

PRINCIPLES OF BASKETBALL NUTRITION

Your efforts in the weight room and on the basketball court require fuel. Bodies are like high-performance cars: They may run if you put regular unleaded fuel in the tank. But they run even better with high octane.

Unfortunately, high school athletes often ignore the value of good nutrition. And they're not the only ones: Nearly 40 percent of American teenagers are overweight. This is due in large part to a diet high in fat and the consumption of empty calories found in soft drinks and candies. Not surprisingly, there are even high school basketball players—boys and girls—who are playing overweight.

This problem is compounded by the irregularity in which teens consume nutritious foods. Many high school students have a doughnut or sweetened cereal for breakfast—if they have breakfast at all. Lunch may be fast food, soda, and a bag of chips. Kids with working parents may frequently rely on fast foods for dinner. In the long-term, this cycle contributes to poor eating habits that can dramatically affect performance on the basketball court, as well as increase the risk of diabetes and heart disease.



We can't place the burden of poor nutrition exclusively on the shoulders of the athletes. Many health professionals and coaches don't fully understand and appreciate the direct influence diet has on performance. If they do, they may not know how to develop a realistic and comprehensive nutrition program.

Many diet books provide healthy meal options and recipes to follow. Yet many of these programs are not cost effective or logistically feasible for the high school athlete, who typically has very little time (or inclination) to prepare meals. Unless healthy options are readily available, accessible and palatable they are likely to fall by the wayside.

The school environment also plays a role. School food services try to provide nutritious meals, but the odds are often stacked against them. If there is a competing snack bar on school premises or an "open campus" policy that allows students to leave the school property for lunch, there's little doubt about where students end up: the local fast food establish-

ment. While there, students are bombarded with the opportunity to "super size" menu items, consuming more and more of what is least best for them.

Fortunately, there are nutritious choices the high school basketball player can explore to manage weight, maintain or even enhance performance, and prevent short and long-term diet related medical disorders.

Calorie Consumption

Here is a quick overview of the target calorie consumption for the typical high school athlete.

The average male athlete of high school age consumes 2800 to 3000 calories per day, averaging between 800 and 900 calories per meal (not including healthy snacks). Female athletes should consume approximately 2100 to 2500 calories per day, averaging 600 to 700 calories per meal.

Of these calories, 60 percent should be complex carbohydrates, which provide an efficient fuel source. Approximately 15 to 20 percent of total calories should be from protein, which serves as the "building block" of muscles and connective tissues. For the most part, the "normal" American diet meets this protein requirement, rendering protein supplements unnecessary. Fats, predominantly unsaturated, should comprise 25 percent of the diet. Although fat has become the enemy of many diet programs, it too is an excellent source of fuel for the body. The problem arises when too many calories, of any source, are consumed and not stored or metabolized for energy. This will contribute to an increase in body fat.

FOOD GROUP DAILY SERVINGS

FATS, OILS, AND SWEETS. Use sparingly.

MILK, YOGURT, AND CHEESE. At least 3 servings a day. 1 serving equals 1 cup of milk or yogurt; 1 1/2 ounces natural cheese; 2 ounces processed cheese.

MEAT, POULTRY, FISH, BEANS, EGGS, AND NUTS. Two to 3 servings a day. 1 serving equals 2 to 3 ounces cooked lean meat, poultry, or fish; 1/2 cup cooked dry beans; 1 egg.

VEGETABLES. Three to 5 servings a day.

FRUITS. Two to 4 servings a day.

BREADS, CEREAL, RICE, AND PASTA. Six to 11 servings.

Fats

To maintain a healthy diet, try to eat unsaturated fats. Most forms of food contain some degree of fat. Try to limit the amount of fat in your diet by eliminating foods that have more than 3 grams of fat per one hundred calories, for example a double cheeseburger with special sauce. In most fast food restaurants, this means staying below 20 grams of fat.

Also try to avoid what I call "nutritional contradictions." For instance, eating a salad is great, but not if you cover it with lots of ranch or blue cheese dressing. Substitute these fatty dressings with oil and vinegar. Other examples include potatoes with sour cream, or a double cheeseburger with a diet soda. These combinations are only fooling you.

Vitamins and Minerals

For the most part, healthy high school athletes consume the required levels of vitamins and minerals and may only require a daily multivitamin.

One category the growing athlete does need to consider is calcium. High school students should consume approximately 1200 mg/day. This correlates to four servings from the dairy food group. It's often true that as students consume more soft drinks, calcium absorption goes down. In this case, calcium supplementation may be necessary to ensure proper bone development. Seek medical advice prior to any supplementation.

Water

As water comprises 60 percent of body weight and 70 percent of muscle, its importance can't be underestimated. Drinking copious amounts of milk and soda will not supply or replenish the necessary hydration levels to maintain athletic function.

Try to avoid caffeinated drinks because of the diuretic effect, which can contribute to dehydration. Your goal should be to drink no less than 3 liters of water per day.

Depending on the athlete, environment, intensity of exercise, and season of the year, you may need to consume more water. Sports drinks are also a good source of carbohydrates and will help to replenish electrolytes lost from excessive sweating. Although sports drinks are useful, and more tasteful than water, use them only as an adjunct source of hydration and not a replacement for water.

Meal Plans

For many athletes and their families, eating healthy may require changes in behavior, planning, and discipline.

When people say, "Breakfast is the most important meal of the day," they're right. Breakfast should include recommended foods such as pancakes, bagels, oatmeal, unsweetened cereal and/or fruit. Breakfast drinks can also serve as a valuable morning tool.

Skipping breakfast or eating a meal high in simple sugars can result in low blood sugar levels as the morning wears on. This can result in headache, dizziness, and difficulty concentrating through morning classes.

