

# Survival of the Fittest

## Nutrient Timing Nutrient Timing

### Nutrition habits of competitors

1. Energy Balance throughout the day, no skipping meals. Eat to fuel your workouts.
2. Eat a variety of foods with 60-65% of your calories from carbohydrates.
3. Knows pre-activity needs for your body and plan for it.
4. Plan for access to desirable snacks throughout the day.
5. Hydration is a concern all day long, not just during your event.
6. Be able to have moderation without deprivation- you can eat some dessert or fried foods without overeating them.
7. Plan ahead so you know what you want your fuel plan to look like!

### Pre-game or pre-practice

- Eat with timing that your stomach is comfortable, no cramps
- High carbohydrate meals and foods will help top off your muscle energy stores
- High fat foods will slow the food from getting out of the stomach and this is a disadvantage
- High fluid foods and enough to drink are important to hydration
- Consider using a sports drink if your activity or practice lasts longer than 60 minutes

### Post-game or post-practice

- Your body can replace muscle fuel at a faster rate within ~45 minutes of exercise so eat right after you finish. This is especially true if you are in two-a-days and when you don't have 24 hours to recover
- You want a high carb meal or snack with some good quality protein. High protein is not more beneficial than the right amount of protein.
- Helping the muscle recover will bolster your next workout.
- Remember to rehydrate!




Get enough sleep  
Eat right  
Practice with focus

Can a sports drink help?

### Hydration TIPS

- Drink plenty of fluids before exercise and throughout the day
- Drink fluids often if exercise lasts more than 40 minutes
- Sports drinks (like Gatorade) are best for fluid replacement if you sweat a lot
- Focus on getting plenty of fluids after exercise and include fresh fruits for great rehydration

### A Comparison Among Popular Sports Drinks

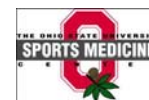
			
Desirable	Gatorade	Powerade	All-Sport
6-7% carbohydrate	6%	8%	7%
14-17 g. carbohydrate	14 g	19 g	16 g
50-60 calories	50	70	60
Type of carbohydrates	Sucrose syrup, Glucose-fructose syrup	High fructose corn syrup, Maltodextrins	High fructose corn syrup
At least 70 mg. sodium	110	55	55
At least 28 mg. potassium	30	30	50
No carbonation	No	No	No
No caffeine	No	No	No

### Key Ingredients in a Sports Drink

1. **Carbohydrates:** Main fuel for energy that the body utilizes; in a combination of sugars such as glucose, sucrose, fructose and maltodextrins.
2. **Electrolytes:** Sodium and Potassium are the main and most important two lost in sweat and need to be replenished.
3. **Taste:** Good taste might help you drink enough to stay hydrated!



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# Home for the Holidays ?



## Party Survival

Holidays are an important time to catch up with family and friends, and food and drinks are part of the celebrations.

Here are a few tips to survive the foods and drinks of Holiday parties:

- Remember that many drinks, like eggnog, wine, cider, have calories in them so overindulging will add more calories to your day.
- It is easy to eat a lot of calories and high fat foods in appetizers. Be sure to include some brightly colored fruit and vegetables and fewer of the meat or cream sauce appetizers.
- If you are concerned about eating too much at the party, eat a small amount of healthy food before you go if it helps curb your hunger.
- Always use a small plate and only take a few things. You are less likely to eat as much if you have to go back and back.
- Just because food is free does not mean you have to eat it.



## What is in your favorite....

Drinks	Calories
eggnog- 8 ounces	300
with a shot of rum	400
apple cider- 8 ounces	120
red wine- 5 ounces	120
amaretto sour- about 4.5 oz.	300
white russian 6.5 ounces	320

Appetizers	Cals
4 crackers with 1 tsp each artichoke dip	180
Pig in a blanket- small weiner in bread	150-200
Swedish meatballs- 2 ounces	100
Ranch dip- 2 teaspoons	20-30

Meal items	Calories
broiled steak- 10 ounces	870
scalloped potatoes- 1 cup	210
sweet potato casserole- 1 cup	280
alfredo sauce- 1/2 cup	220
turkey gravy added to foods- 1/2 cup	60

## The BIG Meals

Overeating at one or two meals is not going to ruin your athletic plan. It is consistent overeating that makes January harder. Making sure to include time for exercise will help you offset some of the calories.

It is not usually the foods we choose that make us fatter, it is the amount we choose to eat. Have a bite or two of your favorites and enjoy them!

Saving up all day to eat the big meal is not in your best interest. Don't let yourself get too hungry to make good decisions. Eating every 3-4 hours will likely help your metabolism.

Planning to diet as a New Year's resolution encourages you to eat with less responsibility. *Eat and drink responsibly!*

We are glad to help you plan!

Desserts	Cals
pumpkin pie slice (1/8th of 10" pie)	310
apple pie (1/8th of 10" pie)	350
with 1 scoop ice cream	480
turtle cheesecake (1/14th of 9" round)	300



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# Wintering Well Wish List

## Nutrition nuggets for the best Health

- Eat a variety of fresh fruits and vegetables.** They are full of vitamins and minerals that support good health and strong immune systems.
- Eat to keep up with your activity level.** Chronic under-eating is likely to depress your immune system and lead to the signs of overtraining.
- Get enough protein to support your lean mass, healing and strength.** But remember it is also easy to overeat protein and miss out on some of the carbs that help fuel your muscles.



