



Sports Nutrition News & Notes

March 2005



7 Habits for Competitors

1. Eat throughout the day to maximize energy.
2. Include plenty of carbohydrates in the diet.
3. Eat the right amount of protein for your goals.
4. Know what sort of pre-event meal works best for you by practicing on non-competition days.
5. Drink plenty of fluids throughout the day everyday!
6. Plan for great recovery after any type of practice or event by having the proper snacks or meals available.
7. Know your body and plan to meet your goals.

Did you know:

- *There is a limit to how much protein our body can use to make lean mass.*
- *We need the "essential amino acids" in a combination that closely resembles the make up of human muscle.*
- *Our bodies can make some of the amino acids but not all of them.*
- *If you choose to use a protein supplement, the type and amount of amino acids is important.*

News and Notes on getting BIGGER!

There is nothing wrong with wanting to gain more muscle mass to improve performance, but many athletes think a good lean mass supplement is all it will take to achieve this muscular body. We want to help you consider this nutrition picture for gaining lean mass.

First and foremost is to meet with a number of health professionals to ensure your goals are realistic for your body frame. The athletic trainer, strength coach, sports nutrition dietitian and team physician all would help you with these goals based on your current body composition. It is not realistic or in the best interest of performance for every ath-

lete to have minimal body fat. Often when athletes try to change body composition too radically, it decreases the ability to perform.

In order to gain lean mass, the athlete needs to be committed to the weight training routine it takes to gain lean mass. The strength gains in the first 6-8 weeks of strength training are typically due to better neural coordination. The actual muscle growth is the result of at least 8-10 weeks of heavy weight training.

Obviously proper nutrition has a role in gaining lean weight. As simple as it sounds, you must provide the body with more energy than you are ex-

pending. The harder you work out, the more food (calories) you need to put in your body. The amounts of carbohydrate and protein you use to fuel this gain can be surprising and it is important to have it right.

Distribution of the calories you eat is also important. A person trying to increase lean mass should be eating 5-6 meals per day where each meal or snack includes at least 60-65% carb, about 20% protein and some fat.

Many athletes who have worked with the dietitian to make a plan for gaining weight report that they feel like they are eating all of the time..... That's what it takes!

The right amount of protein is critical for gain and your wallet

It is common for athletes to think they need to eat a very high protein diet to gain muscle mass. Sometimes this means that the athlete forgets to fuel the muscles with adequate carbohydrate.

Athletes who are trying to gain lean mass should aim to eat between 1.4 and 1.8 grams of protein per kilogram of body weight per day. This is equal to

about .6-.8 grams per pound of body weight. Use the worksheet on the back of this newsletter to figure out how much protein you need!

Just as you need enough protein to help the muscle grow, you need enough carbohydrate to support a muscle growth environment. You should be consuming at least 5 grams per kilogram carbo-

hydrate per day. Some high protein diets like the Atkins, lead you to believe that carbs in the diet mean increased body fat. Over-eating is what makes people overweight, regardless if it is protein or carbohydrate.

Check your protein carbohydrate mix in your diet to ensure optimal training results.

Supplement evaluation

If you are going to use supplements to help you achieve your goals, let's be sure they are good quality. Here is why:

The International Olympic Committee investigated 240 "Non-hormonal Nutritional Supplements" from the US. They found that 45 actually contained illegal steroid substances.

The highest standard you can look for is to see if the supplement you are thinking about is "USP veri-

fied". The logo to the right should be stamped on verified supplements. This means that the company has had the supplement independently evaluated to ensure that the ingredients listed are accurate. Learn more about this voluntary verification by visiting <http://www.usp.org/dietarySupplements/>

Don't risk a positive drug test by using a cheap and unproven supplement. Drug testing is a "strict liability" for you, which means it doesn't matter

how an illegal substance got into your system. If you fail a drug test, you will be responsible for any illegal substances!

Sports nutrition has posted educational materials regarding supplements to the homepage and supplements page of our website. All of your support staff (athletic trainers, strength coaches, sports nutritionists) would be willing to help you research a supplement you are considering.



Protein in a supplement or powdered form may not be as good a quality as you assume it to be. Be sure to do your homework if you are choosing a powdered supplement.

Eggs....actly speaking

It is possible to consume enough protein in your diet by consistently being motivated to make good protein choices. We want to help you learn about the protein content of various foods.

The chart has okay, good and great sources of dietary protein. The key is to make choices to help achieve your goals!

Do you know which ones are good, great and okay sources of protein? Which ones do you choose to eat?

	protein (grams)	fat (grams)
Wendy's grilled chicken	24	7
DQ chili cheese hotdog	14	21
Big Mac	24	34
Burger King Whopper-dbl beef	48	57
Turkey breast slices- 3 ounces	14	2
Sirloin Strip Steak, 3 oz. 1/8 th trim	22	15
Tuna, 3 oz. light, in water	22	1
Peanut butter- 4 Tablespoons	16	33
Salted peanuts- half cup	19	43
Bean burrito- 10" w/ 1 cup beans	18	9
Cheese sandwich (4 oz. Colby)	32	39
Milk, 1% for 12 ounces	14	4
Frozen yogurt, 2 cups	18	5
Pizza, DiGiorno, 1/6 th of 12" pie	18	14
Boiled eggs, 2 large	13	11
Egg whites, 2 cooked	7	0



Your Protein Calculator

Number of pounds I weigh = _____ divided by 2.2 is the number of kilograms (kg) I weigh.

_____ kg times 1.4 grams of protein is the low number of grams of protein I should aim for each day.

_____ kg times 1.8 grams of protein is the high number of grams of protein I should aim for each day.

My range of _____ - _____ grams of protein assumes a good quality protein. Animal products are usually superior to plant products in this way. Eating lean cuts of meat to achieve this protein intake is the best way to gain the muscle mass.

If I need about _____ - _____ grams of protein per day and I want to spread that out over the day, I should try to get about 25% of it at each of three meals and get about 12-13% of it in each of two snacks daily!

A few general rules you might find helpful: each ounce of meat has about 7 grams of protein and a piece of meat the size of a deck of cards is about 3 ounces.

Example for 180#:

$$180 \div 2.2 = 82 \text{ kg}$$

$$82 \text{ kg} \times 1.4 \text{ g} = 115 \text{ g}$$

$$82 \text{ kg} \times 1.8 \text{ g} = 148 \text{ g}$$

Range of 115-148 g

$$115 \div 4 = 29 \text{ grams}$$

148 \div 4 = 37 grams so
29-37 grams per meal
14-18 g per snack

OR this is 16-21 ounces of meat

4-5 ounces per meal,
2-3 ounces per snack

Count your grams!!

You end up getting a lot of protein from other foods too, *don't just count the meat.*