

# TEEN NUTRITION BLUEPRINT

## the 'blueprint basics'

Make healthy choice

A rough and fairly safe estimate for a teen's calorie allowance is **2,500 to 5,000** a day. If you are fairly active, think closer to 2,500; if you exercise intensely every day, lean towards 5,000.

### Pro Protein



Protein and its building blocks, amino acids, help your body replace damaged cells and make new ones, so they can help you overcome muscle breakdown. When you work out or play hard, your requirements become that much greater, as you need to replenish the additional cells lost to heavy exertion. Incorporate protein into your diet every day, and ideally every meal, with attention to its source and serving size. With meats, one serving of protein is about the size of a deck of cards or an iPhone.

### Get Complex With Your Carbs

Carbohydrates are your primary source for quick-burn energy. They are broken down into two categories: simple and complex. Simple carbs come from white breads, sugar, soda, juices and chips. Complex carbs are higher in "good for you fiber," resulting in their slower breakdown for a longer energy burn. Complex carbs are used more efficiently in your body and are less likely to convert into fat (unless you overeat).

### Don't Forget the Fats

When you exercise, your body burns through the carb energy first and very quickly. To keep going strong, you'll need some alternative fuel sources. Fats come in handy here and provide long-burning sustained reserve energy to keep you going long into the game. Fifteen to twenty percent of your daily intake of calories should come from mono- and poly-unsaturated fats.

### Extra Nutrients

Taking a good daily multivitamin will help make sure you get key nutrients such as calcium and iron. But don't think that since you pop a pill each morning you can grab all the junk food you want through the day. A daily vitamin should not be seen as a replacement for good nutrition. Essential Fatty Acids and Omega 3's are important for the young athlete as well, not only for their energy-producing capabilities, but also because they support your heart and arteries to keep up with your increased workload. These essential fats can help reduce inflammation in joints and help you maintain peak cognitive responses and alertness.

#### Protein

- Lean red meat such as top round and sirloin tips
- Fish
- Grilled chicken
- Roasted Turkey
- Pork
- Eggs
- Nuts
- Soybeans
- Low-fat dairy such as milk, yogurt and cheese

#### Complex Carbs

- Whole wheat pastas and breads
- Rice
- Sweet potatoes
- Squash
- Zucchini
- Broccoli
- Cauliflower
- Beans

#### Unsaturated Fats

- Avocados
- Seeds
- Nuts
- Vegetable & olive oil

#### Omega 3's

- Flaxseed oil
- Walnuts
- Shrimp
- Raw tuna

# TEEN NUTRITION BLUEPRINT

## eating disorders in the young athlete

For young people, eating disorders have become increasingly predominant. And that's among girls and boys alike.

Make  
healthy  
choices

### Anorexia



The symptoms of this psychiatric illness include extreme dieting or self-starvation with periods of extreme exercise. The sufferer develops a view of himself or herself that is not based in reality and is combined with an obsession to attain a body that is equally unfounded in reality. Losing weight can become their main focus in life. They feel that nobody understands them, that they are weird, that they are fat and disgusting. They also suffer with physical symptoms like muscle deterioration, fatigue, nausea, kidney failure, acid reflux, and much more. In extreme cases anorexia can lead to death.

### Bulimia

Bulimia nervosa is characterized by eating rather than starving and is considered an addiction / stress-related disorder as well as a psychiatric illness. For bulimics, binge eating is common. They will consume huge amounts of food in a single sitting and then purge the food by self-induced vomiting. In another form of bulimia, the sufferer will not purge but instead exercise binge to overcompensate for the eating. Persons with bulimia also use diuretics, enemas, and other medications to purge the body after a binge episode. Some of the effects of bulimia are gastric reflux, loss of tooth enamel, dehydration, constipation, kidney problems, peptic ulcers, and cardiac arrhythmia.

