Tiger Nutrition: High Performance Nutrition for Competitive Athletes



Princeton University

Sports Nutrition Handbook
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High Performance Nutrition 101

Sports nutrition plays an integral role in promoting athletic success by helping athletes optimally fuel themselves which maximizes training and conditioning.

You Can't Out-train a Bad Diet!

Athletes have unique needs that exceed those of non-athletes. High training volumes, demanding competitions, frequent travel, and the need for rest and recovery make optimal fueling critical. The Princeton Sports Nutrition Department and Strength and Conditioning Department have a strong food first philosophy that emphasizes high quality nutrition and whole foods. We also believe that without proper nutrition, your ability to optimize strength, speed, and endurance will be reduced.

PLEASE NOTE: Every athlete has unique needs for their body and sport. Individualized approaches are best. Use this handbook as a guide, but for fine tuning your nutrition program; see the Sport RD at University Health Services.

Optimal Fuel

Carbohydrates

Carbohydrate is <u>every</u> athlete's primary source of energy. All athletes need and use more carbohydrate than their non-athlete peers. The only difference between athletes is how much and that depends on your size and your sport. Unfortunately, many athletes don't get enough, or they get too much from poor quality sources. There are several things every athlete should know about carbohydrates:

- 1. CARBOHYDRATE SPARES MUSCLE PROTEIN: Skeletal muscle, red blood cells, and brain tissue prefer to use carbohydrate over fat and protein for energy. By having enough carbohydrate available for use by muscle tissue, protein is free to do its main job, which is to repair and rebuild muscle tissue.
- 2. CARBOHYDRATE IS STORED FOR LATER USE: Carbohydrate is stored in the muscles and liver as glycogen which can be converted back into glucose when you need it. Endurance training, back to back competitions, and heavy resistance training all rely on glucose to fuel hard-working muscles. High quality carbohydrates should **not to be confused with junk food, sugar, and alcohol.**
- 3. CALORIES FROM CARBOHYDRATE ARE REQIRED TO BUILD MUSCLE: Building muscle requires an intense, rigorous strength-training program. A tremendous amount of ENERGY is required to fuel this type of exercise. A carbohydrate-rich diet allows for the greatest RECOVERY of muscle glycogen stores while PREVENTING muscle protein breakdown on a daily basis. This ongoing replenishment allows your muscles to work equally hard on successive days.
- 4. TO USE FAT AS FUEL, YOUR BODY NEEDS CARBOHYDRATE: Your body uses fat for energy in a series of complex chemical reactions that take place inside each cell. Unless enough carbohydrate is available in key stages of these energy-producing process, fat is less accessible.

- 5. CARBOHARDRATE EFFECTS MOOD AND CONCENTRATION: Diets low in carbohydrate impair concentration and focus seriously effecting performance. It can also cause anxiousness, irritability, and symptoms of depressed mood.
- 6. ADEQUATE CARBOHYDRATE INTAKE SUPPORTS HEALTHY IMMUNE FUNCTION: Getting sick all the time? Maybe you are under-eating. Physical performance and immunity are better maintained with a carbohydrate rich diet versus a lower carbohydrate diet.

Choose	Lose
Kidney beans, lentils, garbanzo beans*	Candy bars, candy, and snack chips
Fresh fruit and vegetables	Soda, fruit and vegetable "drinks"
Oatmeal and cheerios	Sugary and processed cereals
100% whole wheat breads and wraps	White breads and sugary pastries
Quinoa*, brown rice, sweet potato	French fries and onion rings

^{*}also a very good protein source

<u>THE BOTTOM LINE</u>: The more OPTIMAL the carbohydrate intake \rightarrow the more fuel is available for use \rightarrow the more muscle glycogen is spared \rightarrow the harder you're able to train \rightarrow the more lean body mass and strength you can build \rightarrow the BETTER you will PERFORM!

Protein

Protein is essential for repairing and building muscle! Athletes do have higher protein needs than non-athletes. While many athletes tend to consume ample amounts of protein to meet their daily needs, there are just as many who by virtue of skipping meals or under-eating in general, do not get enough.

