



# Soothes heated, dry, itchy skin

The only 0.5% - 5%  
range of **Menthol in**  
**Aqueous Cream**  
to be **SLS Free**



SKIN DEEP **SOOTHE ABILITY**

Recent guidelines for the management of Pruritus and clinical experience suggest the use of Menthol to alleviate itch is effective at 1-5%<sup>2</sup>



## SKIN DEEP SOOTHE ABILITY

- MenthoderM® is a topical antipruritic cream used to help relieve the itch caused by pruritic conditions such as atopic eczema, psoriasis and chronic dermatitis.
- MenthoderM® Soothes & Cools heated & dry itchy skin
- MenthoderM® is the only Menthol in Aqueous Cream with two preservatives providing double protection for patients
- The additional preservative is undecylenic acid which helps reduce the risk of potential cross contamination, especially for patients with compromised hygiene and assists in protecting dry and irritated skin
- MenthoderM® has a lower cost than the Drug Tariff Menthol in Aqueous Cream<sup>1</sup>

### Situations in which Menthol in Aqueous Cream may be effective are:

- Menopause: Menthol is often used by women experiencing the menopause. Its cooling properties assist with managing hot flushes
- Pregnancy: Menthol is also often used by pregnant women, for the relief of Obstetric Cholestasis (an uncomfortable itching on the abdomen and other parts of the body) caused by disruption to the normal functioning of the liver and soothing the itch associated with stretch marks<sup>3</sup>
- Summer Skin: Menthol is an age-old coolant and may help alleviate heated skin by cooling the affected area

# The Benefits of Menthol<sup>3</sup>

Menthol is natural cyclic terpene alcohol from plant origin and has been used since antiquity for medicinal purposes. Today Menthol can be found in both prescription and OTC medications for a range of different conditions. It is also used in Dermatology where it is frequently prescribed for its antipruritic properties.

## MENTHOL - THE MECHANISM OF ACTION

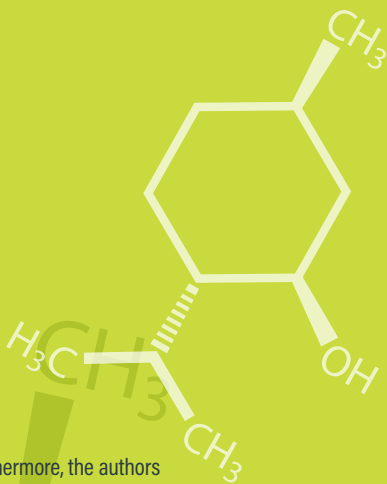
Despite its widespread use the mechanism by which Menthol is able to impart a cooling sensation when applied topically to the skin remained a mystery until early 2002. Two independent studies by McKemy et al and Peier et al identified a 1104 amino acid cation channel receptor - TRPM8. This receptor, cloned and characterized, could be activated by both Menthol and a thermal stimuli in the cool to cold range 8 - 28C. This proves that Menthol acts as an agonist for a thermally sensitive receptor. Psychophysical studies have also shown that menthol evokes a cool sensation to the skin or mucous membrane.

## ANTIPRURITIC BENEFITS OF TOPICAL MENTHOL

The precise mechanism by which menthol alleviates pruritus is unknown and the optimal concentration of menthol for the relief of pruritus has yet to be fully established. Different opioid receptors have contrasting effects upon pruritus. Menthol has been shown to selectively activate k-opioid receptors, and Patel et al postulated that this mechanism may also possibly explain the antipruritic properties of this compound. He also noted that patients who suffer from chronic pruritic conditions, such as atopic dermatitis, uremic pruritus and psoriasis report an apparent itch reduction by taking a cold shower. Therefore, it is possible that the cooling sensation menthol imparts to the skin serves as a possible mechanism to reduce itch perception in certain patients.

## LOCAL ANAESTHETIC ACTIVITY OF TOPICAL MENTHOL

In a recent study, Haeseler et al concluded that menthol blocks voltage-gated neuronal and skeletal muscle sodium channels in a concentration-dependent manner in resting and inactivated states.



