

# BUILDING MUSCLE

## HEALTHY LIVING FOR ATHLETES



SCOTTISH RITE  
FOR CHILDREN  
SPORTS MEDICINE

## MAKING NUTRITION COUNT

Young athletes who are involved in strength-based and power sports may desire to increase their muscle mass. Those who are at the appropriate developmental stage should be able to achieve his or her goals by following the guidelines below, and without nutritional supplements.

Before setting any goals, it is important to understand that young athletes will not gain muscle mass like an adult. A young, pre-pubertal athlete can still build muscle, but the level of hormones needed to support larger gains in muscle, like those often desired by young males, will not be present until after puberty.



## NECESSARY COMPONENTS FOR BUILDING MUSCLE

### ADEQUATE CALORIES

Getting enough calories or increasing daily calorie intake is essential to building muscle.

Ways to increase calories:

- Increase the number of meals or snacks eaten per day. Most young athletes need a minimum of 3 meals and 2 snacks per day.
- Add spreads, such as avocado, hummus, pesto or mayonnaise to sandwiches and wraps.
- Choose heartier or thicker slices of bread.
- Include oatmeal or fresh smoothies with breakfast or snacks. Include items such as milk, yogurt, peanut butter, almond butter, honey, fruit, flax or chia seeds.
- Choose nutrient-dense cereals such as granola, Raisin Bran®, shredded wheats or Grape-Nuts®.

### RESISTANCE TRAINING

Exercises like lifting, pushing and pulling an outside force create changes within the muscle that result in longer, stronger and bigger muscles.

These should be developmentally appropriate and initiated with the help of a licensed professional.

### PROTEIN

Protein is the key nutrient for building muscle and should be included in all meals and some snacks.

Ways to increase protein:

- Add an egg or Greek yogurt with breakfast.
- Choose granola bars that contain whole grains, nuts or seeds.
- Include string cheese with a snack.
- Add a glass of milk or chocolate milk with meals or snacks.
- Include beans, nuts and seeds in salads.

### CARBOHYDRATES

Carbohydrate is the main source of energy for working muscles and the brain. It should be present in all meals and snacks to provide energy while allowing protein to build desired muscle mass.

Carbohydrates suggestions:

- Whole grain bagels or English muffins.
- Fresh or dried fruits.
- Starchy vegetables like white potatoes, sweet potatoes, peas, corn or winter squash.
- Rice, pasta, quinoa, couscous, etc.
- Milk or yogurt (also great sources of protein and calcium).
- Whole grain crackers, cereals, granola bars.

*If you need help getting started, ask your clinic team for a consult with the Scottish Rite sports dietitian who can help you create a plan, recommend products and support you as you work towards your goals.*

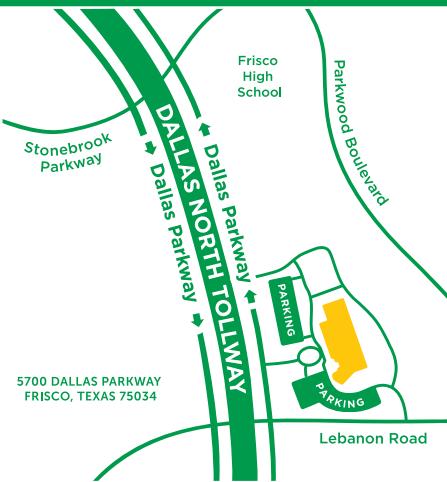
# SCOTTISH RITE FOR CHILDREN® SPORTS MEDICINE

The Center for Excellence in Sports Medicine at Scottish Rite for Children is a comprehensive practice specializing in the treatment of sport-related injuries and conditions in young and growing athletes. Sports Medicine physicians, pediatric orthopedic surgeons, physical therapists, athletic trainers, psychologists and others work side-by-side with athletes, parents and coaches to develop the best game plan for recovery.



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*This material is for informational purposes only. It does not replace the advice or counsel of a health care professional.*

## KEYS TO SUCCESS

- **Be realistic.** Young, pre-pubescent athletes will not gain muscle mass like an adult.
- **Work on body composition changes during the off-season.** Trying to make big changes during the season could lead to decreased performance or injury.
- **Plan for gradual weight gain.** Include a well-balanced diet and a developmentally appropriate strengthening program.
- **Remember the overall goal is optimal performance.** Measure improvements in performance (jumping height, running distance, etc.), not a number on the scale.
- **Focus on real food.** Rely on healthy calorie and nutrient-rich foods instead of supplements and protein powders.
- **Get enough sleep and manage stress.** These are very important parts of achieving body composition goals.

## IDEAS FOR MEALS AND SNACKS

### Less Energy-Dense Ideas

### More Energy-Dense Ideas

*Instead of these options....*

*...try these options!*

Cheerios with skim milk	BREAKFAST	Granola • 2% Milk • 1 Egg
Snack bag of cheese crackers	SNACK	Nature Valley granola bar with peanut butter
Turkey sandwich on white bread with 1 slice of cheese • Apple • Snack bag of baked chips	LUNCH	Turkey sandwich on hearty whole-grain bread with 2 slices of cheese and avocado • Apple • Snack bag of baked chips
Sliced strawberries	SNACK	Greek yogurt • Sliced strawberries
Grilled chicken • Steamed broccoli • Baked potato with butter • Water or unsweet tea	DINNER	Grilled chicken • Broccoli roasted in olive oil • Baked potato topped with butter and extra shredded cheese • Glass of milk
Nothing	SNACK	Snack-sized bag of homemade trail mix (includes: cereal, almonds and dark chocolate chips)

*Specific food and portion sizes may vary based on age, size, sports and training demands.*