### Muscle Dystrophia

Muscle dystrophia is technically not an eating disorder, but it has become so closely linked with the problems surrounding athletes and body image that it has been given the nickname "manorexia". Muscle dystrophia is a condition in which the sufferer sees themselves as being too skinny. They feel that in order to reach their goal of building a muscular body that they must do whatever it takes to bulk up. They often stick to vigorous schedules of working out, meticulous diets and supplements to build up body mass. In desperation many will turn to dangerous steroid use in hopes of reaching these goals. Those with manorexia are mentally plagued by a view of themselves that they are skinny, puny, and even disgusting. What they consider to be the ideal look for their body may be unrealistic for their body type, impossible to achieve, and in striving for it, they may be destined for failure.

### What to Do?

- Very few individuals outgrow an eating disorder. If the problem is not properly addressed early on, it can mean a lifetime of suffering.
- Getting medical help immediately is imperative. However, don't be surprised if your intentions to help someone with an eating disorder are met with anger and resentment. Eating disorders are very deep-seated emotional illnesses and convincing someone they have a problem can be a big project.
- In cases where a young person's life may be in jeopardy, an intervention is called for.

### Resources

- National Eating Disorders Association helpline, 1-800-931-2237
- National Association of Anorexia Nervosa and Associated Eating Disorders helpline, 630-577-1330
- Mirasol Eating Disorder Recovery Centers helpline, 888-520-1700

# TEEN NUTRITION BLUEPRINT

## stress & cortisol

If you do not limit the stress you experience, a hormone called cortisol – the “stress hormone” – will exhaust you and lead to full body collapse, a disaster for any athlete. It is a silent and unseen opponent.

### Confidence – You Can Do Great Things

Self-doubt is a major cause of stress. If you aren't sure you can do something, you begin to feel overwhelmed and ill prepared. But when viewed as a personal challenge, this can be a source of great inspiration to push you to remarkable achievement. See disappointments not as failures but as part of your learning curve.

### Don't Be Afraid to Ask for Help



Sometimes things just get to be too much for you to handle. Find people you can trust to confide in and who can help you to determine what your priorities are in regards to eating, exercising, athletics, school, and more. Everybody needs help and guidance throughout life. Don't be ashamed or embarrassed to ask for it.

### Exercise Your Troubles Away

Train just the right amount and you provide your body with an invigorating stimulus for muscle growth and strength/endurance increases. Overdo it and you can send your body into a state where it literally breaks down the very muscles that you thought you were building up. After your last rep is completed, replenish with an immediate source of fast-absorbing carbohydrates and then follow that up with a nutritious, balanced meal.

### Loosen Up – Diversify Your Interests

You've got to stay loose to stay relaxed. Change up your routine and keep it fresh by hiking, biking or checking out the gym equipment in the back corner that you've never used. What might just be a temporary outlet to prevent stress now might turn into a new-found hobby that you will enjoy for years to come.

### Live Life and Cherish Each Day

Scheduling and balance take the pressure off when it comes to prioritizing. Making a list is the best way to get a handle on what you need to do today, tomorrow, or even weeks from now. Lay out what needs to be done with priorities at the top of the list.

Make  
healthy  
choices

#### The CHILL Factor

Remember what to do to de-stress by using this acronym.

- Confidence
- Help
- Inhale/Exhale
- Loosen Up
- Live Life

#### 'YET' Power

● Even famous and well-known stars like Derek Jeter and Eli Manning have had a time where they had not yet tapped into their full potential. Learn from them and remind yourself anytime things don't appear to be immediately working out for you as you would have hoped, “I haven't YET... but I will.” I have not made straight A's yet. I have not made the team yet. I am not as good as I will be, yet.

#### Make Time Every Day For:

- Family and friends
- School or work
- Eating right
- Exercise
- Sleep

# TEEN NUTRITION BLUEPRINT

## keep dreaming

For teenagers, getting enough sleep can be a challenge. The fact that a growing body requires more sleep is often pitted against the tendency of teens to burn the candle at both ends. You should aim for at least nine hours a night.

