

## Preview of the Medifocus Guidebook on: Restless Legs Syndrome

Updated October 28, 2009



This document is only a SHORT PREVIEW of the **Medifocus Guidebook on Restless Legs Syndrome**. It is intended primarily to give you a general overview of the **format and structure** of the Guidebook as well as select pages from each major Guidebook section listed in the Table of Contents.

To purchase the COMPLETE Medifocus Guidebook on Restless Legs Syndrome (103 pages; Updated October 28, 2009), please:

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# 1 - Background Information

## Introduction

Chronic or life-threatening illnesses can have a devastating impact on both the patient and the family. In today's new world of medicine, many consumers have come to realize that they are the ones who are primarily responsible for their own health care as well as for the health care of their loved ones.

When facing a chronic or life-threatening illness, you need to become an educated consumer in order to make an informed health care decision. Essentially that means finding out everything about the illness - the treatment options, the doctors, and the hospitals - so that you can become an educated health care consumer and make the tough decisions. In the past, consumers would go to a library and read everything available about a particular illness or medical condition. In today's world, many turn to the Internet for their medical information needs.

The first sites visited are usually the well known health "portals" or disease organizations and support groups which contain a general overview of the condition for the layperson. That's a good start but soon all of the basic information is exhausted and the need for more advanced information still exists. What are the latest "cutting-edge" treatment options? What are the results of the most up-to-date clinical trials? Who are the most notable experts? Where are the top-ranked medical institutions and hospitals?

The best source for authoritative medical information in the United States is the National Library of Medicine's medical database called PubMed®, that indexes citations and abstracts (brief summaries) of over 7 million articles from more than 3,800 medical journals published worldwide. PubMed® was developed for medical professionals and is the primary source utilized by health care providers for keeping up with the latest advances in clinical medicine.

A typical PubMed® search for a specific disease or condition, however, usually retrieves hundreds or even thousands of "hits" of journal article citations. That's an avalanche of information that needs to be evaluated and transformed into truly useful knowledge. What are the most relevant journal articles? Which ones apply to your specific situation? Which articles are considered to be the most authoritative - the ones your physician would rely on in making clinical decisions? This is where *Medifocus.com* provides an effective solution.

*Medifocus.com* has developed an extensive library of *MediFocus Guidebooks* covering a wide spectrum of chronic and life threatening diseases. Each *MediFocus Guidebook* is a

high quality, up- to-date digest of "professional-level" medical information consisting of the most relevant citations and abstracts of journal articles published in authoritative, trustworthy medical journals. This information represents the latest advances known to modern medicine for the treatment and management of the condition, including published results from clinical trials. Each *Guidebook* also includes a valuable index of leading authors and medical institutions as well as a directory of disease organizations and support groups. *MediFocus Guidebooks* are reviewed, revised and updated every 4-months to ensure that you receive the latest and most up-to-date information about the specific condition.

## About Your MediFocus Guidebook

### ***Introduction***

Your *MediFocus Guidebook* is a valuable resource that represents a comprehensive synthesis of the most up-to-date, advanced medical information published about the condition in well-respected, trustworthy medical journals. It is the same type of professional-level information used by physicians and other health-care professionals to keep abreast of the latest developments in biomedical research and clinical medicine. The *Guidebook* is intended for patients who have a need for more advanced, in-depth medical information than is generally available to consumers from a variety of other resources. The primary goal of a *MediFocus Guidebook* is to educate patients and their families about their treatment options so that they can make informed health-care decisions and become active participants in the medical decision making process.

The *Guidebook* production process involves a team of professionals with expertise in diverse areas including experienced medical database researchers and practicing physicians who serve as members of the *Medifocus.com* Medical Advisory Board (MAB). This team approach to the development and production of the *MediFocus Guidebooks* is designed to ensure the accuracy, completeness, and clinical relevance of the information. The *Guidebook* is intended to serve as a basis for more meaningful discussions between patients and their health-care providers in a joint effort to seek the most appropriate course of treatment for the disease.

