

# Cool Cream™



**CHANTILLY  
HEALTH**



## CLINICAL APPLICATIONS

- Muscular and Joint Relief

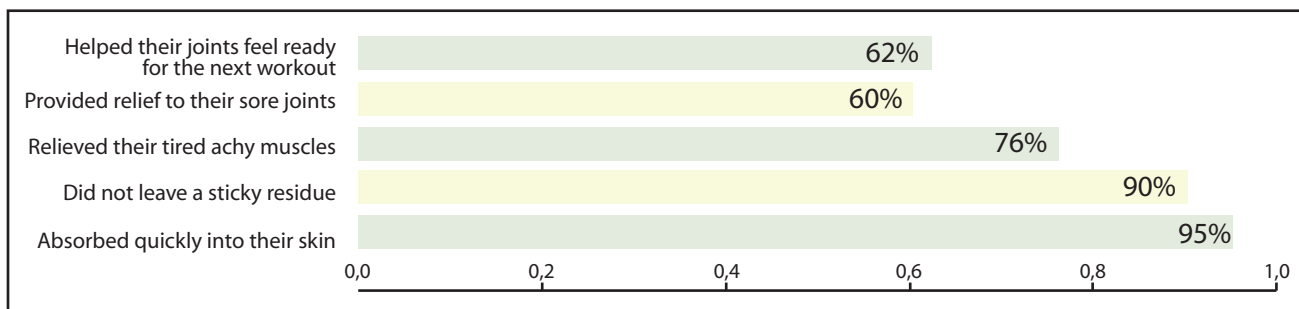
*Cool Cream™ is a gel that consists of a blend of botanical extracts that is used for muscle and joint relief. It has a pleasant scent and provides a cooling sensation on the skin when applied.*

*Cool Cream™ is salicylate-free.*

**All Chantilly Natural Health® Formulas Meet or Exceed cGMP quality Standards**

## DISCUSSION

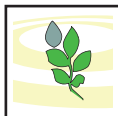
Cool Cream™, a member of Chantilly Natural Health's Exclusive and Patented ("EP") line, is the result of Chantilly Natural Health's partnership with Biotanika™, a Canadian company that develops evidence-based natural health products. Cool Cream™ is a proprietary blend of botanical extracts that was tested on humans during a four-week single-blinded controlled clinical study (n=21) to assess the safety of the product. No skin reaction (i.e. burning, erythema, itching, rash, scratching, scaling, stinging, tightness or tingling) was noted by any subject enrolled in the study at, or immediately surrounding the site of application of Cool Cream™. Furthermore, the subjects thought that Cool Cream™ ...



Study sponsored by Biotanika™ and performed by Stephens and Associates.

### **Mentha piperita:**

Peppermint (*Mentha piperita*) is found throughout much of Europe and North America. It is widely grown for its scented oil. Peppermint oil was traditionally used for many discomforts such as cold symptoms, cramps, headaches, indigestion, articular pain and nausea.<sup>[1]</sup> After topical application of Cool Cream™, the *Mentha piperita* causes a feeling of coolness due to stimulation of 'cold' receptors through inhibition of Ca<sup>++</sup> currents of neuronal membranes. These receptors are associated with analgesic properties. Menthol has local anaesthetic properties that have been demonstrated in the relief of minor pain when used alone or in combination with other ingredients. Galeotti et al<sup>[2]</sup> demonstrated the antinociceptive effect of menthol in animal models of pain: e.g., dose-dependent increase in the pain threshold in the mouse hot-plate. The antinociceptive effect of menthol was mediated through a selective activation of kappa-opioid receptors. Both enantiomers were found to be equiactive in their local anesthetic activity. Menthol is found in a range of topical pain relief medications because of its counter-irritant and local anesthetic properties. It has been shown to increase cutaneous blood flow at the site of its application. The vasodilatation results in an increase in skin temperature similar to that experienced in superficial heat therapies. Even though the exact mechanism of action explaining the analgesia remains to be elucidated (e.g., selective activation of a pain receptor) the potential of this natural alcohol to act locally has been well established.



### **Eucalyptus globulus (leaf oil):**

Blue Gum (*Eucalyptus globulus*) is a 100 to 180 feet tall tree native to Australia. It has many traditional uses including treatment of rheumatic pain. The oil of *Eucalyptus globulus* contains cineole, a monoterpene that has antinociceptive properties. In mice, this monoterpene demonstrated antinociceptive activity comparable to that of morphine.<sup>[3]</sup>

### **Origanum majorana:**

Marjoram (*Origanum majorana*) is an aromatic plant related to oregano. Traditionally, it has many properties, namely relaxation. Linalool, a monoterpene, from the essential oil of *Origanum majorana* possesses anti-inflammatory, antihyperalgesic and antinociceptive properties. It has demonstrated local anaesthetic activity and an ability to block NMDA receptors.<sup>[4]</sup> The cutaneous penetration of linalool is effective in both pure essential oils or topical formulations applied to the skin.

### **Ethanolamine:**

Ethanolamine helps form emulsions by reducing the surface tension of substances to be emulsified so that hydrosoluble ingredients can be mixed with soluble ingredients in the oil. Ethanolamine is also used to control pH in cosmetics and personal care products.<sup>[5]</sup>

### **PEG-40 castor oil:**

PEG-40 castor oil is used in cosmetics to help form emulsions. It is also used to dissolve other substances in solvents in which they would not normally dissolve.<sup>[5]</sup>

### **Disodium EDTA:**

Disodium EDTA binds with metal ions and inactivates them. Its binding helps prevent deterioration of cosmetics and personal care products. It also helps preserve the appearance of the product and protect fragrance agents.<sup>[5]</sup>

## **INGREDIENTS:**

Water, Ethanol, Mentha piperita extract, ethanolamine, PEG-40 castor oil, Origanum majorana, Eucalyptus globulus leaf oil, Disodium EDTA

## **DOSING:**

Apply freely before and/or after exercise or heavy physical work or as needed. For topical use only. Does not contain salicylates.

## **REFERENCES**

1. <http://www.nlm.nih.gov/medlineplus/druginfo/natural/patient-peppermint.html>, accessed on May 20, 2008.
2. Galeotti N, Ghelardini C, Mannelli L, Mazzanti G, Baghiroli L, Bartolini A, Local anaesthetic activity of (+)- and (-)-menthol, *Planta Med.* 2001 Mar;67(2):174-6.
3. Liapi C et al., Antinociceptive properties of 1,8-Cineole and beta-pinene, from the essential oil of *Eucalyptus camaldulensis* leaves, in rodents., *Planta Med.* 2007 Oct;73(12):1247-54. Epub 2007 Sep 24.
4. Peana AT et al., Effects of (-)-linalool in the acute hyperalgesia induced by carrageenan, L-glutamate and prostaglandin E<sub>2</sub>, *Eur J Pharmacol.* 2004 Aug 30;497(3):279-84.
5. <http://www.cosmeticsinfo.org>, accessed on May 20, 2008.

## **CAUTIONS**

Avoid contact with eyes. Do not ingest. Do not apply to open wounds. Avoid topical use around the facial or the chest areas of infant and young children, especially around the nose, because the menthol constituent can induce apnea, laryngeal and bronchial spasms, acute respiratory distress with cyanosis, respiratory arrest if applied directly to the nasal and the chest areas. Keep out of reach of children. Store at room temperature.

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