrate with fluid and electrolytes based on sweat loss in training (3 cups fluid/body weight in pounds of sweat loss). Use urine color as a hydration guide.

REST! Aim for 7-9 hours of sleep at night. Make your room dark and cool. No tech (lights & sounds) by the bed. Try to avoid tech 2 hours before bed. Try to adjust to the new time zone as soon as possible.



anti-inflammatory food



Nutrition within 30 - 60 minutes after training or competition can enhance recovery due to:

Increases in heart rate and blood pressure which enhances nutrient delivery to muscles.

Faster glycogen (storage form of energy located in the muscles) replenishment and initiation of tissue repair.

The body's hormonal switch from muscle breakdown to muscle building earlier in the recovery timeline

REMEMBER

If you need assistance with anything please contact the Performance Dietitians.