

Topo Relief hemp rollon

Background

Topo Relief hemp roll-on is a supplemental topical hemp extract plus formulary local and topical analgesic product. The three main constituents of this topical relief roll-on are BPC, lidocaine, and hemp. As a legal cannabis-based, hemp extract product containing no tetrahydrocannabinol (THC) content, the main psychoactive compound in cannabis, this product may provide mid-level analgesic effects to locally applied areas of the body. Additionally, the inclusion of BPC allows for nutrient-rich blood flow to reach damaged areas of the body providing additional healing actions.

Research

Topo Relief hemp roll-on consists of BPC, lidocaine, and hemp. The three main components will be discussed in detail with additional explanations on the proprietary blend ingredients. **Body Protective (Protein) Compound (BPC)-157** is a fifteen amino acid sequence peptide discovered initially within human gastric juice and formulated synthetically. Its mechanism of action is to promote angiogenesis (e.g., vascular development) through regulating Vaso Endothelial Growth Factor (VEGF), and, thus, supporting capillary growth and increased blood and nutrient transport. The primary focus of interest and investigation centers on BPC's regenerative properties and ability to regulate microbiota balance within the gut-brain axis.

The process of healing is strongly associated with the ability of nutrient-rich blood flow to reach damaged areas of the body and BPC-157 is suggested to play a primary role in this vasculature necessary to accelerate healing. As a native gastric peptide, it has been observed to display powerful cytoprotective (protection to cells against harmful agents) actions and has appeared in multiple sclerosis and ulcerative colitis trials. ¹ As a gut-brain axis targeting peptide, treatment applications for central nervous system (CNS) disorders and mental health support appear viable. According to Appleton (2018), the autonomic nervous system, hypothalamic-pituitary-adrenal (HPA) axis, and gastrointestinal (GI) tract nerves all connect the brain and gut; this gut-brain axis serves the brain to impact not only intestinal activities, but the gut to affect cognition, mental health, and mood. ² In other words, clinical support suggests that enteric microbiota and regulation by the gut-brain axis and relationship plays a role in affective health, mental state, neuromuscular function, and overall brain health, especially in proper hormone release. ² Dysregulation and imbalances of microbiota are linked to changes in cognitive and emotional brain activity, therefore, novel peptides that seek to minimize microorganism disruptions in the gut-brain axis can be profound in promoting overall brain and digestive health. ^{3,4}

Lidocaine is a popular local anesthetic used to manage local and neuropathic pain, additionally considered effective as an intravenous injection to help alleviate postoperative pain. ⁵ Yang et al. (2020) prepared a robust literature review of the mechanism of the central analgesic effect of lidocaine. ⁵ The dorsal root ganglion (DRG), e.g., cluster of neurons in a dorsal root of a spinal nerve, includes frontline pain afferents, and assists to communicate a painful stimulus to the central nervous system (CNS). ⁵ The DRG neuron ion channels are primarily voltage-gated ion channels

which contain calcium, potassium, and sodium channels.⁵ Lidocaine is thought to promote analgesic effects by blocking voltage-gated Na⁺ channels, in other words preventing Na⁺ and K⁺ ion channels and managing both intracellular and extracellular calcium strengths through associated ion channels.^{5,6,7}

Hemp is cannabis that contains virtually no tetrahydrocannabinol (THC) content, the main psychoactive compound in cannabis. There exists little empirical data on actual pharmacodynamics of hemp. Multiple authors suggest hemp, or the legal variety of the Cannabis plant, contains hundreds of beneficial flavonoids and phytochemicals that may serve as powerful therapeutics standalone or offer synergistic actions.^{8,9,10,11} Although the data is minimal, there is sizable anecdotal support for hemp extracts as pain relief agents and an interest to develop and explore opioid alternatives for pain management.¹² Currently, there are attempts to accelerate evidence-based research of Cannabis-based medicines, some authors providing support for products like hemp to regulate anxiety, inflammation, and pain.¹³⁻¹⁹ Chronic pain is generally the most cited condition associated with medical cannabis use and some substantial population-based studies observing real-time effects of cannabis use on short-term pain amount support its efficacy as a moderate pain relief agent.^{20,21,22}

Additional components of the healing and pain relief combination proprietary supplement blend include, Amica oil, Boswellia, Bud Clove oil, Peppermint oil, Rosemary oil, Sweet Birch oil, and Turmeric within an aromatic and soothing menthol base. This complementary matrix of analgesic, anti-inflammatory, healing, and soothing extracts provide additional positive healing impacts to localized damaged areas of the body.

Conclusion

Alternatives to opioids for pain relief are a major area of interest for researchers. Chronic pain is a problem for many patients and remains a clinical challenge as traditional treatment response rates with existing therapies are slightly above 10%.^{23,24} Topo Relief not only uses a hemp extract and combination proprietary blend to promote mid-level pain alleviation to localized areas, but also has healing properties with addition of Body Protective (Protein) Compound (BPC)-157 peptide, demonstrating promising ability to direct nutrient-rich blood flow to reach damaged areas of the body, playing a primary role in the vasculature necessary to accelerate healing.

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Summary

Topo Relief hemp roll-on is a supplemental topical hemp extract plus formulary local and topical analgesic product. Alternatives to opioids for pain relief are a critical area of interest for researchers. Chronic pain is a problem for many patients and remains a clinical challenge as traditional treatment response rates with existing therapies are relatively low. The three main constituents of this topical relief roll-on are BPC, lidocaine, and hemp. As a legal cannabis-based, hemp extract product containing no tetrahydrocannabinol (THC) content, this product may provide mid-level pain relief effects to locally applied areas of the body. Additionally, the inclusion of BPC peptide allows for nutrient-rich blood flow to reach damaged areas of the body providing additional healing actions.