### Why is Sleep Important?

When you get the quality sleep you need, your body is refreshed, your mind is clear, and you generally feel more optimistic about everything. When you are sleep-deprived, you become sluggish, less responsive and can even feel depressed. Lack of sleep is blamed for such ailments as depression, hypertension, irritability, slower reaction times, and tremors.

### REM (The Sleep Stage, Not the Band)

REM stands for rapid eye movement and is a reference to the phase of deep sleep where the most restful zzz's of the night occur. The brain and the body "refuel" during this crucial phase. You get to REM by cycling through four phases of sleep. Once in REM you generally spend an average of 15 minutes there. At the conclusion of this cycle, your brain is generally brought in reverse back to Phase 1, where you will once again slide back again towards another restful REM.

### Do Not Disturb

Sleep is most beneficial when undisturbed. If you're startled and awoken from your sleep, you can't pick up where you left off on the way to REM. You have to start all over again. That's why it's important to get as many full 90-minute cycles in as you can during the course of one night's sleep. In fact, ironically, research has shown that if given the choice to either complete just two full cycles of deep sleep (three hours) or be woken up in the middle of your fourth cycle somewhere around five and a half hours of sleep...you would likely feel less groggy and more raring to go in the first scenario than the last.

### In the Cycle

Nine hours would represent six full sleep cycles and 90 minutes of REM. Cutting it shorter than that by even just an hour or staying in bed an extra hour would both lead to an interrupted cycle. Thinking of your sleeping pattern in terms of 90-minute cycles can simplify the formula. Need to sleep in on a rainy Sunday? Extend it to 7 full cycles, or 10 ½ hours. Got a night where you know you're going to have to study late for a big test? Aim for five cycles (or 7 ½ hours of sleep).

## Make healthy choices

### Tips for Better Sleep

- Don't hit the snooze button. This interrupts your sleep cycle and could make you groggy.
- Don't eat just before bed, especially sugar and caffeine products. Have your last meal or snack two hours before bed.
- Set the right mood for sleep. Develop a ritual that helps your body to know it is time to sleep. Some read books, others take a hot shower.
- Create a sleep-friendly environment. It can be hard to sleep when you feel the day's pressure or the next bearing down on you. Put away your homework and schoolbooks so they are out of sight. Make a list of priorities for the next day.
- Melatonin is a natural sleep aid. Many doctors will recommend it as a daily supplement to help young people and adults alike with their sleep problems. It is nonaddictive and non-habit-forming.



# TEEN NUTRITION BLUEPRINT

## hydration

Water is the basis for all of your organ and body functions. If you are human you need water, without it you die, it's that simple. If you are an athlete, your need for water is even higher.

Make  
healthy  
choices

### Urine color chart

Excellent!

Not bad

Grab a  
glass  
of water

Grab two  
glasses  
of water

Dude,  
you're  
nearly  
a raisin

### Are You Dehydrated?

For an easy and quick way to monitor your hydration – promise not to laugh? – start checking your pee color every time you go to the bathroom. Seriously. The deeper and darker the yellow color is (orangey is even worse!), the more dehydrated you are. The goal should be almost total clarity....think water with a touch of lemon!

### How Much Water Should I Be Drinking?

Drink ten full glasses of water a day to keep your body in peak working condition, and if you are exercising, a portion of this water should be electrolyte-infused. A nice and easy way to calculate your daily water requirements is by taking your body weight and dividing it in half. Whatever that number is, drink between that many ounces and 20 percent more each day. So if you are a 180-pound male athlete, you would want to drink between 90 and 125 ounces of water each day.

### Sports Drinks

Gatorade and other sports drinks contain levels of beneficial electrolytes, nutrients, and quick-acting carbs that are important for the active athlete (especially as fatigue really sets in). But they also tend to contain excessive sugar, high fructose corn syrup, artificial colors, glucose and often times too much salt. The electrolytes will definitely help you when you've lost a lot of them through sweat during a tough practice or game. But relying on sports drinks for all your hydration needs may be counterproductive overall.