- 1. PROTEIN NEEDS: Typical needs are roughly 75% of your body weight. One gram per pound is the maximum that can be put to use toward protein synthesis. Eating more than this contributes to total calories for the day, but not to further muscle building or tissue repair.
- 2. PROTEIN PLUS A CARB: Consuming protein with carbohydrates and a small dose of fat, results in better gains in lean muscle mass. Examples: Chocolate milk, regular yogurt, hard-boiled egg and fruit, Greek yogurt and banana, peanut butter and jelly sandwich.
- 3. ANIMAL PROTEINS: Vegetarians can meet their daily protein needs without supplements; however, animal sources of protein contribute to superior gains in mass and strength over plant sources. Very lean meats are quite nutritious and when prepared properly, can be low in saturated fat. Dairy proteins such as Greek yogurt, milk, and eggs work equally well.
- 4. TIME IT RIGHT: Muscle protein synthesis is maximized by consuming protein very near to the strength training session making it ESSENTIAL that athletes provide their body with protein **before** and after a lift!
- 5. REAL FOOD: So far, there is nothing better than whole foods at providing the body with the protein it needs to adapt to hard training. In addition to protein, whole food sources supply many other nutrients the body needs to recover!

Choose	Lose
Lean burgers/beef, pork chops/tenderloins	Cheese steaks and pepperoni/sausage pizza
Grilled chicken, grilled/broiled fish	Chicken tenders
Whole eggs and egg whites	Excess bacon and sausage
Tofu, veggie burgers, tempeh, nuts/nut butter	High-fat cheese, processed meat substitutes
Greek yogurt, 2% milk, cottage cheese, hummus*	High sugar content yogurts
Lean deli ham, turkey, tuna salad	Italian hoagies, buffalo chicken wraps

^{*}Good source of carbohydrate and protein

<u>THE BOTTOM LINE</u>: Normal patterns of regular eating will meet daily needs if you do not skip meals or under-eat → choosing high biological value proteins from animal sources appears ideal →eating a little bit of protein before and after hard lifts (with carbohydrate) enhances protein synthesis, but only when total protein and calorie needs are being met.

Fat

High quality sources of dietary fat are essential in a performance based diet. Unsaturated fatty acids found in plants and cold-water fish play a strong role in promoting heart health and brain health, and have been implicated in **reducing muscular pain and inflammation**. Unsaturated fats may also be associated with improved body composition.

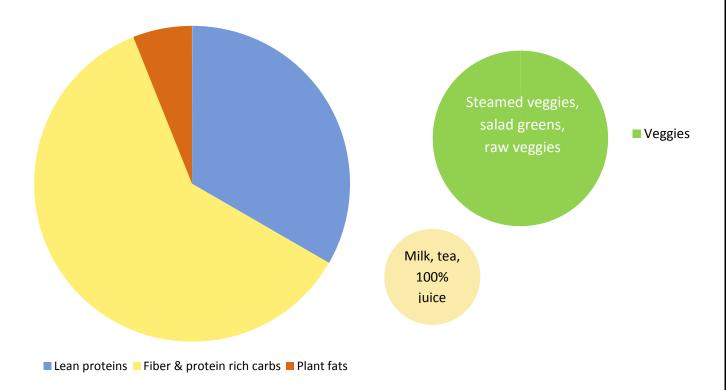
- 1. Prioritize plant based fats such as avocado, almonds, walnuts, sunflower seeds, olive oil, and peanut butter. Choose tuna and salmon frequently.
- 2. The benefits of unsaturated fats can be gained from small portions. Added fats such as those listed above can be consumed more or less based on total calorie needs. If you need to gain weight, all food types can be increased including good fats. If you need to lose a little weight, reduce added fats in your diet.
- 3. Fat and saturated fat provide essential nutrients for maintaining healthy hormone levels and are therefore necessary, but it can be a challenge to balance energy intake without reducing fat intake. If you need help with achieving an optimal weight for you, or you have questions about how much fat to eat in a performance diet, please see the Sports RD.

