Gamecock Nutrition Handbook

A nutrition guide to fuel performance and reach your goals.
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WELCOME to the Gamecock Sports Family! We hope to help you make the most of your athletic goals while here at USC. This manual will help you identify nutrition resources available here on campus, understand the fundamentals of nutrition for athletes, and apply some basic nutrition strategies in your daily routine.

BEFORE YOU ARRIVE ON CAMPUS

When you join the team, we expect you to take your training and nutrition seriously. Every new athlete is required to schedule an individual meeting with the team dietitian to develop a personal nutrition plan. For your success, I recommend 3 things:

1. Read the handout to give yourself an overview of sports nutrition basics.

2. Create an account and download our sports nutrition app using your USC email then schedule an appointment with the dietitian ASAP your first semester on campus.

3. Be coachable—meet with dietitian to take your abilities to the next level. Just because you are happy with your weight does not mean your nutrition can't improve. Sports nutrition is much more than weight management or muscle building.
Gamecock Olympic Sports Nutrition

Nutrition Experience

The Gamecock program provides a variety of resources to help you reach your sports nutrition goals whether you are grabbing a meal at one of our athlete dining halls, protein shakes at your team nutrition station, or creating a meal plan with the sports dietitian.

Dodie Dinning Hall
USC built a restaurant on campus just for out athletes. Here you will have access to a variety of options for breakfast, lunch, and dinner. The salad bar is a great way to pile on extra vegetables and the ice-cream or slushy machine can help provide those extra calories that athletes need. Take a piece of a muffin with you if you need a snack for later.

Dodie Jr. Nutrition Station
Modeled after a "Tropical Smoothie" restaurant. This bistro style nutrition hub offers smoothies, sandwiches, and snacks for the busy athlete on the go.

Team Nutrition Stations
Each team has a personal nutrition station close by for athletes to "fuel up" before and after training. Protein shakes, Gatorade, snacks, and fruit are common fare provided in the players' lounge or close to the strength training facilities.
Team Dietitian, Strength Coach, and Athletic Trainer

The Gamecock sports performance team (dietitian, strength coach, and athletic trainer) are knowledgeable about nutrition. If you have any questions, these are the people to ask.

Sports Nutrition App

We have a custom sports nutrition app, Healthie. This app lets you schedule appointments with the dietitian (virtually or in-person), track your food, share recipes, record progress, and upload handouts like shopping lists or meal plans to help you improve your nutrition.
Meeting with your sports dietitian (nutritionist) is one of the best ways to get the knowledge and plan you need to be successful with your nutrition. You can choose to meet 1-on-1 or bring a teammate who has similar goals. The dietitian can help you with any nutrition goal. **Some common reasons athletes work with our dietitians are:**

- Develop a personalized meal plan
- Create a nutrition strategy for pre-game meals and snacks
- Discuss strategies for building muscle and changing your physique
- Answer questions about supplements
- Help with anxiety about food and body image
- Use nutrition to speed up injury recovery
To schedule a nutrition appointment, use your phone and scan the QR code below to sign up in our system. You will be sent an email to instruct you how to get started. You can choose to meet in-person or virtually.

Baseball  Softball
Men's Basketball  Women's Basketball
Men's Golf  Women's Golf
Men's Soccer
Women's Soccer
Men's Swim/Dive
Women's Swim/Dive
Men's Tennis
Women's Tennis
Men's Track & Field
Women's Track & Field/Cross Country
Women's Beach Volleyball
Women's Indoor Volleyball
Sports Nutrition Fundamentals

Why is Nutrition Important for Your Goals?

Everything you eat contains the building blocks that fuel your training and recovery. The effect that food has on your body adds up over time. **Simply put, the food choices you make will influence:**

**TODAY**

Nutrition will influence your energy for training and ability to recover from yesterday's workout.

**OVER MONTHS**

Nutrition will influence your muscular development and ability to build a more athletic body.

**OVER YEARS**

Nutrition will influence your health and ability to prevent disease and injury.
Poor nutrition habits can have the reverse effect and hurt your ability to improve as an athlete. For example, an athlete who skips meals and does not make a balanced eating choices will be more likely to:

**TODAY**
Feel sluggish or weak during practice and take longer to recover

**OVER MONTHS**
Lose muscle and store excessive body fat.

**OVER YEARS**
Feel sluggish or weak during practice and take longer to recover.
Setting Goals

The Gamecock Olympic Sports Nutrition program is offering you the path to self-improvement to help reach your athletic goals. **Check off any goals that resonate with you and think about them as you read through the rest of this book.**

1. [ ] Having more energy during training
2. [ ] Recover faster from difficult workouts
3. [ ] Staying hydrated
4. [ ] Developing muscle and strength
5. [ ] Feeling healthier
6. [ ] Healing faster from an injury
7. [ ] Gaining more self-confidence
8. [ ] Developing a healthier relationship with your body and food
Gamecock Olympic Sports Nutrition

**Balanced Meals**

What should an athlete for breakfast, lunch, and dinner? The answer is there's no perfect meal or combination for foods for everyone, but your food choices should follow these 3 principles:

1. **Balance**
   Meal should be balanced according to your daily activity. Athletes need more food and larger portions during periods of strenuous training. Injured or off-season athletes do not need as much energy.

