

Feeding The Tiger Cubs

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As a wrestling coach and a speaker at camps and clinics, I frequently meet parents and wrestlers looking for the leading nutritional advantages. The most common questions revolve around what wrestlers should eat before their matches.

These are excellent questions and appropriate because nutrition can play an important role in wrestlers competing at their best. Unfortunately, many people (including advertisers) overcomplicate the issue. True, nutrition is a complex science, but the sound principles of successfully feeding a wrestler are not complicated.

What follows is some general information about eating on the day of a competition. Many parents and wrestlers adopt these strategies, but the review may be helpful and reassuring.

A pre-competition meal should...

- be consumed a few hours before competing
- be easily digestible
- be something you like (or you are

less likely to eat it)

- consist of primarily *carbohydrate*, because fat and protein are harder to digest

Types of carbohydrates

There are basically two kinds of carbohydrates: simple (usually called sugars) and complex (commonly known as starches). The classification for simple carbohydrates can be broken down further, but for our purposes, we will focus on the major differences between simple and complex.

Sources of carbohydrates

Simple carbohydrates are found in fruits and sugars. A wide variety of commercial sweeteners such as corn syrup (in soda pop) maple syrup and fruit juice concentrate are made from simple sugars. HONEY is also a kind of a simple sugar.

Complex carbohydrates are sometimes referred to as polysaccharides, because they are formed when three or more glucose (a simple sugar) molecules are combined. The majority of carbohydrates that

exist in the plant world are polysaccharides. If more than ten of the glucose molecules combine, the structure is called a glucose polymer, an important ingredient in many sports drinks. Food labels don't report the amount of complex carbohydrates in a food, but you may get a rough estimate of the amount by subtracting the grams of sugar from the total grams of carbohydrate.

Food carbohydrate ≥ Blood sugar ≥ Muscle Sugar ≥ ENERGY

The primary site of digestion is the small intestine, by which simple sugars are absorbed into the blood. Glucose is the blood sugar, which is transported to muscle cells where it can be stored as glycogen (the important energy source during a wrestling match). *Insulin*, a hormone that helps the muscle cells take-up the blood glucose, is released in response to an increase in blood glucose.

Too much too fast

Simple sugars found in soft drinks and candy cause excessive insulin to be released (hyperglycemia) and this causes rapid absorption of glucose into the muscle cells or fat cells. Generally, this causes a depletion of blood sugar, which makes athletes feel tired mentally and physically.

Simplify the strategy with COMPLEX carbohydrates!

Complex carbohydrates generally are absorbed more slowly into the blood providing more of a "time release" kind of effect. This allows blood sugar levels to remain fairly stable, avoiding the roller coaster hyper- and hypo-glycemia. Excellent sources of complex carbohy-



Jordan Creek, Philo, Illinois, vs. Kyle Hart, Mahomet, Illinois, at the Mahomet Open Tourney. Creek won the bout by a 5-3 decision. Photo by Bob Case.

drates include cereal and milk, oatmeal, bananas, apples, beans, peas, lentils and pasta.

MUSCLE ENERGY

Because glucose is the blood sugar, the muscles have little or no preference for the original dietary source of the carbohydrate. At the muscular level glucose molecules are linked together in their storage form of glycogen, which is used for energy.

Advertisers will market the miracle diet, pre-game meal or supplement that is preferred over others, but no single solution fits every athlete. The majority of research related to carbohydrate intake and energy during competition has been conducted on ENDURANCE athletes, whose events consist of an hour or more of CONTINUOUS activity. For these athletes, the type of carbohydrate has been shown to affect performances in some cases.

In high-intensity sports, short-duration sports, like wrestling, the stores of muscle glycogen are not altered enough to cause excessive fatigue. Wrestlers who eat a small meal after the weigh-in and consume fluids (an ounce for every ounce lost making weight), and snacks throughout the day, will generally have adequate muscle glycogen and food-derived energy for a match.

Getting the wrestler to EAT...

It is difficult for some wrestlers to eat after a weigh-in when the nervousness and the site of other competitors already have the adrenaline flowing. With a little planning and experience, parents and wrestlers can overcome this obstacle.

Here are some suggestions:

1. Prepare or plan an appropriate post-weigh-in meal before leaving home. Sample meals are included at the end of this article. These are examples of the types of foods that can be eaten, not necessarily what you should bring. REMEMBER: There is no single solution; select from a variety of healthful, low-fat alternatives that your wrestler likes to eat.

2. Try to remove the wrestler from the competition area for the meal. (Too often parents are trying to get some food in a kid, and talking about who is in the weight class and who might be tough etc.)

3. After finding a quieter area, try to get the food in the wrestler as soon as possible. This will allow for more time for digestion and the adrenaline might not be as high as it will be as the first match draws near.

4. Use conversation to distract the

wrestler from the competition while he is eating. Talk about things less likely to stimulate adrenaline and nervousness. The pre-match meal is important, especially if the wrestler skipped breakfast to make weight.

5. Don't force the wrestler to eat, and recognize that some wrestlers tend to hold off on food until after the first match is behind them.

6. Throughout the remainder of competition offer smaller portions of healthful foods.

In a nutshell...

- Your muscles care less about the original source of complex carbohydrates than the athlete.
- Avoid high concentrations of sugar, which may delay stomach emptying and cause roller-coaster blood sugar levels.
- Some nutrition bars are good choices because of their nutrient balances. Examples include Power Bar, Granola Bar and other high carbohydrate-low fat bars.
- Always experiment with a pre-compe-

tion meal or between-match snacks under practice conditions first.

Sample Pre-competition Meals

(These are adult portions, and can be reduced based on appetite and time before a match)

Breakfast Meal

12 oz orange juice
Bowl of oatmeal
Two pieces of toast with jelly
Sliced peaches with skim milk

Lunch/Early Afternoon Meal

One cup lowfat yogurt
One banana
One toasted bagel
One ounce of turkey breast (one serving)
Half cup of raisins

Liquid Meal

- cup of water
 - cup nonfat dry milk
 - cup glucose polymer (like your favorite sport drink)
 - 3 cups skim milk
- Flavoring made of 1 teaspoon of vanilla, chocolate or cherry extract (depending on what sport drink used in the recipe).



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