### ***Guidebook Organization and Content***

#### **Section 1 - Background Information**

This section provides detailed information about the organization and content of the *Guidebook* including tips and suggestions for conducting additional research about the condition.

#### **Section 2 - The Intelligent Patient Overview**

This section of your *MediFocus Guidebook* represents a detailed overview of the disease or condition specifically written from the patient's perspective. It is designed to satisfy the basic informational needs of consumers and their families who are confronted with the illness and are facing difficult choices. Important aspects which are addressed in "The Intelligent Patient" section include:

- The etiology or cause of the disease
- Signs and symptoms
- How the condition is diagnosed
- The current standard of care for the disease

- Treatment options
- New developments
- Important questions to ask your health care provider

### **Section 3 - Guide to the Medical Literature**

This is a roadmap to important and up-to-date medical literature published about the condition from authoritative, trustworthy medical journals. This is the same information that is used by physicians and researchers to keep up with the latest developments and breakthroughs in clinical medicine and biomedical research. A broad spectrum of articles is included in each *MediFocus Guidebook* to provide information about standard treatments, treatment options, new clinical developments, and advances in research. To facilitate your review and analysis of this information, the articles are grouped by specific categories. A typical *MediFocus Guidebook* usually contains one or more of the following article groupings:

- *Review Articles*: Articles included in this category are broad in scope and are intended to provide the reader with a detailed overview of the condition including such important aspects as its cause, diagnosis, treatment, and new advances.
- *General Interest Articles*: These articles are broad in scope and contain supplementary information about the condition that may be of interest to select groups of patients.
- *Drug Therapy*: Articles that provide information about the effectiveness of specific drugs or other biological agents for the treatment of the condition.
- *Surgical Therapy*: Articles that provide information about specific surgical treatments for the condition.
- *Clinical Trials*: Articles in this category summarize studies which compare the safety and efficacy of a new, experimental treatment modality to currently available standard treatments for the condition. In many cases, clinical trials represent the latest advances in the field and may be considered as being on the "cutting edge" of medicine. Some of these experimental treatments may have already been incorporated into clinical practice.

The following information is provided for each of the articles referenced in this section of your *MediFocus Guidebook*:

- Article title
- Author Name(s)
- Institution where the study was done

- Journal reference (Volume, page numbers, year of publication)
- Link to Abstract (brief summary of the actual article)

*Linking to Abstracts:* Most of the medical journal articles referenced in this section of your *MediFocus Guidebook* include an abstract (brief summary of the actual article) that can be accessed online via the National Library of Medicine's PubMed® database. You can easily access the individual abstracts online via PubMed® from the "electronic" format of your *MediFocus Guidebook* by clicking on the corresponding URL address that is provided for each cited article. If you purchased a printed copy of a *MediFocus Guidebook*, you can still access the article abstracts online by entering the individual URL address for a particular article into your web browser.

## **Section 4 - Centers of Research**

We've compiled a unique directory of doctors, researchers, medical centers, and research institutions with specialized research interest, and in many cases, clinical expertise in the management of the specific medical condition. The "Centers of Research" directory is a valuable resource for quickly identifying and locating leading medical authorities and medical institutions within the United States and other countries that are considered to be at the forefront in clinical research and treatment of the condition.

Inclusion of the names of specific doctors, researchers, hospitals, medical centers, or research institutions in this *Guidebook* does not imply endorsement by Medifocus.com, Inc. or any of its affiliates. Consumers are encouraged to conduct additional research to identify health-care professionals, hospitals, and medical institutions with expertise in providing specific medical advice, guidance, and treatment for this condition.

## **Section 5 - Tips on Finding and Choosing a Doctor**

One of the most important decisions confronting patients who have been diagnosed with a serious medical condition is finding and choosing a qualified physician who will deliver high-level, quality medical care in accordance with currently accepted guidelines and standards of care. Finding the "best" doctor to manage your condition, however, can be a frustrating and time-consuming experience unless you know what you are looking for and how to go about finding it. This section of your *Guidebook* offers important tips for how to find physicians as well as suggestions for how to make informed choices about choosing a doctor who is right for you.