## Your Daily Nutrient Timing

- Eat breakfast within half hour of getting out of bed.** Research shows that folks who eat breakfast perform better academically and maintain weight better.
- Eat every 2-4 hours depending on your goals.** If you are trying to lose weight, eating something small every 3-4 hours can help keep your metabolism stimulated and keep you from getting too hungry to make good food decisions. If you are trying to gain weight, eating more generously every few hours will help you get the extra calories you need to support gaining lean mass.
- Include some protein and carbohydrate in each snack.** Carbs keep you fueled while protein supports your muscle mass and curbs your appetite.
- Pre-practice snack should be high in carbohydrate.** Putting some fuel in the tank before a long trip (or trip of unknown length) is a good idea. This tops off your energy levels. Fat or protein in this snack will slow the food from leaving your stomach so you decide what is most comfortable and what works.
- Post practice snack should be eaten within 30-45 minutes of coming off the court/field.** This snack should have good carbohydrate (40-60 grams) and a little good quality protein (10-15 grams from animal source).
- Meals around this schedule should help you with eating every 2-4 hours.** Lunch and Dinner timing should come with what helps you feel your best throughout the day. When we fail to plan for our meals, we have a hard time making good decisions about what to eat!

## Keep your body goals reasonable

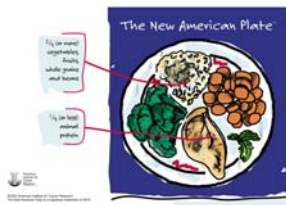
- It is tempting to set a goal to lose weight with the new year.** Have your body fat tested in the Cunz Hall laboratory and invite your athletic trainer, team physician, dietitian and strength coach to help you strategize about healthy goals given your current body.
- Few people are happy with their body like it is, but trying to make unrealistic changes can be unhealthy and self-defeating.** Reasonable goals take into consideration things like your timing to sport season, how fast or slow you plan to lose or gain, your genetic make up, metabolic rate, and past history of this goal.
- It is not reasonable or effective to lose or gain weight faster than 1-2 pounds per week.** Research shows that the slower a person loses weight, the more likely they are to maintain the weight loss. The same is likely true about weight gain.



## What is your plan?

- Avoid the between class urge to buy a candy bar from the vending machine by carrying a snack in your book bag or coat.** Try a small Ziplock bag with some dry cereal you like with some almonds mixed in or carry a snack bar such as a PowerBar.
- Buy great foods to help you train while grocery shopping.** Make a list of the foods you know you should get and stick to it.
- Avoid the evening hunger craze after practice by mapping out the menus for the week.** Planning for leftovers can help your hurried schedule.
- Make your eating a priority in your training plan!**

## Food Choices



This sort of plate selection is suggested by the American Institute for Cancer Research to help prevent cancer. No doubt the whole grains and vegetables will help prevent many diseases. We think these sorts of choices also improve performance!

## Choose Healthy

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# The Power of Protein

## Likely The Most Respected Nutrient by Athletes

**Fact:** Protein is critical for body maintenance, muscle repair and muscle growth.

**Fiction:** Eating primarily protein in the diet will help lose body weight and improve muscle performance.

Research still shows that the muscle requires carbohydrate for storage of fuel for performance. Diets low in carbohydrate (because they are too high in protein) will likely hurt performance and muscle recovery!



**Respect your carbohydrates too! You need them.**

## What are the limits?



Athletes likely do need more protein than non-athletes but for this nutrient, "enough is enough".

The highest amount of protein shown in studies to be useful to the body is 1.8 g/kg which is less than 1 gram per pound of body weight.

Eating more than 1 gram protein per pound of body weight will likely leave you without enough carbohydrate to perform well.

Athletes in serious strength training or in weight loss programs can justify using the 1.8 g/kg, but other athletes may not need as much depending on sport and training phase.

Your team dietitian would be glad to help you understand more about protein!



## What are the best food sources?

**Shortcut: An ounce of meat or fish has approximately 7 grams of protein.**

### Beef

Hamburger patty, 4 oz – 28 grams protein  
Steak, 6 oz – 42 grams

### Chicken

Chicken breast, 3.5 oz - 30 grams protein

### Fish

Most fish filets, 3.5 oz.- 22 grams of protein  
Tuna, 6 oz can - 40 grams of protein

### Pork

Pork chop, 3.5 oz. - 22 grams protein  
Pork loin or tenderloin, 4 oz – 29 grams  
Ham, 3 oz serving – 19 grams

### Eggs/Dairy

Egg, large - 6 grams protein  
Milk, 1 cup - 8 grams  
Cottage cheese, ½ cup - 15 grams  
Yogurt, 1 cup – usually 8-12 grams, check label  
Soft cheeses (Mozzarella, Brie, Camembert) – 6 grams per oz  
Medium cheeses (Cheddar, Swiss) – 7 or 8 grams per oz  
Hard cheeses (Parmesan) – 10 grams per oz

### Beans

Most beans (black, pinto, lentils, etc) ~ 7-10 grams protein per ½ cup cooked

### Nuts/Seeds

Peanut butter, 2 Tablespoons - 8 grams protein  
Almonds, ¼ cup – 8 grams  
Peanuts, ¼ cup – 9 grams  
Flax seeds – ¼ cup – 8 grams



## How do supplements add to that?

It is hard to know the quality of protein and other ingredients in supplements, and as the consumer, be aware these are not regulated.

Look for one of these stamps to know the product has been quality tested.

Using an energy bar for recovery after your workout is better than not eating and a small amount of protein with high carbohydrate is desirable for recovery.

Most athletes can get plenty of good quality protein from foods which means you could be saving the money you spend on your protein supplement!



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