

# **Restless Leg Syndrome**

## ***Necessary Precautions & Possible Solutions***



**Restless Leg Syndrome is a disorder that produces many abnormal sensations of pain, itching, crawling, tingling etc.**

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*Necessary Precautions*

*& Possible Solutions*

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# Chapter 1 - Restless Leg Syndrome

## – Understanding RLS

One of the common ailments troubling us includes leg pains. Now there may be a lot of reasons that may be causing leg pains but we are going to talk about the most common of these i.e. Restless Leg Syndrome or RLS as it is commonly known. This is basically a neurological disorder in which one feels a strong urge to move their limbs in order to avoid unpleasant sensations and feelings. By such movement, the unpleasant sensations are forgotten for a while and a temporary relaxation is experienced. However if the movement is not allowed, the feelings keep gathering force and make a person more and more uncomfortable.

RLS is characterized by either itching or tickling kind of sensations. There are other sensations such as creeping, aching, burning etc. which are also associated with this problem. These are persistent feelings which result in restlessness prompting a person to cause some movement. Even after the movement, the need to move may return almost immediately or at a later stage. The sensations generally

set in when a person is in a relaxed state such as while reading, studying, watching TV etc. This problem is not only physically bothersome but can also be emotionally draining. Most individuals suffering from RLS experience the moving or jerking of their legs in sleep. This is the most noticeable objective indicator of the disorder which can keep a person awake in night and as such results in loss of precious sleep. As proper sleep is absolutely essential to good quality of life, such disruptions hamper the behavior and attitude of the person affected, making them more irritated and cranky.

The research being done in this field shows that the main cause of this problem is heredity. It has also been revealed through the studies that the problem becomes more common with age and thus has a bigger ratio of prevalence in the older people. The symptoms are found to be more pronounced in the evenings and also when a person has been seated for long periods of time. The other major aggravating factor to this problem is stress. Although it may be possible that some or all of the possible causes may be present in the patient but it is very difficult to pinpoint the exact cause of the problem. The relief is often available in some sort of

prescription drugs but they also carry the risk of side effects besides being addictive in nature.

## Chapter 2 - Common Symptoms and Signs

RLS may occur at any age. Although the symptoms are more common in older people, a research done on a controlled group has shown that 45% of patients had their first symptoms before the age of 20 years. Although the disease can be progressive but it is not necessarily so as the symptoms have also been found to disappear in later stages. The most commonly found signs and symptoms to look out for include;

- RLS leads to sensations in lower legs in the area between the knees and ankles. Occasionally the sensations may also be experienced in upper legs, feet or arms. On an average these sensations may last an hour but can also be longer.
- The sensations experienced are not like any sensations and the patients find it hard to explain these. They normally use words like creeping, tingling, crawling, aching, itching, burning etc. to describe their feelings. Some even complain of numbness or falling asleep of their limbs. Then there are others who may have no sensations at all



but there is one thing that is common in all the cases and that is a very strong urge or need to move the affected body part.

- Movement brings immediate relief but the relief may be temporary as the sensations might return almost instantly. Therefore prolonged activities such as walking, biking, stretching, yoga etc. are suggested.
- The most affected aspect of a person suffering from RLS is their sleep. Most patients make leg movements during sleep hours which results in the disruption of sleep. As a result the person wakes up in jarred state, feeling irritated and lack of energy resulting in significant disruption in daytime activities. In the worst instance these disruptions may become serious safety, financial and social issues for the patient as well as the society.
- The symptoms are found to have different force at different times of the day. While some patients may experience RLS only at nights or during sleep, most patients suffer more in the evenings rather than during the day.

- Sitting and relaxation or other prolonged periods of inactivity such as during air or car travel or during classes or meetings can trigger the sensations. However the severity of these sensations depends upon the condition of the patient as well as the duration of the inactivity.

One thing is clear from above that all symptoms are of very obvious nature and can be easily detected by anyone who is conscious of their condition.