Choose	Lose
Nuts and nut butters (Almonds and Walnuts)	Candy bars
Sunflower and pumpkin seeds	Potato chips and high-fat snacks
Olive oil and plant oils	Ranch dressing
Salmon and tuna	Fried foods
Avocado	High-fat cheeses and sandwich spreads

THE BOTTOM LINE: Include a plant-based fat at each meal \rightarrow 2-3 tablespoons is generally enough, more if you need to put on weight \rightarrow don't overly limit fats, they provide essential nutrients for your brain, heart, and muscle.

Building a High Performance Meal

Use this simple visual to confirm that your meals are balanced and nutritious.



- Not everyone's plate will look exactly the same. AVOID comparing and get what your body needs. Play your game, not someone else's.
- Every meal should include high quality protein, nutritious carbohydrates, plenty of vegetables, added plant fats, and ample fluids.
- If you have special needs, allergies, religious preferences, see the Sports RD for guidance.

Eat to Compete!

Are All Carbohydrates Created Equal?

NO! Some are clearly more nutritious than others and athletes realize this. Yet when it comes to fueling sport, there is still a lot of confusion about how much carbohydrate to eat and what types of carbohydrate to include on a daily basis.

- Some athletes restrict their intake of foods that fuel performance because they think they are unhealthy or will cause an increase in body-fat.
 - The OCCASSIONAL fun meal should be enjoyable and is a sign of normal eating and accompanies everyday life. Over-eating causes fat storage, not carbohydrate alone.
- On the other hand, excess junk food and drinking too much are major causes of over-eating.
 - So next time you blame carbs for increasing body fat, make sure your blaming the sweet cereal, French fries, hoagies, chips, and alcohol frequently consumed on campus, not the quinoa, oatmeal, kidney beans, and sweet potatoes.

Things to Consider When Determining Daily Needs:

- Counting calories is tedious and not ideal for busy college athletes.
- If you are weight stable, a more realistic approach is to add or reduce food choices by about 500 calories per day to promote a gradual gain or loss.
 - o Prioritize making weight changes in the off-season.
 - Avoid excess weight gain after injuries or in the off-season by paying attention to good nutrition.
- Make sure you need to change your body weight in the first place by discussing it with your Strength Coach or Sports RD.
 - Optimizing body composition is more important than changing weight alone. Power and speed are influenced by how much of your body is comprised of muscle versus how much you weigh.
- Improving your body composition profile while maintaining weight, or losing weight, requires consistency and effort over time. Making changes requires hard work and patience.
 - If you pay attention to what you are eating, and work hard in the weight room, you will see a difference!
- Schedule an appointment with the Sports RD to have your body composition measured before making changes.
- If you want help determining your daily needs, see the Sports RD.



Habits for Optimal Performance

Check the following:	Yes	Rarely	No
Eat breakfast everyday- as soon as possible after I wake up			
Plan meals and snacks so I eat every 3–4 hours during the day to properly fuel my body			
Eat high quality carbohydrates and protein 3-4 hours before practice to fuel my muscles ahead of time, have a protein snack on my way to lifts.			
Maximize recovery nutrition after intense workouts by eating or drinking within 30 minutes of completing exercise			
Balance my plate at meals with 1/3 protein (meat, beans, eggs, fish, cottage cheese, tofu) and 2/3 carbohydrates (whole grains, fruits, vegetables, milk, yogurt) plus good fats			
Include "good fats" in my diet that may help with recovery including nuts, seeds, avocado, nut butters, canola and olive oil, and oil-based dressings			
Eat or drink at least 3 high-calcium sources a day (1 cup of milk, 1 cup of yogurt, 1 slice of cheese, 1 cup of calciumfortified orange juice)			
Eat at least 2 servings of fruit and 3 cups of vegetables a day to boost the nutrient density and antioxidant content of my diet			
Stay well-hydrated by drinking fluids throughout the day and at least 8 ounces for every 15 minutes of hard exercise			
Make smart beverage choices a majority of the time- water, 100% fruit juice, unsweetened and herbal teas, 2% milk			
Consume alcohol modestly or not at all (1 drink per day for women, 2 drinks per day for men)			
Use additional supplements wisely making sure they are needed, backed by solid research, and contain no banned substances			
Prioritize sleep so my body has a chance to recover and repair on a consistent basis- at least 7-8 hours per night			
Consider nutrition to be an integral component of my training program			

If a majority of your answers are "Rarely" or "No" you need an overhaul!