2. **Variety**
   Meals should contain foods from different food groups and have a balance of protein, carbohydrates, and fats. All foods contain different types of vitamins and minerals and eating a variety is a good way to ensure those nutrients are being absorbed.

3. **Moderation**
   Moderation can be interpreted as a reasonable portion of food or a reasonable frequency of unbalanced meals. Having a couple slices of pizza paired with a salad and a glass of milk is an example of moderation with a meal. Eating an unbalanced meal such as an entire large pizza (in one sitting) once or twice a month is also a form of moderation because you’re not doing it every day. There are no “good” or “bad” foods. It’s all about amounts and matching it up with your goals.
Macronutrients: The Building Blocks of Food

Food provides us with energy (measured in calories) that energy is provided from the "macronutrients—carbohydrates, proteins, and fats.

Carbohydrates
Provide energy for physical activity and prevent the breakdown of muscle. Eating carbohydrates fuels your brain and body for sport.

Athletes who are training hard with practice sessions lasting over one hour need to focus on carbohydrates as the biggest part of their meals. Carbohydrates can also be used as snacks immediately before or during training to keep energy levels up. Food high in carbohydrates include fruit, sugars, breads, grains, potatoes, beans, and cereals.

Some carbohydrate foods are high in fiber. Fiber is a form of carbohydrate that does not provide energy but is important for digestive health and staying full. Foods high in fiber include fruits, vegetables, nuts, and whole grains (like whole wheat bread).
Proteins
Helps build and repair muscle. Eating protein with meals will also help to slow digestion and make you feel full which can prevent overeating and energy crashes.

Food high in protein include meats, seafood, milk, eggs, cheese, beans, and soy. Many athletes consume protein powders and drinks which can be a convenient and easy way to balance out a meal or snack.

Fats
Provides fuel to meet your overall energy needs, makes food taste good, and helps regulate hormone function. Athletes do not need to eliminate fats or eat low-fat diets. One or two high fat foods with a meal is part of a balanced diet.

Food high in fats include butter, oils, avocados, fatty meats (bacon, sausage) fried foods, nuts & peanut butter, and cheese.
Food groups are another way to classify what we eat. Grains, fruits, vegetables, proteins, dairy, fats & oils, and discretionary (sweets, alcohol) make up the food group categories.

<table>
<thead>
<tr>
<th>Food Group</th>
<th>Information</th>
<th>Examples</th>
</tr>
</thead>
<tbody>
<tr>
<td>Starchy Grains</td>
<td>Provide carbohydrates, fiber, and vitamins and minerals used for energy production. <strong>When possible, choose whole-grain (high fiber) options compared to refined (low fiber) grains.</strong></td>
<td>Bread, bagels, tortillas, rice, pasta, cereals, potatoes, muffins, and granola</td>
</tr>
<tr>
<td>Fruits</td>
<td>Provide carbohydrates in the form of sugar, fiber, and vitamins and minerals used for antioxidants (reduced inflammation).</td>
<td>Most of the fiber and nutrients are inside the peel and pulp of the fruit so eating whole fruit (apple) provides more nutrition than a glass of juice.</td>
</tr>
<tr>
<td>Food Group</td>
<td>Information</td>
<td>Examples</td>
</tr>
<tr>
<td>------------</td>
<td>-------------</td>
<td>----------</td>
</tr>
<tr>
<td><strong>Vegetables</strong></td>
<td>Does not provide much carbohydrate energy but are packed with vitamins, minerals, and fiber. <em>Eating vegetables can help you feel full and slow digestion.</em></td>
<td>Spinach, carrots, lettuce, garlic, kale, eggplant</td>
</tr>
<tr>
<td><strong>Protein (meat/eggs)</strong></td>
<td>Provides the highest amount of protein and include vitamins &amp; minerals used for energy and immune function</td>
<td>Some fatty cuts of meat (hotdogs, sausage, bacon, ground beef, drumsticks) contain higher amounts of fat than protein. Leaner cuts of meat such as chicken breast, steak, fish, shrimp, or pork loin have a very high amount of protein. Vegetarian and Vegan athletes will need to eat plant proteins such as nuts, beans, tofu, tempeh, or seitan to meet their protein needs.</td>
</tr>
<tr>
<td><strong>Diary</strong></td>
<td>Provides a moderate amount of protein and fat and are high in calcium (important for bone health).</td>
<td>Milk, yogurts, and cheese</td>
</tr>
<tr>
<td><strong>Fats/oils</strong></td>
<td>Provide a high number of calories and energy. Plant sources are high in antioxidants. Animal sources of fats provide less nutrients.</td>
<td>Plant sources of fats include olive oil and avocados. Animal sources of fats are butter or lard.</td>
</tr>
<tr>
<td><strong>Discretionary</strong></td>
<td>This term describes food that do not have a lot of vitamins and minerals and are typically eaten for enjoyment. People who are very active (like athletes) can enjoy larger amounts of discretionary calories because they need the extra energy. While these foods shouldn’t make up most of your intake, you certainly have room for them in moderation.</td>
<td>Candy, cookies, sweets, ice cream, sugary drinks (sweet tea, soda, Gatorade), alcohol, potato chips, and fruit gummies.</td>
</tr>
</tbody>
</table>
In-Season Plate
Athletes who are in-season, training hard, or trying to build muscle should follow this plate as a general guideline:

- 50% of your plate should consist of starchy grains
- 25% fruits or vegetables
- 25% high protein foods
- Include a serving of dairy 2-3 times per day
- 1-2 sweets (discretionary) options per day

It is fine to have portions, but this represents a balanced meal for an athlete with high energy demands.
Reduced Energy Plate

Some athletes may want to reduce their food energy depending on goals or special circumstances. This plate is useful for athletes who are injured and unable to train at full capacity, athletes who are taking a vacation from training, or athletes looking to reduce their body weight. This plate contains:

- 50% fruits or vegetables
- 25% starchy carbohydrates
- 25% protein
- 1-2 servings of dairy per day
- Strive to find some lower calorie sweets to satisfy your cravings (example is a chocolate ice cream cone is about 350 calories while a chocolate fudge popsicle is 40)

If you are training hard and eating the reduced energy plate, your performance and recovery will likely suffer. Weight loss is physically and mentally taxing when it comes at a cost. Read the section on weight and body composition before you consider a weight-related goal.
Breakfast of Champions

Although breakfast is an important meal, many college athletes struggle to make it happen. Breakfast is an investment in your energy for today and your recovery from yesterday’s training. Here are some examples of balanced breakfasts using the fast, slow, or on-the-go categories.

- **Fast breakfasts**: Meals you can assemble in 5 minutes or less
- **Slow breakfasts**: Meals you can make when you have time
- **On-the-go breakfasts**: Oops, you overslept! What can you eat on the run?
Fast Breakfasts: Less than 5 minutes

1. Super Smoothie Blend a smoothie with milk, protein powder, and fruit. Pair with a granola bar or bagel.
2. Protein Cereal Pour a premade protein shake over a bowl of cereal
3. PB&J Breakfast Turn a toasted bagel or toaster waffles into a peanut butter and jelly sandwich. Add a glass of milk and a banana.
4. Protein Oatmeal Mix protein powder and fruit in with a bowl of instant oatmeal
5. Power Parfait Add greek yogurt, frozen blueberries, and granola into a bowl or cup.

Slow Breakfasts: 20 to 30 minutes

1. Breakfast burrito Eggs with peppers, onions, spinach, beans, salsa, avocado, and cheese wrapped in a tortilla.
2. Veggie & ham omelet Pair with fruit and toast
3. High protein pancakes Add a scoop of Whey protein or use a high protein brand like Kodiak Cakes. Smear with peanut butter.
4. Breakfast sandwich Fold an omelet inside of a bagel with cream cheese and hot sauce, pair with fruit
5. Steak & Eggs Steak High in protein and iron; pair with fruit and toast.
On-the-go: Running out the door
Grab at least 1 of these convenient food options from each column for a balanced breakfast.

<table>
<thead>
<tr>
<th>Protein</th>
<th>Fruit</th>
<th>Carbohydrate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Greek yogurt</td>
<td>Banana</td>
<td>Granola bar</td>
</tr>
<tr>
<td>Protein shake</td>
<td>Apple</td>
<td>Bagel</td>
</tr>
<tr>
<td>Boiled eggs</td>
<td>Orange</td>
<td>Cereal bar</td>
</tr>
<tr>
<td>Protein bar</td>
<td>Grapes</td>
<td>Toast</td>
</tr>
<tr>
<td>Glass of milk</td>
<td>Berries</td>
<td>Trail mix</td>
</tr>
</tbody>
</table>

Common Breakfast Issues

<table>
<thead>
<tr>
<th>Issue</th>
<th>Solution</th>
</tr>
</thead>
<tbody>
<tr>
<td>I forgot to eat</td>
<td>Pack breakfast foods in your car and backpack. Make a grocery list and stay on top of your shopping list, so you do not run out of breakfast food.</td>
</tr>
<tr>
<td>Practice is early, and I feel sick if I eat a big breakfast</td>
<td>You can train your stomach to handle breakfast if you start small. Start with half a glass of juice, applesauce, a piece of toast, or something small. Work your way up to balanced breakfast.</td>
</tr>
<tr>
<td>Nothing sounds good to me in the morning and/or I’m not hungry</td>
<td>Drink your breakfast if you have trouble eating. Have a protein shake, smoothie, or juice.</td>
</tr>
<tr>
<td>I don't have time for breakfast</td>
<td>Choose on-the-go option for breakfast. You can eat on the run if needed.</td>
</tr>
</tbody>
</table>
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Lunch and Dinner

Skipping lunch or relying on fast food for dinner can leave athletes feeling slow and sore. Lunch and Dinner are important for energy and recovery. Here are some *fast, slow, and on-the-go* ideas for the busy athlete.

