



Sports Shorts

GUIDELINES FOR PEDIATRICIANS

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Nutrition for Sports Performance

Why is sports nutrition important?

Proper nutrition needs to be part of a young athlete's workout plan. The benefits of a healthful eating plan include:

- Prevention of injuries
- Strengthens the immune system
- Decreased muscle fatigue
- Optimizes muscle recovery and stamina
- Heightened focus and attention span
- Avoidance of gastrointestinal distress

What makes up a healthy meal or snack?

Carbohydrates and protein should be the center of meals and snacks. All carbohydrates are converted to glucose and supply the working muscles and brain with energy needed for exercise. Protein helps prevent hunger and aids in muscle recovery post exercise. A meal or snack that is high in fat should be avoided immediately before exercise. Foods high in fat have a greater transit time through the digestive system compared to carbohydrates and protein. The high fat content could potentially disrupt the young athlete's digestive system.

When should I be concerned an athlete is not fueling their sport properly?

Identifying the differences between disordered eating patterns and true eating disorders can be challenging. Eating disorders are multifactorial and complex conditions which can have serious physical and mental side effects if left untreated. Almost a half million teenagers in the United States are currently being treated for eating disorders or disordered eating. In May 2013, the American Psychiatric Association released the DSM-5 criteria, which includes diagnostic criteria for 4 types of eating disorders: anorexia nervosa, bulimia nervosa, binge eating disorder, and eating disorder not otherwise specified (EDNOS). EDNOS does not definitively meet the criteria for the three previously mentioned types of eating disorders, but can still create significant health concerns. The Ohio High School Athletic Association advises seeking medical care for athletes if the following signs or patterns are observed:

- Repeatedly expresses concerns about being fat
- Preoccupation with food, calories, and weight
- Increase in the criticism of one's body
- Low self-esteem and role-conflict issues
- Mood swings (irritability, inability to concentrate, fatigue)
- Extreme loss or fluctuations in weight
- Change in menstrual cycle (does not have a cycle each month or complete absence)
- Avoidance of eating in public
- Making trips to the bathroom after large meals
- Excessive use of laxatives
- Engaging in physical activity above and beyond the requirements of training program

- Wearing layered or baggy clothing
- Bloodshot eyes, swollen parotid glands
- Hair thinning or loss
- Headaches, dizziness, numbness/tingling down the limbs (due to electrolyte imbalances)

What are some methods for proper hydration techniques?

Proper hydration is crucial for optimum performance and temperature regulation within the body. Dehydration could lead to heat exhaustion and stroke, muscle cramps, decreased performance, and worst case scenario- death. Pre-pubescent children have greater fluid needs per kilogram of body weight than adults. Children are also more sensitive to extreme temperatures and concurrently have a greater risk of dehydration. To stay properly hydrated:

- Stick to water, milk, and 100% fruit juice as proper hydration methods
 - Limit juice to 4-6 oz per day
 - Have 2-3 glasses of milk per day
- Aim for at least 64-80 ounces of water per day or 1 mL per kilogram of body weight
- Sports drinks should be used in the following situations:
 - Exercising for over 60 minutes
 - Hot, humid summer days
 - Salty, heavy sweater
- Do not use sports drink as a casual beverage throughout the day or with meals
- Avoid packets and drops to flavor water. They contain artificial sweeteners, food dyes, and additives.
- The color of your urine should be clear to light yellow. If urine is dark yellow, start drinking water as soon as possible!

Should athletes take sports supplements or energy drinks to optimize performance?

Supplements are appealing because they often offer a "quick" fix and have attractive media and marketing strategies. However, supplements do not have to be proven safe or effective before they hit store shelves and do not have to accurately list the ingredients found in their products. Supplements are removed from stores or have sales restriction only when they are shown to be harmful. Consuming a well-balanced diet, adequate caloric intake, and maintaining proper hydration techniques should be utilized as a firsthand method of performance enhancement.