Quality Nutrition

Some foods deliver more critical building blocks than others. Making a few small changes to your regular food choices can do wonders for how your body adapts to the rigors of training and competition.

1. TOMATO SAUCE vs. CREAM SAUCE

Like salsa, tomato sauce is rich in nutrients and much lower in fat than cream-based sauces, like Alfredo or vodka sauce.

2. BAKED SWEET POTATO vs. MASHED POTATOES Sweet Potatoes are rich in Vitamins A & C, and fiber!



3. OLIVE OIL & VINEGAR vs. CREAMY DRESSINGS

Plant oils like olive oil are rich in healthy fats compared to the high saturated fat content of dressings like Caesar, bleu cheese and ranch.

4. PROTEIN PLUS A CARB vs. CARB ONLY SNACK

Snacks should be balanced just like meals and include a good carb plus a protein and fat: yogurt + nuts, peanut butter + apple, low-fat cottage cheese + fruit, tuna + crackers.

5. OATMEAL AND CHEERIOS vs. SUGARY PROCESSED CEREALS

By choosing whole grain cereals like shredded wheat or oatmeal, you are getting many minerals (i.e. magnesium, selenium, and copper) that are SERIOUSLY lacking in many refined breakfast cereals.

6. MILK vs. SPORTS DRINKS AT MEALS

Milk is a significant source of protein, calcium, and Vitamin D. Sports drinks should be used during hard training and in the heat, they do not provide nutrition the body needs during meals.

7. WHOLE FRUIT vs. FRUIT JUICE

You miss out on the fiber when you drink o.j. versus eating an orange......try to go for the real deal!

8. 3 COLORS vs. 1 COLOR

Boost your nutrient content with 3 different colored veggies at lunch and dinner (e.g. carrots, red peppers, spinach). Choose more broccoli, asparagus, green beans, spinach, mixed greens, romaine lettuce **vs.** cucumbers, iceberg lettuce, and celery.

9. BAKED OR GRILLED vs. FRIED OR BREADED

Foods that are fried will contain larger amount of saturated and Trans fat, which can be damaging to the body. Eating foods that are prepared grilled, baked or broiled are healthier options.

10. NUTS vs. CHIPS

Almonds, walnuts, and nut butters contain a wealth of nutrients (Vitamin E, magnesium, folate to name a few) and healthy fats that are anti-inflammatory, and great for your heart and brain.

Super Foods

Some foods can offer amazing nutrients that help the body combat stress, boost energy levels, improve recovery, and strengthen immunity. Try to incorporate a few of these **EXCEPTIONAL FOODS** every day with meals and snacks! All of these can be found in the dining hall, at the U-Store, or by taking the shuttle to Trader Joes and Wegmans.



Almonds Oats

Avocado Pumpkin Seeds

Beets Salmon

Black Beans Spinach

Blueberries Sweet Potatoes

Broccoli Sunflower Seeds

Dark Chocolate (1 oz) Tomatoes

Green Tea Walnuts

Lentils Yogurt



Hydration 101

Inadequate hydration can lead to an increased core body temperature, an increased heart rate, an increase in perception of effort and a decline in cognitive performance. Even small deficits may impair performance. As little as a 2-3% loss of body weight can equate to a 30-45% reduction in work capacity. Prior dehydration also impairs work capacity even in brief, high intensity exercise.



Depending on the climate, physiological differences, and the amount of clothing and equipment worn, fluid needs can vary greatly between athletes. It is therefore crucial, that each athlete know what their individual hydration needs are.

What's Your Rate?