## Chapter 3 - Causes of RLS – Factor leading to this Neurological Disorder

It was earlier thought that RLS was caused by the abnormalities in a person's nervous or circulatory system. This hypothesis has however been found to be untrue. In present times the focus is on finding some linkage of RLS with abnormalities in a person's neurotransmitters. The results are still inconclusive in this regards. However some factors contributing to this condition have been identified and these are listed as following;

- **Iron Deficiency:** A person lacking in essential nutrients such as Iron and Folic Acid is at a greater risk of suffering from RLS. Iron deficiency alone accounts for 20% of RLS cases. Thus a balanced diet rich in minerals and vitamins is essential to reduce the risk of RLS and related diseases.
- **Pregnancy:** Pregnant women are also at an increased risk of developing this problem. The reason behind this is the same as above that is a greater need of iron than is normally needed during this period. As such care must be taken to intake required amount

of iron in diet, especially during third trimester.

- **Parkinson's disease:** In this condition a person suffers from involuntary movement of their muscles and as such these people are more susceptible to suffer from the symptoms of RLS.
- **Hereditary:** RLS is known to run in the family. It is hereditary in nature and the children of patients with RLS are more likely to suffer from its symptoms than others. It is evident from the fact that more than 60% of RLS cases are family related.
- **Other Diseases:** It has also been found during various studies that patients suffering from diseases like Arthritis, Diabetes, and Kidney Failure are at an increased risk of also contacting RLS. It has also been found to occur more often in patients of peripheral neuropathy.
- **Damage to Nerves:** This is another condition where a person suffering from some sort of damage to nerves related to movement of legs may also experience RLS.

- Sedatives and Medication: One of the withdrawal symptoms of sedatives has been found to be RLS. Moreover it is also associated with persons under certain medication such as caffeine, lithium, calcium channel blockers or narcoleptics.

All the causes mentioned above are wide ranging and very general in nature. These have been listed here more as contributing factors as none of these can be identified as solely and individually responsible for causing RLS.

## Chapter 4 - Diagnosing Restless Leg Syndrome

There are no specific tests for detecting RLS as such but the patient suspected of suffering from this ailment may be tested to identify any other causes for their problem such as vitamin deficiency, anemia etc. Generally the National Institute of Health and independent study groups such as International Restless Legs Syndrome Study Group have agreed on the presence of following four symptoms that confirm the presence of RLS in a patient.

- A patient exhibits an overwhelming need or urge to move their limbs especially legs to relieve themselves of unpleasant and unusual sensations such as pain, tingling, burning, numbness etc.
- A temporary relief is experienced by the patient upon movement of the affected limbs. The unpleasant sensations disappear for a while but their recurrence is almost inevitable.
- The symptoms of RLS seem to be most severe at night. This is almost the case with everyone suffering with RLS while the mornings are almost trouble free, the

symptoms start getting worse as the night approaches.

- The symptoms affect the patient almost entirely during their periods of rest or sleep. In any case the worse instances of RLS are experienced during prolonged periods of inactivity such as sitting through meetings or while sleeping.

Once the doctor has confirmed the presence of the above mentioned four basic criteria he shall continue with the in-depth evaluation of patient. Patient's medical history is a vital tool in this regards and as such all previous medical issues must be carefully examined. Attention must also be paid to the medical history of patient's family members as RLS is known to run in the family. Thereafter the doctor or the medical professional examining the patient must check the medications or food supplements etc. that the patient may be taking. A review of patient's diet chart or eating habits would also be helpful as RLS has known links with vitamin deficiencies.

In addition to the above, doctor may also enquire about the patient's daily routine, his general feeling throughout the day and his

performance at work etc. In some cases the doctor may ask the patient to go through an overnight sleep test in a sleep clinic. This would help determining the actual cause of sleep disturbance. Having gone through the entire process as detailed above, the doctor now gets a good perspective of patient's health condition which enables him to make the correct diagnosis.



## Chapter 5 - Treating RLS with Different Measures

RLS is symptomatic in nature and as such there are no direct treatments for this ailment. Different measures involved in treating RLS are aimed at identifying underlying conditions responsible for it. If the condition can be specifically identified, then the treatment process is designed to alleviate that condition. Otherwise a general approach is adopted which aims at reducing the observed symptoms and improving the overall quality of life. The severity of symptoms is crucial in deciding if the treatment will be pharmacologic or otherwise.

