



THE ROLE OF FULVIC AND HUMIC ACID IN SPORTS AND EXERCISE

Fulvic and Humic is an Organic material that is produced by the action of microbes over millions of years. These microbes help to breakdown dead and dying vegetation and the by-product of this breakdown is Fulvic and Humic acid.

One of the consequences of this natural process is that Fulvic contains approximately 45% Oxygen (see fig 1) which is highly bio-available to the human body and is readily absorbed by human cells while Humic is insoluble and stays outside the cells protecting them from invasion and creating a barrier against toxins, pathogens and viruses etc.

Fig 1: Distribution of five elements in Humic Acid and Fulvic Acid

| <u>ELEMENTS</u> | <u>% OF FULVIC ACID</u> |
|-----------------|-------------------------|
| Carbon | 45.8 |
| Hydrogen | 5.4 |
| Nitrogen | 2.1 |
| Oxygen | 44.8 |
| Sulphur | 1.9 |

It is this characteristic of Fulvic Acid which makes it so useful for sports people.

If Fulvic acid is taken regular over a period of 2-3 months then the problems associated with lactic acid and carbon dioxide may be reduced.

Testimonials have shown that when Fulvic & Humic supplements are taken for sufficient time, muscle soreness after exercise is decreased and the ability to train for longer is noticed.

Another characteristic is Fulvics ability to dissolve vegetal silica which is essential for collagen production which is a component of connective tissue such as ligaments and tendons and if these structures are kept strong then sports injuries may not occur and if tears in muscle tissue occur it increases the healing process.

ELECTROLYTE THERAPY

Fulvic & Humic acid is one of nature's most powerful electrolytes and many research articles prove its ability to maximise the electrical chemistry of the cell. The reason for this is that it has 75 natural minerals contained within and therefore has the ability to provide minerals to the cell. When sweating occurs during prolonged exercise and blood electrolytes are being lost through the skin, fulvic acid will immediately replace these and prevent loss of performance.

Fulvic & Humic is the only substance known to Man to do this.

ANTIOXIDANT DEFENCE

During exercise, oxidants are produced which can cause damage to cells and tissues. These oxidants are actually produced by our own metabolism and, as sports people have a faster average metabolic rate than non-sports people, their requirements for anti-oxidants is higher.

The importance of preventing this is highlighted by the fact that in some circumstances, oxidants can attack DNA.

Therefore, it is vital, especially for athletes, to consume a regular amount of anti-oxidants. Well known anti-oxidants include vitamins A, C and E but the complex structure of Fulvics *make it far more powerful an anti-oxidant than any other nutrient known.*

CREATINE SUPPLEMENTATION

Supplementing with creatine is hugely popular among sports people and athletes. In scientific studies it has been effectively shown to increase endurance during high intensity training and increase muscle mass by making the muscle cell work harder by allowing the cell to regenerate faster allowing the cell to work for longer periods.

However, there is a down side to supplementing with creatine with long term use.

Below is a list of reported side effects following creatine supplementation:

1. Kidney damage
2. Muscle cramp
3. Leg pain
4. Stomach problems

Fulvic and Humic are an ideal replacement for creatine as this will offer all of the above benefits of creatine but will also work for endurance athletes (creatine has only be shown to be effective for high intensity sports and not or footballers, for example).

Fulvic will not cause any of the side effects mentioned above. Indeed, if you have suffered with any of the above conditions then Fulvic & Humic will probably help those too!

Fulvic and Humic provide an essential part of a modern and safe sports regime whilst also being 100% Organic, Vegan, Kosher and Halal approved.

The use of Fulvic and Humic acid in sports is growing rapidly and it is little wonder why. It's power to provide optimal nutrition for the sports person along with the potential for improved endurance, decreased recovery times and protection against injury is unsurpassed.

It is widely known that Fulvic and Humic acid possesses truly remarkable biological properties that make its use as a supplement for sports second to none.

There is no other nutrient known which can:

1. Reduce the impact of Carbon Dioxide during sport
2. Reduce the impact of Lactic Acid during and after sport
3. Provides optimal protection against the increased production of oxidants
4. Provides the most powerful electrolyte in existence
5. Dissolves silica to maintain strength of joints and connective tissue
6. Provides useable Oxygen directly to the cells to accelerate the healing process
7. Increases Metabolism which is the rate at which carbohydrates, fats or proteins are converted into a source of energy(ATP).

If you are a keen and dedicated sportsperson or athlete, make Fulvic and Humic acid part of your daily exercise and training regime and should be considered essential to a modern sports and exercise training program.



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