## **Section 6 - Directory of Organizations**

This section of your *Guidebook* is a directory of select disease organizations and support groups that are in the business of helping patients and their families by providing access to information, resources, and services. Many of these organizations can answer your questions, enable you to network with other patients, and help you find a doctor in your geographical area who specializes in managing your condition.

## 2 - The Intelligent Patient Overview

# RESTLESS LEGS SYNDROME

### Introduction to Restless Legs Syndrome

The first description of Restless Legs Syndrome (RLS) was provided in 1685 by Sir Thomas Willis. The current name for this sleep and movement disorder, "restless legs syndrome", was coined in 1945 by Karl Axel Ekbom, a Swedish neurologist and surgeon. It has only been within the past decade, however, that doctors have become more aware of restless legs syndrome and have gained a better understanding of the symptoms, diagnosis, and management of this disorder.

Restless legs syndrome is a chronic, progressive condition which varies widely in degrees of severity and rate of progression. The primary clinical feature of restless legs syndrome is akathisia, an inability to remain in a resting or inactive position without the irresistible urge to move the legs due to strange sensations which lead to motor restlessness and muscular quivering. Sometimes, the individual may report a feeling of pain but typically patients experience paresthesia which is abnormal touch sensation in the absence of an external stimulus, and dysesthesia which is a distortion of the sensation of touch. Patients gave many descriptions for this sensation, including a "creepy-crawly", "prickly", "tingly" feeling in their legs which brings on the urge to move the legs.

Symptoms of restless legs syndrome are worse with prolonged inactivity (e.g., sitting quietly) and they are reduced or relieved by voluntary movement of the affected leg. Although the need to move the legs is involuntary, the movement or activity that the individual chooses to relieve the urge to move is voluntary. Such activities are many and include pacing, stretching the legs, or marching in place. Ignoring or resisting the urge to move one's legs may lead to intensification of the feeling and result in dyskinesia, involuntary movements or jerking motions of the leg (and sometimes of the arms in more advanced restless legs syndrome). These movements can occur during the day or night and disappear with voluntary movement. It is estimated that approximately 50% of individuals seeking medical help for restless legs syndrome experience dyskinesia.

One of the hallmark characteristics of restless legs syndrome is that the severity of the restlessness and leg movement is always worst in the evening and into the night. This has led researchers to believe that restless legs syndrome may be related to the circadian mechanism in the body which regulates many aspects of metabolism, physiology and behavior in humans in a 24 hour period. This distinctive pattern of symptoms being so highly correlated with a particular period of the day is unique to restless legs syndrome.

Although restless legs syndrome is not a life-threatening condition, it may have a significant impact on a patient's quality of life. For example, patients with restless legs syndrome may experience sleep disturbances finding it difficult to fall asleep as well as to stay asleep at night due

to restlessness and many short or prolonged awakenings. This results in daytime fatigue, a reduced ability to concentrate, and difficulties functioning in the work or home environment. In addition to sleep disturbances, patients with restless legs syndrome may also experience headaches, depression, reduced sexual desire, hypertension, and heart problems more frequently than people without restless legs syndrome. In addition, a significant source of frustration stems from the fact that many patients think that their symptoms are too mild to get treated or that their condition is untreatable.

Restless leg syndrome varies widely in the intensity and frequency of symptoms, with some patients experiencing symptoms as infrequently as once a month and even then only in stressful conditions (e.g., sitting for prolonged period of time in a theater), others may suffer nightly causing them to spend many hours pacing and in constant movement. Patients with milder symptoms tend to experience them intermittently for years. Other patients may experience intermittent symptoms initially but then progress quickly to daily presentation.

## ***Prevalence of Restless Legs Syndrome***

The prevalence of restless legs syndrome in the general population has been estimated to range from 2% to 15%. Since restless legs syndrome can present in many degrees of severity, those with mild symptoms may not even seek medical care so that the reported incidence is only an estimate. Some estimates are that only 3% of patients with restless legs syndrome actually seek treatment. Although restless legs syndrome can start at any age, the mean age of onset is in the late twenties with up to 45% of patients experience their first symptoms before the age of 20. The development of restless legs syndrome increases with age as does the severity of symptoms (older patient experience symptoms more frequently and for longer duration). However, most people do not seek medical attention for restless legs syndrome until middle age or later. The result is that the average age at diagnosis is 53 years old.

