

Basic Nutrition: Young Athletes

PRESENTED BY: NICHOLAS PROSSER, D.C.



PROACTIVE CHIROPRACTIC
6605 PITTSFORD-PALMYRA RD #E9
FAIRPORT, NY

Goals of Presentation:

1. Provide key points to pass along to both the athlete and parents
2. Establish successful eating habits for proper growth and long term health
3. Improve knowledge on basic nutrition
4. Hand out tips for parents to review and try to implement



Topic Breakdown

1. Hydration
2. Macro-nutrition-Fat, Protein, Carbohydrates
3. Micro-nutrition- Vitamins and Minerals
4. Tips for successful implementation

Hydration-

Yesterdays hydration is a large part of today's performance.

- Average young athlete can and should get all the necessary hydration by drinking plenty of water before, during, and after exercise.
- During increased activity, drinks should be available at all times with water breaks ~20 minutes.
- 12-ounce Gatorade contains 21 grams of sugar. A soft drink of the same size totals 23 grams of sugar.
- Avoid Energy drinks- Especially at young ages.
 - A 24-ounce energy drink can pack 500 mg of caffeine, the equivalent of five cups of coffee!

Nutrition Facts

Serving Size 12 fl oz (355 mL)
Servings Per Container 1

Amount Per Serving

Calories 80

% Daily Value*

Total Fat 0g 0%

Sodium 160mg 7%

Potassium 45mg 1%

Total Carbohydrate 22g 7%

Sugars 21g

Protein 0g

Not a significant source of calories from fat, saturated fat, trans fat, cholesterol, dietary fiber, vitamin A, vitamin C, calcium, and iron.

*Percent Daily Values are based on a 2,000 calorie diet.

WATER, SUGAR, DEXTROSE, CITRIC ACID, SALT, SODIUM CITRATE, MONOPOTASSIUM PHOSPHATE, GUM ARABIC, GLYCEROL ESTER OF ROSIN, NATURAL FLAVOR, YELLOW 5

Last updated on January 10, 2019.



<https://kidshealth.org/en/parents/power-drinks.html>

<https://www.healthline.com/health-news/energy-sports-drinks-shouldnt-be-given-to-children#3>

Hydration Tips:

Parents are one of the most powerful forces for change

- ✓ 50/50 water and sports drink- dilution
- ✓ Urine color should be clear/light straw color
- ✓ No need for sports drinks when not active= increased sugar intake (hyperactivity, weight gain, obesity & tooth decay)

The recommended daily amount of fluids is:

- ▶ 5 glasses (1 liter) for 5 to 8 year olds
- ▶ 7 glasses (1.5 liters) for 9 to 12 year olds
- ▶ 8 to 10 glasses (2 liters) for 13+ years

