



Can Nutrition Aid in Injury Prevention?

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Now that we're in the summer months, your training has most likely picked up and you're either getting ready for your "A" race or your next season in sport. That may be two weeks away or it may not begin until the fall. Either way, what you are putting in your body now will dictate whether you have a smooth training season free from injury. Aside from proper training and stretching, in order to avoid injury, athletes must be sure they are getting adequate amounts of carbohydrates and protein, as well as important vitamins and minerals. A well-balanced diet from good food choices will usually take care of the needs for athletes since energy intake is increased; however, supplementation may be required for deficiencies or prior injuries.

Carbohydrate sources during training should come from whole grains, such as brown rice, couscous, and whole wheat bread; low-fat dairy products; and fruits and vegetables. These are considered your "good" carbohydrates that all of the high-protein diets shy away from. From an athlete's standpoint, these carbohydrates contain all of the b-complex vitamins, antioxidants, and energy that are crucial for energy metabolism, recovery, and for the formation of ATP (energy source) for skeletal muscles respectively. Daily intake of simple sugars provided by candy, cokes, some cereals, and some energy bars can lead to "sticky" muscles by promoting the production of arachidonic acid. This hinders athletes from a quicker recovery when injury does occur.

Protein sources of importance include branched chain amino acids (BCAA's) which can be consumed in supplement form or from food, as well as glutamine and ornithine. The other essential amino acids are readily available in food sources such as egg whites, shrimp, tuna, turkey or chicken breast and salmon. BCAA's are found in several food choices. Leucine is available in beans and corn; isoleucine is found in meat, fish, and cheese; and valine is in cottage cheese, fish, grains, mushrooms, peanuts, meats, and vegetables. Be certain that you are consuming these products regularly, especially following a workout for proper muscle recovery.

An adequate amount of calcium stores and daily intake can help prevention of stress fractures. This is because bone density is maintained and osteoporosis is avoided. Eating three servings of dairy products each day or consuming foods that are calcium-fortified can meet the daily recommendation. If you are supplementing with calcium (i.e. Tums), make sure you are consuming it with food for better absorption.

To ensure muscles are at full oxidative function, iron intake should be of concern. Since iron carries oxygen to the muscles, having an adequate daily intake of iron will ensure peak muscle performance. Women athletes can be prone to iron deficiency so be sure to consume plenty of dried beans, salmon, tuna, lean red meat, dried fruits, whole grains, fruits, and dark green leafy vegetables.

Remember that eating frequently throughout the day from a variety of food choices will help you achieve this balance that will improve and support performance in any sport. Your body may be functioning on what you're putting in it by pure necessity. But, just imagine how much better it would feel and perform if you fueled correctly.