### Plain, Old Water Works Best

Just like with sports drinks, relying on beverages such as juice, soda, and coffee to keep you hydrated isn't the best strategy. Juices, although high in vitamins, are high in sugars, and so is soda. Specialty coffee drinks (think a Starbucks Frappuccino) also pile on the sugars and fats. Plus, soda and coffee have caffeine, which is a diuretic – that means they make you lose water! No one's saying you can't ever have coffee or soda again. Everything in moderation, after all. But don't rely on them to stay hydrated, especially before a game. Plain, old water is your best choice.

### Effortless Water Reminder

- Get a 24-ounce bottle of water and four rubber bands. Put the rubber bands around the bottle. Drink the water. Refill the bottle, and remove one rubber band. Repeat until the rubber bands are gone. Presto – 120 ounces of water, and you didn't really have to think about it!

### Charge Up

- Get the beneficial electrolytes of sports drinks, without as much of the sugar and salt, by power-charging your water. With your water, mix in half as much Gatorade, Vitamin Water, or PowerAde.

### These 'Energy Blasts' Fizzle

- Drinks such as Red Bull and Full Throttle promise energy in a bottle, but they're really just high in sugar. And their caffeine levels are often lower than coffee! Instead of having a blast, you'll likely just crash and burn.

# TEEN NUTRITION BLUEPRINT

## bulking up, trimming down or both?

Make healthy choices

Whether you need to add some muscle or slim down for extra speed, start by calculating your calorie needs.

### Step 1

Determine your Resting Energy Expenditure by using this formula:

- **Males:** REE Calories =  $66.47 + 13.75 (\text{your weight in kg}) + 5 (\text{height in cm}) - 6.76 (\text{age})$
- **Females:** REE Calories =  $65.51 + 9.65 (\text{weight, kg}) + 1.84 (\text{height, cm}) - 4.68 (\text{age, yr})$



### Step 2

Determine your Sport Specific Activity Energy Expenditure by referring to this chart:

| SPORT                  | AEE (Males) | AEE (Fem.) |
|------------------------|-------------|------------|
| Pick Up Basketball     | 1.9         | 1.8        |
| Competitive Basketball | 2.2         | 2.1        |
| Baseball / Softball    | 1.9         | 1.8        |
| Golf                   | 1.6         | 1.5        |
| Football               | 2.2         | 2.1        |
| Soccer                 | 2.2         | 2.1        |
| Wrestling              | 2.0         | 1.9        |
| Volleyball             | 1.8         | 1.7        |
| Lacrosse               | 2.2         | 2.1        |
| Field Hockey           | 2.0         | 1.9        |

| SPORT             | AEE (Males) | AEE (Fem.) |
|-------------------|-------------|------------|
| Ice Hockey        | 2.2         | 2.1        |
| Bowling           | 1.2         | 1.1        |
| Swimming          | 1.8         | 1.7        |
| Rowing            | 2.4         | 2.3        |
| Skiing            | 1.9         | 1.8        |
| Weight Training   | 1.8         | 1.7        |
| Horseback Riding  | 1.2         | 1.1        |
| Track and Field   | 2.1         | 2.0        |
| X Country Running | 1.7         | 1.6        |
| Cycling           | 1.5         | 1.4        |

### Step 3

Multiply your REE by your Sport Specific AEE to determine your Total Energy Expenditure.

#### To Lose Weight

- Consume your TEE minus 500 calories each day.
- Eat better, not less.
- Aim for 50-55% of your calories from carbs, 30% from protein, and 15-20% from fats.

#### To Bulk Up

- Consume your TEE plus 500 calories each day.
- Eat better foods and eat more often.
- Aim for 45-50% of your calories from carbs, 35% from protein, and 20% from fats. The extra protein provides muscle-building amino

#### Doing the Math

- Determine your weight in kilograms by dividing your weight in pounds by 2.2. A 180-pound male soccer player would weigh 81.6 kg.
- Determine your height in centimeters by multiplying your height in inches by 2.54. A 6'4" basketball player is 76 inches tall. This would equate to 193 centimeters.