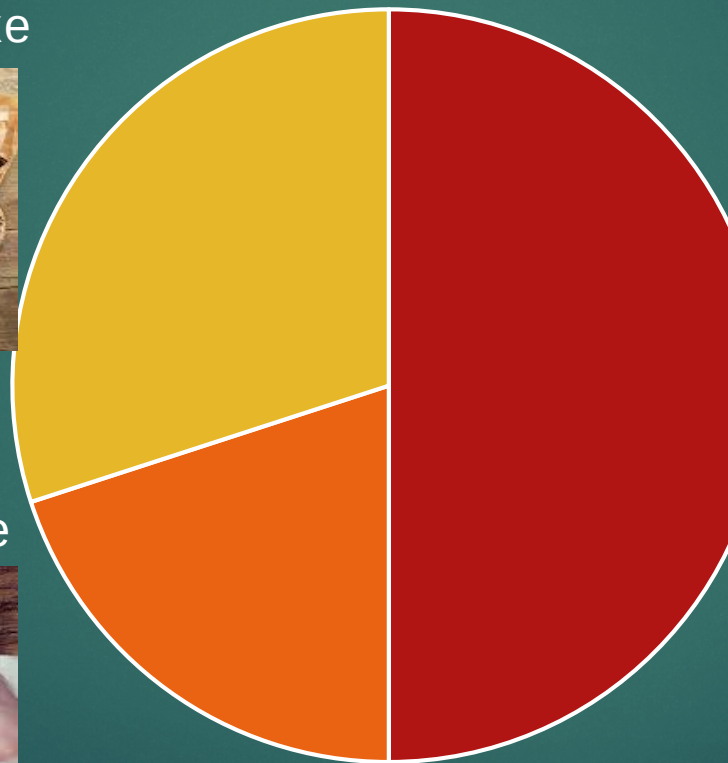


Macronutrients- % Daily Intake

25-35% Caloric Intake



10-30% Caloric Intake



45-65% Caloric Intake

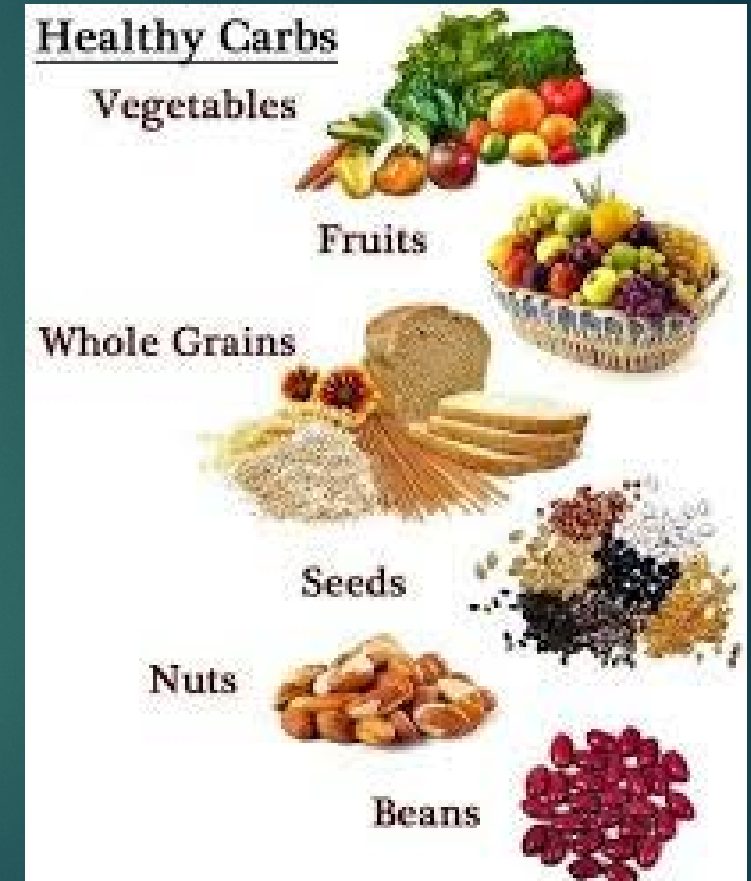


■ Carbs ■ Protein ■ Fats

Macronutrients

Carbohydrates

- ▶ Carbs are the most important fuel source for athletes because they provide the glucose used for energy.
(Glucose is stored as glycogen in muscles)
- ▶ Due to their lower glycogen stores, young athletes will likely experience accelerated rates of fatigue
- ▶ With reduced muscle glycogen stores the need for dietary sources of carbohydrate becomes increasingly important during high exercise intensity/demand.
- ▶ Sources: whole grains, vegetables, fruits, milk and yogurt
 - ▶ Avoid Bleached “White” Foods- No nutrients
- ▶ **TAKE AWAY- For the long tournament weekends or two-a-day training, eating healthy carbs in-between activity is vital for blood sugar levels/energy.**



Macronutrients

Protein

- ▶ Proteins build and repair muscle, hair, nails and skin.
- ▶ For mild/short duration exercise, proteins are not primary sources of energy. However, as exercise duration increases, proteins help maintain blood glucose levels.
- ▶ Good sources of protein include lean meat and poultry, fish, eggs, dairy products, beans and nuts
- ▶ In General youth athletes are achieving protein intakes greater than the RDA. Thus no need to promote increased protein intake in youth.
- ▶ **TAKE AWAY: No need for protein supplementation**



Macronutrients

Fats

- ▶ Fat is necessary to absorb vitamins (A, D, E, K), to provide essential FA for the brain and produce hormones for adolescents.
- ▶ Increase of dietary carbs should account for a majority of the increased caloric demands, NOT an increase of dietary lipids/fats.
- ▶ Youth require advice that potentially becomes healthy behaviors in adulthood = decreasing risk of chronic diseases.
- ▶ **TAKE AWAY: For youth, healthy habits of proper fat intake create long term improved health.**

THE FACTS ON FAT

The American Heart Association recommends replacing bad (saturated) fats with good (unsaturated) fats as part of a healthy eating pattern.