**Fast Lunches & Dinners: Less than 5 minutes**

1. **Make a sandwich** Use bread, bagel, tortilla, or pita to make a sandwich with meat or tuna, cheese, and veggies. Pair with fruit, pretzels, and yogurt. If you prefer a PB&J, pair with a glass of milk for more protein.

2. **Add a soup** Add any can of soup to your lunch. Lighter options include vegetable soups while higher protein chili makes a good choice.

3. **Cheese & crackers** Whole grain crackers with cheese, meat, fruit, and hummus make a good finger food option.

4. **Frozen pizza** Any pizza can be made into a balanced meal by adding vegetables and ham and a side salad. Pair with a glass of milk or fruit.

5. **Rotisserie chicken** Use a precooked chicken and make into a sandwich or add any sides.
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**Slow Lunches & Dinners: 20 to 30 minutes**

1. **Quesadillas** Add any leftover meat and vegetables into a tortilla with cheese. Pair with salsa and refried beans.
2. **Pasta with meat & sauce** Spaghetti, ground beef, and sauce. Add spinach or pair with a salad. You can also use frozen ravioli or take the Chicken Alfredo route.
3. **Chili** One of my favorites for its versatility. You can add it as a topping on hot dogs and burgers. Any lean beef with onion, pepper, beans, can of tomatoes, and a seasoning packet are all you need.
4. **Try a new recipe** Scan the QR code below to see Allrecipes website

![QR Code](image)

**On-the-go: Dining Out**

Where do you eat when you’re on the go? **A good strategy when dining out is to make 1 or 2 healthy additions or substitutions to your meals.** Here are some examples of balanced meals at restaurants:

- **Chipotle** Burrito or bowl with vegetables, beans, and meat
- **Mexican** Fajita plate with vegetables, meat, beans, rice, salsa, and tortillas
- **Chinese** Meat & vegetables stir fry (example- broccoli beef on rice)
- **Chick-fil-A** Ask for a fruit cup with your meal
- **Burgers** Get your burgers from a non-fast-food restaurant that uses all beef patties. Or choose the grilled chicken breast sandwich in addition to your fast-food meal.
- **Pizza** Pair your pizza with a salad and glass of milk for a more balanced meal.
### Common Lunch and Dinner Issues

<table>
<thead>
<tr>
<th>Issue</th>
<th>Solution</th>
</tr>
</thead>
<tbody>
<tr>
<td>Practice is too close to lunch time, and I don’t want to eat a full meal</td>
<td>Eat a big breakfast and a smaller portion of lunch and bring some food with you for later. You’ll still have good energy from a small lunch and big breakfast to fuel your practice. If you’re eating in the dining hall, you can grab muffins, fruit, and PB&amp;J sandwiches for after practice.</td>
</tr>
<tr>
<td>My schedule is too busy for lunch</td>
<td>Pack food with you. Either snacks until you can eat a late lunch or bring your lunch with you and eat in class.</td>
</tr>
<tr>
<td>They don’t serve healthy food in the _________ dining area</td>
<td>All athlete restaurants at USC have healthy options at every dining hall. If you see some fried food being served, it’s because there’s room for those types of foods in every diet and we don’t practice over-restriction. You’ll see a balance of offerings - and not all the food will be fried. The salad bar is always open and fresh fruit is served daily.</td>
</tr>
<tr>
<td>I can only eat dinner late at night. Is that bad?</td>
<td>The “eating late at night is bad” idea is a myth. If you prefer to eat dinner late, then that is up to you.</td>
</tr>
</tbody>
</table>

### Snack Attack

Are snacks friends or foes? The answer is...it depends. Most athletes benefit from pre-planned snacks to improve recovery and performance. Some struggle with snack cravings as a result from inadequate meals.

As a general guideline, snacks can be used to (1) balance out our daily food choices and (2) provide a boost of energy at the right times.

Snack as often or as little as you need for your goals. If you have trouble maintaining energy or weight, snack more often. If you eat big meals and stay full between, you may not need to snack except right before practice.
Snack to balance out your daily food choices

Snacks can come in handy to supplement your meals in areas that you are lacking. Think of foods you commonly miss or shrink in meals (protein, fruits, dairy) and try to add them back in as snacks.

