



SPORTS NUTRITION

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Abstract:

Introduction:

Sports Nutrition:

is the study and practice of nutrition and diet with regards to a person's athletic performance. Nutrition is an important part of many sports training regimens, being most popular in strength sports (such as weight lifting and bodybuilding) and endurance sports (e.g. cycling, running, swimming, rowing). Sports Nutrition focuses its studies on the type, as well as the quantity of fluid and food taken by an athlete. In addition, it deals with the consumption of nutrients such as vitamins, minerals, supplements and organic substances that include carbohydrates, proteins and fats.

What is Nutrition:

Simply said, Nutrition is the study of food at work in our bodies, our source for energy, and the medium for which our nutrients can function. Think of nutrition as the building blocks of life.

The essential nutrients for life include carbohydrates, proteins, and lipids (fats), as well as fiber, vitamins, minerals, and water—the solvent for all soluble ingredients in the blood and cells. The absorption of nutrients starts the moment we begin to digest our foods, as they are transported to assist all the metabolic processes in the human body.

Good nutrition means getting the right amount of nutrients from healthy foods in the right combinations. Having nutrition knowledge and making smart choices about the foods you eat can and will help you achieve optimum health over your lifetime, and be a key to avoiding obesity, illness,

and many of today's most prevalent chronic diseases.

Nutrition is just one key to developing and maintaining good health. Good health is defined as a state of complete physical, mental and social well-being — a healthy mind, body, and spirit.

Nutrition is at work during our entire life-cycle — from infancy to adolescence, adulthood and in our senior years — and can be the antidote for many of today's common problems, such as stress, pollution, sexual vitality, and disease prevention.

For me personally, nutrition translates into health, and health is freedom. Being healthy not only makes us feel great, it enables us to enjoy life to our fullest potential, and to follow our dreams. Conversely, a poor diet can have a serious impact on health, and rob you of your freedom.

Food therapy is emerging as the latest prevention against multiple lifestyle diseases. Experts now believe it's better to pop an apple, rather than popping a pill. Negative influences such as stress, shock, injury, emotional upsets and worries can have a direct impact on life-long health. The good news is that the body can heal itself, if given what it needs to do its job. The nutrition in certain foods can naturally increase your body's oxygen levels, eliminate many sources of toxins, improve your digestion, and prevent, heal, or reduce the severity of various diseases. Nutrition is about choices.

Supplements

Dietary supplements contain one or more dietary ingredients (including vitamins; minerals; herbs or other botanicals; amino acids; and other substances) or their constituents; is intended to be taken by mouth as a pill, capsule, tablet, or liquid.[1] All athletes consider taking dietary supplements with hopes to find the "magic ingredient" to increase their athletic performance.[2] In the extreme case of performance-enhancing supplements, athletes, particularly bodybuilders may choose to use illegal substances such as anabolic steroids. These compounds which are related to the hormone testosterone, can quickly build mass and strength, but have many adverse effects such as high blood pressure and negative gender specific effects. Blood doping, another illegal ergogenic, was discovered in the 1940s when it was used by World War II pilots.[3] Blood doping also known as blood transfusions, increases oxygen delivery to exercising tissues and has been demonstrated to improve performance in endurance sports, such as long-distance cycling.[4] There are many other supplements out there and they include caffeine, creatine, iron, chromium and human growth hormones.[4]

In the 1940s, early results were found regarding consumption of dietary protein for athletes involved in muscle building and resistance, and strength training.[3] Dietary proteins main uses are for hormones, oxygen transport, cellular repair, enzymes and conversion to fuel.[5] The intake of protein is a part of the nutrient requirements for the normal athlete and is an important component of exercise training. In addition, it aids in performance and recovery. Dietary protein intake for well-trained athletes should occur before, during and after physical activity as it is advantageous in gaining muscle mass and strength.[6] However, if too much protein and amino acid supplements are consumed (especially by the average exerciser), it can be more harmful than beneficial; health risks include: "dehydration, gout, calcium loss, liver, and renal damage. Gastrointestinal side effects of over

consumption include diarrhea, bloating, and water loss" (Lawrence). A bountiful protein diet must be paired with a healthy, well-rounded meal plan and regular resistance exercise. Characteristics of this particular diet include the type of exercise, intensity, duration and carbohydrate values of diet.[7] The most effective way to secure the natural nutrients required by your body for optimum health and physiological performance is by eating your vitamins, minerals, proteins, fats, sugars and carbohydrates, which can be procured from fresh fruits and vegetables, as nature intended them to be received.[3]

The supplement, Creatine, may be helpful for well-trained athletes to increase exercise performance and strength in relation with their dietary regimen.[7] The substance glutamine, found in whey protein supplements, is the most abundant free amino acid found in the human body.[8] It is considered that glutamine may have a possible role in stimulated anabolic processes such as muscle glycogen and protein synthesis, for well-trained and well-nourished athletes.[8] Other popular studies done on supplements include androstenedione, chromium, and ephedra. The findings show that there are no substantial benefits from the extra intake of these supplements, yet higher health risks and costs.[7]