Restless leg syndrome is not well recognized among general practitioners and there are reports that less than 7% of general practitioners correctly diagnose restless legs syndrome. This results in many cases of misdiagnosis and lack of diagnosis. It is reported that the average duration from the time a patient seeks help for symptoms until the correct diagnosis is approximately 2 years. This delay is a source of great distress and impaired quality of life for many patients. A diagnosis of restless legs syndrome is most typically made by a neurologist or a specialist in sleep medicine.

The Restless Legs Syndrome Foundation groups restless legs syndrome into three categories:

- Primary or familial - restless legs syndrome runs in the family
  - Idiopathic - there is no family history and no otherwise known causes for developing restless legs syndrome
  - Secondary - restless legs syndrome is associated with other medical conditions, such as iron deficiency anemia, pregnancy, or medication
- Clinical features are the same for primary and secondary restless legs syndrome.

The timing of symptoms appearance varies among patients and may occur as either:

- Early onset restless legs syndrome - symptoms typically appear before the age of 45. Usually this type is familial, progresses very slowly and affects women twice as much as men.
- Late onset restless legs syndrome - symptoms appear after the age of 45 and affect men and women equally. Its progression to daily symptoms is typically more rapid than with early onset restless legs syndrome. There is less family history in late onset restless legs syndrome and it is more often secondary to other medical conditions.

There is increasing evidence that restless legs syndrome may be associated with peripheral nerve disease, such as neuropathy or radiculopathy, though until now it was thought of as a condition of the central nervous system.

## ***Periodic Limb Movement of Sleep***

Approximately 80% of patients with restless legs syndrome experience *periodic limb movement of sleep* (PLMS) which involve extension of the big toe, fanning of the smaller toes, and flexion of the ankles, knees and thighs. The movements are very brief, lasting from 0.05 - 5.0 seconds and may occur at intervals of every 5-90 seconds. A diagnosis of PLMS is determined by the occurrence of more than 5 movements per hour of sleep. Periodic limb movements may also occur during waking hours and typically consist of brief jerking movements or twitches.

Periodic limb movements in sleep appear most frequently with restless legs syndrome but have also been noted in other disorders related to dopamine dysfunction or abnormalities, such as Parkinson's disease. Periodic limb movement in sleep can also be seen with patients suffering from other conditions such as:

- Narcolepsy
- REM (rapid eye movement) sleep disorders
- Uremia
- Multiple sclerosis
- Radiculopathy
- Sleep apnea
- Medication such as:
  - dopamine agonists
  - typical or atypical neuroleptics
  - certain types of antidepressants
  - metoclorpramide

## ***Secondary Restless Leg Syndrome***

The most common causes of secondary restless legs syndrome include:

- Iron deficiency anemia
- Pregnancy
- End-stage Renal Disease patients on hemodialysis (approximately 50% of these patients)

experience restless legs syndrome). It appears that restless legs syndrome is related more to the elevated uremia than to the initiation of dialysis.

- Rheumatoid arthritis
- Abnormal thyroid metabolism
- Peripheral neuropathy
- Diabetes
- Parkinson's disease
- Medications such as dopamine antagonists and some antidepressants
- Some research indicates that restless legs syndrome is associated with decreased levels of magnesium and folate in the blood

Reversing the conditions causing secondary restless legs syndrome typically results in the resolution of symptoms. Some researchers are of the opinion that one of the common threads that may relate these conditions to restless legs syndrome is iron deficiency.