If you struggle with eating a high protein breakfast (all you managed to grab was a Pop tart), you can plan to have a mid-morning snack such as a Greek yogurt or a couple boiled eggs. If lunch was cheeseburger and fries, your afternoon snack could be a veggies and hummus cup.

Snack for a boost of energy

High carbohydrate snacks (crackers, granola bars, fruit, PB&Js) are a great choice to have about 30 minutes before practice or a game. This will give you a boost of energy so you can train harder.

We will focus more on snacks and timing in the “nutrition timing” section.
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Snack List for Athletes

What you eat and drink during the day will impact your performance. Variety of options is key!

Carbohydrates

- **Starches**
  - Pretzels
  - Granola bar
  - Cereal bar
  - Bagel
  - Tortilla
  - Crackers
  - Oatmeal
  - Popcorn
  - Corn nuts
  - Fig newtons
  - Cheese-its
  - Cereal
  - Honey Bun
  - Rice cake

- **Fruit & Veg**
  - Baby carrots
  - Veggies & hummus
  - Applesauce
  - Oranges
  - Apples
  - Bananas
  - Berries

- **Fast Sugars**
  - Banana
  - Fruit Snacks
  - Candy bar
  - Sports drink
  - Honey
  - Sweets

Protein & Fats

- **Protein**
  - Jerky
  - Tuna pouch
  - Boiled eggs
  - String cheese
  - Greek yogurt
  - Protein bar
  - Protein powder
  - Protein shake
  - Dried peas
  - Dried chickpeas

- **Fats**
  - Nuts
  - Nut butter
  - Trail mix
  - Hummus
  - Avocado
  - Oil

Hydration

- Water
- Drink enhancers
- Gatorade
- Tea

Textures

- Crunchy
- Chewy
- Creamy
- Firm

Flavors

- Peanut butter
- Chocolate
- Cheese
- Fruity
- BBQ
- Spicy
- Cinnamon
- Garlic/Onion

Snacks **Before Training:**
- Starchy carbohydrate
- Pair snacks with a protein or fat
- Hydration

Snacks **During Training:**
- Fast sugars
- Gatorade after first hour of exercise

Snacks **Throughout the Day:**
- If your meals are lacking in any food group (proteins, veg, fruit) eat them as snacks.
Cramps, dizziness, injury, and loss of performance can all occur because of dehydration. **Athletes can generally stay hydrated if they follow a good routine:**

- Drinking fluids as soon as you wake up
- Drink fluids with each meal
- Drink fluids during class and/or during exercise is a good plan for most athletes
- Bringing a refillable water bottle with you during the day can be one of most important habits you follow.

**What counts as a fluid?** All beverages including water, milk, juice, tea, coffee, lemonade, and Gatorade count toward your total fluid intake. Alcohol does not.

**Monitor the color of your urine throughout the day.** It should be a light lemonade looking color. A dehydrated urine will be dark in color and smell strong. Inform your athletic trainer if you think you’re experiencing dehydration close to practice. Otherwise, increase your fluid intake if you notice you are dehydrated.

**Electrolytes come from food and help our muscles contract properly and prevent cramps.** Consuming a balanced diet, as described above, will provide most athletes with enough electrolytes. If you worry about electrolyte loss, then add an additional salty snack into your routine such as trail mix or pretzels.
Hydration

If you lose >2% of your body weight during practice, your performance is suffering due to dehydration.

<table>
<thead>
<tr>
<th>Athlete body weight</th>
<th>Excessive dehydration weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>120 lbs</td>
<td>&gt; 2.4 lbs lost in practice</td>
</tr>
<tr>
<td>180 lbs</td>
<td>&gt;3.6 lbs lost in practice</td>
</tr>
<tr>
<td>220 lbs</td>
<td>&gt;4.4 lbs lost in practice</td>
</tr>
</tbody>
</table>

Tip: Message us on your sports nutrition app if you need any help!

- Sip on fluids throughout the day and monitor urine color.
- Drink fluids anytime you eat a meal or snack.
- Hydrate immediately before and after practice.
- Gatorade is for sustaining activity. Use it during practice.

EXCELLENT SOURCES OF ELECTROLYTES
- Mixed nuts
- Salty foods
- Orange juice
- Fruit
- Dairy

HYDRATED
MILDLY DEHYDRATED
MODERATELY DEHYDRATED
MODERATELY HYDRATED
DEHYDRATED
SEVERELY DEHYDRATED
Nutrient timing (strategically eating before/during/after practice or competition) is an extra benefit you can squeeze out of your nutrition. An athlete who times nutrition correctly will perform better in practice and recover more quickly between training sessions.

