

## HEALTHY LIVING

## A clue to restless legs

Genetic links to disorder that makes bedtime unbearable are uncovered

BY KEN FOSKETT  
Cox News Service

**Y**ou might say Marvlyn Kirk kicked her husband out of bed. Five years ago, the Covington, Ga., fund-raiser developed acute aching in her limbs that could only be relieved by constant movement.

She was up all night, often soaking and falling asleep in the bathtub. Her husband didn't get much sleep either, so he moved upstairs.

"It got really bad toward the end," Kirk said.

Kirk ultimately was diagnosed with Restless Legs Syndrome, or RLS, a sleep disorder that can be characterized by an irresistible urge to move the legs, debilitating body aches or maddening crawling sensations.

Still poorly understood, prolonged RLS symptoms can contribute to depression, poor concentration and could put sufferers at greater risk of high blood pressure.

Before her diagnosis, there were moments when Kirk thought her symptoms were all in her mind.

Now, an Emory University sleep doctor and a team of Icelandic researchers have found new clues about the biological traits of leg kicking, or periodic leg movements, a common feature of RLS.

Studying patients in Iceland and Atlanta, Dr. David B. Rye and the research team identified a gene in RLS sufferers who kick their legs during sleep. Patients with the gene were up to three times as likely to kick during sleep, the study showed.

"This is the most definitive link between genetics and RLS that has been reported to date," said Rye, who teamed with deCODE Genetics, an Icelandic company, and other Emory researchers.

"We have known for quite some time that the majority of RLS patients have a close family member with the disorder, and now we have found a gene which is clearly linked to RLS."

Rye's findings, reported in *The New England Journal of Medicine* and currently on the Journal's Web site, already have renewed a long-simmering controversy over the prevalence of RLS and drug treatments for the disorder. An editorial in the Journal calls the new study "exciting and important."

Public knowledge of RLS was limited until GlaxoSmithKline, the British pharmaceutical giant, began a campaign to raise aware-

ness in 2003. Two years later, the company received FDA approval to market an RLS drug developed for Parkinson's disease, called Requip.

Boehringer Ingelheim Pharmaceuticals Inc., a second drug company, received FDA approval for another drug, Mirapex, last fall. Rye reports consulting fees from both companies for serving on advisory boards and lecturing.

The two companies have marketed the drug heavily on TV and in direct advertising to consumers. That publicity has led some to accuse the companies — and the media — of "disease-mongering," exaggerating the prevalence of RLS to sell their drugs.

Estimates of how many people have RLS hover around 10 percent, based on a 2005 survey by the National Sleep Foundation. The percentage with bothersome symptoms is about 3 percent, Rye said. A 2005 study found moderate to severe symptoms in 2.7 percent of patients surveyed.

For his study, Rye focused on people with RLS who also kicked in their sleep, the symptom most easily measured. Study participants, nearly 1,000 in Iceland and 200 from the Emory Sleep Clinic, wore ankle bracelets to record the frequency of kicking.

Taking blood samples, Rye and researchers then looked for genetic markers that participants held in common. A variation of a gene located on the short arm of chromosome 6 caught their attention.

Study participants who kicked 21 or more times per hour were twice as likely to have the variant gene, the study found. Those with two copies — one inherited from each parent — kicked most.

Although it has yet to be fully documented, Rye and some other researchers believe severe RLS can elevate blood pressure during sleep, increasing the risk of heart disease and stroke.

The research also found low iron levels associated with RLS, consistent with earlier observations that pregnant women, whose iron levels can drop during pregnancy, are at greater risk of developing the disorder.

Dr. Steven Woloshin, a family medicine professor from Dartmouth Medical School, accepts RLS as a real condition but argues that its pervasiveness has been overblown. He said the latest RLS study does not add new information about its prevalence or if and when it requires medical treatment.

"The question is where to draw the line demarcating who is 'sick,'" said Woloshin,

who published a paper criticizing media coverage of RLS last year.

"This matters because the diagnosis leads to treatment, and the drugs used for RLS have important side effects, substantial nausea and daytime [sleepiness], plus unknown long-term consequences."

The research, however, has given some comfort to Marvlyn Kirk, providing some scientific basis for symptoms that even she once doubted were a genuine disorder.

It also confirms the hereditary link with RLS.

Four years ago, Betty Shaw developed symptoms that baffled her. Her legs twitched uncontrollably, often feeling like "something was crawling in my legs and biting on me."

"It got to be where I couldn't stay in the bed," said Shaw, 68. "I'd walk and walk and walk and walk, then get into bed and get up and walk again."

Shaw read about RLS on the Internet and sought help at Emory University in Atlanta. She was diagnosed with RLS and began taking Requip, an RLS drug with sales of \$326 million in 2006.

Her symptoms have improved markedly, she said. But her daughter, Cyndi Foshee, has since begun having leg tightness, a jerky sensation "like a charley horse coming."

Now being treated herself, Foshee is worried that her 18-year-old daughter, Shaw's granddaughter, is developing RLS, too.

"People may think this is just in your head, but no matter how much willpower you have, you cannot make it stop," Foshee said.

