



Top Nutrition Tips for School Athletes

Health Benefits of Exercise

- Weight control and weight loss
- Improved insulin sensitivity - 30 min/day helps lower glucose levels by approximately 23mg/dL.
- Increased lean body mass
- Decreased risk of chronic diseases such as CVD, stroke, metabolic syndrome, etc.
- Improved energy and mood

Common Nutrition Mistakes

- Not drinking enough fluids
- Not choosing the most appropriate fluids
- Eating sporadic meals
- Being inconsistent with eating day to day
- Not eating enough calories
- Not getting a good balance of foods/nutrients (Carbohydrate, protein, and fat)
- Making food choices that hurt performance
- Waiting too long to refuel after exercise
- Making drastic changes in diet to alter body composition and body image

Benefits of Optimal Fueling

- Optimal performance (longer training session)
- Improves strength, speed, and stamina
- Mental clarity or concentration
- Faster recovery
- Injury prevention
- Delays onset of fatigue
- Reduces the chance of injury
- Enhanced healing of injuries

Appropriate Nutrition

- Athletes need to consume adequate energy during periods of high-intensity and/or long-duration training to maintain body weight and health and maximize training effects.
- The only nutrients that provide calories are carbohydrates, protein, and fats.
- Low energy intakes can result in:
 - loss of muscle mass
 - menstrual dysfunction
 - loss of or failure to gain bone density
 - increased risk of fatigue, injury, and illness
 - prolonged recovery process

What happens when you are dieting

- Athletes who restrict energy/calorie intake or use severe weight-loss practices, eliminate one or more food groups from their diet, or consume high- or low carbohydrate diets of low micronutrient density are at greatest risk of micronutrient deficiencies.
- Low energy intake (e.g. $\leq 1800\text{--}2000$ kcal/day) for female athletes is a major nutritional concern because a persistent state of negative energy balance can lead to weight loss and disruption of endocrine function, leading to amenorrhea (no menstrual cycles).

Nutrients Needed for performance

- A well-balance diet to support optimal nutrition consist of the following macronutrients:
 - Carbohydrate: 45%-65%
 - Fat: <35% (<10% saturated fat)
 - Protein: 10%-35%

MACRONUTRIETNTS

Carbohydrates

- The primary fuel for most types of exercise and the most important nutrient for athletic performance
- Needed to maintain blood glucose levels during exercise and replace muscle glycogen.
- Carbohydrates should be eaten at all meals and before and after exercise
- Low-carbohydrate diets are NOT appropriate for athletes!
- Carbohydrate Recommendations:
 - 5-7 g/kg per day for general training
 - 7-10 g/kg per day for endurance athletes
- At meals, carbohydrates should take up 2/3 of your plate
- Choose from a variety of carbohydrate foods!

Protein

- Used for building and repairing muscles, red blood cells, hair, and other tissues
- Used for energy when carbohydrates are not available
- Recommendations:
 - 1.2- 1.4 g/kg per day for endurance athletes

- 1.2-1.7 g/kg per day for strength athletes
- Protein from food or a protein supplement acts the same in the body
- However, food is the easiest and least costly way to meet protein needs!
- Athletes get enough protein for muscle growth and repair in an average mixed diet
- Although in athletes, protein needs are slightly higher than non-athletes, research shows that most athletes can eat enough protein without using additional supplements or following a high-protein diet! Extra protein not needed by the body is burned for energy or stored as fat!

Fat

- Helps sustain prolonged exercise
- Source of stored energy, burned mostly during low-level activity and when other sources are not available
- Fat should comprise between 20-35% of our total calories
- However, consuming $\leq 20\%$ of energy from fat does not benefit performance

How does this Information translate to your plate?

- 2/3 of the plate as complex carbohydrates:
 - Whole wheat breads, cereals, pasta, fresh fruits and vegetables and legumes
- 1/3 of the plate as lean protein (80-100 grams):
 - Chicken, fish, lean red meats, nuts, seeds, yogurt, milk, soy foods and eggs
 - Choose healthy fats:
 - Avocado, olive oil, nuts, and low-fat cheese
- **Snacks:** chocolate milk, cheese stick and crackers, apple sauce, yogurt

Healthy Habits

- Breakfast is a must!
- Something to eat/drink every 3-4 hours
- Meal 3-4 hours BEFORE workouts
- Snack 1 hour BEFORE workout
- Carbohydrate food/fluid DURING practices/games
- Carbohydrate food/fluid within 15 minutes AFTER practices/workouts