Fueling As A Student Athlete

OPTIMAL ENERGY FOR DEVELOPMENT & ATHLETIC PERFORMANCE

Fueling Life NUTRITION

Proper nutrition is necessary for optimal performance on the field, mat, course, or pool, but also for growth and development. It's important to provide adequate energy and nutrients to support physical performance, academic obligations, and social relationships. Fuel choices and timing can positively impact performance and set the stage for healthy eating patterns later in life.

What to Eat: FUEL SOURCES

Carbohydrates

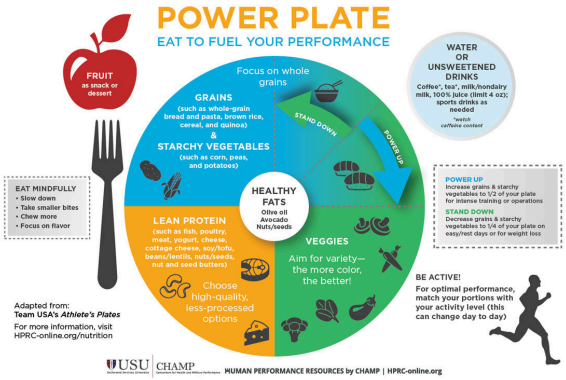
- The body's preferred energy source used by the brain and muscles.
- Adequate carb intake supports training, endurance, and speed.
- Carbs are protein-sparing and allow for proper growth and development.
- Carbs provide vitamins, minerals, and fiber which support overall health and reduce disease risk.
- Carbs are found in all grains, fruits, starchy vegetables, & dairy such as milk and yogurt.
- Aim for a variety of sources at each meal and snack.

Protein

- Protein has specific roles in the body to include building muscle, exercise recovery, supporting immunity, fluid balance, hormone development, and more.
- It is not a primary energy source. Intense exercise increases protein needs.
- Protein is found in lean meats, dairy, vegetables, whole grains, nuts, seeds, and beans.
- For healthy nutrition choose chicken, turkey, lean ground beef, eggs, salmon, tuna, black beans, low-fat plain yogurt, and a variety of vegetables.

Fat

- Children and adolescents rely more on fat as a fuel source than adults do.
- Fat supplies energy for low to moderate exercise.
- The body stores fat in order to meet these needs.
- Fat also supports immune function.
- Dietary fat from unsaturated sources promotes lasting health benefits.
- Choose primarily plant oils, nuts, seeds, nut butters, avocado and fatty fish.
- Limit saturated fats from fried foods, fatty meats, butter, chips, and pastries.



Aim for an "*Power Plate*" to get in adequate energy and nutrients. **Appetite is not a good indicator of nutrition needs for youth athletes,** especially in adolescence, as exercise can dull the appetite. Encourage 3 meals and 2-3 snacks per day to achieve adequate energy intake.

Nutrients of Concern

It's important to get a balanced and varied diet to prevent deficiencies and promote optimal performance and development. The intake of these four nutrients tend to be lower in youth athletes. Include these food sources to boost intake.

Iron: Lean red meat, chicken, dark leafy greens, beans, fortified cereal

Vitamin D: Mushrooms, egg yolks, fortified foods, supplements

Calcium: Dairy products, dark leafy greens, broccoli, fortified foods

Omega-3: Fatty fish, flaxseed, chia seeds, walnuts, soybeans

When to Eat: FUEL TIMING

***Fueling Up*:** A pre-exercise meal or snack helps to increase glycogen stores in the muscle and provides energy before activity. It can help with overall performance and recovery.
3-4 hrs before: Meal with protein, fat, and complex carbs
30 min - 2 hrs before: Small snack such as fruit, graham crackers, applesauce, granola bar

***Fueling Through*:** During practice or games/meets lasting longer than 60 minutes, fueling through with fluids, simple carbohydrates, and electrolytes can help to improve performance, decrease fatigue, increase endurance, and support agility.
Fluids: 5-9 ounces every 15-20 minutes
Simple carbohydrates: Sports drinks, chews, or gels; fruit snacks, orange slices, or melon

Refueling: Recovery nutrition helps support the recovery and repair of muscles, helps to prevent injuries, and decreases muscle soreness in youth athletes. Aim to consume foods with carbohydrates and protein within 30-60 minutes after games or practices. This can be a meal or a snack.
Snack Ideas: Fruit & string cheese, yogurt smoothie, turkey sandwich, banana & peanut butter, hard-boiled egg & whole-grain crackers, trail mix with pretzels and nuts

What Not to Eat for Competition & Practice

- **BEFORE**: Avoid fried food and foods high in fat and/or fiber to avoid GI distress and hindering performance.
- **DURING**: For events over 60 minutes, avoid having nothing, sugar-free sports drinks, soda, or straight fruit juice. The body needs quick energy, but too much sugar and carbonation can cause GI distress and hinder performance.
- **AFTER:** Avoid skipping meals or snacks after practice and games. Exercise can decrease appetite, but a little nutrition can help to improve performance. Include carbs and protein at this time.