For mild symptoms the doctor first suggests the non-pharmacologic measures. These measures are aimed at reducing stress and making muscles relaxed. The following techniques are helpful to this end;

- **Light Exercises:** There are many light activities which a person may engage in to obtain immediate as well long term relief from RLS symptoms. These include but are not

limited to walking, cycling, stretching, and simply moving legs.

- **Hot and Cold Packs:** In addition to the above methods other techniques that can be used are applying Hot and Cold Packs, massaging the legs, taking a bath etc. Apart from providing immediate benefit, these are also helpful in improving the patient's muscular and circulatory systems.
- **Proper Sleep:** It has been found that by sometimes changing the sleeping schedule or by allowing more time to sleep one can also effectively control RLS.
- **Staying Active:** The doctors also advise their patients to keep busy during prolonged periods of inactivity by engaging in activities such as crossword puzzles, videogames etc. This keeps the mind alert and prevents them from focusing on unpleasant sensations.

However, if the patient complains of more severe symptoms or more frequent episodes of RLS, the treatment approach would be quite different. The doctor may prescribe oral Iron supplement which raise the ferritin levels in the body. For some people, this may result in reduction or elimination of RLS symptoms. For

those, where RLS is causing disruption in sleep as well as other daily activities, doctors would prescribe certain medications. These medications would include drugs like pramipexole or ropinirole which are otherwise prescribed to patients of Parkinson's disease, gabapentin which is an anti seizure medicine, clonazepam or codeine which is an opioid. Quinine is another frequently used drug for RLS but it is not prescribed clinically due to its side effects.

Thus what is required to effectively fight RLS is a multi pronged approach which incorporates both lifestyle changes and clinical methods.

## Chapter 6 - Patient Prognosis with Restless Legs

Restless Legs Syndrome is not a life threatening disease. In spite of a lot of research in this field, the medical fraternity is still not able to find the exact problem that may be held responsible for this condition. All that we have been able to identify are the underlying conditions that attribute to the problem of restless legs. Even though the instances of this disease are found more prevalent in the adults and older generation, the symptoms are also found to set in as early as at the age of 20 years. Once it sets in, RLS lasts a lifetime and there is no permanent cure for this problem.

The symptoms associated with RLS are progressive in nature. They gradually worsen with age. The progression of symptoms is slower for the people with idiopathic form of RLS who also suffer from associated medical condition. The important thing here is that the patients become aware of the underlying conditions that are contributing to their problem and then effectively deal with them. Reliance on drugs or medications is not healthy in the long run. All medications have some or the other side effect and moreover

they provide only temporary relief while the problem persists as such in the long run.

Many therapies and alternate approaches are already well established and have proven to provide relief in majority of the cases. These therapies can control the disorder, decreasing symptoms and increasing periods of restful sleep. The importance of these indirect or non invasive measures cannot be over emphasized. These methods are simple, effective and have no side effects. On the other hand, if the patient does not take appropriate measures and bring about required changes in lifestyle it is very likely that these symptoms will increase in their frequency as well as in their intensity.

It is also possible that a patient may experience remission-periods. These are the instances in which a patient may experience complete absence of symptoms for days, weeks or even months. Occurrence of these remission periods may wrongly assure the patients that they are cured and they become careless and revert to their old lifestyle. However the symptoms will eventually reappear and thus there is no scope for the patient to exercise any kind of carelessness. The only assuring aspect of RLS is that its diagnosis does not mean the beginning of another neurological disease.

## Chapter 7 - Complications in RLS – What all Issues can Occur

RLS is not a life threatening disease and rarely does it result in any direct serious consequences for the patients. However it is a persistent condition which gradually worsens with age. In cases where the symptoms are especially severe and frequent, the patients can undergo considerable mental distress, daytime sleepiness and chronic insomnia. Moreover as RLS is more prevalent when patients are sitting or are inactive for long periods, people suffering from it tend to avoid such situations resulting in significant disruption in their daily routines. Some of the major complications can be listed as follows:

### Sleep Deprivation

One of the main complications that can be attributed to RLS is sleep deprivation and daytime sleepiness. These are being increasingly recognized as the cause of mood disruption leading to further problems of vehicle crashes and industrial errors. Insufficient sleep at night or frequent disruptions due to RLS makes profound effect on daily performance and activities. These

include reduced concentration, effect on learning and impaired task performance.

