Nutrition and Supplementation For Sylvania Tsunami

Dan Jones

www.eaosports.com

Formula for Success

Objective

- Maximize performance in the pool
- Minimize the potential for injuries

Purpose and Definition of a Macronutrient

The main function of macronutrients is to provide energy, counted as calories and are needed for growth and metabolism.

Macronutrients are nutrients that provide calories or energy. The prefix macro is from the Greek and means big or large, used because **macronutrients are required in large amounts.** There are three broad classes of macro-nutrients: proteins, carbohydrates**,** and fats.

Three Functions of Macro Nutrients

Provide energy

Carbohydrates
Proteins
Lipids (fats and oils)

Promote growth and development

Proteins
Lipids
Vitamins
Minerals
Water

Regulate body functions

Proteins
Lipids
Vitamins
Minerals
Water

Protein

- important biological molecules (biomolecules) that consist of strings of smaller units called amino acids, the “building blocks” of proteins.
- Besides providing energy to the body, dietary protein is also required for growth
- Sources- red meat, fish, chicken, milk, cheese, yogurt, nuts.

Carbohydrates

- There are two basic types of carbohydrates, Simple carbohydrates and Complex carbohydrates
- Carbohydrates have two major roles: they are the primary **energy source** for the brain and they are a **source of calories** to maintain body weight.
- A diet containing an optimum level of carbohydrates may help prevent body fat accumulation.
- **Sources**- sweet potatoes, whole grains, legumes, oatmeal

Fats

- A source of **energy**, **protect** the internal organs , required for the formation of hormones.
- The most energy-efficient form of food.

Sources

Monounsaturated: Olives, nuts, avocados.

Omega-3 polyunsaturated: Salmon

Omega-6 polyunsaturated: Sunflower seeds, wheat germ, sesame, walnuts, soybean, corn.

Saturated: Butter, cheese, meat, whole milk and yogurt, pies, pastries.

Trans fatty acids: cakes and pastries, dairy products.

Supplementation

1. **Whey protein** 2x a day

2. **Post recovery** drink- helps to control cortisol levels and maximizes repair and the building of muscle.

3. Whey protein drink with a high glycemic carbohydrate to speed up recovery

Example: a whey protein shake and a raisin bagel

THE PRE-EVENT MEAL

Reference: AIS Sports Nutrition, 2009

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1. It is important to remember that food eaten throughout the training week and food and fluid consumed during the event is just as important as the pre-event meal

2. Have a meal about 3-4 hours before exercise or a lighter snack about 1-2 hours before exercise

3. Food eaten before exercise should provide carbohydrate. It should also be low in fat and moderate in fibre to make digestion easier and reduce the risk of gastrointestinal discomfort

4

If you train early in the morning, opt for a light snack about an hour before exercise. Make up for your smaller carbohydrate intake prior to exercise by consuming carbohydrate during the event or training session

5

If you are too nervous to eat a 'real' breakfast, foods such as cereal bars and sports bars can be eaten if you nibble them slowly over the hours leading up to your competition

1-2h before exercise

- Sports & cereal bars,
- or Fruit-flavoured yoghurt
- or Fruit

or 3-4h before exercise

- Breakfast cereal with milk,
- or Fruit salad with fruit-flavoured yoghurt,
- or Pasta or rice with a sauce based on low-fat ingredients (e.g. tomato, vegetables, lean meat)

Eating Before, During and After Training

Insulin sensitive **high glycemic carbohydrates**.

Example: Bagel with peanut butter, rice cakes with jelly.

This will help with glucose and energy/ATP levels

Caffeine- to enhance mental focus and performance during the race

CALORIES TO SUPPORT ACTIVTIES

18-20 calories per pound of body weight.

EXAMPLE. ..150 lb. swimmer should take in 3,000 calories per day.

20 calories X 150 pounds.

GOOD NUTRITION= RESULTS!