



The study of influence of nutrition's on teen Athlete's

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Abstract

Protein is essential for growth, energy, and tissue repair. Athletic performance depends on muscle strength, and muscles are made of protein. Although athletes who are involved in strength and endurance training may need slightly more protein, it's a mistake to think you can simply build up muscles by eating lots of protein. Exercise, not dietary protein, increases muscle mass. The amount of protein adolescents need varies at different stages of development. As a rule, boys and girls between ages 11 and 14 need half a gram per pound of body weight daily. Thus, a young teenager weighing 110 pounds needs about 50 g of protein a day. Between ages 15 and 18, the RDA drops slightly. As with all essential nutrients, common sense is the rule you don't have to weigh every gram on a scale. Each gram of protein provides 4 calories the same as carbohydrates and protein should make up about 10% to 12% of each day's calories. As a general rule, there are approximately 22 g of protein in 3 oz of meat, fish, or poultry. An 8-oz glass of milk contains about 8 g of protein. Carbohydrates, found in starches and sugars, get converted into the body's main fuel: the simple sugar glucose. Not all carbs are created equal, however. In planning meals, we want to push complex-carbohydrate foods and go easy on simple carbohydrates. Complex carbs provide sustained energy; that's why you often see marathon runners and other athletes downing big bowls of pasta before competing. As a bonus, many starches deliver fiber and assorted nutrients too. They are truly foods of substance: filling yet low in fat. A well-rounded diet based on the USDA guidelines should deliver sufficient amounts of all the essential vitamins and minerals. Adolescents tend to most often fall short of their daily quotas of calcium, iron, zinc, and vitamin D.

Keywords: food, teen athlete, physical activities

Introduction

Maintaining a strong and healthy athletic performance is more than just a matter of training, practice, and "keeping in shape." Your body needs support in the form of proper nutrition, hydration, and rest in order to keep performing and responding at peak levels. Protein is essential for growth, energy, and tissue repair. Athletic performance depends on muscle strength, and muscles are made of protein. Although athletes who are involved in strength and endurance training may need slightly more protein, it's a mistake to think you can simply build up muscles by eating lots of protein. Exercise, not dietary protein, increases muscle mass. The amount of protein adolescents need varies at different stages of development. As a rule, boys and girls between ages 11 and 14 need half a gram per pound of body weight daily. Thus, a young teenager weighing 110 pounds needs about 50 g of protein a day. Between ages 15 and 18, the RDA drops slightly. As with all essential nutrients, common sense is the rule you don't have to weigh every gram on a scale. Each gram of protein provides 4 calories the same as carbohydrates and protein should make up about 10% to 12% of each day's calories. As a general rule, there are approximately 22 g of protein in 3 oz of meat, fish, or poultry. An 8-oz glass of milk contains about 8 g of protein. Therefore, an average teenager who is drinking 3 glasses of milk a day does not need enormous amounts of meat to meet his daily protein requirement.

The protein in foods of animal origin is termed complete or high-quality protein because it contains all the essential amino acids in about the proportions humans need. Vegetable proteins are called incomplete because, except for soybeans, they have low levels of one or more essential amino acids. You don't have to eat animal products to obtain high-quality protein, however. People on vegetarian diets take care of their protein needs by pairing plant foods that balance each other's shortfalls. Pairing foods in this way is called protein complementation. Eating a grain and a legume does the trick; beans and tortillas, a peanut butter sandwich on wheat bread, and black-eyed peas and rice are good examples of protein complementation. You can also compensate for any lack in a plant-based food by adding a small amount of animal-derived protein, such as in pasta with cheese or cereal with milk.

Calories

A surge in appetite around the age of ten in girls and twelve in boys foreshadows the growth spurt of puberty. How much of a surge? Let's just say that Mom and Dad might want to oil the hinges on the refrigerator door and start stockpiling a small cache of their own favorite snacks underneath the bed. Calories are the measurement used to express the energy delivered by food. The body demands more calories during early adolescence than at any other time of life.

1. Boys require an average of 2,800 calories per day.
2. Girls require an average of 2,200 calories per day.

Typically, the ravenous hunger starts to wane once a child has stopped growing, though not always. Kids who are big and tall or who participate in physical activity will still need increased amounts of energy into late adolescence. During middle and late adolescence, girls eat roughly 25% fewer calories per day than boys do; consequently, they are more likely to be deficient in vitamins and minerals.