The studies show that deep sleep deprivation impairs the ability of the brain to process information and in turn slows down the thought process. These studies also show that lack of sound sleep has adverse effects on the patient's mood as well as performance. In fact the performance levels of people suffering from sleep deprivation are found similar to those of intoxicated persons. Although the studies on the effect of sleeplessness on learning are still inconclusive, some cases have reported problems in memorization.

### Psychiatric Effects

The research in this field focuses on comparing the symptoms of RLS with other psychotic problems such as anxiety and depression. It is not yet clear if anxiety or depression contribute to RLS or whether RLS leads to negative mood states. Depression and RLS symptoms have been found to overlap and also it has been seen that anxiety can cause leg restlessness and agitation which is similar to those experienced in RLS. Also there are some anti depressant drugs such as serotonin reuptake inhibitors which can increase periodic limb movements during sleep.

Mood disorders are intrinsically linked to problems related to sleeplessness which is one of the prominent symptoms of RLS. Thus people with RLS were most liable to be socially isolated, to have daytime headaches, depression or to complain of reduced libido. RLS can be a contributing factor to insomnia which increases the abnormal brain activity leading to emotional problems. Persistent insomnia can lead to further deterioration in person's mental health.



## Chapter 8 - Treating RLS through simple Lifestyle Alterations

In most of the cases of RLS, the symptoms are not so severe that they require immediate use of medication. The first step in treating a patient shall thus be through lifestyle alterations. These have been found to be most effective for patients with mild to moderate symptoms. There are many methods that can be adopted to get relief. Some of these are listed as follows:

- **Changing Sleep Patterns:** Some patients have found that by changing their sleep pattern such as by sleeping till late in the morning, their symptoms are significantly alleviated. Therefore one can try altering their sleeping pattern to see if there is any positive effect on their condition.
- **Avoiding Sedatives and Drugs:** It has also been noticed that caffeine, alcohol, nicotine and other sedatives and habit forming drugs can increase the symptoms of RLS. Therefore it is strongly recommended that patients of RLS should avoid these things to improve their condition.

- **Dietary Changes:** Research studies have also indicated deficiency of essential minerals such as folate, iron and magnesium. Thus by increasing the amount of leafy vegetables, whole wheat products and cereals etc. in one's diet, the effects of RLS can be significantly reduced.
- **Regular Exercise:** It is the most common, simple and effective treatment recommended for all patients of RLS. Any exercise routine must include walking as it works the muscles of the entire body and may additionally include some stretching and aerobic exercises. At bedtime, it is recommended to do calf stretching so as to relieve the stress from leg muscles.
- **Relaxation Techniques:** There are many ways to relax the mind and reduce stress. Some of these include meditation, yoga, taking hot baths or using cold compresses, massage etc. With reduced stress level, there are fewer chances of restless legs.
- **Ergonomic Measures:** If it is not possible for a person to avoid sitting for long periods such as in case of meetings or travelling, one may find it useful to sit on a high stool or chair so that the legs can move freely. It will also be helpful to take an aisle seat so that one can move freely.

These are some of the ways which have been found to work for those suffering from RLS. In addition to these, a patient shall focus on their particular condition to see what works best for them and alter their approach accordingly.

## Chapter 9 - Alternative Treatment Methodology for RLS

Alternative Treatment methods are often seen in contradiction with conventional allopathic medicine system. When a person suffering from RLS goes to see a doctor, they are invariably prescribed some or the other medicine. These medicines may provide immediate relief to the patient but they are not the long term solution and in fact must not be taken continuously due to their inherent side effects. On the other hand alternate treatments include natural and holistic remedies which support the body in its healing processes rather than interfering or subduing the symptoms as is the case with the allopathic medicines. There are several so these alternate methods available for treatment and some of these are listed here below;

- **Acupuncture:** It is an invasive method which involves the pricking of very fine pins at certain points in the body which are identified as key energy centers. The idea here is to stimulate or turn down certain

nerves which can reduce the symptoms of restless legs.