# TEEN NUTRITION BLUEPRINT

## saved by the bell

Eating right is your foundation for an exciting future as an athlete. But that said, it's not only what you eat but, just as importantly, when you eat.

### Eat on a Schedule

Besides helping you prevent falling victim to either overeating or under-snacking, eating on the clock is a physically wise option and removes much of the guesswork. You should be eating a meal or snack every 2 1/2 to 3 hours, all day long.

### Blood Sugar – The Key to ‘Sweet’ Victory

Blood sugar, or glucose, is what your brain burns for power. Your brain cannot store glucose so it must be provided from food sources and delivered via blood flow. That is why if you have not eaten for long stretches of time you may begin to feel foggy-headed or have a hard time concentrating. With a shortage of glucose you can even experience mood swings, exhaustion and, when allowed to become a continuous problem, you can develop serious and life-threatening diseases. The trick is getting the right balance. Too little glucose will make you sick, but too much will flood your body and be just as bad.

### The Slow Burn



The main food source for creating glucose is carbohydrates. Complex carbohydrates take longer to enter the blood stream because of their often “complex” structure or added fiber. The crunchy texture of raw vegetables and protective coatings on long grain and brown rices for example, make their digestion a slower process and give you a longer, more steady supply of glucose. Simple carbohydrates, with their essential “pure sugar” makeup, rush glucose into the blood stream, only to be used up and leave you burned out more quickly.

### Don't Go on Overload

When your blood sugar is stable, you burn fat, feel good, think clearly, have energy and maintain better control over your hunger. Since you cannot simply eat all the complex carbs you need in a single sitting on any given day without overloading your body with glucose, spacing out your meals and allowances of carbs becomes the trick that will keep your fire burning hot and steady all day long.

## Make healthy choices

### Complex Carbs

- Fruits
- Vegetables
- Whole-grain breads and pasta
- Long-grain or brown rice
- These foods break down into glucose at a slower rate, providing a longer-lasting energy source.
- Avoid overloading on complex carbs by spacing out your meals through the day.

### Simple Carbs

- Fruit juice
- White bread
- Candy and other sweets
- White rice
- These foods turn into glucose rapidly, giving you a quick burst of energy that can just as quickly come crashing down.

### The Low-Carb Craze

- Low-carb and no-carb diets may be trendy, but following these plans deprives your body of important fuel, especially when you're trying to improve your game.

# TEEN NUTRITION BLUEPRINT

## from the bus stop to the final bell

It is possible to eat around the clock, even with the scheduling constraints of school and practice.

### Breakfast: 7 a.m.

Getting things started right every morning with a well-rounded meal is key. Your breakfast should consist of complex carbohydrates, protein and some healthy Omega-3 fats if possible.

### Midmorning Snack Attack: 9:30 a.m.

You may have to grab a quick bite between classes, but don't wait until lunch to eat again. Otherwise, your body will start running on "glucose low" and you'll start to feel sluggish. Plan ahead and choose portable snacks that won't spoil when stored in your locker.

### Lunch: 11:30 a.m. to 12:30 p.m.

Lunch serves as the "launching" pad for building up your after-school practice or workout energy reserves. The hot-food line probably isn't your best choice as it tends to be packed with fried and processed foods. Bring your own lunch, or look for healthier alternatives such as salads.

### Midafternoon Snack Attack: 2:30 to 3 p.m.

This is often the last thing you'll eat before practice, so you want to make sure it's going to deliver an energy boost without making you feel full or uncomfortable during your activity.

### Dinner: 6 to 7 p.m.

Given that it most often follows a game or practice, your dinner is going to focus more on nutrient replenishment than on fueling your body. To get a good balance, divide your dinner plate into thirds: one-third lean protein, one-third starchy carb, and one-third fibrous carb.