To find out how much fluid you need during practice, complete the following under a variety of conditions:

- Step 1 Weigh yourself with only under-garments on before practice.
- Step 2 Track how much fluid you consume during practice and add to starting weight.
- Step 3 Weigh yourself after practice with only under-garments on and subtract from starting weight.
- Step 4 For every 1 lb lost, replace with 16-24 oz of fluid.

For example:

175 lbs (starting weight) + 16 oz (fluid consumed) – 171 lbs (ending weight) = 5 lb loss or 80 ounces.

This athlete lost 2.8% of their body weight during practice. The goal of adequate hydration is to minimize these losses by keeping them to less than 2% of body weight. To reduce the loss to 1.7%, the athlete in this example would need to consume at least 32 more ounces of fluid during practice in addition to the 16 ounces they already consumed.

Sports Drink or Water?

Sports drinks provide athletes **what they need, when they need it**. Not every athlete needs a sport drink in every situation, but a majority of athletes will benefit from using sports drinks over plain water at some point during their season. Sports drinks do several important things:

- Provide fluids AND fuel since they contain both water and carbohydrate.
- Improve consumption since flavor enhances palatability and sodium content drives thirst.
- Help the body retain more fluid due to the sodium content which improves hydration status.
- DO NOT DILUTE YOUR SPORTS DRINK. If you prefer a less sweet drink, try a different product. Otherwise, you are diluting electrolytes that are in solution to promote re-hydration.

Supplements

"So, what are you taking?" is a common question among collegiate athletes today. In fact, in a recent survey of 236 NCAA Division I athletes, 88% reported using at least one nutritional supplement, and 58% reported using two or more supplements. The supplements reported included vitamins/minerals, herbal supplementation, calorie-replacement drinks, protein supplementation, creatine, and other ergogenic aids. However, despite the high incidence of use, the accompanied perceived benefit was LOW regarding either the healing process or sport performance.

Supplement use has become a huge part of the athletic culture. Testimonials from high-profile athletes and "hype" often propel certain supplements into mainstream popularity. Unfortunately, safety and credibility are often overlooked. The truth remains that there is little evidence that supports that well-nourished athletes derive any real benefit from the consumption of these products.

Before you start taking a dietary supplement, consider the following:

Fatigue and lack of energy can be a common occurrence for athletes during their competitive season and strenuous training periods. There are several reasons athletes experience fatigue. Poor sleep habits and under-fueling are two of them. So, before turning to a supplement for help, evaluate your training diet and sleep patterns for adequacy first.

DO YOU.....

Eat BREAKFAST EVERYDAY?	
Eat at least 3 MEALS A DAY?	
Consume 1 or 2 NUTRITIOUS SNACKS?	
Eat 3 to 4 pieces of FRUIT?	
Eat at least 3 VEGETABLES?	
Consume a BALANCED diet?	

Supplements are not:

A SUBSTITUTE FOR REAL, WHOLE FOODS: Food should not be an afterthought! Poor nutrition and fueling may not keep an athlete from performing, but it might prevent them from performing at their BEST!

100% SAFE AND EFFECTIVE: Many supplements have been shown to be ineffective or un-safe. Others contain substances banned by the NCAA due to contamination or intentional mis-labeling. Please familiarize yourself with the Athletic Medicine Supplement Policy before taking any nutritional supplements.

A PERMANENT SOLUTION: You probably don't have to search further than your plate and individual eating habits to improve your performance. Once you optimize your eating plan, your supplementation needs can best be determined by meeting with the Sports RD.

Sports Nutrition Myths

Information constantly changes as new theories are tested and research is completed. Learning new things serves to advance the practice of sports nutrition and when applied correctly, can help athletes achieve a higher level of performance. However, interpreting new information and applying it to our daily lives is not always easy when advertising, marketing, and sales so heavily influence our choices. As a result, several common sports nutrition myths have prevailed in the athletic community.

Myth #1 – What I eat and drink doesn't affect my performance.

False: The truth is that if you are not careful about what you eat and drink, you will perform more slowly, make bad decisions, and experience fatigue early during training and competition.

Myth #2 – If any type of food is critical in an athlete's nutrition; it is protein, not carbohydrates.

