



EUROPEAN MEDICINES AGENCY  
SCIENCE MEDICINES HEALTH

10 July 2015  
EMA/HMPC/331421/2015  
Committee on Herbal Medicinal Products (HMPC)

## Herbal medicine: summary for the public

---

### Capsicum

*Capsicum annuum* L. var. *minimum* (Miller) Heiser and small fruited varieties of *Capsicum frutescens* L., fructus

This is a summary of the scientific conclusions reached by the Committee on Herbal Medicinal Products (HMPC) on the medicinal uses of capsicum. The HMPC conclusions are taken into account by EU Member States when evaluating applications for the licensing of herbal medicines containing capsicum.

This summary is not intended to provide practical advice on how to use medicines containing capsicum. For practical information about using capsicum medicines, patients should read the package leaflet that comes with the medicine or contact their doctor or pharmacist.

#### What is capsicum?

Capsicum is the common name for the fruits of the plant *Capsicum annuum* L. var. *minimum* (Miller) Heiser and *Capsicum frutescens* L. These are types of peppers that are cultivated or gathered to obtain the plant parts for medicinal use.

Capsicum preparations are obtained by ethanol or propanol extraction (a technique used to extract compounds from plant parts by dissolving them in alcohol).

Herbal medicines containing capsicum are usually available in a medicated plaster or in semi-solid forms to be applied to the skin (such as creams).

#### What are the HMPC conclusions on its medicinal uses?

The HMPC concluded that, on the basis of its well-established use, capsicum can be used for the relief of muscle pain, such as low back pain.

Capsicum should only be used in adults over the age of 18 years and should not be used continuously for more than 3 weeks. After 3 weeks a break of at least 2 weeks is required.



Detailed instructions on how to use capsicum medicines and who can use them can be found in the package leaflet that comes with the medicine.

## **How does capsicum work as a medicine?**

Capsicum contains a substance known as capsaicin. Capsaicin is a selective agonist of the 'transient-receptor-potential-vanilloid-1' (TRPV1) receptor. This means that it stimulates the TRPV1 receptor, which is found in the nociceptors (pain receptors) in the skin. The capsaicin is used to overstimulate the TRPV1 receptors. Overstimulating the receptors makes them become 'desensitised' and no longer able to respond to the stimuli that normally cause pain.

## **What evidence supports the use of capsicum medicines?**

The HMPC conclusions on the use of capsicum medicines relief of muscle pain are based on their 'well-established use' in this condition. This means that there are bibliographic data providing scientific evidence of their effectiveness and safety when used in this way, covering a period of at least 10 years in the EU.

In its assessment, the HMPC considered a number of clinical studies which showed improvements in pain relief following treatment with capsicum medicated plaster and skin preparations compared with placebo (a dummy treatment).

For detailed information on the studies assessed by the HMPC, see the HMPC assessment report.

## **What are the risks associated with capsicum medicines?**

Capsicum medicines can cause reddening and a burning sensation on the areas of the skin where they are applied. In rare cases allergic skin reactions can occur. If so, treatment should be stopped immediately.

Capsicum medicines must not be used in patients allergic to other sources of capsaicin and capsaicin-like compounds (e.g. paprika or chilli) and must not be applied onto broken skin, wounds and eczema.

Further information on the risks associated with capsicum medicines, including the appropriate precautions for their safe use, can be found in the monograph under the tab 'All documents' on the Agency's website: [ema.europa.eu/Find\\_medicine/Herbal\\_medicines\\_for\\_human\\_use](http://ema.europa.eu/Find_medicine/Herbal_medicines_for_human_use).

## **How are capsicum medicines approved in the EU?**

Any applications for the licensing of medicines containing capsicum have to be submitted to the national authorities responsible for medicinal products, which will assess the application for the herbal medicine and take into account the scientific conclusions of the HMPC.

Information on the use and licensing of capsicum medicines in EU Member States should be obtained from the relevant national authorities.

## **Other information about capsicum medicines**

Further information on the HMPC assessment of capsicum medicines, including details of the Committee's conclusions, can be found under the tab 'All documents' on the Agency's website: [ema.europa.eu/Find\\_medicine/Herbal\\_medicines\\_for\\_human\\_use](http://ema.europa.eu/Find_medicine/Herbal_medicines_for_human_use). For more information about treatment with capsicum medicines, read the package leaflet that comes with the medicine or contact your doctor or pharmacist.