BEST CHILDREN'S HOSPITALS
U.S.News & WORLD REPORT
ORTHOPEDICS
2024-2025

main players in sports nutrition

To play and compete your best you'll want to include ALL of these main nutrients in your training plan! Allowing these micro- and macro-nutrients to be your teammates will help you achieve your goals in athletics and beyond! Eating to reach your peak performance likely doesn't require a special diet or supplements; it is all about working the right foods into your training plan.

dayton children's

the main players in sports nutrition

the offensive players

Macro-nutrients that allow you to be the best athlete you can be.

performance carbohydrates

The preferred fuel for athletic performance! Carbohydrates have glucose in them, which gives you energy. Glucose is released into the muscle up to three times faster than energy from fat sources. And when it's not used immediately, glucose is stored in the muscles and liver as glycogen. When you exercise, your body draws on stored glycogen until it's gone, and then you will no longer be able to perform at a high intensity.

TIP | Carbohydrates are found in whole grain bagels, breads, crackers, and pastas. Other carbohydrate sources include potatoes, bananas, raisins, apples, applesauce and grapes.

recovery protein

Protein steals the show of recovery and repair! Protein's main role is to build, maintain and repair muscle and tissues in the body. But, like most things, you need to eat it in moderation. Eating large amounts of protein can result in dehydration, urinary loss of calcium, weight gain, and stress on the kidneys and liver. Consume a snack that has 10–20 grams of protein after training sessions.

TIP | Protein is found in lean meats, poultry, eggs, fish, and low-fat dairy products such as Greek yogurt and chocolate milk.

heart-healthy fat fuel

Don't forget about this teammate! Heart-healthy fats include monounsaturated and polyunsaturated fats that give you long-lasting energy as you burn through carbohydrates. Be mindful of trans fats and saturated fats, which are found in high-fat meats and high-fat dairy products. Keep in mind that fat fuel sources, although heart-healthy, can slow digestion. Avoid eating these foods close to your athletic event.

TIP | Healthy fat fuel is found in fish, nuts, seeds, olive and canola oil, and avocados.

defensive players

Hydration, vitamins and minerals keep your athletic performance strong and prolonged.

hydration

Don't forget to hydrate! Along with fueling your body with enough energy, hydration is an important component of sports nutrition. It's important for athletes to consume enough fluids because they lose water through sweat and hard breathing. The best way to prevent dehydration is to maintain your fluid levels by consuming plenty of fluids before, during and after exercise.

Know when you're dehydrated. If your urine is light yellow or clear, you are good. If your urine is dark, you need fluids. Don't wait until you feel thirsty to consume fluids!

vital vitamins and muscular minerals

Getting vitamins and minerals from real food is the best way to nourish your body. Fruits and vegetables contain various vitamins and minerals such as B vitamins, calcium, vitamin C, vitamin D, magnesium, selenium and iron. Some vitamin and mineral deficiences can cause fatigue that may affect athletic performance. Talk to your doctor or registered dietitian to determine what might be missing.

players on the bench

Supplements and energy drinks.

sports supplements

Do not take sport supplements without first discussing it with your team of providers! Many sports supplements are sold over the counter as dietary supplements. It is common for individuals to be unaware of the lack of FDA oversight of supplements. This lack of regulation can result in risk of contamination with prohibited substances or the absence of important active ingredients in these supplement products. Certain supplements may claim to increase sports performance, increase muscle mass, increase speed and endurance and decrease recovery time. These supplements can include protein supplements, ergogenic aids, caffeine, and creatine. These claims may be unreliable and these supplements may even pose health risks.

energy drinks

Keep in mind, energy drinks are not the same as sports drinks! Energy drinks contain high amounts of caffeine along with other stimulants that enhance the effect of caffeine. This combination can be toxic and detrimental to an athlete.

Energy Drinks ≠ **Sport Drinks**

the BIG day

pre-athletic event

Tag in your carbohydrate-rich teammates 3–4 hours before your athletic event to top off your muscle stores. **TIP** | Eat a fast-acting carbohydrate snack like a piece of fruit, and drink water 30-60 minutes before your event.

during athletic event

For prolonged exercise, always start well-hydrated and with adequate energy. Eat carbohydrate-rich foods and sports drinks that contain electrolytes. Avoid drinks with slow-digesting ingredients.

post-athletic event

Eat protein and carbohydrates 15-30 minutes after your athletic event. This will help refuel, repair muscles and restore fluids/electrolytes.

competition day wrap-up

Fueling properly will support your performance and overall health. Inadequate nutrition puts you at risk for nutrient deficiencies, injury and slowed growth.

dayton children's