## ***Iron Deficiency and Restless Legs Syndrome***

Many individuals who suffer from restless legs syndrome also suffer from anemia. Insufficient serum ferritin is a common cause of intermittent restless legs syndrome. If serum ferritin is abnormal or the percent iron concentration in the blood is low, this can lead to symptoms of restless legs syndrome. If this is indeed the case, then the physician needs to evaluate why the patient's iron levels are so low. A serum ferritin concentration below 50 micrograms/liter is associated with severe symptoms. Therapy consists of ferrous sulfate supplementation together with vitamin C pills to enhance absorption until the serum ferritin level is above 50 micrograms/liter and the percent iron concentration is above 20%.

## ***Restless Legs Syndrome in Children***

Children may exhibit restless legs syndrome symptoms differently than adults and may also describe it differently which leads to frequent missed diagnosis or misdiagnosis. It is often misdiagnosed as anxiety disorder, growing pains, or attention deficit and hyperactivity disorder (ADHD). Also, children often lack the descriptive language needed by the physician to understand the sensations they are feeling.

Diagnosing a child with restless legs syndrome is very difficult because many of them also exhibit signs of other disorders that occur more frequently in children with restless legs syndrome, and the overlap of these conditions can be confusing. These include:

- Learning problems
- Attention deficit hyperactivity disorder (ADHD) - there is a high degree of overlap between ADHD and restless legs syndrome. It is estimated that up to 90% of patients with idiopathic restless legs syndrome have a positive family history for ADHD. It is not clear if one causes the other but the common coexistence of both conditions is suggestive of a link.
- Behavioral problems
- Oppositional-defiance disorder (a pattern of negative, hostile, and defiant behavior)
- Problems falling and staying asleep

- Periodic limb movement disorder

Though restless legs syndrome and ADHD frequently appear together in children, the relationship is not well understood, for example, if restless legs syndrome actually causes ADHD or if there is another underlying basis for these comorbidities. This lack of understanding is a common source of misdiagnosis in children. Also, when a child complains of other problems, such as leg pains, they are often dismissed as "growing pains" and not evaluated further though the symptoms may be related to restless legs syndrome. Knowing of a family history of restless legs syndrome is very helpful in diagnosing childhood restless legs syndrome since it significantly increases the risk of a positive diagnosis.

## ***What Causes Restless Legs Syndrome?***

Although an extensive amount of research has been conducted over the past decade, researchers and doctors still do not exactly understand why people develop restless legs syndrome. In fact, most cases of restless legs syndrome are referred to as being "idiopathic", meaning that no known underlying cause can be identified. Restless legs syndrome, however, can be associated with other underlying medical conditions. Doctors refer to this form of restless legs syndrome as "secondary restless legs syndrome".

Estimates are that approximately 55-90% of patients have a positive family history for restless legs syndrome and in the case of identical twins, up to 80% of the twins of restless legs syndrome patients will also be affected by restless legs syndrome. Recent research suggests an autosomal dominant mode of inheritance and a major genetic susceptibility locus for restless legs syndrome has been identified on chromosome 12q and has more recently been identified on chromosome 14 as well.

Although the exact etiology of restless legs syndrome is unknown, recent developments highlight the possible dysfunction of the central nervous system (brain and spinal cord) and the dopamine system (a neurotransmitter produced by the body and used in the brain to send messages among the cells). Involvement of the dopamine system is clearly manifested by symptom response to dopaminergic drugs which is in itself a confirmation of a diagnosis of restless legs syndrome. Some studies have noted modest reduction of dopamine function in key centers of the brain responsible for movement, such as the striatum and putamen though the significance of these findings is not yet clearly understood. There is some evidence that opioid neurotransmitters may be involved as well since many people achieve relief from their symptoms when taking opioid medication.

In addition, the role of iron deficiency, a common finding in patients with restless legs syndrome, is also being vigorously investigated. It is known that the lower the concentration of serum ferritin, the more severe are the symptoms of restless legs syndrome. Studies have also noted a reduction of ferritin in the cerebrospinal fluid of patients with restless legs syndrome as well as a reduction in the brain's storage of iron. As iron levels and dopamine levels vary with the circadian cycle, it seems to point to a relationship between the two systems and the possibility that iron deficiency may play a role in dopamine abnormalities in patients with restless legs syndrome. Periodic limb movements may also be related to dopamine abnormalities as they are found in other

dopamine-related conditions, such as Parkinson's disease.