Try a mid-morning healthy snack such as juice and pretzels, popcorn, fruit or cut up vegetables. This will keep you going through the morning, provide added nutrients to the body, help in the digestive process, and decrease the desire to gorge on junk food at lunchtime.

Lunch can include a turkey sandwich, veggie hero, peanut butter and jelly sandwich, juice-water-sport drink, fruit, pretzels or popcorn. This chapter also provides a list of "safe" fast foods for the *occasional* meal. A mid-afternoon snack high in complex carbohydrates such as pretzels or an energy bar with a sport drink and water will provide the fuel necessary to get through practice. Avoid salads and vegetables at this time since this can contribute to bloating and gas during practice. After practice have a complex carbohydrate snack and a sport drink to quickly replenish your energy stores for the next day.

Dinner should be a relaxing and fulfilling experience, in moderation. This

The following foods are good sources of complex carbohydrates

Bagels
Cheese pizza
Crackers
Fruit yogurt
Fruits
Oatmeal
Pancakes
Pasta
Popcorn
Potatoes
Pretzels
Rice
Unsweetened cereals
Vegetables
Whole wheat bread

The following foods are good sources of protein

Beans
Cheese
Chicken (skinless)
Eggs
Fish
Lean beef
Lean ham
Peanuts
Skim/low fat milk
Turkey (skinless)

meal further contributes to the energy and vitamin/mineral banks of the body. Broiled-skinless chicken with rice/potato and vegetables is a good start. Pasta with a meat sauce and bread and salad is another way to go.

Smart Fast Food Choices

When pressed for time, the following is a list of popular fast food establishments and foods that will not dramatically hinder athletic performance. It can't be said enough that fast foods should be a last resort and not eaten more than 2 to 3 times per week in total. Avoid "super sizing." "special sauces." mayonnaise, and soft drinks. Limit the amount of fries you eat as well. Some of these items/menus may change following publication of this book. Try to select similar alternatives.

BURGER KING®

BK Broiler
Cheese Burger
Chicken Tenders
Hamburger
Small portion of fries

MCDONALD'S®

McGrilled Chicken Classic
Hamburger
Cheeseburger
Garden Salad
Chicken McNuggets
Small portion of fries

PIZZA HUT®

Ham and Cheese Sandwich
Pan Cheese Pizza
Spaghetti with Meat Sauce
Thin and Crispy Cheese Pizza

SUBWAY®

Ham and Swiss
Roast beef
Turkey
Veggie

TACO BELL®

Light Chicken Burrito
Light Chicken Taco
Bean Burrito
Beef Burrito
Tostada
Pintos and Cheese

Quick Energy Sources

After school you may be tired due to lack of sleep or poor nutrition. The normal response is to find a quick boost. But the most important thing to remember about quick energy sources is that there aren't any that are safe or productive. For example:

Candy

Many chocolate bar companies advertise the quick energy their product will provide when you're dragging. What they don't tell you is that you will get a brief boost in energy from the influx of sugar in the blood stream, which causes the body to release insulin. When the insulin is released you may be dragging more than you were before the candy. This could spell disaster if it's the middle or end of a game or practice.

Caffeinated Drinks

This can include coffee or the increasing number of super caffeinated soft drinks. Caffeine acts as a diuretic, which increases urinary output. This can contribute to dehydration. Caffeine is also a stimulant that can increase or cause irregular heart rates.

Weight-Loss Pills and Chinese Herbs

Many of these products include caffeine and the Chinese herb Ma Huang-Ephedra. This can be a dangerous combination for athletes who have increased heart rates from exercise. These supplements have been associated with increased and irregular heart rates, strokes, and deaths.

Managing Your Weight

On those occasions when the athlete may need to gain or lose weight, remember that there are no short cuts. Avoid "weight gain" formulas or supplements or crash diets---losing weight takes time. These methods can negatively affect your performance and are dangerous.

Gaining Weight

Here are some tips for putting on weight safely.

- Increase caloric intake of healthy foods.
- Eat more healthy snacks during the day.
- Supplement your diet with milkshakes, healthy sandwiches, and pizza.

Weight training is essential at this time to maintain and increase muscle tone, mass, and strength and to ensure that fat levels do not increase.

Losing Weight

If a responsible health professional determines that weight loss is necessary the process should be gradual, with weight loss not exceeding 2 to 3 pounds per week. Athletes should not reduce their caloric intake below 2000 calories. This would limit the fuel sources necessary to play basketball. The best technique is to reduce back on calories by about 500 per day and increase aerobic activity and weight training. This will ensure that your efforts result in the loss of fat and not muscle or water. Above all else, do not use weight loss pills.

Injury Nutrition

Nutrition is as important to the injured athlete as it is to the healthy one. When you sprain an ankle or pull a hamstring, the damaged tissues and muscles require specific nutrients to aid in the healing process. Some experts believe that nutrition contributes 25 percent to the healing process.

When sidelined with an injury, you may want to consider decreasing your caloric intake unless you can do substitution exercises such as biking or pool running. If you do not decrease your intake, when you eventually return to play you may be carrying a few unwanted pounds. Maintain healthy snacking, avoiding chips, dips, and sodas. Many of these foods are high in phosphorus, which can deplete calcium levels.

Fried and fatty foods can impair circulation and delay the healing process. While your body heals, circulation cleans out the injury site and provides resources.

If a proper diet is maintained supplementation is usually not required. However, vitamin C is critical to the healing process, contributing to the formation of strong connective tissues. Vitamin C supplements in the range of 500 to 1000 milligrams per day can help as you heal.