Essential Tremor (ET)

ET vs Parkinson's disease

How do they differ?

The characteristics listed in the table below can help differentiate between parkinsonian and essential tremor, but a medical professional should be consulted for proper diagnosis.

Parkinsonian Tremor Signs & Symptoms	Essential Tremor Signs & Symptoms
High amplitude. Lower, slower frequency.	Low amplitude. Amplitude is more variable, ranging from barely perceptible tremor to a high amplitude tremor. Higher, faster frequency.
Mostly seen at rest.	Mostly seen during action.
Generally involves slow movements (bradykinesia), rigidity (stiffness), and problems with walking or balance.	Tremor is primary symptom – slowness, stiffness, walking and balance problems are not commonly seen.
Rarely a family history (<10%).	Family history of tremor reported in the majority of patients (>50%).
Resting and postural (re-emergent); postural tremor observable after mean latency of 5 sec; rarely kinetic.	Postural, kinetic; postural tremor immediately observable; resting tremor less common.
Onset generally at ages between 55-65.	Onset most common in middle age but can occur at any time in the lifespan.
Usually starts on one side of the body and progresses to the other side; usually remains asymmetrical.	Usually affects both sides of the body initially (bilateral; symmetrical).
No effect from consumption of alcohol.	Alcohol often improves tremor.
Usually improves with levodopa treatment.	Improves with primidone and propranolol in some cases.
Hands affected more than legs, voice and head almost never affected.	Hands predominantly affected, but tremor also present in the head and voice; rarely in the legs.
Worsens with emotional stress.	Worsens with emotional stress.

Many differences exist between essential tremor (ET) and Parkinson's disease (PD), the former being at least eight times more common than PD.

Up to 20% of patients with ET may develop PD, and 10% report a family history of PD. However, whether ET is a risk factor for PD remains an unresolved and somewhat controversial issue. (Fekete R, Jankovic J. *Revisiting the relationship between essential tremor and Parkinson's disease. Mov Disord* 2011;26:391-8).

(continued over)

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How do they differ? (cont.)

As ET progresses, tremor frequency (number of repetitions per second) may decrease; however, tremor amplitude (magnitude/strength) may increase. Increased amplitude is associated with a decreased ability to manage fine, discrete motor tasks.

In those with PD the most disabling symptoms are generally slowness, stiffness and problems with walking and balance, although tremor can also cause some disability. In PD, writing often becomes very small (micrographia) and therefore difficult to read.

The severity of ET and level of disability can vary greatly among patients. Some patients have a very mild tremor and therefore minimal to no disability. Others who have a severe tremor often cannot perform the majority of their daily activities and require help.

The writing of a person with ET tends to be large and tremulous rather than slow and small as in PD.

Anxiety can increase both ET and PD.

In addition to medications and botulinum toxin, deep brain stimulation is a therapeutic option for those with severe disabling ET or PD.

ET is often associated with a strong family history (known as familial tremor), but no specific ET-related gene has been identified.

A special picture or scan of the brain that measures the uptake of dopamine, such as DaTscan, can help to differentiate between ET and parkinsonian tremor. Dopamine is depleted in patients with parkinsonism but not in patients with ET; therefore, scans showing depletion in dopamine are most likely parkinsonism and normal scans would suggest a more likely diagnosis of ET. These scans are used as a tool to help the physician make an accurate diagnosis in difficult cases.

The information above is intended to describe the fundamental differences between ET and PD. To obtain a diagnosis, please consult a neurologist, preferably a movement disorder specialist.

For more information please visit the IETF website at www.essentialtremor.org or call (toll free) 888.387.3667.

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ietf International Essential Tremor Foundation

Your Voice for Essential Tremor

The mission of the International Essential Tremor Foundation (IETF) is to provide hope to the essential tremor (ET) community worldwide through awareness, education, support and research.

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