## AromaStick Calm







## A comforting scent to help you stay composed and in control

<u>Ingredients:</u> Organic Bergamot Oil, Organic Lemon Oil, Organic Cedarwood Oil, Organic Clary Sage Oil, Organic Vetiver Oil

Anxiety and tension are normal protective responses to our perceived environment. They are powerful human emotions necessary for survival.

While the biochemical response to stress is universal, the emotional response is highly individualized. Stress is expressed in large part through the limbic system in the brain, which is responsible for mood, emotion, memory and homeostatic balance (Herman et al. 2005). While intermittent stress, particularly in healthy individuals, does not pose a health risk, prolonged, heightened levels can lead to adverse effects in the body (Schneidermann, et al., 2005) and requires attention by a trained professional. Untreated, repeated stress can interfere with regular homeostatic (hormonal) mechanisms and make future stressful events harder to regulate (Schmajuk, et al. 2007). Most anti-stress techniques start with breathing exercises; for example, by taking a deep breath, then holding it for a moment, before consciously exhaling in a slow and controlled manner, and research has shown that this method can be improved when used together with scents (Schneider, 2016).

Responses to scents, like responses to stress, are expressed in the limbic system, and thanks to smell's evolutionary importance of informing the brain quickly of changes in the environment (Boron & Bulpaep 2012) scents are processed within 150–200ms (Olofsson 2014). This makes scents well–suited for dealing with anxiety and tension.

The AromaStick Calm contains a unique blend of five essential oils that calm, reassure and bolster confidence.

Bergamot belongs to the citrus family and shares many of its characteristics. A number of studies have confirmed that these oils alleviate depression and reduce anxiety (Hatt, 2008). A study on animals investigating the effects of bergamot oil confirms the observation and comes to the conclusion that inhalation of bergamot oil has stimulating and anxiolytic effects (Salvesen 2009).

Lemon oil and its scent has been shown in various studies to restore stress-induced immunosuppression and homeostatic balance, helping the body to achieve and maintain a calm and balanced state (Komori et al., 1995 a). Several other studies have concluded that this refreshing citrus scent has an antidepressant effect, with some studies reporting that depressed patients were even able to reduce doses of antidepressant medication (Komori et al. 1995 b). A large review of published studies with regard to citrus oils confirms its stress-alleviating and anxiolytic effects (Fernandes et al., 2012).

Cedarwood oil is popularly used to treat stress. A study looking at the effects of its inhalation on parasympathetic and sympathetic activity showed results that were consistent with the idea of a relaxant effect (Dayawansa et al., 2003) with potential to address hypertension (Umeno et al. 2007). A study on animals

concurs these findings by stating that cedarwood oil inhalation had marked sedative effects (Kagawa et al. 2003).

Clary sage oil and its inhalation has been shown to enhance the recognition of stress management and have a positive effect on stress responses as measured by physical symptoms, levels of anxiety and perceived stresses (Park et al. 2004). Another study investigating the effects of inhalation on autonomic nervous system activity found a significant decrease in systolic and diastolic blood pressure as well as a significant decrease in respiratory rate compared to the control group (Seol et al. 2013). A study on animals using a number of essential oils concluded that inhalation of clary sage oil had the strongest anti-stressor effect and the results were convincing enough for the authors to state that clary sage oil should be developed as a therapeutic agent for patients with depression (Seol et al. 2010).

Vetiver oil is distilled from the root of a scented grass cultivated throughout tropical Asia. In aromatherapy, it is generally used to treat exhaustion, insomnia and stress while in the Far East, vetiver oil is also used for its sedative effect (Lawless 1995, Thisayakorn & Suntorntanasat 2003). Studies with animals inhaling vetiver oil have confirmed the calming effect, with the animals showing reduced motility (ability to move spontaneously and actively) when compared to control (Cheaha et al. 2016, Thisayakorn & Suntorntanasat 2003).

The effectiveness of scents, however, is not just down to the essential oils used. In fact, effectiveness highly depends on molecular concentration in the inhaled air (Buchbauer et al., 1995). The release of odors into ambient air via a diffuser will lead not only to a small amount of therapeutic odor molecules being inhaled, but also to rapid habituation due to constant exposure. As a result, any positive effects there might be are lost or greatly reduced (Chaudhury 2010). When working with scents therefore, an important aspect lies in the delivery method. This is where the AromaStick comes in: it delivers scents in a high molecular concentration directly to the nose, while greatly reducing exposure time. This has the additional advantage in that it forces the user to sniff, which is important for transporting scent molecules to the epithelium in the nose, the region where we "smell". At the same time the exposure time is kept to a minimum to avoid habituation. This makes AromaSticks 300% more effective than a scent released into ambient air (Schneider 2016).

By combining these essential oils and delivering them directly to the nose, the AromaStick Calm managed to drastically reduce stress-related biomarkers such as blood pressure, heart rate and cortisol. Sniffing on an AromaStick Calm three times over a period of 10 minutes resulted in a reduction of systolic blood pressure by nearly 15 mmHg (millimeters of mercury), diastolic blood pressure by 6.5 mmHg and heart rate by 6.5 beats per minute. Salivary cortisol, was reduced by 17%. The levels reached were far beyond what was achieved by other popular methods, including progressive muscle relaxation and passive resting (Schneider 2016).



Figure 1: Mean changes in cardiovascular parameters and cortisol (saliva) after 10 minutes of intervention. Original data and figures [Schneider 2016]

The AromaStick Calm quickly and effectively calms mind and body during moments of tension and anxiety as encountered by healthy individuals.

AromaStick natural inhalers are not medicines and are not intended to be used in place of medicines to treat, alleviate or prevent a health problem or an illness. The purpose of this product information leaflet is solely to provide an introduction to the AromaStick and the essential oils it contains. AromaStick natural inhalers are intended to improve wellbeing in healthy individuals.

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