### Bedtime Snack Attack: 8:30 to 10 p.m.

Eat something between 200 and 400 calories that can supply your system with some quality protein (for muscle reconstruction while you sleep) that is moderate to low in carbs and fat.

Make  
healthy  
choices

#### Breakfast

- Multigrain toast with a couple tablespoons of peanut butter, a glass of skim milk, and a couple hard-boiled eggs.

#### Daytime Snacks

- Healthy granola or protein bar
- Trail mix
- Banana
- Small bag of peanuts
- Half of a PBJ sandwich
- Cheese stick and some pretzels

#### Lunch

- Salad
- Low-fat yogurt, cheese sticks, or milk
- Turkey wrap

#### Dinner

- Grilled chicken, fish, turkey, pork chops, lean beef
- Baked potato, pasta, cous cous, rice
- Veggies

#### Pre-Bed Snacks

- Air-popped popcorn and a glass of milk
- Protein shake
- Low-sugar cereal and skim milk



# TEEN NUTRITION BLUEPRINT

## bus basics

Today, my friends, is GAME DAY! Your after-school snack will now most likely become your pre-game meal and must be “spot on” in order to give you the competitive edge when the action starts.

### Stay Consistent

While yes, the choice you make for this one meal can have a huge impact on your ability to perform just hours later, it's just as important to look at the contribution the last few days' worth of eating can have on the game you'll play today. Consistently good eating habits provide your muscles with several days' worth of glycogen-building nutrients.

### 7 Sacred Principles of Pep

Okay, these pre-game snack tips may not be sacred, but now that I have your attention, let's roll with it. They are:

- 1 Start with starch** – Starch is easy to digest and helps to keep blood sugar levels steady.
- 2 Trim the fat** – Fats and oils slow down digestion and can leave you feeling too full and bloated at game time. What makes this worse is that your digestion is usually already slowed down due to your emotionally keyed-up state.
- 3 Shut out the sweets** – Sweets and simple sugars can cause too quick of a blood sugar elevation, leaving you only to crash from your high later on...unfortunately most likely in crunch time!
- 4 Cut the caffeine** – Many athletes reach for caffeine as a pre-game boost, but this perceived energy jolt is often short term and can quickly leave you dehydrated.
- 5 Add water** – Never consume a pre-game meal (or any meal for that matter) without having a glass of water with it as well. It helps to aid the digestion and leaves you less likely to get stomach cramps later.
- 6 Digest the rest** – Try not to eat immediately before competition. It's better to leave at least 60 to 90 minutes between your snack time and your attack time, if you know what I mean!

**7 Win** – That's what you're doing steps 1 to 6 for, right? Then go get that “W”!

Make  
healthy  
choices

### The Right Pre-Game Snack Will:

- Stabilize the blood sugar levels you've maintained up to that point in the day (with your timed eating), preventing any roller coaster-like peaks or dips in your energy levels during the game.
- Provide some immediate usable energy from the circulating blood sugar it creates.
- Help you to avoid in-game hunger that is strong enough to distract you from the task at hand.

### Five for Fueling!

These snacks meet the criteria, plus they're portable on the bus.

- Banana and a bag of pretzels w/ bottled water
- Soup and crackers (in a Thermos) w/ bottled water
- Turkey sandwich on whole wheat w/ bottled water
- Breadsticks (3) and a yogurt w/ bottled water
- Low protein (low sugar) energy bar w/ bottled water



# TEEN NUTRITION BLUEPRINT

## the fast food fork in the road

It's time for your victory dinner, and the bus heads for the Golden Arches. Be prepared with a plan to stay on track.

