



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.

This information is available on the Ohio Chapter, American Academy of Pediatrics' website at www.ohioaap.org



Sports Shorts

GUIDELINES FOR PARENTS

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Nutrition for Sports Performance

Why is sports nutrition important?

Young athletes train long hours for their sport. In order to optimize that training, proper nutrition needs to be a regular component of their workout plan. Healthy eating has to be a priority; meal and snack planning takes extra time and is often pushed to the side due to hectic family schedules. A healthy eating plan can help prevent injuries, decrease muscle soreness, improve energy levels, and improve focus.

What makes up a healthy meal or snack?

Carbohydrates and protein should be the center of your meals and snacks. High-fat meals that are fried or covered in creamy sauces should be avoided immediately before exercise.

Meals

- Whole wheat pita with turkey, cheese, and vegetables; banana, a glass of low fat milk
- Rice bowl with brown rice, beans, cheese, salsa, vegetables, avocado
- Stir fry with chicken or lean steak, veggies, and brown rice

Snacks

- Smoothie with yogurt and frozen berries
- Graham crackers with peanut butter and 1 glass of chocolate milk
- Eggs (1-2) on whole grain toast
- Bagel, english muffin, crackers, or toast with peanut butter
- Half peanut butter/jelly or banana sandwich
- Cottage cheese with fruit
- String cheese or any cheese portion with pretzels or crackers

How can I eat healthy between practices, games, tournaments?

It is very important for athletes to eat on a regular schedule especially on days with multiple games and tournaments. You want to avoid the "something is better than nothing" mentality. Here are some quick tips:

- Pack a cooler! Fill it with fruit kabobs, veggies with dip, yogurt cups, string cheese, small milk jugs, and sandwiches.
- If you go through the drive thru, make healthy selections including grilled chicken sandwiches, salads or wraps, bean burritos, veggie pizza, baked potatoes, fruit, and yogurt.
- Avoid engineered sports fuels including bars, sports drinks, and gels. These are not necessary in an active athlete's diet. Eat real food!
- Create a parents group that rotates providing the team healthy snacks.
- Always keep snacks in your sports bag or purse just in case.

What are some methods for proper hydration techniques?

- 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
- Sports drinks should be used in the following situations:
 - Exercising > 60 minutes especially for help fueling back to back games
 - Hot, humid summer days
 - If you are a very salty, heavy sweater
- Do not use sports drink as a casual beverage throughout the day or with meals.
- Try infusing your water! Add fruit and herbs such as strawberry, oranges, lemons, limes, grapefruit, mint, or basil.
- Avoid packets and drops to flavor water. Avoid soda, sugary beverages, energy drinks, coffee, and tea.
- Monitor the urine. The color of urine should be clear to light yellow (like lemonade).

What and when should you eat before practice or competition?

- Your body needs a well-balanced meal or large snack 3-4 hours prior to competition. For morning competitions and practice, try 2 hours beforehand.
- Have a small snack 30-60 minutes before competition.

What should you eat after practice or competition?

- You should have a snack or meal within 15-60 minutes of exercise
- If you are not able to eat solid food after exercising, try something liquid based like white milk, chocolate milk, or a fruit smoothie made with yogurt.

Should I take sports supplements or energy drinks to optimize my performance?

No. 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 only when they are shown to be harmful. Instead focus on a well-balanced diet, proper meal timing, and good hydration techniques for sports performance enhancement.

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