

Do you remember the last time you were completely absorbed in an activity, like painting or sculpting? Outside noises do not bother you, you are not hungry, whatever problems you may have are now gone from your mind. Or the last time you were in love? In such moments, your brain makes a molecule called *phenylethylamine* or PEA. PEA is known in chemistry as the molecule of love or the molecule of joy. Whenever you feel happy or content, your brain is making PEA.

Deficiency in PEA has been linked to mood swings and low mood, even depression, as well as deficit of attention. PEA works by enhancing dopamine and norepinephrine transmission in the brain. Dopamine and norepinephrine are two neurotransmitters in-

involved with the experience of joy. More specifically, PEA blocks or reduces the reuptake of dopamine and norepinephrine by neurons, increasing the amount of neurotransmitters in the synaptic cleft, thereby enhancing the neurotransmitters' effect.

One theory published in the early 1990's, called the **Phenylethylamine Theory of Affective Behavior**, suggests that one's state of joy and happiness is a function of the amount of PEA made by the brain. The more PEA in the brain, the happier or more positive one feels about life. Conversely, the lower the amount of PEA, the more one is pre-disposed to low mood and a negative outlook on life, hence a low quality of life. Fortunately, oral intake of PEA can modulate brain level of PEA and help improve one's ability to experience

joy and well-being, at the same time increasing concentration and providing mental energy.

One of the best known sources of PEA is chocolate, although chocolate contains a very small amount of PEA. But the most abundant natural source of PEA is cyanophyta *Aphanizomenon flos-aquae* (AFA), the raw ingredient from which **StemEnhance™** is made. When we make StemEnhance, PEA present in AFA is incidentally concentrated in the formula, making StemEnhance a true source of joy. When you take StemEnhance and feel this sensation of well-being or of greater mental clarity, this is not linked to stem cells but to the presence of PEA.

So one could say that a feeling of **JOY** is a positive side effect of taking StemEnhance!



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ASK CHRISTIAN

What is the difference between StemEnhance and Blue-Green Algae?

StemEnhance is a patented and clinically studied blend of two concentrates from the blue-green algae *Aphanizomenon flos-aquae* (AFA). Aside from the wealth in vitamins, minerals and pigments of AFA, years of scientific investigation have revealed that AFA contains a series of compounds connected to AFA's health benefits that have been reported over the years.

For example, AFA contains phycocyanin, a blue pigment

that has been well documented for its anti-inflammatory properties. AFA contains a polysaccharide that supports various aspects of immune functions. And AFA also contains phenylethylamine (PEA), a compound known as the “molecule of love.” PEA is naturally produced by the brain and affects dopamine and norepinephrine transmission, two neurotransmitters associated with the experience of joy. Oral intake of PEA produces a feeling of well-being and increases attention and concentration.

The production of StemEnhance focuses on two specific compounds: An L-selectin ligand that supports the release of stem cells from the bone marrow, and a polysaccharide that supports the migration of stem cells out of the blood into tissues. In the process of making StemEnhance, we also concentrate phycocyanin and PEA, as well as many vitamins and minerals. These compounds are concentrated approximately 5:1, which means that on average one gram of StemEnhance contains 5 times more of these compounds than one gram of

AFA. So StemEnhance is a concentrated form of AFA. AFA remains a great dietary supplement, but taking StemEnhance has shown to have a greater impact on health and general well-being than AFA alone.



If you have a question you'd like to see answered in **HealthLink**, please send it to the Editor at editor@stemtechhealth.com.