Eating Before Practice
It depends on how much time you have between eating and training. If you have 3-4 hours before training, eat a full meal. Refer to the “in-season” performance plate for portions and choice guidance. Your food will be digested and ready to provide energy by the time you are ready. The largest portion of this meal will be from high carbohydrate foods to fuel your practice.

If you have 1-2 hours before training, and it’s been a while since your last meal, consider having a large snack. Include 1 high protein choice and lots of carbohydrates so that this meal is easily digested. A small sandwich with fruit and milk or yogurt is an excellent option here.
Eating Before Practice

If you’re still hungry or have less than an hour before training, seek out a small snack consisting of carbohydrates with a dash of protein or fat. The following choices are good options for fast-digesting snacks:

- Granola bar
- Peanut butter crackers
- Fruit and sting cheese
- Small bowl of cereal
- Pretzels and peanut butter

You may also choose to have caffeine as a pre-training boost. There are a lot of considerations to take with caffeine use. Here are a few:

- Avoid consuming >200mg caffeine in one serving. Many caffeine drinks contain much higher amounts than this.
- Caffeine can become addicting if you consume it regularly more than once a day.
- Caffeine works well for some athletes and not for others.

If you want to use caffeine before a game or competition, it is a good idea to make sure you use it before practice consistently, so you are used to performing with it.

In summary, whether you can eat 3 hours before, or only 30 minutes before training, the goal is to arrive at practice with good energy and no distractions from hunger while not feeling overly full. The “perfect meal” is a different food combination and portion for everyone, so the best advice is to keep trying combinations until you find your magic formula.
Eating During Practice

Should you eat during training? If your practice lasts longer than 1 hour, then yes—you could benefit from having a snack.

When you are exercising hard, your body has about an hour of stored energy until you start to feel the effects of depletion. You can replenish this energy by having a high carbohydrate, sugary snack after the first hour of training.

For every hour after the first, your body will need 30-45 grams of carbohydrate to sustain peak energy. A 12 oz Gatorade only has 20g of carbohydrate so adding a piece of fruit or cracker pack are good choices. Look at the next page for a snack menu of a hard, 3-hour practice:
Eating for Recovery After Practice

The sooner you start recovery with nutrition, the sooner you will be ready to train again. Eating immediately after practice helps start the muscle building process as well as decreases soreness. After training or practice you will find yourself in 1 of 2 situations:

1. You are about to go eat a full meal
2. It will be a couple hours before you eat a full meal.

If you are going to eat a full meal, then you don’t need to do anything different with your nutrition outside of eating a balanced plate. If it is going to be a couple hours before you eat, you will need a special snack to get your recovery started. This special snack should be comprised of a high protein food plus a high carbohydrate food and eaten as quickly as possible post-practice.
If you want to be specific, get at least 20g of protein and 30g of carbohydrate in your post-training snack. Here are some convenient snack options:

<table>
<thead>
<tr>
<th>Protein</th>
<th>Carbohydrate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Glass of Milk</td>
<td>Banana</td>
</tr>
<tr>
<td>Whey protein scoop</td>
<td>PB&amp;J sandwich</td>
</tr>
<tr>
<td>Bag of beef jerky</td>
<td>Pack of crackers</td>
</tr>
<tr>
<td>3 boiled eggs</td>
<td>Granola bar</td>
</tr>
<tr>
<td>Greek yogurt cup</td>
<td>Trail mix pack</td>
</tr>
</tbody>
</table>

**Protein Shakes**

Are protein shakes and smoothies essential for building muscle? No, but they are a convenient way to deliver a lot of nutrition in one snack. A protein shake can be a great post-training option.

**Whey protein**: Boost up protein. Look for something that has at least 20g protein and less than 3g of fat or carbs per serving. Must be “informed choices” or “NSF” certified (says on container). I recommend Optimum Nutrition Brand Whey, but you can use anything that is certified.

**Blender**: You’ll need a good blender to make these shakes. You can get a reliable blender for $25.

**Milk**: Choose the type of milk based on your needs and goals. Low fat, almond, soy, or coconut milk are all great substitutes.
Here’s a list of protein shake recipe favorites:

<table>
<thead>
<tr>
<th>Recipe</th>
<th>Ingredients</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Breakfast Coffee Shake</strong></td>
<td>1 C cold coffee 1 C milk 1 ½ scoops chocolate or vanilla protein Optional- ½ C ice cubes</td>
</tr>
<tr>
<td><strong>Soy Almond Shake</strong></td>
<td>1 C soy milk 1 scoop whey protein 1 TBSP slivered almonds 1 TBSP maple syrup 3 drops vanilla extract ¼ C vanilla Greek yogurt</td>
</tr>
<tr>
<td><strong>Peppermint Oatmeal Shake</strong></td>
<td>1 ½ scoops chocolate protein 1 C sugar free vanilla ice cream ½ C dry oatmeal 1 C milk ½ C raisins ¼ C slivered almonds 1 TBSP peanut butter</td>
</tr>
<tr>
<td><strong>Iced Breakfast Shake</strong></td>
<td>1 C milk 1 scoop whey protein 1 banana 1 TBSP peanut butter 1 handful ice ½ package instant-breakfast</td>
</tr>
<tr>
<td><strong>Cinnamon Roll Shake</strong></td>
<td>1 ½ scoops vanilla protein 1 TBSP sugar-free instant vanilla pudding Dash of cinnamon 3 drops vanilla extract 1 C milk 1 handful ice</td>
</tr>
<tr>
<td><strong>Almond Blast Shake</strong></td>
<td>1 ½ scoops vanilla whey protein 1 ½ C milk ½ C dry oatmeal ½ C raisins ¼ C slivered almonds 1 TBSP peanut butter</td>
</tr>
<tr>
<td><strong>Wild Berry Banana Shake</strong></td>
<td>1 ½ scoops whey protein ½ banana ¾ C frozen mixed berries ¼ C vanilla Greek yogurt 1 ½ C milk</td>
</tr>
<tr>
<td><strong>Strawberry Cheesecake Shake</strong></td>
<td>1 C milk 8 frozen strawberries ¼ C sour cream 1 scoop vanilla or strawberry protein</td>
</tr>
<tr>
<td><strong>Blueberry Dream Shake</strong></td>
<td>1 scoop protein 1 C milk ½ C frozen blueberries 2 tsp flaxseed oil</td>
</tr>
<tr>
<td><strong>Oreo Shake</strong></td>
<td>1 ½ C milk 3 Oreo cookies 1 handful ice 1 ½ scoop chocolate protein</td>
</tr>
<tr>
<td><strong>Peanut Buttercup Shake</strong></td>
<td>1 C milk 1 pasteurized egg white 1 TBSP peanut butter 1 ½ scoop chocolate whey 1/8 C sugar-free hazelnut coffee creamer</td>
</tr>
<tr>
<td><strong>Summer Peach Shake</strong></td>
<td>1 C milk 1 TBSP flaxseed oil 1 handful frozen peaches 1 handful frozen strawberries 1 scoop protein</td>
</tr>
</tbody>
</table>
**Gamecock Olympic Sports Nutrition**

**Competition Day Nutrition**

Now is not the time to be experimenting. Choose options that you have always tolerated before practice. No new foods, amounts, supplements, combinations of foods, brands, etc. **Keep it simple. Keep it familiar. If it worked in practice, it would work in a game.**

The objective of a pregame meal is simple: **Eat the same balanced meal portions you would normally have 3-4 hours before practice.** Half a plate of carbohydrates and ¼ protein and ¼ vegetables is the same formula here too.

Food choices should be:
- Familiar and well-tolerated
- Tasty
- Proven to work in practice
- Comprise of mostly carbs and protein with a moderate amount of fat
- Low in fiber
- Drink plenty of fluid — no caffeine

**Pregame Meal Examples**

Choose 1 from each section

<table>
<thead>
<tr>
<th>Protein</th>
<th>Carbohydrate</th>
<th>Plant</th>
<th>Side</th>
<th>Fluid</th>
</tr>
</thead>
<tbody>
<tr>
<td>Baked Chicken</td>
<td>Rice</td>
<td>Green Beans</td>
<td>Dinner Roll, Cookie, Yogurt,</td>
<td>Water, Tea, 2% Milk, Juice,</td>
</tr>
<tr>
<td>Grilled Lean Steak</td>
<td>Baked Potato</td>
<td>Side Salad</td>
<td>Yogurt, Pudding, Fruit,</td>
<td>Propel, Gatorade, Lemonade</td>
</tr>
<tr>
<td>Grilled Lean Pork Chop</td>
<td>Pasta</td>
<td>Steamed Carrots</td>
<td>Chips, Small sweet, Roll</td>
<td></td>
</tr>
<tr>
<td>Baked Fish</td>
<td>Roll</td>
<td>Diced Fruit</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lunch Meat</td>
<td>Bread</td>
<td>Tomatoes and lettuce</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lean Ground Beef</td>
<td>Tortilla and rice</td>
<td>Peppers and onions</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Vegetarian Protein</td>
<td>Sweet Potato</td>
<td>Okra</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Eggs</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Weight and Body Composition

Your nutrition should be approached in 3 steps. Step 1 is eating balanced meals and snacks. Step 2 is eating at the right times to fuel the demand of sport. Step 3 is using nutrition to improve or maintain your body composition for your sport. You will get a lot more out of this section if you are already working on eating more balanced meals and at the right times.

Nutrition Periodization

Nutrition “Periodization” is a long-term strategy that matches your food intake with your training demands over different periods of the training season. There are certain times of year where your training is more effective at building muscle, maintaining weight, or losing fat. In summary, an athlete who sets and reaches nutrition goals to match the phases of their training season will continue to physically improve year after year.