Nutrients

The nutrients protein, carbohydrates, and fats in food serve as the body's energy sources.

1. Each gram of protein and carbohydrate supplies 4 calories, or units of energy.
2. Fat contributes more than twice as much: 9 calories per gram.

Protein of the three nutrients, we're least concerned about protein. Not because it isn't important 50% of our body weight is made up of protein but because adolescents in the United States get twice as much protein as they need.

The densest sources of protein include teenage favorites such as: Beef, Chicken, Turkey, Pork, Fish, Eggs and Cheese.

Carbohydrates

Carbohydrates, found in starches and sugars, get converted into the body's main fuel: the simple sugar glucose. Not all carbs are created equal, however. In planning meals, we want to push complex-carbohydrate foods and go easy on simple carbohydrates. Complex carbs provide sustained energy; that's why you often see marathon runners and other athletes downing big bowls of pasta before competing. As a bonus, many starches deliver fiber and assorted nutrients too. They are truly foods of substance: filling yet low in fat.

1. Most nutritionists recommend that complex carbohydrates make up 50% to 60% of a teenager's caloric intake.
2. Simple carbs, on the other hand, seduce us with their sweet taste and a brief burst of energy but have little else to offer and should be minimized in the diet.

Dietary Fat

Fat should make up no more than 30% of the diet. Fat supplies energy and assists the body in absorbing the fat-soluble vitamins: A, D, E, and K. But these benefits must be considered next to its many adverse effects on health. A teenager who indulges in a fat-heavy diet is going to put on weight, even if he's active. It would take a workout befitting an Olympic athlete to burn off excess fat calories day after day.

Fatty foods contain cholesterol, a waxy substance that can clog an artery and eventually cause it to harden. The danger of atherosclerosis is that the blockage will affect one of the blood vessels leading to the heart or the brain, setting off a heart attack or a stroke. Although these life-threatening events usually don't strike until later in adult life, the time to start practicing prevention is now, by reducing the amount of fat in your family's diet.

Dietary fat contains varying Proportions of three types.

1. Monounsaturated fat the healthiest kind; found in olives

and olive oil; peanuts, peanut oil and peanut butter; cashews; walnuts and walnut oil, and canola oil.

2. Polyunsaturated fat found in corn oil, safflower oil, sunflower oil, soybean oil, cottonseed oil, and sesame-seed oil.
3. Saturated fat is the most cholesterol laden of the three; found in meat and dairy products like beef, pork, lamb, butter, cheese, cream, egg yolks, coconut oil, and palm oil.

You want to limit your family's intake of saturated fat to no more than 10% of your total daily calories. The other 20% of daily calories from dietary fat should come equally from the two unsaturated kinds of fat, both of which are contained mainly in plant oils. If your family eats a lot of packaged and processed foods: Make a habit of reading the food labels. You may be surprised to see how much fat, sugar, and salt (sodium), is in the foods you eat every day. And almost all packaged goods that contain fat are likely to have partially hydrogenated fat, because it has a longer shelf life.

Vitamins & Minerals

Vitamins and Minerals do not give you more energy, but they help to unlock the energy stored in food so your body can use it as fuel. Your body needs calcium, magnesium, fluoride, and vitamin D to keep bones strong. You should be getting these from the food you are eating, but if you are not, try taking daily supplements.

Water

A human body is mostly water, comprising over 60 percent of your weight. Water plays a big part in keeping you cool, as well as in flushing toxins from your system. When you exercise strenuously, you can lose a significant amount of fluid, and it is important to replace that fluid (rehydrate) so that your body can continue to function at its best. Signs of dehydration include feeling dizzy or lightheaded, having a dry mouth and not urinating as much as usual. If you are dehydrated, you will not be as strong and your reactions will not be as fast as they could be.

These "sports foods" won't really help you any more than any other sources of protein or carbohydrate. But they won't hurt you, either. It just depends on what you prefer to eat and drink. The promise of increased strength and endurance in athletic performance can be tempting. Many supplements are available without a prescription, and claim to provide unparalleled performance. It is important to remember that even if such supplements are marketed as "safe," they are tested on adults, not on growing teens. Some supplements, such as anabolic steroids, are legally available only by prescription.

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