- **Chiropractic Care:** Of the reasons believed to be causing restless legs is pelvic instability. The chiropractor will prescribe a program to the patient of RLS which shall include strengthening exercises for the pelvic area, leg stretching exercises and consistent walking.
- **Homeopathy:** There are medicines in homeopathy which can often help relieve the Restless Leg Syndrome. Many people have benefitted from these but it is strongly advised to take them under the guidance of an experienced homeopath.
- **Physiotherapy:** This is another option where one may undergo certain processes such as Traction, TENS or The Electric Nerve Stimulation and Ultrasound treatments. The stimulation of toes and feet through these techniques may also alleviate RLS symptoms.
- **Meditation:** Excessive stress is harmful for everyone but more so in RLS patients as it increases the intensity and frequency of their symptoms. Meditation is one of the easiest and most effective stress relieving methods and so its practice is highly recommended.

- **Pressure Techniques:** Pressure can also be used to relieve discomfort from restless legs. A person can try various things such as compression socks or stockings, wrapping the legs in bandages or sleeping with a pillow between the legs.

It is important that people suffering from RLS keep themselves well informed and updated on various ways that can help them in dealing with their problem. Once the correct information is available, the solution is not very far away.

## Chapter 10 - Restless Leg Syndrome – Necessary Precautions to Consider

Restless legs are normally a lifelong condition. Although it is not a serious or life threatening problem, its indirect implications in the form of sleeplessness and behavior modification can definitely be life changing. A person has to live with this problem and has to accept that it will only become worse with age. In such a case it is advisable that one considers all necessary precautions that will help in reducing the impact of this condition. There is a lot that one can do to take care of himself.

*Some of the measures that can be easily incorporated in one's life can include the following:*

- Exercise Regularly: There are exercises which are very helpful in controlling and reducing symptoms of RLS. Walking is generally recommended for everyone while other exercises may be included in routine as per patient's specific condition. A light stroll before bed time may calm the legs enough to keep them still while sleeping.
- Eat Properly: Deficiency in essential vitamins and minerals such as iron, folate

etc. can cause or aggravate RLS. Eating a wide variant of nutrient rich foods may reduce the risk. Food supplements may have to be taken but only on the recommendation of a doctor. Caffeine and other stimulants such as alcohol are also to be avoided or at least their intake must be reduced to minimum possible.

- Sleep Adequately: Sleep should not be treated as time wasted but shall be considered as an investment in health and productivity. It is very important to maintain a strict schedule of sleep i.e. going to sleep at about the same time every night, allowing a full night's sleep and making sure to get up at the same time every morning. Use comfortable mattress and pillows. Avoid foods or beverages which are having a negative impact on your sleep.
- Check your Medication: Sometimes certain drugs like anti allergy pills, antidepressants, antihistamines and cold and sinus medicine, anti psychotic or anti nausea can result in restless legs. Make sure you consult a doctor before taking any medicine falling in this category.
- Be Prepared: In case of RLS triggering situations such as during long travels, meetings etc. plan on wearing warm and comfortable clothing, choose a comfortable chair or a relaxed position, engage your



mind with some activity or put on some relaxing music and mediate.

Prevention is always better than cure. This is specifically applicable in case of RLS. Since there is no one cause and one cure for this problem, a person must take all necessary precautions to reduce its effects.

## Conclusion

A person suffering from Restless Leg Syndrome has to deal with it at many levels. There are changes required in a person's diet, sleep routine, working environment and generally in their lifestyle. In more severe cases of RLS, some form of medication may also be needed. What is significant here is that no one solution is applicable to all. In fact what works for one may do the opposite for others. In such a situation the importance of correct information cannot be over emphasized. Our eBook "Get all the information that you need on Restless Leg Syndrome" will not only provide you all the necessary information regarding this condition but will also tell you about the various ways in which you can combat the problem. The language of this eBook is simple yet engaging and fully comprehensible. The information has been compiled in a systematic manner so that the readers can develop a gradual understanding of Restless Leg Syndrome and then prepare themselves to deal with it in a more effective manner.