



Perform® Pain Reliever – From the Makers of Biofreeze®

Soothing relief for arthritis, sore muscles, and joint discomfort

Cold therapy that delivers relief
Evidence on menthol-activated topical analgesics

Like ice, only better
Decreases pain and inflammation

Perform[®] Pain Reliever

FROM THE MAKERS OF BIOFREEZE[®]

Performance Health, Inc. built its business by providing products that help people manage their pain. We have a product, Biofreeze, that is the trusted solution for millions of people. In fact, it's now the #1 clinically used and recommended topical analgesic in the US. In order to satisfy the rising consumer demands, and stay true to our company goal of helping people manage pain, Performance Health developed a universally available product line called Perform Pain Reliever. Like you, our livelihood is directly tied to the number of people we can help. That's why we'd like to be your partner in improving the quality of life through pain management.

Perform Delivers Cold Relief

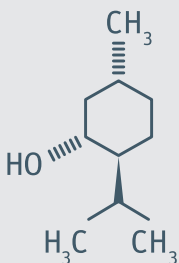
CLINICALLY PROVEN CRYOTHERAPY MADE CONVENIENT

It has long been established that cold therapy, or “cryotherapy,” decreases pain and reduces inflammation. Perform Pain Reliever is a topical analgesic that delivers the therapeutic benefits of cryotherapy in an effective, convenient-to-use formula. USP*-grade natural menthol—a proven analgesic compound¹—is the active ingredient in Perform Pain Reliever. Formulated with Ilex, a natural herbal extract containing antioxidants and amino acids, Perform Pain Reliever is fast-acting cold therapy for:

- **Sore muscles**
- **Muscle sprains and strains**
- **Back, shoulder and neck pain**
- **Painful ankle, knee, hip and elbow joints**

Perform Pain Reliever also helps manage pain associated with:

- **Arthritis**
- **Bursitis**
- **Tendonitis**
- **Diabetic neuropathy**



Natural (-)-Menthol

*USP: An Indicator of Quality

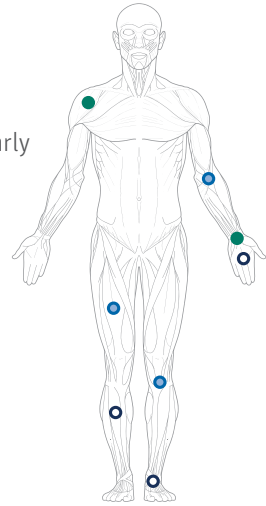
The United States Pharmacopedia (USP) sets standards to ensure the quality of medications, food ingredients, and healthcare products. Perform Pain Reliever is formulated with USP-grade menthol, camphor, isopropyl alcohol, and water. Our choice of USP-grade ingredients distinguishes Perform Pain Reliever from other topical analgesics and is testimony to our commitment to quality.

One Effective Pain Reliever in Three Different Formats



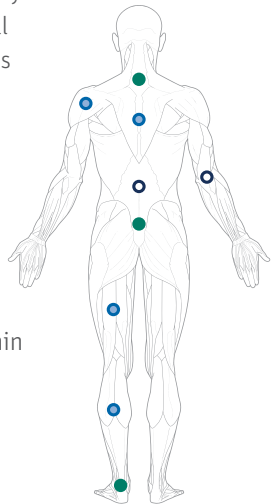
● TUBE

The Gel-dispensing tube is particularly well-suited for hands-on treatment applications (particularly larger muscles and joints, like knees and thighs).



● ROLL-ON

Roller application allows effective delivery of Perform gel to smaller muscles and joints throughout the body. The massaging action of the roller ball can be used to stimulate trigger points in the affected area.



○ SPRAY

Perform spray permits easy, effective application without direct body contact, helping consumers gain access to hard-to-reach body areas such as the back and foot.