"I wouldn't wish it on my worst enemy. It's that bad." ■

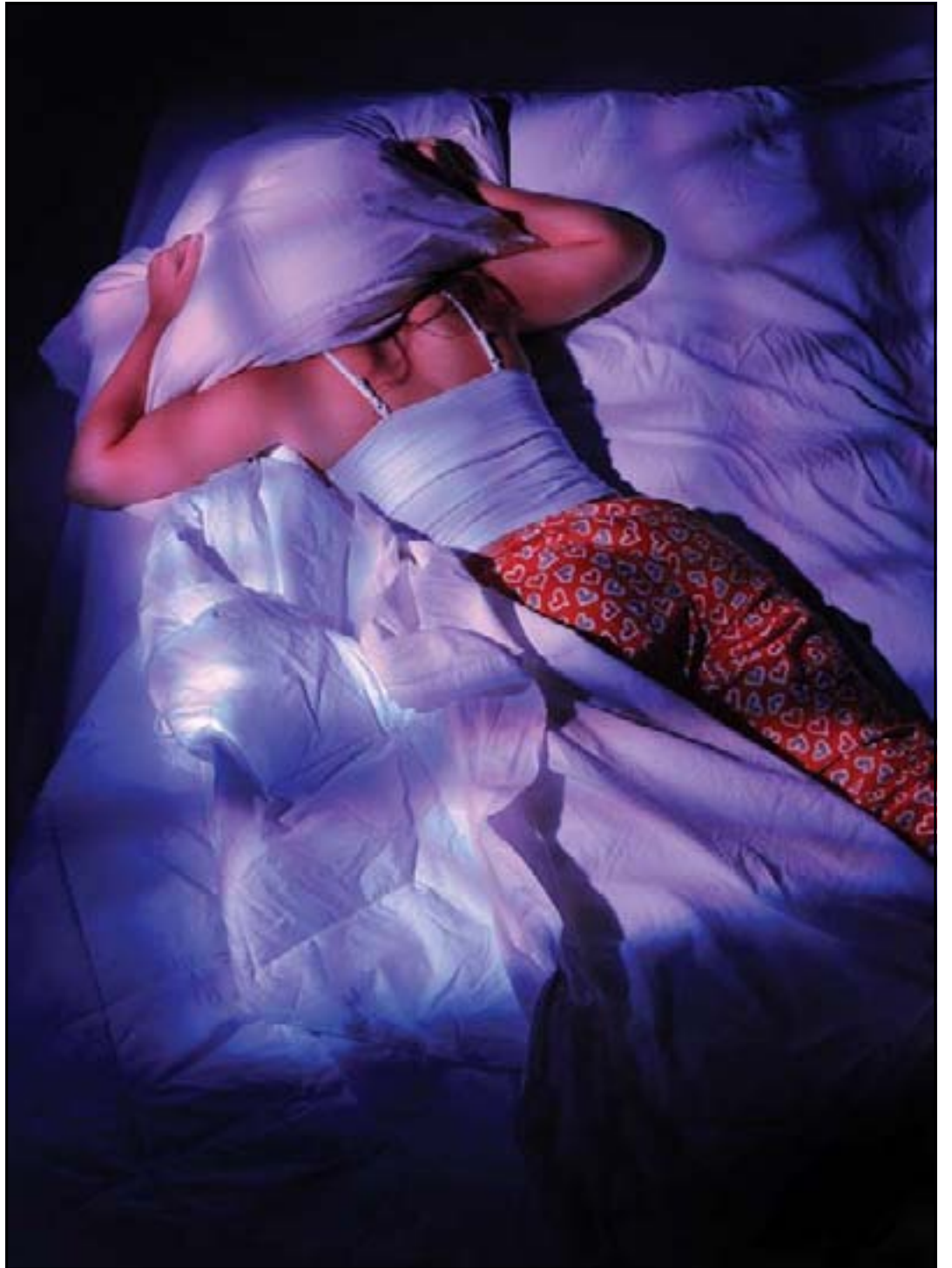


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## TREATMENT OPTIONS

Several new drugs such as Requip and Mirapex have been approved, but they carry serious side effects such as nausea and daytime sleepiness. Here are a few non-medical measures you can take to help improve your symptoms and ease the symptoms of RLS.

- Boost your vitamin intake. Supplement your diet with iron, vitamin B-12 or folate.
- Check your meds. Some drugs used to treat high blood pressure, heart conditions, nausea, colds, allergies and depression may worsen symptoms. Also, check herbal and OTC medicines.
- Enhance your diet. Make sure it is healthy and balanced. Eliminate alcohol and caffeine.
- Get physical therapy. Activities such as walking, stretching, taking a hot or cold bath, massaging, acupressure or relaxation techniques may improve symptoms.
- Exercise. A 2006 study found that a combination of moderate aerobic exercise and lower-body resistance training three days a week reduced symptom severity by about 50 percent. Don't overdo it, because strenuous exercise may worsen symptoms.
- Rest. Implement a program of good sleeping habits. ■

Source: The Restless Legs Syndrome Foundation, [www.rls.org](http://www.rls.org)



T. LEVETTE BAGWELL / COX NEWS SERVICE

Betty Shaw (foreground) suffers from Restless Legs Syndrome, as does her daughter, Cyndi Foshee. Foshee is now concerned her own daughter will be affected.