

Nutrition



GENERAL NUTRITION FOR HEALTH

The importance of good nutrition cannot be overestimated in the success of your fitness, training and competition levels in successful dragon boating. Good food and good training are the key to your long term success. Regular training and competition creates special needs for the athlete. There is no specific food or dietary plan that will meet every challenge for the athlete however there are many sensible guidelines that can be followed.

Fruit and vegetables are the foundation of a healthy diet—they are low in calories and nutrient dense, which means they are packed with essential vitamins, minerals, antioxidants and fibre. In your diet include a good range of different coloured fruit and vegetables every day. The brighter, deeper coloured fruits and vegetables as a rule contain higher concentrations of vitamins, minerals and antioxidants.

Foods rich in **unrefined carbohydrates** should form a large part of an athlete's diet. Include a variety of **whole grains** in the diet such as whole wheat, brown rice, millet and barley (be aware that the words stone-ground, multi-grain, 100% wheat, or bran, don't necessarily mean that a product is whole grain - if unsure check the ingredients). Foods include breads, cereals, pastas, beans, fruit and vegetables. Healthy carbs are digested slowly, helping you feel full longer and keep blood sugar and insulin levels stable. More **refined carbohydrate** foods, such as white bread, white flour, refined sugars in jams and lollies, are useful to boost the total intake of carbohydrate however they digest quickly and are poor nutrient substitutes. During digestion all carbohydrates are broken down into glucose, which is the body's primary energy source. Excess glucose is converted into glycogen and stored in the liver and muscle tissue. Once glycogen stores are full, the vast majority of the remaining glucose is used as energy to sustain the body.

Proteins are an essential part of our diet. They are used for growth and repair but also play a role in energy. Focus on quality sources of protein such as fresh fish, chicken or turkey, tofu, eggs, cheese, yoghurt, milk, beans or nuts. Lean red meat is a good source of protein, iron, zinc and vitamin B12. Proteins are made up of amino acids. A complete protein source—from animal proteins such as meat, poultry, fish, milk, cheese and eggs—provides all the essential amino acids the body needs. An incomplete **protein**—from vegetable proteins like grains, legumes, nuts, seeds and beans—is low or missing one or more essential amino acid.

Complementary proteins are two or more incomplete protein sources that together provide all of the essential amino acids your body needs. For example rice and kidney beans, or chickpeas and corn, are each incomplete proteins, but together they provide all of the essential amino acids.

Muscle proteins are constantly being made and broken down. Athletes require greater needs than inactive people. A diet of 12-15% protein should supply sufficient energy. Insufficient protein causes loss of muscle, slow recovery and long term health problems. It is important not to exclude proteins in the diet when taking in extra energy carbohydrates. Central Coast Dragon Boat Club Nutrition (1) General Central Coast Dragon Boat Club – Nutrition (1) General P a g e | 2

Good sources of **healthy fat** are needed to nourish the brain, heart and cells, as well as hair, skin and nails. Foods rich in omega-3 fats (EPA and DHA) are particularly important and can reduce cardiovascular disease and improve your mood. Include **monounsaturated fats**, from plant oils such as canola and olive oil, as well as avocados, nuts (almonds, hazelnuts, pecans etc) and seeds (such as pumpkin, sesame). Include **polyunsaturated fats** including omega-3 and omega-6 fatty acids found in fatty fish such as salmon, herring, mackerel, anchovies, sardines and some cold water fish oil supplements. Other sources of polyunsaturated fats are unheated sunflower, corn, soybean and flaxseed oils, and walnuts. Reduce or eliminate **saturated fats** found primarily in animal sources including red meat and whole milk dairy products. Reduce or eliminate **trans fats** found in vegetable shortenings, some margarines, biscuits, snack foods, fried foods, baked goods and other processed foods made with partially hydrogenated vegetable oils.

Sugar can be eaten in moderation however excess sugar can add to long term health problems such as arthritis, diabetes, osteoporosis, headaches and depression. It is often the consumption of sugar with high kilojoules and fat, (chocolate, cakes and ice cream) in the absence of fibre, vitamins or minerals, that is of greater concern. Recent research has shown that the old theory that simple sugars cause rapid surges and plunges in blood sugar levels and that complex carbohydrate foods maintain a more even level, is not the case (Burke 2010). Blood sugar levels are related to the speed with which the food is digested and absorbed. Many factors influence this, including the type and amount of fibre in the food and the physical form of the food (whole, mashed, hot or cold). The Glycemic Index (GI) of foods compares carbohydrate rich foods according to the response they produce. (See www.gisymbol.com.au for information on GI labelling). High GI foods produce a high glucose response, low GI foods produce a lower response.

Salt in itself is not bad – sodium is the most important electrolyte found outside the body's cells. But salt should be limited to equivalent of approximately one teaspoon per day. Most processed foods (canned soups, frozen meals, deli foods etc) contain considerable amounts of sodium. Too much sodium may lead to a build up of fluid in the body, high blood pressure, heart disease and liver and kidney dysfunction. Sodium and other electrolytes are lost in body fluids, particularly through sweat. Massive losses of sweat can deplete the body's electrolyte stores – the body can adapt, but it expects you to replace the losses through food and fluids. Electrolyte drinks are valuable for those who sweat heavily, however are not necessary when stores are adequately replaced through foods (Burke 2010).

Alcohol can be an enjoyable part of a healthy lifestyle, but its consumption must be carefully evaluated by an athlete. Alcohol dilates blood vessels and depresses the central nervous system. This causes flushing, losing more heat through the skin, and impairs judgment, coordination and vision. Alcohol acts as a diuretic, increasing your fluid loss, and despite containing carbohydrates does not increase muscle glycogen stores. Generally avoid alcohol in the 24 hours before competition. Avoid any alcohol for 24 hours after exercise if any soft tissue injury or bruising has occurred. Alcohol can be a small part of a healthy diet and be a positive part of a team's camaraderie after an exciting regatta. Make the alcohol work for you rather than letting it lower your sports potential. Stick to just a couple of drinks such as light beer, or have a glass of water with your glass of wine.