Make  
healthy  
choices

### Other Quick-Food Options

If you have a say in where you stop for food, try encouraging a better quick food option, like Subway. At Subway you have the choice of wheat bread and fresh veggies rather than white buns and greasy meat. Coaches...no Subway nearby? No problem. Try and steer the "bussy" in the direction of a Duchess Diner or Boston Market, which offer options such as lean burgers, steamed vegetables, white meat chicken, sweet potatoes, and baked apples

### Arby's



If you are thinking a roast beef sandwich sounds pretty good, but want to make the best choice, you can go with the Arby's Melt. It has 298 calories, 110 calories from fat. If you prefer chicken, choose the roasted chicken filet sandwich, which packs 383 calories, 142 of which are from fat. Cut the fat calories to 50 by asking them to hold the mayo.

### Burger King



The Chicken Whopper junior patty has only 100 calories and 3 grams of fat, but remember...this is for the meat alone without the gooey garnishes. The cheesy bacon wrap has 390 calories and 24 grams of fat, but if you order it without bacon, it comes down to around 340 calories and 16 grams of fat.

### Wendy's



A junior hamburger is 280 calories with 9 grams of fat, and a mandarin chicken salad with no dressing has 170 calories with only 2.5 grams of fat, while a small cup of chili has 190 calories and 6 grams of fat. You can also order low-fat milk, a side of mandarin oranges or a side salad.

### Taco Bell



This is the exception to the salad guideline – don't eat salads here, as they're loaded with calories and fat. Instead, choose a crunchy taco with beef, which has about 200 calories. Although nearly half of those calories are from fat, it's still probably your best choice.

### Tips and Tricks

- When you can, **choose a salad**. Avoid extras, though, such as bacon and creamy dressings that can make this meal as fattening as a greasy burger.
- You know those tiny packets of mayonnaise they give you? They have around 105 calories per packet. If **skipping the mayo** leaves the sandwich too dry, add ketchup, mustard, or hot sauce for flavor.
- The **kid's menu is like a gold mine** for sometimes the ONLY healthy food options on the menu. Here, you can find things like fruit cups, applesauce, biscuits and low-fat milk.
- **Pass on the fries, guys**. These are loaded with calories and fats.
- **Skip the milkshakes, too**. Although it may be tempting to get some "calcium" here, it's packed with calories. Plus, since it's liquid, it alters your perception of fullness, making you more likely to overindulge.

# TEEN NUTRITION BLUEPRINT

## sports supplements for teens

Learn what's worthwhile, what's a waste of time, and what you should never even think of taking.

### The Good

- Start by taking a reliable **daily multivitamin** with a good absorbency rate. Companies like Prograde, USANA Health Sciences, Source Naturals, and Sportspharma have all developed highly absorbent multis.
- **Glutamine** is the major and most abundant amino acid in muscle tissue and is rapidly depleted during times of muscle stress.
- **Omega-3's** are essential fatty acids that promote a healthy, strong heart, fewer joint problems, and peak mental awareness.
- **Meal Replacement Powders** offer convenience for when you're on the run, as well as an optimal balance of proteins, carbohydrates, and fats.
- **Creatine monohydrate** supports muscle growth, strength, and quick-burst power. Critics say it is potentially harmful, but if you take it correctly and if you are a healthy teen athlete with healthy kidneys, you shouldn't have any problems.



### The Bad

- **Ephedra**, also known as ephedrine or ma-huang, acts as a stimulant to increase your metabolism. This herb was used for some time in many popular fat-burning supplements but was removed when it was linked to heart problems, stroke, and occasionally even death in its users.
- The prohormones **Androstenedione (aka. andro)** and **DHEA** are testosterone precursors that are said to increase muscle mass and strength. Studies have disproven these claims. Also, scientists have theorized that andro and DHEA may cause serious side effects like testicular cancer, infertility, stroke, and increased risk of heart disease.
- **Nitrous Oxide** products claim to help you generate "roaring intensity" in your workouts. They also say they'll increase blood flow to your brain, which can help improve your concentration. Instead, in my experience with my athletes, it has led only to more headaches.

