



# VitaCalm

Are you stressed out? Do you have excessive muscle tension caused by stress? VitaCalm may be just what you need to soothe your anxiety and achieve a more relaxed and peaceful state of mind. This injection, typically administered 1-2 times per week, contains gamma-aminobutyric acid (GABA), which is a neurotransmitter located in the brain that helps quiet overactive excitatory neurons. This results in greater relaxation and reduced anxiety. It also includes magnesium chloride hexahydrate which plays a critical role in many biochemical reactions. Taurine, an amino acid that is a precursor to GABA, is included to further promote relaxation. The final component is theanine which is commonly found in green tea. Theanine promotes the production of GABA and thus increases the levels of GABA in the brain. (Note: IM Injection)



GABA is a neurotransmitter distributed throughout the brain. Its role is to inhibit or reduce excitement and activity of the neurons (nerve cells) to which GABA attaches to in the brain by regulating communication between them. Some research studies have found that having lower than normal levels of GABA in the human brain may be linked to problems such as; depression, anxiety, sleep disorders, and schizophrenia. Other research studies also strongly suggest that GABA could be effective in helping control the fear and anxiety that can occur when neurons (nerve cells of the brain) become over excited. GABA is a substance that plays a critical role in behavior, cognition, and the body's response to stress.

**B1 (Thiamine)** is an essential component of the body's metabolic machinery. It is also important for proper cardiovascular and neuromuscular health.

**B5 (Dexpanthenol)** is required for the production of coenzyme A. Coenzyme A is fundamental to the metabolism of fatty acids for energy.

**Magnesium Chloride** is the supplement form of magnesium, It plays a critical role in biochemical reactions over the entire body. It is involved in many cell transport activities, and helps cells make energy both aerobically and anaerobically.<sup>7</sup> Magnesium is also the counter-ion for calcium and potassium in muscle cells, including the heart. Ion regulation is vital to how muscles contract and nerves signals are sent.<sup>8</sup> When magnesium levels are low, patients may experience severe muscle cramps, cardiac arrhythmias or even sudden death. Magnesium deficiency can cause depression, behavioral issues, headache, muscle cramps, seizures, irritability and even psychosis.

**Taurine** is an amino acid and a precursor to GABA, the inhibitory neurotransmitter in the brain that reduces excitability in the neurons that make up the brain. Taurine can consequently increase GABA and glycine. It can also protect the brain by mitigating the potentially harmful effects of excess glutamate levels.

**Theanine** is an amino acid commonly found in green tea that can reduce anxiety by blocking excitatory stimuli in the glutamate receptors of the brain while stimulating production of the relaxing neurotransmitter, GABA.<sup>12</sup> But unlike many prescription anti-anxiety drugs; it can relieve stress without causing drowsiness or an impaired ability to react. In fact, the opposite is true - studies have shown it can improve alertness and attention.