

Fueling for Competition

The Pre-competition meal: Swimmers should eat a high carbohydrate-meal 2-3 hours before a meet. Pre-competition foods should be low in fat, familiar, and easily digestible. Since athletes vary considerably on the types and amounts of foods they can tolerate before competition, each athlete should experiment during training/practices to find the meal routine that works best for him or her.

Eating at meets: It is not unusual for a swimmer to swim several events at a given meet and some meets, particularly championship meets, can last for several days with events scattered throughout each day. Staying well-fueled and well-hydrated during meets is key to optimal performance. During meets, swimmers should eat small, frequent carbohydrate snacks that are easily digested to maintain glycogen stores throughout the meet. Packing carbohydrate-rich snacks to bring to the meet (vs. relying on concession stands) is the best way to ensure that you have adequate amounts of foods and fluids. Intake of carbohydrates should be between 25-60 grams per hour if swimming multiple events and unable to eat regular meals during that time (see chart below of 25-50 gram carbohydrates). Be sure to stick with familiar, readily digested foods that you know will not upset your stomach. Never try anything new the day of a meet!

Examples of Pre-Competition Meals (2-3 hours before meet)

- 2 cups cereal, 1 cup low-fat milk, 1 banana, water
- 1 bagel, 2 tbsp peanut butter, 1 tbsp jam, 1 cup mixed fruit, 6-8 oz yogurt
- 1-2 eggs, 2 pieces toast, ½ cup applesauce, 10 oz milk
- 1 waffle or 2 pancakes or 2 slices French toast, 1 tbsp maple syrup, 1 cup berries, 6-8 oz yogurt or cottage cheese
- Sandwich with lean meat (chicken, turkey, tuna), 1 orange, 2 fig bars, water
- Small baked chicken breast, 1 cup rice, ½ cup steamed veggies, 8 oz fruit juice

Fueling immediately prior to an event (30 min-1 hr)

- 6 oz fruited yogurt, ½ cup cereal, 1 cup water
- 1 bagel, 2 slices turkey, 1 cup water
- 1 cup cereal, 1 cup milk, 1 cup water
- Crunchy granola bar or ½ cup low fat fruit & nut granola, banana, 1 cup water

Eating between events (small amounts of carbohydrate-rich foods)

- Granola bars, cereal bars, sports bars (low in fiber & protein)
- Fig bars, animal crackers, graham crackers
- Fruit cups (in juice or lite syrup), applesauce, fruit snacks, bananas
- Crackers/pretzels with peanut butter (as tolerated) & jelly
- Yogurt cups
- Fruit trail mix
- 100% fruit juice or sports drinks

25 Grams Carbohydrate	50 Grams Carbohydrate
1 medium piece fruit	1 cup rice
1 slice of bread	1 medium potato
1 cup of yogurt	1 ½ cups pasta
2 cups non-fat milk	2/3 cup granola
1 ½ Fig newtons	1 large bagel
1 ½ tsp honey	2 cups orange juice
1 Luna/granola bar	2 pieces of fruit
1 Cliff shot (make sure to drink with 8 oz water)	1 Cliff/Powerbar
2/3 cup applesauce	

Hydration

Many swimmers don't pay attention to fluid intake because they are surrounded by water and mistakenly believe that they will not become dehydrated. A loss of just 2% of body weight as water (i.e. 3 lbs. for a 150 lbs. athlete) can result in decreased performance. To check hydration, athletes can monitor the color of their urine. If it is pale like lemonade they are well-hydrated. If it is dark like apple juice, drink more fluids!

Sport drinks work well for re-hydration & refueling. In general a beverage containing 4-8% carbohydrate, 110 mg/cup sodium, and 30 mg/cup potassium can be beneficial. Sport drinks not only replace water, but also have carbohydrate to refuel the muscle and brain and electrolytes to replace those lost in sweat. Sport drinks can also stimulate thirst (unlike plain water) which can help prevent dehydration. The following table lists some general fluid guidelines for swimmers.

TIMING	RECOMMENDATION
2-3 hours before training/competition	At least 2 cups of water or sport drink
During warm-up (10-20 min before)	~ 1 cup (5 mg/kg) of fluid as tolerated
During training/competition	1/2-1 cup water or sport drink every 15-20 minutes
After training/competing	3 cups water or sport drink for every 1 pound lost

Other tips for maintaining adequate fluid during training and competition:

- Keep a fluid bottle on side of pool & drink in between sets (Have your OWN water bottle)
- Drink in between events
- Drink sport drinks to increase fluid intake

Refueling after completion & training: It is very important that swimmers eat a good meal after exercise. Swimmers need adequate fluid to rehydrate, electrolytes (i.e. sodium & potassium) to replace sweat losses, carbohydrate to replenish glycogen, and protein to rebuild muscle. Carbohydrate is especially important on days with multiple training sessions or competitions that occur less than 8 hours apart. Every effort should be made to eat a carbohydrate-rich meal as soon as possible and within 2 hours after exercise.

Protein is also important for recovery. A small amount of protein (~ 10 grams) combined with carbohydrate and fluid within 30 minutes following training can enhance tissue building. Small amounts in "real" foods can be quite effective. Try including some of these foods in your recovery routine:

- 10 oz low fat regular or chocolate milk
- 1 cup cereal with 1 cup low fat milk
- 2 hardboiled eggs, 1 oz crackers
- 2 slices of bread with 2 tbsp peanut butter & jelly
- 8 oz low fat fruited yogurt

Making Better Choices While Eating Out

Swimmers often travel to meets and eating on the road is common. Many swimmers find it difficult to obtain nutritious, high-carbohydrate foods while traveling. It can be challenging to make healthful choices when eating out as restaurant food is typically higher in fat, calories, and sodium. However, many restaurants now have healthier choices available on the menu or upon request, which contain less fat and fewer calories. These choices are good options for athletes, as long as they also provide balanced nutrients and contain adequate carbohydrates.

General Tips for Eating Out

- ✓ Reduce the fat in your meal by asking for salad dressing on the side. Stick with oil & vinegar or vinaigrette salad dressings.
- ✓ Skip the sour cream, mayo, extra cheese, and bacon that may come with your meals. Add salsa, ketchup, or mustard to make meals tasty.
- ✓ Pay attention to high-fat extras like fried tortilla chips; limit yourself to a small handful with salsa.
- ✓ Choose lean protein sources → chicken, turkey, fish, or eggs (grilled, poached, sautéed, or baked), low fat dairy, soy products such as tofu, beans, and nuts & seeds.
- ✓ Top carbohydrate choices include rice, pasta, bread, potatoes, cereals, fruits, and vegetables.
- ✓ Water & sport drinks are better beverage choices than soda; 100% fruit juice also offer nutrients.
- ✓ Carbonated (and/or high caffeinated beverages) should be consumed in small amounts, if at all, and should not be used before, during, or after exercise.