High energy supplements have shown to increase the performance of physical activity in athletes. A study done at the University of Texas saw a 4.7% increase of performance in 83% of participants after drinking Red Bull Energy Drink which was more intense than the compared placebo. The energy drink most dominantly increased the epinephrine and norepinephrine (adrenaline and its precursor) levels and beta-endorphins in the blood than before consumption. Caffeine, carbohydrates and Vitamin B are factors that may have favored no change in perceived exertion, but an increase in performance.[9]

Caffeine has been around since the 1900s and became popularly used in the 1970s when its power of masking fatigue became highly recognized.[3] Similarly, the caffeine found in energy drinks and coffee

shows an increased reaction performance and feelings of energy, focus and alertness in quickness and reaction anaerobic power tests. In other words, consuming an energy drink or any drink with caffeine increases short time/rapid exercise performance (like short full-speed sprints and heavy power weight lifting).[10]Caffeine is chemically similar to adenosine, a type of sugar that helps in the regulation of important body processes, including the firing of neurotransmitters. Caffeine takes the place of adenosine in your brain, attaching itself to the same neural receptors affected by adenosine, and causing your neurons to fire more rapidly, hence caffeine's stimulating effects.[11]

Post-exercise nutrition is just as important, if not more important than pre-exercise nutrition as it pertains to the recovery of the body. Traditionally, sports drinks such as Gatorade and Powerade, are consumed during and after exercise because they effectively rehydrate the body by refueling the body with minerals and electrolytes. Electrolytes regulate our nerve and muscle function, our body's hydration, blood pH, blood pressure, and the rebuilding of damaged tissue.[12]Gatorade was founded in the 1960s, when the University of Florida, Gainesville Gators improved their performance with "Gator Aid." The drink was made of glucose and sucrose in water and was seen to improve the football players' performance. By the 1970s, many other sports drinks of its kind had been manufactured.[3]

Studies in 2008 have found cow's milk, especially skim milk and chocolate milk may be effective replacements for current sports drink [clarification needed], as milk leads to protein the synthesis which boosts net muscle protein balance. Milk contains many electrolytes, nutrients and other elements that help to make it an effective post-exercise beverage.[citation needed] It is true that chocolate milk has been a proven study that is just as effective of a recovery drink as Gatorade. Chocolate Milk includes key ingredients such as Vitamin D that helps replace fluids and electrolytes lost after the athlete has worked out.[13] A recovery drink is supposed to replenish the sugar lost, and

build muscle again so that you are ready for the next workout. When compared to plain water or sports drinks, research suggests that chocolate milk is more effective at replacing fluids lost through sweat and maintaining normal body fluid levels. Athletes drinking chocolate milk following exercise-induced dehydration had fluid levels about 2 percent

higher (on initial body mass) than those using other post-exercise recovery beverages. These results allowed for prolonged performance, especially in repeated bouts of exercise or training.[14]

Category: Dietary supplements

- Energy bar
- Protein
- Sports drink
- Multivitamin
- Bodybuilding
- Bodybuilding supplements
- High-protein diet
- Sports nutritionist

How Do You Eat Clean

1. Eat Real, Whole Foods

Real food exists in nature. It's real food if it grows out of the ground or is raised on a farm, and it's real good for you. If it's one ingredient - raw chicken, broccoli, lettuce, tomato, cucumber - it's clean. Clean food doesn't come in packages and it doesn't require labels. Think fresh veggies, fruit, meat or seafood from the butcher, nuts, grains and spices bought in bulk.

2. Eliminate all Processed Foods & Refined Sugar

Ditch anything that is packaged or comes with a label. Anything that has ingredients that you cannot pronounce. Anything with added refined sugar, high fructose corn syrup or artificial sweeteners (try honey or pure maple syrup for a natural sweetner.)

3. Water Only

If you find water boring, try adding some fruit to it - a squeeze of lemon, cucumbers and strawberries, or your favorite fruits to make your own spa water. Try tea, iced or hot in a flavor that intrigues you. Throw out

juices, sodas, all sugary drinks and diet drinks.

4. Be Mindful of Your Choices

Make a list of the foods you can eat and stick to it. Keep you list in your phone, on your fridge, print it out and take it to the grocery store so that you stick with your plan.

5. What about Organic?

A rule of thumb - if you can eat the peel or the outside, then you should consider buying organic to avoid pesticides that may be on the exterior. One of the best sources of organic is to make a smoothie with our Fruit & Veggies Essentials + Probiotics (great for making sure you're getting enough fruits and veggies per day or sneak it in for the picky eaters in your family.)

6. Cook Your Own Meals

Cooking at home is always best, especially when you're starting out on a clean eating plan. Use fresh ingredients so you know exactly what is in your food. Once you're comfortable with clean eating, you will be able to eat out and pick the right foods off of any menu.

An easy question to ask when considering what you can and cannot eat - did it grow that way? If the answer is yes, it's a yes for clean eating.

What we ingest SHOULD be digested and used for nutrition. What we ingest that does not get digested, we store. This can, in return, lead to many health issues we see today. Crossroads has formulated key products to support healthy digestion by providing key enzymes and probiotics for proper digestion and gut health that is required, even on a clean eating plan.

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