False: Both are equally important. In fact, all nutrients are equally important. Protein, carbohydrate, and fat all provide essential nutrients for the human body and fuel hard work in different ways.

Myth #3 – When the team travels to an away competition and the competition is over, it's O.K. to eat whatever I want at restaurants.

False: Enjoyment and flexibility are signs of normal eating. **However**, if you have back to back games, it's early in the season, or you are competing in the post-season, a better plan is to keep fueling well. Eat better than your opponents and arrive at the next competition optimally fueled and better recovered than they are!

Myth #4: Athletes should avoid simple carbohydrates or sugars.

Partially true: During exercise, hardworking muscles want and need carbohydrates that can be digested and absorbed quickly. And after exercise, simple carbohydrates are more effective at flipping the metabolic switch from catabolism (breaking down) to anabolism (building up). **Bottom line:** the further in time you are from exercise, the more fiber and protein rich choices the better (90% of the time). But just before, during, or just after exercise, simple carbohydrates are preferred (10% of the time).

Myth #5: Vitamin and mineral supplements provide energy.

False: Vitamins and minerals do not boost energy levels or make you feel better, unless you have an actual deficiency. Taking a multi-vitamin can offer extra insurance for hard-working athletes.

Myth #6: When your body needs fluids, you'll get thirsty.

False: Water is the most important nutrient, but thirst is a poor indicator of how much your body needs. Athletes don't know they're thirsty until they already have a deficit. It's important to pre-hydrate--drink fluids before they feel thirsty and keep drinking throughout the competition. Intestinal tolerance can be improved over time by increasing intake gradually. Stomach upset and poor absorption is made worse by dehydration.



Myth #7: The lower the body-fat percentage, the better.

False: Everybody has, for their given sport and body, an optimal body weight and composition at which they function best. If it requires low energy intake and overtraining to achieve a given percent body-fat, performance and health will eventually decrease. Have your composition evaluated with the Sports RD to assess what it right for you.

Myth #8: A healthy diet contains no fat.

False: The dietary fat in food is often associated with fat on the bodyas a result; athletes may try to cut fat out of their diet completely. We need some fats for cell wall formation, absorption of fat-soluble vitamins, for hormone production, and for neurological function.

Myth #9: It's terrible to eat at night.

False: Recovery and adaptation to training occur during rest. Hormone status during rest is optimal for muscle repair and synthesis. If you are up late studying, a little fuel for the brain is also much needed! For athletes with very early morning workouts, eating a well balanced snack at night can often act as fuel, especially when you have upset stomach. There are many reasons to have a nutritious night-time snack. Peanut and butter and jelly sandwich with glass of milk, small sushi from Frist, Greek yogurt and almonds, Trail mix and banana with milk, Instant oatmeal and walnuts with milk, 2 hard-boiled eggs, 100% PLAIN whey protein smoothie APPROVED BY VICTORIA AND JASON.



Grocery Shopping Essentials

Fruits & Vegetables:

Melons
Grapes
Citrus fruit
Apples
Pears
Cherries

Pomegranates

Apricots
Peaches
Nectarines
Berries
Bananas
Dates

Dried tart cherries

Dried cranberries
Greens
Spinach
Romaine
Beets
Turnips
Tomatoes
Carrots
String beans
Zucchini

Snap peas Kale Broccoli

Cauliflower Onions Garlic

Fresh ginger

Fresh cilantro Fresh basil Fresh rosemary Fresh oregano

Lean proteins:

93% ground beef
Filet mignon
Beef tenderloin
Pork tenderloin
Pork chops
Turkey/Chicken breast
Lean ham
Lean roast beef
Salmon
Tilapia

Plant Fats:

Catfish

Peanut butter
Almond butter
Walnuts
Almonds
Avocado
Ground flax meal
Olive oil
Peanut oil
Soybean oil

Spices/Condiments:

Cinnamon

Turmeric
Garam masala
Curry
Chili powder
Black pepper
Ginger in a tube
Sage
Thyme
Coriander

Cumin Chalula chili sauce Balsamic vinegar Rice wine vinegar Red wine vinaigrette

