

AAN Recommendations on Symptomatic Treatment for Muscle Cramps

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Guideline source: American Academy of Neurology

Literature search described? Yes

Evidence rating system used? Yes

Published source: *Neurology*, February 23, 2010

Available at: <http://www.neurology.org/cgi/content/full/74/8/691>

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Muscle cramps occur when the motor system is stressed by neuromuscular disease, a medical condition, or a physiologic process, such as dehydration or excessive exercise. Cramps are also common during the last trimester of pregnancy. Some patients have frequent, severe muscle cramps that can be disabling.

Quinine sulfate and its derivatives have been the mainstay of therapy for idiopathic muscle cramps. However, they are associated with adverse effects ranging from bitter taste and cinchonism (headache and tinnitus) to hematologic abnormalities such as hemolytic uremic syndrome, thrombotic thrombocytopenic purpura, disseminated intravascular coagulation, and bleeding diathesis. In 2006, the U.S. Food and Drug Administration warned against the off-label use of quinine sulfate and its derivatives for this indication, leaving physicians with a difficult choice in selecting a treatment regimen for patients with muscle cramps. The American Academy of Neurology (AAN) recommends that quinine derivatives, although likely effective, not be used rou-

tinely in these patients. These agents should be considered only when cramps are disabling and after other pharmacologic therapies have been attempted. Patients must be informed of the potential for serious adverse effects, and should be monitored carefully.

Tonic water contains variable amounts of quinine derivatives. Although there are case reports about its effectiveness in the treatment of muscle cramps, the AAN found insufficient data to make a recommendation for or against its use.

Class 2 studies have shown that the calcium channel blocker diltiazem (Cardizem) and vitamin B complex may be effective for the treatment of muscle cramps. Although no serious adverse effects were reported, minor adverse effects included lightheadedness, nausea, and abdominal discomfort in participants taking vitamin B complex. Magnesium citrate and magnesium sulfate did not notably improve the number of cramps, and were associated with abdominal discomfort and diarrhea.

Several other medications have been used in clinical practice to manage muscle cramps, including the anticonvulsants gabapentin (Neurontin), carbamazepine (Tegretol), and oxcarbazepine (Trileptal). Patients also may try various over-the-counter and nonpharmacologic therapies (e.g., hydration, stretching exercises) before prescription treatment. However, there is little evidence to support the use of any of these therapies. ■