

# **Eating Before, During and After Competition**

**John M Berardi, PhD, CSCS**

**Ryan Andrews, RD, MA, MS**

[www.precisionnutrition.com](http://www.precisionnutrition.com)

Before digging into the fascinating topic of workout nutrition, let's get something straight. Food quality and food amount make the biggest impact on an athlete's body composition and performance. With that said, workout nutrition can give athletes a real competitive advantage when it comes to recovery from workouts and overall performance during competition. So let's get to it.

## **Understanding Workout Nutrition**

Generally, we eat during and after workouts with the following three goals in mind:

1. Replenish energy stores
2. Increase muscle size and/or muscle quality
3. Repair any damage caused by the activity

When someone exerts themselves, they damage tissues and use energy. This breakdown process is what ultimately makes people stronger, more muscular, and/or more athletic. However, in the short term this breakdown represents only damage and depletion. It's what we do next, nutritionally, that makes a huge difference.

The main two players in this process are protein and carbohydrate. When amino-acid rich meals are consumed around training, protein synthesis is stimulated and protein breakdown is suppressed. This means that we reverse the exercise-associated breakdown and kick-start the recovery process sooner.

But protein isn't our only concern. Intense activity uses stored carbohydrates. And those carbs have to be replenished. Thus, during the post workout period, protein and carbohydrates make an awesome recovery combination.

## **The Before, During, and After of Workout Nutrition**

Putting this information to use, here are some ideas for creating the perfect "peri-workout" period.

### **Before training/competition**

Consuming a balanced meal containing carbohydrates, proteins, and fats – about 1-2 hours before training/competition – is what you're after. You certainly don't have to load up on a huge meal. In fact, that could be counterproductive. Rather, the idea here is to find meals that don't cause stomach distress, meals that make the athlete feel energetic, and meals that help maintain blood sugar.

A good example of a larger pre-workout meal would be 4 oz of lean meat, 8 oz of sweet potato, and 2 cups of veggies with olive oil dressing. If this seems like too much, a piece of fruit, a couple pieces of string cheese, and ½ cup of mixed nuts can work too.

**During training/competition**

What an athlete eats/drinks during competition is dependent upon length of the workout and athlete’s preference. In general, we recommend a sport drink containing 30 grams of carbohydrate and 15 grams of protein (in 500 ml water) per hour of exercise. With multiple events back to back, a larger amount of this beverage should be consumed throughout the day, along with food meals interspersed between events.

This drink can be a “homemade blend” or a pre-formulated drink that contains rapidly digesting carbohydrates (e.g., maltodextrin, dextrose, glucose, etc) and proteins (e.g., protein hydrolysates or isolates).

**After training/competition**

Post-workout nutrition requires two things: protein to aid in protein synthesis, carbohydrate to replace muscle glycogen. A whole food meal that meets these requirements is ideal. However, whole food meals aren’t always practical. Some athletes aren’t hungry, some athletes might not have access to whole food, and some athletes might not want to wait for those nutrients to digest and get to cells.

That’s why most of our athletes generally default to consuming a liquid form of nutrition that contains rapidly digesting carbohydrates and proteins that accelerates recovery, digests quickly, and is usually well tolerated. We generally prefer drinks (like those discussed above) to be ingested at a 2 carbohydrate: 1 protein ratio.

Now, if food is an option, then choosing some of the following options within an hour or two of the training session or event would get the recovery process rolling.

Choose a carb dense food:	Choose a protein rich food:	Choose a nutrient rich fruit and/or vegetable:
Yam Potato Brown rice Quinoa Whole grain bread Oats Whole grain pasta	Eggs Beans Peas Fish Meat Tofu Tempeh	Broccoli Lettuce Spinach Kale Cauliflower Brussels sprouts Peppers Asparagus Green beans Berries Apple Melon Pineapple

		Orange Banana Mango Peach
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### **The Rest of the Day**

While the focus of this article is workout nutrition, we'd be remiss if we didn't discuss the rest of the day. Here are some general rules to live by with respect to eating for optimal health, body comp, and performance.

**1. Eat every 2-4 hours**

You don't need a full meal every 3 hours. But eating more often will help you eat smaller meals, stabilize your blood sugar, ensure adequate recovery, and help you maintain a better body composition.

**2. Eat complete, lean protein each time you eat**

Protein is muscle food; you can do everything else right and your muscles won't grow unless you give them the protein they need. It's not necessarily easy to get enough protein. But it's manageable if you have some with each meal.

**3. Eat vegetables every time you eat**

It is recommended that you get 10 to 15 servings of vegetables per day. The easiest way to do this is to have some veggies every time you eat. You can throw in fruit here and there but veggies are better.

**4. Eat carbs only when you deserve to**

Eat fruits and veggies anytime you want but only eat carb foods such as pasta, bread etc after your workout. That's when your body needs them the most. And that's when you are the least likely to gain body fat from an overreliance on dietary carbs.

**5. Learn to Love Healthy Fats**

There are three types of fat, saturated, monounsaturated and polyunsaturated. Eating all three kinds in a healthy balance can dramatically improve your health and even help you lose fat.

**6. Drink mostly zero calorie drinks.**

The best choices are water and green tea. Obviously this rule can be broken in moderation but the more beverages you have with calories the harder it is going to be to become leaner.

**7. Focus on whole foods.**

Eating whole foods is always better than taking supplement powders or pills. Try to eat as much whole-food protein, veggies and fats as you can. And if you need a little extra to get you where you need to be, then supplement with protein powders, super foods and fish oil.

**8. Have 10% foods.**

The above rules may seem like they will be impossible to follow all of the time, and although they really aren't, plan on breaking the rules 10 % of the time. Everyone has that favorite food or desert that doesn't exactly adhere to the above rules. And, if you're eating 42 meals a week (6 meals a day) that means 10% of the time (4 full meals) you can eat what you want.

**9. Develop food preparation strategies**

The hardest part about eating well is making sure you can follow the 8 rules above consistently. And this is where preparation comes in. You might know what to eat, but if isn't available, you'll blow it when it's time for a meal.

**10. Balance daily food choices with healthy variety**

Mix it up, healthy eating doesn't have to be boring or bland. Change your veggies or your protein or your seasoning. Variety is going to make this method of eating much more enjoyable.

In the end, it's important to start by improving overall diet quality and incorporating basic Precision Nutrition style habits. Then, once a solid foundation is built, the workout nutrition strategies above can really make a difference.

**About The Authors**

John Berardi and Ryan Andrews are part of the world-renowned Precision Nutrition team. And their work is responsible for bringing elite-level nutrition advice to both high-level athletes and recreational exercisers around the globe. For more great nutrition from Dr Berardi and Ryan Andrews, visit [www.precisionnutrition.com](http://www.precisionnutrition.com).