<table>
<thead>
<tr>
<th>Time</th>
<th>Focus</th>
<th>Reason</th>
</tr>
</thead>
<tbody>
<tr>
<td>Off-season</td>
<td>Building muscle and improving body composition.</td>
<td>Off season is a time for physical self-development. You will be lifting weights more during off-season than any other time of year.</td>
</tr>
<tr>
<td>Pre-Season</td>
<td>Taper down your off-season goal by slowing down your weight gain or loss.</td>
<td>you will be transitioning into more sport-specific training and your ability to lose fat or build muscle is less than in off-season.</td>
</tr>
<tr>
<td>Competition Season</td>
<td>Maintain your weight and muscle throughout the season.</td>
<td>At this point, weight loss will slow recovery and increase risk of injury. Muscle building is also inappropriate because you will not be lifting weights frequently enough to change.</td>
</tr>
</tbody>
</table>

Over time, nutrition will affect your body size and composition. Assessing your body and setting a sports nutrition goal can be tricky. Many athletes struggle with wanting to reach both their sports performance goals (becoming stronger and faster) while trying to simultaneously reach their physical appearance goals (looking and feeling a certain way). At some point you need to ask yourself, “Am I training for performance or for the way I look?” I strongly recommend you discuss your goals with your strength coach and dietitian. We can develop a personalized plan just for you and help coach you to your goal.

Muscle Gain Guidelines
1. Meet with your strength coach and/or dietitian to set a goal and outline your plan
2. The fastest rate you can gain weight without building excess body fat is 1% of your body weight per week.
   a. Example an athlete who weights 130 lbs can gain 1.3 lbs per week. A 200 lb athlete can gain 2 lbs. per week of mostly pure muscle.
3. Continue to lift weights at least 4x per week
4. Eat an extra 300-500 calories more than you typically eat
   a. Bigger portions, more snacks, or more calorie dense foods will help you eat more calories
5. Check in - if you are gaining the right amount of weight every week and getting stronger in the weight room, then you are on track.

Fat Loss Guidelines
1. Meet with your strength coach and/or dietitian to set a goal and outline your plan
2. The fastest rate you can lose weight without losing muscle mass is 1% of your body weight per week.
   a. Example an athlete who weights 130 lbs can lose 1.3 lbs per week. A 200 lb athlete can lose 2 lbs per week.
3. Continue to lift weights at least 3x per week
4. Reduce your food intake about 300-500 calories from what you typically eat
   a. Smaller portions, less snacks, or less calorie dense foods will help you consume less while staying full.
5. Check in - if you are losing the right amount of weight every week and maintaining your ability in the weight room, then you are on track.
Sports are sometimes stressful. There’s intense pressure to perform and a lot of focus on the body. Some athletes are so focused on their self-image that feelings of inadequacy, anxiety, and stress start to take over their relationship with food. Food should be a source of energy and recovery, but for some it becomes a source of stress and guilt.

It's important to have a healthy relationship with food and your body so that you can thrive as an athlete. Stress about nutrients and restricting food will result in loss of muscle, increased risk of injury, and other health issues if the demands of sport continue to be underfed. Shin splints, stress fractures, and connective tissue injury are common in the chronically underfed athlete.

If you feel anxiety about your body and nutrition, please talk to our mental performance team. At USC our counselors work with athletes to help them overcome their disordered eating while simultaneously helping them reach their performance goals. There is a QR code you can scan at the end of this section to schedule an appointment with them. I strongly encourage you to do so!
Here is a brief quiz you can take. An average score >3 indicates you could be at risk of developing an eating disorder:

Does your weight, shape, or body composition affect the way you feel about yourself?

Are you dissatisfied with your weight, shape, or body composition?

Do you worry that your weight, shape, or body composition will change if you cannot exercise?

Do you want to be leaner even if others may think you are already lean?

Do you worry about losing control over your eating because of how it may affect your weight, shape, or body composition?

Do you try to avoid certain foods to influence your weight, shape, or body composition?

(Adapted from Hazzard’s EDSA 2020)

If you feel like you struggle with your body image and eating, please schedule an appointment to work with our mental performance team. Scan this QR code for a direct link for counseling:
Would a body composition (body fat %) test tell me if I need to gain or lose weight?

No, there is no “correct” body composition percentage for every athlete. Each person is different, and your body composition will fluctuate as you focus on different components of your training throughout the year.

I used to weigh less before I came to USC. Should I drop the weight that I’ve gained?

It depends. This is a discussion to have with your strength coach or dietitian. Keep in mind that you are young, and your body is still developing. No one arrives in collegiate athletics with 100% of their physical ability already achieved. You will be lifting weights and building muscle so expect your body to change.

Does having a 6 pack (visible ab muscles) make me more athletic?

Succeeding in sports is about improving performance. Looking a certain way does not indicate athletic ability.