



A Quick Guide to Understanding and Managing Augmentation

Augmentation is the worsening of RLS symptoms that occurs after starting a dopaminergic medication to treat RLS. It is a common, yet often unrecognized problem by healthcare providers in the treatment of RLS. Treatment options are available to manage augmentation.

Understand and know the signs of augmentation:

- increase in symptom intensity
- symptoms start earlier in the day
- symptoms spread to other body parts (trunk, arms, face)
- current medication dose is not working (even though the same dose worked well in the past)
- shorter period of rest/inactivity before symptoms start

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Maximum FDA approved daily doses of dopaminergic drugs in the treatment of RLS should generally not be exceeded, to avoid a major risk factor in the development of augmentation.

Examine your daily activities that may worsen RLS. Sedentary jobs or lifestyles may worsen RLS and exercise can often help. Sleep deprivation, shift work and other sleep disorders that disrupt sleep can all worsen RLS symptoms.

Not all medications for the treatment of RLS cause augmentation. Augmentation is a side effect of medications that increase dopamine (levodopa) or mimic dopamine activity (Requip, Mirapex or Neupro) in the brain.

Taking the smallest effective dose of a dopaminergic drug is an augmentation prevention strategy. The goal of treatment is to manage RLS symptoms during times of inactivity.

Alpha-2-delta ligands (Horizant (FDA approved), Lyrica, Neurontin) may be considered as a first line treatment option for newly diagnosed RLS patients, those requiring combination drug therapy, and those with augmentation. At this time, the clinical experience of RLS experts indicates alpha-2-delta ligand medications do not cause a significant degree of augmentation.

The diagnosis of augmentation requires an initial positive treatment response to dopaminergic drugs and evaluation of augmentation mimics by your doctor. Mimics to consider include iron deficiency, medication side effects from antidepressants, antihistamines, anti-nausea drugs, unresolved sleep disorders, immobility, advanced age or known RLS triggers such as caffeine, alcohol and nicotine.

Iron levels at mid-range values are critical to an effective RLS treatment plan. All individual with RLS should know their ferritin

(measurement of body iron storage) level. Keeping your ferritin in a mid-range level (75 mcg/L or above) serves two purposes: (1) improvement of RLS symptoms¹ and (2) as an augmentation prevention strategy.² If iron stores are low, a physician will prescribe iron supplementation and monitor ferritin results by use of lab tests.

Options to consider for the augmented individual include: readjust or increase dose of current dopaminergic drug or change to a long-acting dopamine agonist; switch to an alpha-2-delta ligand or change to an opiate for management of RLS symptoms.³ Any change in RLS symptoms needs to be evaluated by a doctor. Never stop taking a prescribed dopamine medication on your own as this will result in a severe onset of RLS symptoms.

No specific diagnostic test for augmentation exists. Keeping ferritin at mid-levels, taking the smallest effective dose of a dopaminergic drug, avoidance of levodopa for daily RLS treatment all aid in the prevention of augmentation.

¹ Wang J, O'Reilly B, Venkataraman R, Mysliwiec V, Mysliwiec A. Efficacy of oral iron in patients with restless legs syndrome and a low-normal ferritin: a randomized, double-blind, placebo controlled study. *Sleep Med.* 2009; 10(9):973-975.

² Silber MH, Becker PM, Earley C, Garcia-Borreguero D, Ondo WG; Medical Advisory Board of the Willis-Ekholm Disease Foundation. Willis-Ekholm Disease Foundation revised consensus statement on the management of restless legs syndrome. *Mayo Clin Proc.* 2013 Sep;88(9):977-86.

³ Summary for the prevention and treatment of RLS/WED Augmentation a combined task force of the IRLSSG, EURLSSG and the RLS Foundation. <http://irlsfg.org/summary/> Accessed on-line November 30, 2015.

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The RLS Foundation is dedicated to improving the lives of the men, women, and children who live with this often devastating disease. Our mission is to increase awareness, improve treatments and, through research, find a cure for restless legs syndrome.

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