



Many of us are familiar with some of the more Essential lamino acids. These are the ones that we must get from our diet because our body simply lacks the ability to manufacture them at need.

However it is often important to look further at a number of amino acids that should probably be described as conditionally essential. While we are able to manufacture them in small quantities, our lifestyle and activity schedule often demands a production level that our body cannot meet.

#### **Taurine is one of these amino acids.**

Our major dietary source of it is meat. By their choice of diet, vegetarians are liable to have low levels of Taurine, and should consider supplementation of this amino acid. It plays a number of vital roles in our body starting with, but not limited to, our liver and digestive system. A lot of people ask, did we forget the “L” in front of Taurine when putting the label on our bottles? The answer is no, Taurine, like Glycine does not have an “L” form.

#### **Taurine and your liver**

Taurine combines with cholic acid in the body to form an important bile salt (taurocholic acid). **Taurocholic acid is responsible for removing cholesterol by-products from the bloodstream.**

A healthy bile production system helps our liver remove many other toxins and waste products from our blood. Taurine also has an antioxidant effect in the liver, assisting to nullify various free radicals that can damage our cells.

These radicals include chlorides, chlorites and the aldehydes formed after indulgence in alcoholic drinks. In patients with ascites associated with cirrhosis Taurine has a beneficial diuretic effect. Taurine is useful in other consequences of cirrhosis including muscle cramps and encephalopathy.

**Fatty liver in children has also been treated successfully using Taurine.**

Liver cleansing has become extremely popular of recent years. If you are of looking to improve

your liver function add 1/2 tsp. of Taurine in Synergy with Lt4. (Lt4 tabs contain. L-Methionine, Choline Bitartrate and Inositol. and Acetyl L-cartine).

**When taken with Taurine they combine to make an impressive liver line up!**  
**Taurine and the heart / high cholesterol**

#### **In medical applications :**

Taurine has been used as a treatment to **lower blood cholesterol with respectable results.**

Recent research has shown evidence that Taurine can help regulate the heart muscle itself via calcium ion fluxes. It can normalise potassium flow in and out of cells, and modulates cyclic AMP. It has been used as an anti-arrhythmic, in ischaemic heart disease(restriction of blood supply to cells) and in congestive heart failure. Taurine is found in high concentrations in the heart, skeletal muscle and the central nervous system.

#### **Taurine and the brain**

Finally, Taurine **acts as a neurotransmitter in some areas of the brain,** where it is the second most abundant amino acid. **It has been used to treat some forms of epilepsy by controlling seizure outbursts.**

Patients suffering from alcohol withdrawal symptoms have used Taurine as part of their recovery treatment.

**It concentrates in the Hippocampus and can assist memory.**

**It may have a role in treating anxiety and Attention Deficit Disorder.**

#### **Taurine and the eye:**

**Taurine can assist treatment of Age-Related**

**Macular Degeneration as it concentrates in the Macula of the retina and exerts antioxidant effects.**

**It can help with Retinitis Pigmentosa, cataracts and enhance the function of the Rods and Cones.**

### Summary of Taurine :

Simple analogies by Graham Healy (GH) to help understand in layman's terms.

For study in depth we recommend Dr.Barrie Finnins book below:

(Refer page 100 of Dr Barrie Finnin Essential Guide to Amino Acids)

\*Combines with Cholic Acid to form Bile salt & Taurocholic Acid this **removes Cholesterol degradation product from the system and assists in the emulsification and absorption of fats.**

Note: Taurine works in perfect synergy with **Acetyl L-Carnitine**,

ALC being the 'fat transporter' and Taurine being the 'Fat melter/emulsificator' GH

\*Taurine is a **neurotransmitter in some areas of the BRAIN and RETINA of the EYE**

\*Taurine acts as a **regulator of Calcium ions fluxes in heart muscles** (Heart electricity)

\*Taurine **acts as a powerful Anti-oxidant** (Neutralizes free radicals which is a by product of body metabolism and 'toxic' to the body.

Think of Free Radicals like how 'steel rusts' this is 'oxidization' Taurine is like painting 'rust preventive' on the steel thus stopping any further damage .

(This is a simple way to understand the process GH)

### Medical Uses

\* Taurine is **used to treat Cardiovascular disease**

\*Taurine used a anit-inflamitary on **gastric mucosal damage**

\*Taurine **used to treat Radiation Injuries** (because of Anti-oxidant properties)

\*Taurine beneficial **effect on the Heart useful as an anti-arrhythmic**(Heart rythim disorder) **and in congestive heart failure.**

(Heart failure, sometimes known as congestive heart failure, occurs when your heart muscle doesn't pump blood as well as it should. Certain conditions, such as narrowed arteries in your heart (coronary artery disease) or high blood pressure, gradually leave your heart too weak or stiff to fill and pump efficiently.)

\*Taurine has **a beneficial effect on ascites(fluid in abdominal cavity) from cirrhosis of liver,including muscle cramps and associated complications of cirrhosis of liver**

\*Taurine has **beneficial effects on encephalopathy (abnormal brain function,head injuries etc)**

\*Taurine has **beneficial effects of children with FATTY LIVER**

\*Taurins **lowers blood CHOLESTEROL ,treats Alcohol withdrawal symptoms**

\*Taurine **has been used to treat some forms of EPILEPSY**

\*Taurine **used in EYE DROPS to treat damage caused by oxidising subdances like hyochloride**(a salt used in medications)

\*Source: "Essential Guide to Amino Acids by Dr.Barrie Finnin B Phar,PhC,Phd,FPS