



cayenne pepper

Hot pain relief

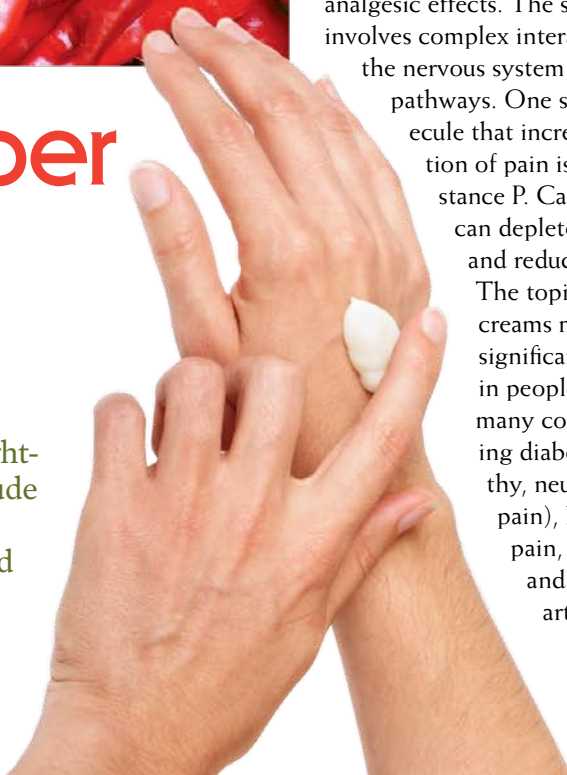
Cayenne pepper (also known as chili or red hot pepper) is the fruit of *Capsicum annuum*, a shrub that grows to three feet high. It's in the Solanaceae family, also called the nightshade family. Related plants in this family include potato, eggplant, and tomato. Native to Mexico and Central America, cayenne is now cultivated in tropical regions throughout the world for food and medicine.

» Spicy Benefits

Cayenne is used to add spice and heat to food. The hotness comes from a chemical called capsaicin, which is also one of the botanical's principal therapeutic substances. Other active constituents include carotenoids, vitamins A and C, and volatile oils. Cayenne has been used historically for asthma and upper respiratory infections and to prevent ulcers.

Eating cayenne pepper may also be helpful for weight maintenance and decreasing insulin resistance (in pre-diabetes and diabetes). Regular dietary intake of cayenne pepper significantly reduced insulin in a clinical trial. In this study, participants who consumed 30 grams per day of chili, composed of 55 percent cayenne pepper, showed lower insulin levels after four weeks, compared to those who did not eat this food. Clinical trials indicate that metabolism increases while appetite and caloric intake decline in people who add cayenne to their diets.

In addition, research has been conducted on cayenne pepper for its analgesic effects. The sensation of pain involves complex interactions among the nervous system and hormonal pathways. One signaling molecule that increases the sensation of pain is called substance P. Capsaicin cream can deplete substance P and reduce discomfort. The topical use of these creams may provide significant relief of pain in people suffering from many conditions, including diabetic neuropathy, neuralgia (nerve pain), lower back pain, osteoarthritis, and rheumatoid arthritis.



» Nerve Pain

The U.S. Food and Drug Administration (FDA) has approved topical capsaicin cream for the treatment of postherpetic neuralgia (nerve pain caused by a herpes zoster virus outbreak). For example, in one study, 39 patients with chronic postherpetic neuralgia (average duration 24 months) used 0.025 percent capsaicin cream for 8 weeks. During therapy the patients rated their pain. Of those treated, more than 40 percent had improved substantially, 13 percent elected to stop the therapy because of side effects (burning sensations), and 38.5 percent received no benefit from this approach. The results of this clinical trial are consistent with other studies.

Some patients diagnosed with trigeminal neuralgia (facial pain in the lips, gums, cheeks, or chin) who use capsaicin cream on affected areas report complete or partial relief during flare-ups. These results are promising, since surgery has historically been considered the only effective therapy in many cases.

» Postmastectomy Pain

Women who have undergone mastectomy surgery may experience postsurgical pain. In one study, 19 patients with post-mastectomy pain applied 0.025 percent capsaicin cream four times daily for eight weeks. Thirteen of the women reported reduced pain and discomfort. Cream containing 0.075 percent capsaicin has demonstrated similar results in a randomized, placebo-controlled trial.

» Arthritis

Research supports the use of capsaicin cream in relieving osteoarthritis and rheumatoid arthritis pain. In one study, 14 patients with osteoarthritis rubbed cream containing 0.075 percent capsaicin into their hands four times daily. Capsaicin cream provided symptomatic relief compared to a placebo. In a second study, people with rheumatoid arthritis rubbed 0.025 percent capsaicin cream on painful knees four times daily. Those using the capsaicin cream experienced significantly greater pain relief than those in the placebo group. Individuals with rheumatoid arthritis had a 57 percent mean reduction of their pain.

» Dosage

If you enjoy the heat, add cayenne pepper freely to your diet. Capsaicin creams tend to contain 0.025 percent or 0.075 percent capsaicin, and to work effectively, they should be rubbed into the affected areas up to four times daily.

» Toxicity and Interactions

The only adverse effect noted with topical capsaicin creams is local burning, which tends to decrease with time and continued use. However, the pain can be severe enough in a minority of

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people that they elect to stop treatment.

Dietary consumption of cayenne pepper is regarded as very safe. But since cayenne is quite hot, this pepper may cause pain and discomfort in people with gastric or peptic ulcers. Some reports have also cited an increase in gastric reflux (gastroesophageal reflux disorder, or GERD) among people consuming cayenne pepper. It also may interfere with MAO inhibitors and some blood pressure medications, while increasing the rate at which the liver metabolizes other drugs.

—John Neustadt, ND



John Neustadt, ND, is clinic director of Montana Integrative Medicine (www.montanaim.com) and president and CEO of Nutritional Biochemistry, Incorporated (www.nbihealth.com) and NBI Testing and Consulting Corp. (www.nbitesting.com) in Bozeman, Montana. He is a regular contributor to Integrative Medicine: A Clinician's Journal. Dr. Neustadt has published more than 100 research reviews and is coauthor of Thriving Through Dialysis and, most recently, A Revolution in Health Through Nutritional Biochemistry.

“Effects of Chili Consumption on Postprandial Glucose, Insulin, and Energy Metabolism” by K. Ahuja et al., *Am J Clin Nutr*, 7/06 • “Sensory and Gastrointestinal Satiety Effects of Capsaicin on Food Intake” by M. S. Westerterp-Plantenga et al., *Int J Obes*, 6/05 • “Systematic Review of Topical Capsaicin for the Treatment of Chronic Pain” by L. Mason et al., *BMJ*, 3/04 • *Textbook of Natural Medicine* by Joseph E. Pizzomo and Michael T. Murray (\$239, Churchill Livingstone, 2005)