Evidence Encourages the Use of Topical Analgesics

THE TREND IS TOWARD TARGETED RELIEF

Today, throughout the pain management community, the shift is toward the use of topical analgesics and away from systemic pain relievers. Fueling this trend is evidence-based research linking currently available systemic pain relievers to adverse events.² NSAIDs, COX-2 inhibitors, and opioids can affect the gastrointestinal tract, heart, kidneys, and other organs, as well as cognition. Consumers continue to become more mindful of what they put in or on their bodies. Conversely, topical analgesics, such as Perform Pain Reliever, deliver targeted pain relief with low levels of systemic absorption and therefore less risk for systemic toxicity and/or drug interaction. Pain-management clinicians are encouraged to consider and recommend topical analgesics as effective, safer alternatives to systemic medications.



Like Ice, Only Better

THE PAIN-RELIEVING POWER OF MENTHOL

Ice is the time-honored means of effectively delivering cryotherapy, but ice does have disadvantages. It can cause muscle stiffness, decreased range of motion, pain, numbness, prolonged vasoconstriction, skin irritation, and risk of frostbite and nerve damage. Also, ice therapy is limiting, requiring the consumer to remain stationary.

Performance Health conducted a study with a topical analgesic containing menthol showing it to be as effective as ice without the disadvantages.³ Like ice, Perform Pain Reliever reduces pain and inflammation. One study determined that blood flow decreased in the radial artery five minutes after a menthol-based pain reliever like Perform was applied to the forearm; 20 minutes were required for ice to induce the same result. The topical analgesic reduced blood flow much quicker than ice, and may be a great benefit in the very acute stages of injury, but more research is needed.⁴ In another study, consumers with bilateral neck pain preferred, by an 8-to-1 margin, treatment with a menthol-based topical analgesic like Perform Pain Reliever, to treatment with ice. Nine out of ten patients felt that a menthol-based Pain Reliever was twice as effective and that relief lasted longer, compared to ice.⁵

The pain relief provided by Perform Pain Reliever facilitates ease of movement, which can promote faster, long-term healing and recovery. It may be used to control pain during therapy and by consumers, at home or on-the-go. Recommend Perform Pain Reliever to use during and after daily activities and for soothing relief for arthritis, sore muscles and joint discomfort.

- **USP-grade natural menthol as active ingredient**
- **Simple and safe to apply at home or on-the-go**
- **Greaseless**
- **Vanishing scent**
- **Three convenient application formats**



Mechanism of Action

THE COUNTER-IRRITANT/GATE CONTROL THEORY

Traditional thinking is that the pain-relieving action of menthol—the active ingredient in Perform Pain Reliever—results from a counter-irritant effect. Simply put, a counter-irritant has an effect of overriding noxious pain signals traveling to the brain through a process modulated between pain-transmitting and nonpain-transmitting neurons. This process, known as “gate control” or “gating,” was first described by Melzack and Wall.⁶

Gate control theory is based on the understanding that pain is transmitted by two kinds of afferent nerve fibers. One is the larger, myelinated A-delta fiber, which carries quick, intense-pain messages. The other is the smaller, unmyelinated C fiber, which transmits throbbing, chronic pain. A third type of nerve fiber, called A-beta, is “nonnociceptive,” meaning it does not transmit pain stimuli. The gate control theory asserts that signals transmitted by the A-delta and C pain fibers can be thwarted by the activation/stimulation of the nonnociceptive A-beta fibers; and thus, inhibit an individual’s perception of pain.

More recently, researchers have discovered that menthol further stimulates the TRPM8 cold receptors. Even though it has long been accepted that cooling and cold can induce analgesia, it has been a poorly understood mechanism. As scientists have continued to isolate these specific heat-sensitive transient receptor potential (TRP) channels within our sensory neurons, we are now able to have a much better understanding of the body’s cutaneous temperature detection. With the isolation and further study of these specific TRPM8 receptors, there is stronger evidence supporting the benefits achieved with the cooling effect of menthol in functioning as a topical analgesic while activating these receptors and the resulting pain relief.