The central nervous system is thought to also play a significant role in restless legs syndrome. For example, studies have shown that patients with restless legs syndrome and PLMS exhibit a disinhibition of the flexor reflex during sleep meaning the reflex action is not suppressed as it would be under normal circumstances. This results in the flexor reflex (extension of the great toe or all toes due to firm pressure on the deep flexor muscles of the calf or leg) occurring even without a stimulus. This is further indication of altered activity of the CNS.

There are many patients with restless legs syndrome and other neuropathic conditions, such as peripheral neuropathy or radiculopathy although restless legs syndrome appears to be a condition of the central nervous system. This seems to indicate that there may be a complex process relating to the interaction between these two nervous systems that may be related to restless legs syndrome and is as yet not understood.

Dopamine activity and iron levels are regulated by the circadian rhythm of the body. Their levels are higher during the day than at night. Since restless legs syndrome symptoms are so much more severe in the late afternoon, evening and nighttime, many researchers believe that the circadian mechanism may be closely related to restless legs syndrome so that fluctuations of dopamine and/or ferritin may be responsible for the symptoms emerging nightly for restless legs syndrome. In addition, iron levels in the blood follow a circadian rhythm and can decrease up to 50% at night which is the time of greatest severity of restless legs syndrome symptoms. One small study examining iron levels in the brain indicated that there is a lower iron content in the substantia nigra and putamen of patients with restless legs syndrome. These are the areas of the brain deeply involved with smooth movement of the muscles.

Some researchers have hypothesized that restless legs syndrome may be related to low levels of various other substances in the body, such as vitamin B12, folate, and magnesium.

There is also an association between restless legs syndrome and neural conditions such as peripheral neuropathy, where small studies show subtle nerve damage is common in patients with restless legs syndrome, especially those with late onset restless legs syndrome; myelopathy (conditions affecting the spinal cord), and Parkinson's disease, a degenerative nerve disorder that responds to the same class of medications as restless legs syndrome (dopaminergic therapy).

The **Intelligent Patient Overview** in the complete **Medifocus Guidebook on Restless Legs Syndrome** also includes the following additional sections:

- **Diagnosis of Restless Legs Syndrome**
- **Treatment Options for Restless Legs Syndrome**
- **New Developments in Restless Legs Syndrome**
- **Questions to Ask Your Doctor about Restless Legs Syndrome**

To Order the Complete **Guidebook on Restless Legs Syndrome** [Click Here](#)  
Or Call 800-965-3002 (USA) or 301-649-9300 (Outside USA)

## 3 - Guide to the Medical Literature

### Introduction

This section of your *MediFocus Guidebook* is a comprehensive bibliography of important recent medical literature published about the condition from authoritative, trustworthy medical journals. This is the same information that is used by physicians and researchers to keep up with the latest advances in clinical medicine and biomedical research. A broad spectrum of articles is included in each *MediFocus Guidebook* to provide information about standard treatments, treatment options, new developments, and advances in research.

To facilitate your review and analysis of this information, the articles in this *MediFocus Guidebook* are grouped in the following categories:

- Review Articles - 27 Articles
- General Interest Articles - 59 Articles
- Drug Therapy Articles - 16 Articles
- Clinical Trials Articles - 20 Articles

The following information is provided for each of the articles referenced in this section of your *MediFocus Guidebook*:

- Title of the article
- Name of the authors
- Institution where the study was done
- Journal reference (Volume, page numbers, year of publication)
- Link to Abstract (brief summary of the actual article)

**Linking to Abstracts:** Most of the medical journal articles referenced in this section of your *MediFocus Guidebook* include an abstract (brief summary of the actual article) that can be accessed online via the National Library of Medicine's PubMed® database. You can easily access the individual abstracts online via PubMed® from the "electronic" format of your *MediFocus Guidebook* by clicking on the URI that is provided for each cited article. If you purchased a printed copy of the *MediFocus Guidebook*, you can still access the abstracts online by entering the individual URI for a particular abstract into your computer's web browser.

