

# Nutrition Periodization for the Student Athlete

By: Jessica L. Garay, PhD, RDN, FAND

*Are you familiar with periodization training? It is a broad concept of training that separates the training process into specific phases throughout the sport season or training period. While every sport is different, almost all require the duration, intensity, volume and load of training to change at different points in the season.*

*Your diet should take a similar approach to your fitness plan. That's because your sports nutrition plan is meant to support your training. Eating the exact same thing day in and day out can not only lead to boredom, but it also prevents you from providing optimal fuel for your body. To get the most out of your diet, you should be using a technique known as nutrition periodization.*



## What is Nutrition Periodization?

Nutrition periodization refers to an eating plan that adjusts your food and fluid intake as your sports training changes. For example, the way you eat when you are doing two-a-day workouts in the pre-season will be different than when you are doing more weight training and less conditioning in the off-season. By creating a nutrition plan that complements your exercise routine, your body will be better able to recover from workouts, and you will feel ready to tackle your next workout.


### What Does Nutrition Periodization Look Like?

Nutrition periodization is set up in phases based on your training and competition schedule. The preparation phase is how you will eat during the pre-season. The competition phase is how you will eat and drink during the stage when you are actively competing, and the transition phase is how you will adjust your eating plan once the competitive phase is over and before the next season starts.



AMERICAN DAIRY  
ASSOCIATION NORTH  
EAST

AmericanDairy.com

 @AmericanDairyNE

## Preparation Phase

During your pre-season training, you are in the preparation phase of eating. You should have two main goals during this phase. The first is to make sure you are eating enough to maintain your weight. That means focusing on your total daily intake and getting a nutritious breakfast, lunch, dinner and snacks.

The second is to get into a good routine of eating and hydrating properly before, during, and after your workouts. This phase is a great time to experiment with sports drinks or other products that you may want to use during your workouts. **Before** or during exercise you may need to have some simple carbohydrates that are quickly absorbed. Consider trying a piece of fruit, like a banana or frozen grapes, if it's a hot day. A carbohydrate-rich granola bar or fruit bar is another good example. Remember, what works for a teammate or a friend may not always work for you. It's best to try out a few different brands or items to figure out what works best for you. By the end of this phase, you should know exactly what foods and fluids agree with you and provide sufficient energy for your competitions.

## Competition Phase

If you ate and drank right through the preparation phase, you should feel highly confident with what you will eat and drink to fuel your competitions and events. During the competition phase, you will continue to eat and drink the same way you have practiced during the pre-season. **Recovery nutrition** becomes even more important, especially if you have back-to-back competitions or you are competing multiple days in a row.

Make sure to get a snack or meal that contains both carbohydrates and some protein. You'll also need to rehydrate with adequate fluids and replace lost electrolytes. Chocolate milk or a fruit and yogurt smoothie are both tasty and satisfying options that contain the nutrients needed to support recovery nutrition. You'll also need to drink extra water, even if you don't feel like you need it. Just like pre-season, you should eat and **drink enough** to maintain your body weight and support growth and development.

## Transition Phase

The rest or off-season is referred to as the transition phase. During this period, both your exercise and eating may change quite a bit. You will still need to eat your regularly balanced meals and snacks, but the extra foods and fluids you were consuming to support training can be cut back. If you have a goal related to changing your body composition, this is the time to modify your diet to reach those goals. Continue to focus on your hydration plan and drink water to support your exercise. Overall, your diet should include foods that provide a lot of beneficial nutrients like protein, fiber, vitamins and minerals. Consider using some of your free time to cook a new recipe or take a trip to the grocery store to find a few new foods to try.

## Nutritious Foods to Choose Throughout All Phases of Training

No matter what phase you are in, eating a balanced diet that includes a variety of foods from each food group is key. You will need carbohydrate-rich foods to provide the energy needed to support your intense workouts. Choose a variety of complex carbohydrates like breads, pasta, and rice, as well as fruits and vegetables to provide your body with vitamins and minerals. Protein rich foods support muscle repair and recovery. Dairy products provide a great source of both calcium and protein, which are two nutrients important for student athletes. Other high-quality protein options are meat, poultry, beans and eggs.

## Who Can Help?

*If you need help creating a customized nutrition plan to support you through all the phases of your training, a registered dietitian nutritionist can help. Look for one that specializes in sports nutrition or is board certified in sports dietetics (CSSD). You can find one near you by entering your zip code on the "Find a Nutrition Expert" page on the Academy of Nutrition and Dietetics Association website.*

