



Meeting the Energy Demands of Sport

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Struggling to consume enough energy or calories to support sport performance can be a challenge, especially during high volume training days. Maintaining calorie balance, growth, and high quality food choices during the adolescent years can be tricky. A bit of forethought and planning will support the creation of an eating style for the young, highly active athlete. This article will discuss how to meet the energy demands of sport to promote performance and well being.

Target audience: parents, coaches, players, etc.

Getting Enough Fuel

Three key concepts form the foundation of adequate fueling during adolescent years: energy availability, meal or energy timing, and the idea of calorie density.

It is not uncommon for the highly active adolescent athlete to require more than 4000-5000 calories per day. It is important to have energy available to support both sports and growth.

Dividing this energy throughout the day optimizes performance in all areas of life including school and sport training.

Athletes often skip breakfast, rush through lunch, and are ready to eat the plaster off the walls after school.

Athletes can easily find themselves behind by 2000 calories; this is very difficult, if not impossible, to recover from. If at all possible, meals and snacks should not be missed.

The following suggestions may improve energy availability, allowing athletes to

perform daily tasks with more ease:

- Eat small, frequent meals every two to three hours throughout the day; skipping meals, especially breakfast, should be discouraged
- Drink supplemental drinks for extra energy (e.g., Boost®, Breakfast Essentials®); make hot cereal (e.g., oatmeal or cream of wheat) with these high calorie drinks
- Drink high calorie fluids, such as two percent or whole milk, juice, and sports drinks versus water and diet sodas
- Snack on a trail mix made of dried fruit, nuts, and a handful of dark chocolate candy

Calorie density, the amount of energy or calories provided in a specified amount of food, is the third concept that can be especially helpful. The main idea is to substitute a higher calorie alternative for a lower calorie food. An example is to consume regular granola instead of puffed rice or Cheerios®. This simple change would provide more calories

than the Cheerios® alone. This adds up and can contribute significantly to

energy availability by the end of the day. Table 1 provides some additional ideas.

Athletes who are trying to eat more will often complain that the volume of food required to eat the proper amount of calories exceeds the amount of food they can take in comfortably. There are quick additions that athletes can use that provide more energy but less volume. These foods might include: peanut or nut butter, cheese, olive oil, avocado, and butter. Table two, located at the end of the article, provides guidance for adding energy or calories during a typical training day. The key is consistency; try to deliver a similar meal plan every day.

Table 1.

Instead of this food item	Eat this instead	Energy added
16 oz plain water	16 oz chocolate milk	340 calories
1 cup Cheerios®	1 cup granola	330 calories
12 oz diet soda	12 oz orange juice	180 calories
1 handful of pretzels	1 handful of nuts	140 calories
granola bar	Clif® bar	100 calories

Table 2.

Eating Occasion	Normal Diet	Suggestions for Improved Energy
BREAKFAST	Chewy granola bar 8 oz, 100% apple juice	Change to Clif® bar Add in 8 oz yogurt
LUNCH	16 oz water Peanut Butter Sandwich Chips Clementine	Switch to 16 oz chocolate milk Add in 1 Tbsp peanut butter
SNACK	2 handfuls of goldfish crackers	Switch and use a trail mix with nuts, dried fruit, and M&Ms® instead
DINNER	3 oz ground beef in spaghetti sauce 1.5 cups pasta 1 slice bread, plain 1 cup green beans 8 oz skim milk 16 oz water	Dip bread into olive oil Switch to 16 oz milk and only 8 oz water
SNACK	Apple	Add 1-2 oz of cheese or 1-2 Tbsp PB