### The Ugly

- **Anabolic steroids** are artificially produced illegal substances that are similar to male sex hormones and are taken to boost muscle mass and performance. With numerous nasty side effects, however, they are disastrous to your body. They also can make you aggressive, irritable, and even violent. These are extremely bad choices and can derail your sports career. Just don't.

Make  
healthy  
choices

### Anabolic Steroid Side Effects

- Premature balding
- Trembling
- Dizziness
- Increased risk of heart disease, stroke, and some types of cancer
- High blood pressure
- Mood swings, including anger, depression, and aggression
- Aching joints
- Testicular shrinkage
- Pain during urination
- Believing things that aren't true (delusion)
- Greater risk of injuring muscles and tendons
- Breast enlargement in males
- Genitalia enlargement in females
- Extreme feelings of mistrust or fear (paranoia)
- Jaundice (yellowing of the skin) and liver damage
- Impotence (inability to get an erection)
- Problems sleeping
- Shortening of final adult height
- Sterility (permanent inability to have children)
- Nausea and vomiting

**SHOULD I GO ON?**

# TEEN NUTRITION BLUEPRINT

## reading between the 'lies'

Decipher food labels to reveal the perfect energy/protein bar for snacking and meal replacement.

Make healthy choices

### Don't Believe the Hype

Just because a 'health bar' *claims* to be high in protein or full of antioxidants does not mean it *actually is*. There are three key things to look for, when reading food labels, that will quickly and easily allow you to determine whether what you are about to eat is something that will help you or hurt you on your quest for improved performance. I like to call these my "3 S's" – Serving Size, Sugars, and Saturated Fats.



### Serving Size

This is especially useful when looking at "nutritious" drinks, where food manufacturers are able to hide loads of sugars and calories by manipulating the numbers. For instance, at first glance, a 15.2 ounce bottle of Naked Juice's blueberry antioxidant drink has just 150 calories and 23 grams of sugar per serving. Look closer, and you'll see that each bottle actually has 2.5 servings! Drinking the whole thing would pile on more than 400 calories.

### Sugars

Every label will list the number of carbohydrates, as well as how many of those carbs are simple sugars. Simple sugars are the ones that cause the rapid rise in blood sugar that, while providing an immediate source of energy, leave you on empty when the spike reverses direction and plummets. Stick to foods that contain less than 15 grams of simple sugars per serving. Doing so will ensure that you get a steadier delivery of "energy sustaining and not energy draining" complex carbs to keep you going strong long after the opening tip.

### Saturated Fats

You are never too young to start developing high cholesterol (especially if you have a family history of it) and cardiovascular issues. A compromised heart can hurt your performance on the field by limiting your ability to get blood to all the working muscles as efficiently as possible during activity. Aim for foods that are less than 5 to 10 grams of saturated fat per serving and you will be taking the early action needed to prevent heart disease from coming back to wreak havoc on you later in life.

### How Do Some Popular Bars Stack Up?

#### POWERBAR

Serving Size . . . . 1 Bar  
Calories . . . . . 360  
Calories from Fat. . . 100  
Total Carbs . . . . . 33g  
Sugars . . . . . 30g  
Sat. Fat . . . . . 4.5g  
Protein . . . . . <5g

#### CLIF BAR

Serving Size . . . . 1 Bar  
Calories . . . . . 240  
Calories from Fat. . . 63  
Total Carbs . . . . . 43g  
Sugars . . . . . 20g  
Sat. Fat . . . . . 5g  
Protein . . . . . <5g

#### TIGER'S MILK BAR

Serving Size . . . . 1 Bar  
Calories . . . . . 140  
Calories from Fat. . . 45  
Total Carbs . . . . . 18g  
Sugars . . . . .  
Sat. Fat . . . . . 1g  
Protein . . . . . 7g

#### SNICKERS BAR

Serving Size . . . . 1 Bar  
Calories . . . . . 266  
Calories from Fat. . . 98  
Total Carbs . . . . . 37g  
Sugars . . . . . 28g  
Sat. Fat . . . . . 4g  
Protein . . . . . 5g