Dairy/other:

Skim or 2% milk Greek yogurt Low-fat chocolate milk 2% cottage cheese Sliced mozzarella Sliced provolone

Eggs

String cheese Hummus Salsa

Freezer:

Fish fillets
Chicken breasts
Salmon
100% fruit popsicles
Frozen mango
Frozen pineapple
Frozen berries
Edamame

Canned Goods:

Tuna in water
Vegetable soups
Vegetarian baked beans
Garbanzo beans
Kidney beans
Black beans

High Quality Grains/Starches:

Whole wheat breads
Sweet potatoes
Squashes
Triscuits
Plain oatmeal
Brown rice
Whole wheat pasta

wnoie wheat pasta

Quinoa Lentils

Wheat berries

Whole wheat cous cous

Faro

Beverages:

Water
Citrus infused water
Herbal teas
Green tea
Coffee
Cold brew Lipton
100% pomegranate

juice 100% orange juice 100% grape juice

Other:

Mackerel Herring Sardines Dark chocolate Tofu

Alcohol and Athletic Performance

Alcohol does nothing for promoting good performance. In fact, it counteracts nearly every effort to build strength and speed, improve body composition, and prevent injuries.

YOU DECIDE IF IT'S WORTH IT:

Glycogen Metabolism

Glycogen is the body's storage form of glucose. After intense training or competition, resynthesis of muscle and liver glycogen is essential for optimal recovery and preparation for the next bout of exercise. The most effective method of replenishing glycogen stores is to consume adequate low-glycemic carbohydrate immediately after exercise. Evidence shows that even low levels of ethanol impair synthesis of both liver and muscle glycogen.

Precision & Performance: 48 Hrs is STILL not enough!

Not an endurance athlete? Alcohol slows down a person's reaction time for 72 hours following alcohol intake. Strength, power, speed, stamina, balance, focus, equilibrium, hand-eye coordination, judgment and ability to process information are all negatively affected for several hours **after** BAC returns to 0.

Hydration

Alcohol is a diuretic, so after drinking, you may get become dehydrated. For each gram of ethanol ingested, an excess 10 mL of urine is produced making rehydration extremely difficult. In addition to losing water, you alcohol also depletes your electrolytes (potassium and sodium). Without these minerals, muscle contraction, blood pressure regulation and acid-base balance are all impaired.

Mindless Eating, Fat Gain, and Poor Nutrition

Excessive drinking often leads to mindless eating. Overall caloric intake from low quality foods (i.e. Hoagie Haven, Frist Pizza, etc) contributes to a positive energy balance and impedes efforts towards maintaining a healthy weight and enhancing body composition.

Alcohol is significant sources of empty calories providing about 7 calories per gram; nearly double that of protein and carbohydrate. These calories cannot be converted to glucose for muscle energymeaning they are stored as fat!

How many Philly Cheese Steaks did you drink last month?

Each standard drink also contains approximately 100 to 140 calories. If a person consumed 14 drinks per week, that would be roughly the equivalent of 10 Philly Cheese Steaks or **7,840** calories and 330 grams of fat. That equals roughly 2 lbs of fat per week!!!

Injuries

Athletes who consume alcohol at least once a week had a much higher injury rate (54.8%) as compared to non-drinking athletes (23.5%). This difference is likely due to the fact that when alcohol is used while recovering from practice or competition, the muscle's ability to repair their energy stores is impaired.

Maximize Your Potential

Get your nutrition program up to speed. Make an appointment with the Sports Dietitian by calling: 609-258-5357.

Quick question- email Victoria at vrosenfe@princeton.edu

Varsity Athletes do not need a referral and can schedule at any time for any reason.

Appointments are kept confidential unless the athlete indicates otherwise.

At your request, the Sports RD and your Strength Coach will work together to coordinate your program.



This handbook is a joint publication of Sports Nutrition and Strength and Conditioning. If you have any questions or are interested in further reading or references for this handbook, please contact Victoria Rosenfeld, RD, CSSD at vrosenfe@princeton.edu



