The Right Chemistry: What to do about leg cramps?



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Dr. Joe Schwarcz: Soap and leg cramps



Ayyayyayyah! That's perhaps the best way to describe a nighttime leg cramp. You wake up with an excruciating pain somewhere along your leg and all you can think of is getting relief. You massage, you pull, you push, you hop on one leg. Sometimes that helps, sometimes not. Then as suddenly as it came, the pain resolves. Big sigh of relief! But you never want to go through that experience again. So in the morning you scurry to your computer

to find out what Dr. Google has to say about this nightmare.

You quickly learn that you are not alone, especially if you are over 60. Roughly one in three in that age group get night cramps somewhat regularly. Most of the time these are "idiopathic," meaning there is no known cause, although in some cases the cramps can be due to dehydration, imbalances in electrolyte levels, an under-active thyroid gland, peripheral vascular disease, or an adverse reaction to such drugs as diuretics, statins, calcium channel blockers, lithium or the Alzheimer's medication donepezil.

As far as treatments go, there is scant evidence-based information. Walking on heels for a few minutes, or straightening the leg and pointing the toes towards the shin is said to help. Various exercises are offered to prevent cramps from occurring, with the most common one being stretching the leg muscles by standing about a metre from a wall and leaning forward with arms outstretched to touch the wall while keeping the soles of the feet on the floor. Maintain this position for about five seconds and repeat as many times as possible over a five-minute period.

Quinine has been used in cases of very frequent recurring cramps, but is rarely used today because of a host of possible side effects. Some people resort to tonic water because of its quinine content, but the amount is way too small to have any effect. There is some evidence that supplements containing the electrolytes sodium, potassium, calcium and, particularly, magnesium, can help, especially in a chewable form for quick absorption. "SaltStick Fastchews" tablets, actually designed for use by high performance athletes, have been praised by some night time leg cramp sufferers as a means of affording relief. That of course is what we call anecdotal evidence. It doesn't mean that it is untrustworthy, just that it hasn't been confirmed by randomized, double-blind trials, the gold standard of science.

Where science leaves a void, unconventional therapies rush to fill it. All you need to stop the cramps is an old Amish formula, one website claims. What is it? "A carefully balanced mixture of certified organic unfiltered raw apple cider vinegar, juice from the ginger plant and just the

right amount of all natural garlic juice." Uh huh. But without a doubt, the most unusual therapy promoted on the web is sleeping with a bar of soap. Just take a bar, some say it has to be Ivory, others maintain that any soap will do except for Dove or Dial, and place it on the mattress under the sheet. Pleasant dreams!

This is the kind of daftness we are tempted to immediately dismiss because it seems to make no sense at all. How could sleeping with a bar of soap have an effect on leg cramps? But the web serves up testimonials galore from desperate people who say that in spite of thinking this to be a ridiculous notion, decided to try it anyway and found that it worked! Sounds like our good old friend, the placebo response. Might it not be the case that some people who have struggled long and hard with such cramps want so much to believe that something will help, that they will respond to the presence of the soap? Some argue that soap fragrance may have some sort of relaxing effect, but this seems unlikely, given that people swear by different kinds of soap and claim that it doesn't even matter if the bar is wrapped or not.

Of course, if the sufferer feels better, it doesn't much matter why. So, I suppose there is no harm in telling someone that "some people believe that sleeping with a bar of soap helps" and suggest they give it a shot. That little white lie doesn't break the No. 1 rule of medicine: "first of all, do no harm." It is hard to imagine how a bar of soap might do harm, although I suppose there is a chance it can drop to the floor due to the motion generated by a leg cramp attack and cause someone to slip on it.

Escaping cramps by bedding down with soap is a slippery claim. So is the supposed relief afforded by "Hyland's Leg Cramps PM," touted in its advertising as "the No. 1 pharmacist recommended brand for Leg Cramp Relief." When taken at the first twinge of a cramp, it is said to deliver quick help. This is a puzzler, because the product turns out to be a homeopathic remedy, which means that the "active ingredients" are present in an extremely diluted form.

Most homeopathic remedies are so dilute that they contain nothing but water. This one isn't diluted quite to that extent, it actually contains traces of 10 ingredients, none of which are known to trigger cramps in high doses. That is inconsistent with the basic theory of homoeopathy, that "like cures like." This pseudo-science is based on the fanciful notion that a substance that causes symptoms in a healthy person will alleviate those symptoms in a sick person when given in an extremely diluted form. Needless to say there are no studies attesting to the efficacy of this remedy, so it is hard to understand how any pharmacist could recommend it. Gives me a mental cramp. But I suppose the stuff works as well as a bar of soap under the sheet.

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