

# MUSCLE AID®

## Maximizing Energy Production

Eniva's Muscle Aid® is a nutritional supplement of bio-available Malic Acid. Malic Acid is a natural fruit acid that is present in all living cells and plays a key role in energy production. It is known as "apple acid" because it is found in high concentration in apples, as well as other fruits and vegetables, such as watermelons, plums, and cherries.

Because of the compelling evidence that Malic Acid plays a central role in energy production, especially during anaerobic conditions, Muscle Aid may benefit healthy individuals interested in maximizing their energy production.\*

There are two general routes for energy production in the body. One uses oxygen (aerobic) and the other does not (anaerobic). The route for energy production using oxygen is called the *citric acid cycle*, or *Krebs cycle*. It is the most efficient way for the body to produce energy. The route of energy production that does not use oxygen, called *glycolysis*, is not as efficient for energy production and can cause the build-up of acid in tissues.

Muscle Aid provides support for:

- Muscle wellness\*
- Healthy energy levels\*
- Endurance\*
- Aluminum removal from the body\*

## HOW MUSCLE AID WORKS

Malic Acid is a precursor to *malate*, a substance in the body that is critical in the production of energy in both the oxygen-dependent and independent routes.\* Malate is a source of energy and is the only metabolite of the oxygen-dependent cycle that decreases in concentration during intense physical activity. Therefore, the need for Malic Acid in energy production is critical.

In some individuals, for unknown reasons, the efficiency of energy production via the oxygen-dependent route does not work at a maximum. Therefore, the body may switch to



*Nutrients for Life™  
Replenishing the Essence  
of Vibrant Health™*

Bio-Available Nutrients:

Malic Acid

**\*This statement has not been evaluated by the Food and Drug Administration.  
This product is not intended to diagnose, treat, cure, or prevent any disease.**

anaerobic energy production. This, however, can lead to the build up of acid in muscle tissues, leading to muscle soreness and feelings of fatigue.

Malic Acid has an oxygen sparing effect. As such, Malic Acid helps to promote the proper functioning of the oxygen dependent route of energy production and aids in feelings of muscle wellness.\*

### Energy Currency of the Body: Adenosine Triphosphate (ATP)

Adenosine Triphosphate (ATP) is the substance that stores energy that is created when the body burns carbohydrates and fats in the citric acid cycle (Krebs's cycle). When energy is needed by the body, as for a muscular contraction, ATP is broken down to release the stored energy. ATP is the universal energy molecule for the body and is produced within structures in cells called mitochondria. Malic Acid has been indicated as a very critical molecule in controlling mitochondrial function.\*

### Aluminum Chelation

Malic Acid has also been conclusively demonstrated in research studies to be a very effective chelator of aluminum from the body.\* It's presence in the body is able to dissolve aluminum complexes and reduce the accumulation of this substance in various body tissues and organs. Malic Acid primarily increases the excretion of aluminum in the urine, but also causes excretion in fecal matter.

## ALL-NATURAL SUPPLEMENT

The all-natural state of this supplement also makes it unique.

- No fructose or sugars
- No artificial colors or flavorings
- No calories or caffeine
- No animal by-products or animal testing

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# MUSCLE AID

dietary supplement

Bio-Available Nutrients

## AQUEOUS DELIVERY SYSTEM

Muscle Aid utilizes Eniva's proprietary aqueous delivery system to provide superior bio-availability for maximum effectiveness.

This bio-available nutrient is readily absorbed and assimilated in the body, helping to enhance muscle health for more zestful living.



### References

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