## Recent Literature: What Your Doctor Reads

Database: PubMed <May 2007 to October 2009>

### Review Articles

1.

#### Treatment options for restless legs syndrome.

**Author:** Ferini-Strambi L  
**Institution:** Universita Vita-Salute San Raffaele, Sleep Disorders Center, Milan, Italy.  
ferinistrambi.luigi@hsr.it  
**Journal:** Expert Opin Pharmacother. 2009 Mar;10(4):545-54.  
**Abstract Link:** <http://www.medifocus.com/abstracts.php?gid=NR023&ID=19284359>

2.

#### Movement disorders.

**Authors:** Harris MK; Shneyder N; Borazanci A; Korniychuk E; Kelley RE; Minagar A  
**Institution:** Department of Neurology, Louisiana State University Health Sciences Center, Shreveport, LA 71130, USA.  
**Journal:** Med Clin North Am. 2009 Mar;93(2):371-88, viii.  
**Abstract Link:** <http://www.medifocus.com/abstracts.php?gid=NR023&ID=19272514>

3.

#### Leg cramps and restless legs syndrome during pregnancy.

**Author:** Hensley JG  
**Institution:** College of Nursing, University of Colorado Denver, 1743 Verbena St., Denver, CO 80220, USA. jennifer.hensley@ucdenver.edu  
**Journal:** J Midwifery Womens Health. 2009 May-Jun;54(3):211-8.  
**Abstract Link:** <http://www.medifocus.com/abstracts.php?gid=NR023&ID=19410213>

The **Guide to the Medical Literature** in the complete **Medifocus Guidebook on Restless Legs Syndrome** includes the following sections:

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Or Call 800-965-3002 (USA) or 301-649-9300 (Outside USA)

## 4 - Centers of Research

This section of your *MediFocus Guidebook* is a unique directory of doctors, researchers, medical centers, and research institutions with specialized research interest, and in many cases, clinical expertise in the management of this specific medical condition. The *Centers of Research* directory is a valuable resource for quickly identifying and locating leading medical authorities and medical institutions within the United States and other countries that are considered to be at the forefront in clinical research and treatment of this disorder.

Use the *Centers of Research* directory to contact, consult, or network with leading experts in the field and to locate a hospital or medical center that can help you.

The following information is provided in the *Centers of Research* directory:

- **Geographic Location**

- United States: the information is divided by individual states listed in alphabetical order. Not all states may be included.
- Other Countries: information is presented for select countries worldwide listed in alphabetical order. Not all countries may be included.

- **Names of Authors**

- Select names of individual authors (doctors, researchers, or other health-care professionals) with specialized research interest, and in many cases, clinical expertise in the management of this specific medical condition, who have recently published articles in leading medical journals about the condition.
- E-mail addresses for individual authors, if listed on their specific publications, is also provided.

- **Institutional Affiliations**

- Next to each individual author's name is their **institutional affiliation** (hospital, medical center, or research institution) where the study was conducted as listed in their publication(s).
- In many cases, information about the specific **department** within the medical institution where the individual author was located at the time the study was conducted is also provided.

## Centers of Research

### United States

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The **Centers of Research** in the complete **Medifocus Guidebook on Restless Legs Syndrome** includes the following sections:

- Centers of Research for relevant states in the United States
- Centers of Research listed for relevant countries outside the United States

To Order the Complete **Guidebook on Restless Legs Syndrome** [Click Here](#)  
Or Call 800-965-3002 (USA) or 301-649-9300 (Outside USA)

# 5 - Tips on Finding and Choosing a Doctor

## Introduction

One of the most important decisions confronting patients who have been diagnosed with a serious medical condition is finding and choosing a qualified physician who will deliver a high level and quality of medical care in accordance with currently accepted guidelines and standards of care. Finding the "best" doctor to manage your condition, however, can be a frustrating and time-consuming experience unless you know what you are looking for and how to go about finding it.

