

# ArthroSoothe™ Cream

Support for Joint and Muscle Discomfort

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ArthroSoothe™ Cream is a soothing topical cream ideal for occasional joint and muscle discomfort. Utilizing ingredients, such as eucalyptus, peppermint, and tea tree oils, along with methylsulfonylmethane (MSM) as dimethyl sulfone, glucosamine, chondroitin, hyaluronic acid (HA), and a blend of herbal extracts, this product provides a cooling followed by a warming effect to support joint and muscle comfort.

Joints, cartilage, ligaments, tendons, and synovial fluid undergo a continuous, but slow regeneration process as a natural part of aging. This process can be affected by several factors, including nutritional status, activity level, hormone function, stress, aging, toxic burden, immune and gut health, and certain medications. In combination with balanced nutrition, topical creams that contain soothing properties may help support joints and associated tissues.

ArthroSoothe™ Cream is ideal for individuals who experience occasional discomfort associated with continuous use of joints and muscles. It is also ideal for health-care practitioners who perform manual therapies, such as myofascial modalities. ArthroSoothe™ Cream provides a controlled glide with manual modalities, including myofascial tools, to address adhesions in tendons and muscles while providing soothing actions.

## Highlights

- Features a proprietary blend of soothing herbs
- Includes the building blocks of cartilage, glucosamine, chondroitin, and MSM
- Menthol and essential oil blend for a gentle cooling followed by a warming effect
- HA included to support skin moisture retention
- Topical application for soothing occasional joint and muscle discomfort

## Glucosamine, Chondroitin, and MSM

Glucosamine and chondroitin are the building blocks of cartilage and may help promote normal cartilage synthesis and may also promote a healthy inflammatory response to support joint health. Glucosamine and chondroitin sulfate are substrates in the biosynthesis of proteoglycans in chondrocytes, and are components of articular cartilage, and constituents of glycosaminoglycans (GAGs).

A randomized, double-blind, placebo-controlled trial of 63 patients evaluated the effects of a topical cream containing glucosamine sulfate, chondroitin sulfate, and camphor for osteoarthritis (OA) of the knee.<sup>1</sup> After 8 weeks, visual analog scale scores indicated a greater mean reduction in pain for the glucosamine/chondroitin group compared to a placebo and showed an improvement by week 4.<sup>1</sup> An in vitro study showed that topical chondroitin sulfate and HA significantly enhanced skin penetration and the transfer of an anti-inflammatory inside various layers of skin compared to the control, implying that GAGs may promote the enhanced absorption of other bioactive ingredients in topical application.<sup>2</sup>

MSM is a small, naturally occurring organosulfur compound present in the environment and within the human body and provides most of its benefits by supplying the body with sulfur. Approximately half of the sulfur in the human body resides in muscles, skin, and bones. Sulfur is another building block of collagen, which is the primary constituent of cartilage, skin, and connective tissue. Sulfur provided by MSM may help promote joint comfort.<sup>3</sup> A rat model demonstrated that topically applied MSM acted as a permeability enhancer of the other bioactive ingredients for reducing burn progression.<sup>4</sup>

**Hyaluronic Acid** is an organic polysaccharide produced by chondrocytes and synoviocytes that is distributed throughout the body, supporting collagen and connective tissue synthesis. HA also functions as a foundational component of the extracellular matrix of hyaline cartilage, acting as a cushion or lubricant for joints. HA synthesis and concentrations are decreased in arthritic joints. Several human and animal studies have shown topical HA, on its own and as a building block and moisture retention molecule, is able to effectively penetrate rapidly through the skin. It is then distributed to other tissues, including joints, which may promote skin and joint properties. In doing so, HA acts as a topical vehicle for enhanced delivery of other bioactives.<sup>5-10</sup>

## Benefits

- Supports occasional discomfort in joints and muscles
- Supports overall joint and muscle health

