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“Nutrition: Getting Down to the Nitty Gritty”

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In the last article we discussed how many calories you personally require each day. Now that you *how much* you should eat, how do you know *what* you should eat to optimize health and nutritional benefits while maximizing weight loss at the same time?

In 1997, the Food and Nutrition Board of the National Academy of Sciences created Dietary Reference Intake (DRI) recommendations with respect to nutritional intake. DRIs have been established for just about every nutrient, vitamin and mineral, and they have been tailored to each life stage (age), gender, and even for pregnant or lactating women. They are extremely comprehensive and can be viewed by visiting www.usda.gov

Carbohydrate

Carbohydrates have been given a “bad wrap” in the past, however, they are the most important food group for emergency service professionals and athletes alike. The brain as well as muscles and heart utilize and *require* adequate carbohydrates to function properly. A constant supply of blood sugar, or carbohydrates in their simplest form, allow you to fight longer, deliver more powerful strikes, and allow you to think and respond more rapidly or perhaps even more appropriately during the fight-or-flight response.

Examples of carbohydrates include fruits, vegetables, pasta, bread, rice, and potatoes. They contain 4 calories per gram, and should comprise the majority of calories consumed each day.

The DRI for carbohydrates is 45-65% of total calories per day. To maximize weight loss, stay near the lower end of the recommended intake, but don't go below the minimum DRI.

Protein

The muscles in the body are made of protein strands and it is important to ingest the essential amino acids that the body cannot produce itself. Adequate protein

intake also allows the body to repair and build muscle fiber, fingernails, hair, and blood cells. Proteins are not a significant source of energy during exercise unless it is a prolonged event such as running a marathon or competing in a triathlon.

Examples of food that contains mostly protein include meat, milk and dairy products, tofu, soy, beans, egg whites, some nuts, whey, beans and lentils. Carbohydrates also contain 4 calories per gram.

The DRI for protein is 10 – 35% and depends on age and activity level. To maximize weight loss yet stay within a safe and healthy range of protein intake, stay near the upper end of the DRI but don't go over.

Low Carb/High Protein Diets

Very low carbohydrate/high protein and fat diets have resulted in fainting spells which are not exactly conducive to officer safety. These diets have also been shown to cause high cholesterol, kidney disease, kidney stones, and even kidney failure, osteoporosis, ketosis (unhealthy metabolic state), and even cancer through the avoidance of carbohydrates which contain cancer-fighting vitamins, minerals, fiber, and antioxidants.

Fat

Although fat seems to be the culprit to weight gain, it is actually essential for normal functioning of the body. It is important to the nervous system and aids in the transport of fat-soluble vitamins. It acts as insulation from external elements and cushioning for the internal organs. *Excessive* body fat is unhealthy and can lead to many conditions and diseases such as diabetes, and cardiovascular disease, and metabolic syndrome (a cluster of unhealthy conditions that can lead to coronary heart disease and diabetes).

There are “good fats” and “bad fats,” and it would be beneficial to be familiar with each. Good fats are usually liquid at room temperature, come from plant and fish sources, and are considered “good” because they have some health benefits such as lowering cholesterol. Bad fats are usually solid at room temperature, usually come from animal products and high fat dairy products, and are considered “bad” because they have some negative health consequences if consumed in excess. An example would be the fat seen around a cut of beef, which can clog arteries and lead to cardiovascular disease, heart attack, and stroke.

Trans fats fall into the “bad fat” category and are altered by manufacturers to increase stability and shelf life of food products. They are considered “bad” because they negatively affect the cholesterol level in the blood and increase the risk for coronary heart disease. In fact they are so bad for you that some states and cities across America have banned their use in restaurants. Trans fats have been used mostly by manufacturers and restaurants to deep fry foods, because the liquid grease can be re-used every day and it lasts a long time without having to replace it.

The DRI for fat is 20-35%, and the energy content of fat is 9 calories per gram. Fat is fat, and excess consumed fat is stored as fat in the body. Although both good and bad fats contain the same energy content, the diet should consist mostly of good fats such as olive, canola, and fish oil (healthy Omega-3’s), and bad fats should be restricted for health reasons.

Example

Use Officer Chubby from the last article as an example to figure daily intake for carbohydrates, protein, and fat. Stay within the DRI guidelines but maximize weight loss potential by using 50/25/25 for the ratios.

His daily calories figured to be 2400.

50% carbohydrates = 1200 calories or 300 grams/day (1200 divided by 4 calories per gram)

25% protein = 600 calories or 150 grams /day (600 divided by 4 calories per gram)

25% fat = 600 calories or 67 grams/day (600 divided by 9 calories per gram)

Now that we’ve worked through the math, there are really only three things you will need to remember, and the rest will fall into place:

Total calories = 2400

Protein = 150 grams/day

Fat = 67 grams/day

Knowing your personal numbers is essential, but you’ll also have to keep track during the day making sure to stay within your guidelines. This is where most of

us fall short and consume too many calories each day. Just 100 calories too many each day equates to a ten pound weight gain in one year. This illustrates just how easy it is to gain weight, and how tough it can be to take off! Weight loss should be slow to be permanent, so make the decision to be in this for the long haul and turn it into a lifestyle rather than a temporary diet.

WATER

Water is probably the most important nutrient because it is required for just about everything in the body. Once the water consumed in food is taken into account, the DRI for water is 100 ounces/day for men and 73 ounces/day for women. This is easier to track when setting a simple goal of drinking 4-5, 20 ounce bottles of water each day. If plain water is hard on your palate, drink flavored water making sure to count the calories if applicable.

OTHER DRIs

Fiber is important not only for weight loss but for good health as well. The DRI for fiber is 25 grams/day for women and 38 grams/day for men. Adequate fiber aids in cancer prevention because it cannot be digested by the body, so it moves through the system and prevents anything from sitting in the intestines for an extended period of time and becoming toxic to the body.

The DRI for salt is 3800 mg/day or less, with an upper limit of 5800 mg/day. Too much salt in the diet can increase blood pressure which is hard on the heart and cardiovascular system.

The DRI for cholesterol is 300 mg/day, however lowering blood cholesterol is more consequential by limiting saturated fat intake rather than consumed cholesterol.

There is even a DRI for physical activity, which is 60 minutes per day. Even the *lowest* recommendation is 30 minutes per day and comes from the newly revamped MyPyramid, which replaces the old Food Guide Pyramid. This can be viewed at www.mypyramid.gov Physical activity is just that – it should be physical. Try to get your heart rate up to at least 120 beats per minute and maintain that level of exertion for the duration. More information on exercise and heart rate will come in the next article, and will help you increase not only fat-burning metabolism but police-specific performance. Get out there and “Just Do It!”

It is recommended that medical clearance is obtained before starting any weight loss and/or exercise program.

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