

TITLE 1: "Ask the Doctors"

TITLE 2:

DATE: February 1999

AUTHOR/S: Richard P. Allen, PhD

KEYWORDS:

- Awareness
- Symptoms

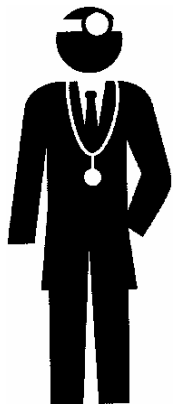
ABSTRACT OVERVIEW: Dr. Allen discusses how leg cramps symptoms are different from restless legs syndrome.

COPY OF ARTICLE:

Q. *Please describe the difference between RLS and leg cramps. Are the treatments for the two conditions the same?*

A. Nocturnal leg cramps are often confused with RLS, but they are entirely different. Leg cramps at night generally involve a cramping of the leg muscles, usually in the calf and sometimes in the foot. Unlike RLS, they virtually never involve the upper leg or the arms and only rarely involve the feet. The sensations are painful, involving the muscles, while less than half of patients with RLS describe the symptoms as painful and very few describe the sensations as occurring in the muscles. The leg-cramp sensations can be relieved by walking, stretching, and also by pressing firmly down on the feet. RLS is, of course, relieved by walking and to some extent by stretching but is not particularly relieved by pressing down hard on the foot.

Leg cramps involve protracted muscle contractions, often lasting more than 10 seconds without any specific leg movement while RLS involves shorter muscle activation



lasting less than 10 seconds and associated with actual movement of the legs and feet. Leg cramps tend to occur only when lying down and not when sitting, while RLS occurs whenever the affected individual is at rest, whether lying, sitting, or even standing still. Leg cramps may even persist for several minutes, but, once over tend not to come back in the next few minutes, while RLS symptoms return rapidly and repeatedly during the night.

RLS closely follows a daily cycle with symptoms developing late in the day, sometimes in the afternoon, but more commonly in evening and just at bedtime. The RLS symptoms generally become much less severe or even virtually disappear in the morning hours at about 4 to 10 am, but they return the next evening.

The symptoms appear to be tightly linked to times of sleepiness and disrupt sleep onset. When severe, however, RLS may persist 24 hours a day. In contrast, nocturnal leg cramps occur later in the sleep and most often in the early morning at the time when RLS symptoms generally become less severe.

Finally, the treatments for the two conditions differ. Iron treatment was found, in one study, to help reduce RLS symptoms but had no benefit for nocturnal leg cramps when these occurred in the same patients. The medications known to help RLS have not been found to reduce nocturnal leg cramps.

Nocturnal leg cramps often resolve spontaneously. Severe cases, which are rare, have been treated with quinine. An analysis of several controlled studies showed quinine

treatment significantly decreased the number of nights with leg cramps but not the intensity or duration of the cramps that occurred. Quinine causes serious adverse effects, including loss of vision and even fatal toxic reactions in some individuals sensitive to its effects. Thus the benefits compared to the risks need to be very carefully evaluated. Quinine is not considered to be an effective treatment for RLS.

Thus, RLS and nocturnal leg cramps appear to be alike only in that they both may involve the legs and both disturb sleep. These two disorders differ in virtually every other clinical feature including the physiologic characteristics.

Richard P. Allen, PhD

Johns Hopkins University Medical Ctr