REFERENCES

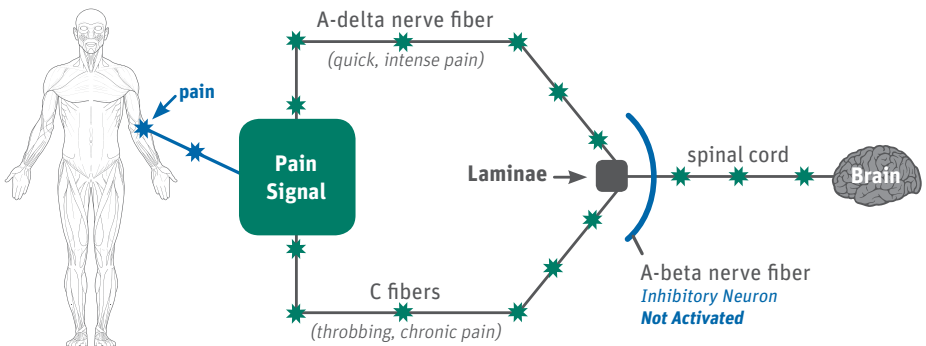
Visit www.Thera-BandAcademy.com to review these studies and many more.

1. Galeotti N, DiCesare Mannelli L, Mazzanti G, Bartolini A, Ghelardini C. Menthol: a natural analgesic compound. *Neuroscience Letters*. 2002 Apr 12; 322(3): 145-8.
2. Stanos S. Overview of topical analgesics. *Pain Medicine News*. 2009 Feb: 1-6.
3. Topp et al. Effects of menthol on skeletal muscle blood flow.
4. Topp R, Winchester LJ, Sannes SH, Mink AM, Kaufman JS, Jacks DE. A comparison of Biofreeze and ice on blood flow, pain and muscle function.
5. Bishop B, Greenstein J, Topp R. Effects of Biofreeze vs. ice on acute, non-complicated neck pain.
6. Melzack R, Wall PD. Pain mechanisms: a new theory. *Science*. 1965 Nov 19; 150(699): 971-9.

The Melzack-Wall Pain Gate

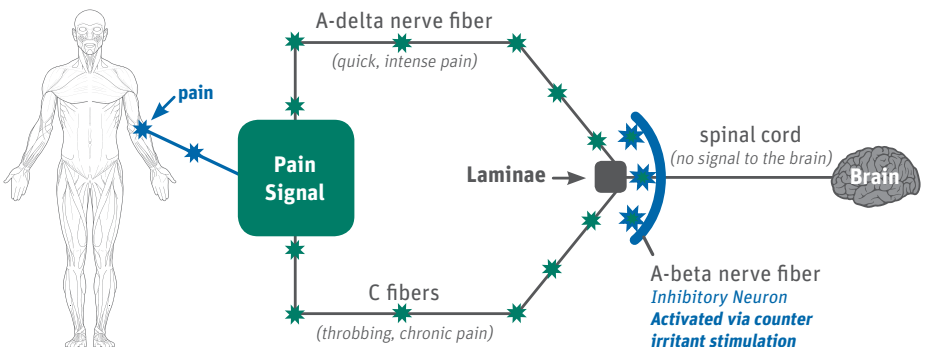
The brain's perception of pain depends on the interaction—within the laminae of the spinal cord—of C and A-delta nerve fibers (pain-transmitting) with A-beta nerve fibers (nonpain-transmitting). Stimulating the A-beta nerve fibers ultimately activates the inhibitory interneuron and “closes the gate” to pain.

Pain is Perceived



Pain is NOT Perceived

Apply Pressure to painful area





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Compliments of Performance Health, Inc.
CHECK PRODUCT PACKAGE FOR DIRECTIONS, INDICATIONS AND WARNINGS.