essential tremor

- the most common movement disorder
  prevalence increases with age

- tremor involves the cranial musculature; the head is involved most frequently, followed by voice, jaw, and face
  both upper extremities are typically affected
  mild asymmetry is not uncommon
  muscle tone and reflexes are normal
  Parkinsonian features such as bradykinesia and rigidity are absent

- pathophysiology is not fully known
  perhaps abnormally functioning central oscillator (central pattern generator) cerebellar-brainstem-thalamic-cortical circuits are likely involved.
  in some cases (perhaps a majority) - there’s Purkinje cell damage and loss
  in other cases - locus ceruleus cells with Lewy bodies (abnormal protein accumulation inside cells)

- familial in at least 50 – 70% of cases; transmission is autosomal dominant

- disability is common

- medical treatments
  alcohol
    risks: ET may worsen as alcohol levels decline
    self-medications may lead to alcoholism

  beta-blockers - prime treatment
  propranolol and primidone

  other medications (case reports or small open-label studies)
  Clozapine (atypical antipsychotic)
  Topiramate (anti-convulsant)
  Gabapentin (anti-convulsant)
  Mirtazapine (tetracyclic antidepressant)
  Benzodiazepines (antidepressants): clonazepam and alprazolam
  Botulinum toxin (muscle relaxer/muscle paralytic)
  limits release of acetylcholine at neuromuscular junction
  weakness is a side-effect; more applicable for head tremors than for arm tremors

- surgical treatments
  deep brain stimulation of thalamus
  thalamotomy (ablation of small region in thalamus, ventrointermedius nucleus)
  both treatments are effective, each has advantages and disadvantages