

Essential tremor

Graeme Schwindt MD PhD, Jeremy Rezmovitz MD MSc

■ Cite as: *CMAJ* 2017 November 6;189:E1364. doi: 10.1503/cmaj.170128

1 Essential tremor is the most common movement disorder encountered in primary care

Essential tremor affects about 4% of adults, and prevalence increases with age. The cause is unknown, but essential tremor may be a syndrome with multiple causes.¹ It has a strong familial linkage, and family members of patients are at increased risk; however, the pattern of inheritance and evidence for a genetic basis are unclear.¹

2 Essential tremor is always bilateral and may affect the upper limbs, head and voice

Essential tremor classically presents as a bilateral but asymmetric kinetic and postural tremor of the upper limbs, head, voice or a combination of these. A resting tremor, rigidity or bradykinesia are red flags in the differential diagnosis, as are cerebellar signs, although intention tremor may be present.¹ The clinical course shows gradual progression, which may become severely disabling.² Anecdotally, patients with essential tremor may report an improvement with alcohol.

3 Essential tremor is considered a motor disorder

Some researchers have suggested that it may have associated mood, cognitive and sleep disturbances, although this is a matter of debate.³ Importantly, treatments for other issues (e.g., antidepressants) may contribute to tremor.¹

4 Effective first-line treatments include β -blockers and primidone

Propranolol (short- or long-acting) and primidone are associated with, on average, a 50% reduction in severity of tremor in 70% of patients over a period of weeks.⁴ Propranolol should be avoided in those with co-existing asthma or heart failure. Second-line treatments include benzodiazepines, topiramate and gabapentin.⁴

5 Symptoms refractory to medical therapy may require neurosurgical consultation

Interventions (thalamotomy or deep brain stimulation) target the ventral intermediate nucleus of the thalamus, with symptom improvement in the range of 50% to 90%.⁴ A recent randomized controlled trial of high-intensity focused ultrasonography as a noninvasive alternative to surgery showed promise, but the procedure is not widely available at present.⁵ Patients not eligible for surgery may benefit from targeted injections of botulinum toxin.⁴

References

1. Benito-León J, Louis ED. Essential tremor: emerging views of a common disorder. *Nat Clin Pract Neurol* 2006;2:666-78.
2. Gutierrez J, Park J, Badejo O, et al. Worse and worse and worse: essential tremor patients' longitudinal perspectives on their condition. *Front Neurol* 2016;7:175.
3. Louis ED. Non-motor symptoms in essential tremor: a review of the current data and state of the field. *Parkinsonism Relat Disord* 2016;22(Suppl 1):S115-8.
4. Zesiewicz TA, Elble RJ, Louis ED, et al. Evidence-based guideline update: treatment of essential tremor: report of the Quality Standards subcommittee of the American Academy of Neurology. *Neurology* 2011;77:1752-5.
5. Elias WJ, Lipsman N, Ondo WG, et al. A randomized trial of focused ultrasound thalamotomy for essential tremor. *N Engl J Med* 2016;375:730-9.

Competing interests: None declared.

This article has been peer reviewed.

Affiliation: Sunnybrook Academic Family Health Team, Department of Family and Community Medicine, University of Toronto, Toronto, Ont.

Acknowledgement: The authors wish to thank the Sunnybrook Department of Family and Community Medicine Peer Support Writing Group for feedback.

Correspondence to: Graeme Schwindt, graeme.schwindt@sunnybrook.ca

CMAJ invites submissions to "Five things to know about ..." Submit manuscripts online at <http://mc.manuscriptcentral.com/cmaj>