**Ingredients:** Water, Cetearyl Alcohol, Glycerine, Caprylic/Capric Triglyceride, *Mentha Piperita* (Peppermint) Oil, Menthol, Glyceryl Stearate, *Eucalyptus Globulus* (Eucalyptus) Leaf Oil, Squalane, Sodium Stearoyl Lactylate, Dimethyl Sulfone (MSM), *Melaleuca Alternifolia* (Tea Tree) Leaf Oil, Phenoxyethanol, Caprylyl Glycol, Carbomer, Xanthan Gum, Ethylhexylglycerin, Hexylene Glycol, Glucosamine Sulfate, Chondroitin Sulfate, Tocopheryl Acetate, Tetrasodium Glutamate Diacetate, Capsaicin, *Melaleuca Leucadendron* (Cajaput) Oil, *Myroxylon Pereirae* (Balsam Peru) Oil, *Origanum Vulgare* (Oregano) Leaf Oil, Sodium Hyaluronate, *Arnica Montana* (Arnica) Flower Extract, *Calendula Officinalis* (Marigold) Flower Extract, *Capsicum Annuum* (Capsicum) Fruit Extract, *Chamomila Recutitita* (Chamomile) Flower Extract, *Hamamelis Virginiana* (Witch Hazel) Extract, *Salix Alba* (White Willow) Bark Extract, *Aloe Barbadensis* (Aloe) Leaf Juice.

### Proprietary Herbal Blend

Extracts from white willow bark, capsicum, capsaicin, arnica, chamomile, calendula (marigold), and witch hazel contain bioactive compounds that can support a healthy inflammatory response associated with occasional joint and muscle discomfort. White willow bark (*Salix alba*) extract has been used for centuries for its analgesic, antipyretic, and anti-inflammatory properties due to its bioactive compounds, including salicin, salicylates, polyphenols, and flavonoids.<sup>11</sup> According to a Cochrane review, when standardized to 120 mg and 240 mg, white willow bark was shown to provide better results than a placebo in patients with lower back pain.<sup>12</sup>

Similar results were found using capsicum compared to a placebo in individuals with lower back pain.<sup>13</sup> A randomized clinical trial using a topical liniment of *Capsicum frutescens* (cayenne) for 6 weeks in individuals with knee OA showed significant improvements in overall symptom reduction scores.<sup>14</sup>

Capsaicin is a natural chili pepper extract that can be used topically to support a healthy response to occasional discomfort. A systematic review of randomized controlled trials demonstrated beneficial effects of high-concentration (>5%) topical capsaicin in participants with neuropathic pain, generating moderate relief compared to controls.<sup>15</sup> In a rat model of inflammatory muscle pain, topical capsaicin and peppermint oil alleviated CFA-induced mechanical hypersensitivity, abnormal muscular nociceptive neuronal activity, and decreased hindlimb weight-bearing ability.<sup>16</sup> Topical capsaicin is recommended by the American College of Rheumatology and Arthritis Foundation for knee OA.<sup>17</sup>

Menthol and oils of peppermint, cajeput, tea tree, oregano, and eucalyptus provide a gentle cooling effect, followed by a warming sensation. Menthol acts on transient receptor potential melastatin 8 (TRPM8), which is responsible for detecting mild cold stimuli and is expressed at nociceptors and keratinocytes in the skin.<sup>18</sup> A small human randomized controlled trial showed topical menthol increased pain pressure threshold (PPT) overall and PPT was higher for lower body versus upper body locations.<sup>19</sup> At low concentrations, topical menthol was shown to depress cutaneous nociception and activates central analgesic pathways.<sup>20</sup> Topical menthol application has been shown in human and animal clinical studies to have beneficial effects on acute, neuropathic, and inflammatory pain, as well as cold allodynia.<sup>18</sup> In a triple blind, randomized controlled trial of slaughterhouse workers with carpal tunnel syndrome, topical menthol application significantly reduced pain intensity and improved the global rating of change in arm/hand pain compared to a placebo.<sup>21</sup> Patients with knee OA reported significant improvements in pain during various performance and functional tasks using menthol gel compared to a placebo gel.<sup>22</sup>

**Recommended Use:** Massage into skin as needed. Can be repeated several times a day as desired.

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<https://www.designsforhealth.com/api/library-assets/literature-reference---arthrosoothe-cream-tech-sheet-references>

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