The process of finding and choosing a physician to manage your specific illness or condition is, in some respects, analogous to the process of making a decision about whether or not to invest in a particular stock or mutual fund. After all, you wouldn't invest your hard earned money in a stock or mutual fund without first doing exhaustive research about the stock or fund's past performance, current financial status, and projected future earnings. More than likely you would spend a considerable amount of time and energy doing your own research and consulting with your stock broker before making an informed decision about investing. The same general principle applies to the process of finding and choosing a physician. Although the process requires a considerable investment in terms of both time and energy, the potential payoff can be well worth it--after all, what can be more important than your health and well-being?

This section of your Guidebook offers important tips for how to find physicians as well as suggestions for how to make informed choices about choosing a doctor who is right for you.

## Tips for Finding Physicians

Finding a highly qualified, competent, and compassionate physician to manage your specific illness or condition takes a lot of hard work and energy but is an investment that is well-worth the effort. It is important to keep in mind that you are not looking for just any general physician but rather for a physician who has expertise in the treatment and management of your specific illness or condition. Here are some suggestions for where you can turn to identify and locate physicians who specialize in managing your disorder:

- **Your Doctor** - Your family physician (family medicine or internal medicine specialist) is a good starting point for finding a physician who specializes in your illness. Chances are that your doctor already knows several specialists in your geographic area who specialize in your illness and can recommend several names to you. Your doctor can also provide you with information about their qualifications, training, and hospital affiliations.

The **Tips on Finding and Choosing a Doctor** in the complete **Medifocus Guidebook on Restless Legs Syndrome** includes additional information that will assist you in locating a highly qualified and competent physician to manage your specific illness.

To Order the Complete **Guidebook on Restless Legs Syndrome** [Click Here](#)  
Or Call 800-965-3002 (USA) or 301-649-9300 (Outside USA)

## 6 - Directory of Organizations

### **American Academy of Sleep Medicine**

1 Westbrook Corporation Center; Suite 920; Westchester, IL 60154  
708-492-0930

[www.aasmnet.org](http://www.aasmnet.org)

### **National Center on Sleep Disorders Research**

6701 Rockledge Drive; MSC 7920; Bethesda, MD 20892-7920  
301.592.8573; 240.629.3255

[www.nhlbi.nih.gov/health/public/sleep/rls.htm](http://www.nhlbi.nih.gov/health/public/sleep/rls.htm)

### **National Institute of Neurological Diseases and Stroke**

POB 5801; Bethesda, MD 20824  
800-352-9424; 301-496-5751

[www.ninds.nih.gov/disorders/restless\\_legs/restless\\_legs.htm](http://www.ninds.nih.gov/disorders/restless_legs/restless_legs.htm)

### **National Organization for Rare Disorders**

P.O. Box 1968 55 Kenosia Avenue Danbury, CT 06813-1968  
203.744.0100; 800.999.6673

[orphan@rarediseases.org](mailto:orphan@rarediseases.org)

[www.rarediseases.org](http://www.rarediseases.org)

### **National Sleep Foundation**

1522 K Street NW; Suite 500; Washington, DC 20005  
202-347-3471

[nsf@sleepfoundation.org](mailto:nsf@sleepfoundation.org)

[www.sleepfoundation.org](http://www.sleepfoundation.org)

### **Restless Legs Syndrome Foundation**

819 Second Street SW; Rochester, MN 55902  
507-287-6465

[rlsfoundation@rls.org](mailto:rlsfoundation@rls.org)

[www.rls.org](http://www.rls.org)

The **Directory of Organizations** in the complete **Medifocus Guidebook on Restless Legs Syndrome** includes a list of selected disease organizations and support groups that are helping people diagnosed with Restless Legs Syndrome.

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Or Call 800-965-3002 (USA) or 301-649-9300 (Outside USA)



This document is only a **SHORT PREVIEW** of the **Medifocus Guidebook on Restless Legs Syndrome**. It is intended primarily to give you a general overview of the **format and structure** of the Guidebook as well as select pages from each major Guidebook section listed in the Table of Contents.

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