Furthermore, the authors suggested that this effect provided a molecular basis for the antinociceptive and local anaesthetic properties of this compound.

## CONCLUSION

Menthol is widely used in the UK, especially dermatology, where it is frequently part of topical antipruritic, analgesic, antiseptic, and cooling preparations, such as Menthol in a topical cream base. It has an excellent safety and toxicity profile. As highlighted by Patel et al the recent discovery of the TRPM8 receptor finally provides the answer to how menthol can elicit the same cool sensation as low temperatures.

## UNDECYLENIC ACID

Is an organic compound often derived from Castor Oil (ricinoleic acid). It is produced by "cracking" Castor oil under pressure and, in higher strengths can be used as a powerful antifungal agent for a variety of pathogenic fungi. Primarily undecylenic acid is the active ingredient in many medications for skin infections, which relieves itching, burning, and irritation. For example, it is used against fungal skin infections, such as athlete's foot, ringworm.

## SAFETY/TOXICITY

Relatively small doses of undecylenic acid and its salts have been shown to have powerful antifungal properties, and the dosages necessary to achieve therapeutic benefit appear to be safe.

1. British National Formulary (BNF), LEVOMENTHOL, <https://bnf.nice.org.uk/medicinal-forms/levomenthol.html>, (last accessed 15th January 2024)

2. National Institute for Health and Care Excellence, Topical local antipruritics, <http://bnf.nice.org.uk/treatment-summary/topical-local-antipruritics.html> (last accessed 15th January 2024)

3. National Health Service (NHS), Itching and intrahepatic cholestasis of pregnancy, <https://www.nhs.uk/pregnancy/related-conditions/complications/itching-and-intrahepatic-cholestasis/> (last accessed 15th January 2024)

4. Patel et al., 'Menthol: A refreshing look at this ancient compound.' Journal of the American Academy of Dermatology, vol. 57, no 5, 2007, pp. 873-878.

# Availability

Menthoderm® is available on prescription and is listed on the NHSBSA dm+d database. Menthoderm® has a lower cost than the Drug Tariff Menthol in Aqueous Cream and is available from many pharmacies.<sup>1</sup>

Available in 4 strengths:

0.5% 1% 2% 5%

- 100g tubes: ideal for travel and daily use
- 500g airless pump dispensers: best where cross contamination is a risk (98% dispensed by the pump)
- 500g pots: for when large amounts are required or for those who may have manual dexterity issues with a pump dispenser

## NHS Pricing<sup>1</sup>

|          | Menthoderm |          |           | Dermacool |          |           |
|----------|------------|----------|-----------|-----------|----------|-----------|
| Strength | 100g Tube  | 500g Pot | 500g Pump | 100g Tube | 500g Pot | 500g Pump |
| 0.5%     | N/A        | £16.94   | N/A       | £4.12     | N/A      | £17.19    |
| 1%       | £4.00      | £17.50   | £17.50    | £4.25     | £17.75   | £17.75    |
| 2%       | £4.10      | £17.91   | £17.91    | £4.35     | N/A      | £18.16    |
| 5%       | N/A        | N/A      | £18.45    | £5.02     | N/A      | £18.70    |

### Directions for Use:

Apply to clean dry skin as often as required, as directed by your Prescriber or Pharmacist.  
Should only be used on infants below 2 years under the direction of a clinician.

### Warnings:

Do not use if you are allergic to any of the ingredients. Do not use on broken or damaged skin.  
Avoid contact with eyes. In the event of contact with eyes, rinse with water and immediately seek medical advice. In the unlikely event of rash or irritation, discontinue use. Young children should not be allowed to apply this product unsupervised. Do not apply to the face, nose, upper lip or mouth area of infants or young children. Seek medical advice if the product is accidentally swallowed.  
Do not induce vomiting. Do not use after expiry date. Store below 25°C.

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Another innovative product from  
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Cooling and soothing  
Sodium Lauryl Sulfate FREE