LOVE IT
UNSATURATED (POLY & MONO)
• Lowers rates of cardiovascular and all-cause mortality
• Lowers bad cholesterol & triglyceride levels
• Provides essential fats your body needs but can't produce itself

LIMIT IT
SATURATED
• Increases risk of cardiovascular disease
• Raises bad cholesterol levels

LOSE IT
ARTIFICIAL TRANS FAT, HYDROGENATED OILS & TROPICAL OILS
• Increases risk of heart disease
• Raises bad cholesterol levels

EAT SMART ADD COLOR MOVE MORE BE WELL

LEARN MORE AT [HEART.ORG/EATSMART](https://www.heart.org/eatSMART)

Micronutrients

Vitamins and Minerals

(AMA) recommends nutrients be obtained from food sources rather than supplements in healthy children. However mineral intake can be difficult to meet- Especially females with Fe⁺ & Ca⁺

Iron: (Fe⁺)

- Primary concern with young females
- iron-rich foods: red meat, beans, and green vegetables.
- Athletes will find additional benefit from: peanuts, dried fruits and iron-fortified cereals as regular snacks.
- Always strive to get nutrients from food but supplements are there for additional help.
*Consult Professional advice

Calcium: (Ca⁺)

- Calcium requirements are greatest during adolescence- Bone Growth
- US adolescents' average intake falls **below** the minimum recommendations
- Breakfast consumption is associated with greater calcium intake among this age group (fortified orange juice, almonds, and broccoli)
- Vit. D is required to absorb Ca⁺ (sun exposure)

Things to keep in mind

- ▶ **Eat main meals** a minimum of 3 h before an event
 - ▶ Allowing proper digestion and to minimize upset GI during exercise.
 - ▶ Meals should include proportional carbohydrates, proteins and fats.
 - ▶ High-fat meals should be avoided before exercise= delay gastric-emptying, make athletes feel sluggish
- ▶ **Pre-game snacks or liquid meals** should be ingested 1 to 2hr prior
 - ▶ Snacks can include fresh fruit, dried fruit, a bowl of cereal with milk, juice, trail mix or fruit-based smoothies. This is where meal prep/ grab'n'go snacks are quick and healthy.
- ▶ **During an event**: Diluted sports drinks, fruit or granola bars can be ingested to help refuel and keep energy levels high.
- ▶ **Post Exercise**: Quality carbohydrates to replenish muscle fuel stores- which young adults loose faster. Some lean protein to promote muscle repair and rehydrate with plenty of water.

Keep it Simple for long term use!

Tips/Meal Prep Ideas:

- ▶ Meal prep for after school/on the way to practice snacks
 - ▶ Pre made trail mix with nuts, dried fruit, dark chocolate, etc.
- ▶ Always avoid fast food prior to exercise- sluggish
- ▶ Use leftovers for next day lunch or afternoon snack
- ▶ Cut up fruit/veg for easy to go snack using small reusable containers
- ▶ Make your own protein bars, buying in bulk.
- ▶ Utilize crockpot meals for overnight or during the day cooking



***Do a little research and find what works for you and your family!**



Big Picture= Healthy Habits into adulthood

“Nutrition is an important part of sport performance for young athletes, in addition to allowing for optimal growth and development. Macronutrients, micronutrients and fluids in the proper amounts are essential to provide energy for growth and activity. To optimize performance, young athletes need to learn what, when and how to eat and drink before, during and after activity.”

These skills will translate to healthier lifestyle choices in their future.

Thank you for your time!

Any Questions?

Dr. Nicholas Prosser

- ▶ Doctor of Chiropractic
- ▶ Proactive Chiropractic
 - ▶ 6605 Pittsford- Palmyra Rd #E9 Fairport, NY
 - ▶ Phone: 585-223-1580
 - ▶ Email: proactivechirony@gmail.com
 - ▶ Website: www.proactivechirony.com

