SOMATIC SYMPTOM AND RELATED DISORDERS

Functional Neurological Symptom Disorder (Conversion Disorder)

FND

DSM-5-TR 300.11 | ICD-10-CM F44.4-F44.7

Genuine neurological symptoms diagnosed by positive examination signs showing internal inconsistency, not by exclusion of other disease.

NEUROLOGY REFERRALS	TYPICAL ONSET	SEX RATIO	COURSE
~6-16% of new outpatients	20s-40s; any age	~2-3:1 female:male	~40-50% unchanged at 5 years

CLINICAL PICTURE

- Presentations include limb weakness, gait disorder, tremor, dystonia, dissociative seizures, sensory loss, and speech or visual disturbance, often of abrupt onset.
- Onset frequently follows a physical injury, infection, surgery, panic attack, or anesthesia, and the initial event is often minor relative to the disability.
- The defining clinical feature is internal inconsistency: symptoms change with attention, distraction, and context in ways organic lesions cannot produce.
- Dissociative seizures typically last over 2 minutes with closed resisting eyes, side-to-side head movement, waxing and waning motor activity, and no postictal confusion.
- Disability, unemployment, distress, and healthcare costs match or exceed those documented in multiple sclerosis and Parkinson disease cohorts.
- La belle indifference is neither sensitive nor specific and has been dropped from diagnostic use; most patients are frightened and highly distressed.

DIAGNOSTIC CRITERIA AT A GLANCE

- One or more symptoms involve altered voluntary motor or sensory function, which is the entry requirement and defines the neurological presentation.
- Clinical findings must provide positive evidence of incompatibility between the symptom and recognized neurological disease, making this a rule-in diagnosis.
- Hoover sign, hip abductor sign, give-way weakness, tremor entrainment and distractibility, and tubular visual fields are the standard confirmatory tests.
- DSM-5 removed both the requirement for an identifiable psychological stressor and the requirement to prove the symptom is not feigned.
- Specify the symptom type, whether acute or persistent beyond 6 months, and whether a psychological stressor is present, then note distress or impairment.

NEUROBIOLOGY & PHYSIOLOGY

- Structure is intact while function is disrupted: nerve conduction, EMG, and corticospinal integrity on transcranial magnetic stimulation remain normal.
- Functional imaging shows temporoparietal junction hypoactivation associated with a loss of the sense of agency over movements that are nonetheless generated.
- Amygdala hyperreactivity with increased amygdala to supplementary motor area coupling links emotional arousal directly to motor output without volition.
- Predictive processing models frame symptoms as aberrant prior expectations about the body given excessive precision, so attention itself amplifies them.
- Autonomic arousal and HPA axis dysregulation are common, and dissociative seizures are frequently preceded by physiological panic without subjective fear.
- Childhood adversity is overrepresented but absent in roughly a third of patients, and 10-20% of those with dissociative seizures also have epilepsy.

PSYCHOLOGICAL MECHANISMS

- Attention directed at the affected limb worsens the symptom while distraction improves it, and that asymmetry is both the mechanism and the bedside demonstration.
- Symptom scripts are typically learned from prior personal illness, injury, or exposure to neurological illness in a family member or workplace.
- Dissociation during onset uncouples the experience of agency from movement, and patients describe the limb as belonging to someone else or as switched off.
- Avoidance, deconditioning, and boom and bust activity cycles convert an acute symptom into entrenched disability within months of onset.
- Iatrogenic harm is substantial: being told nothing is wrong, or receiving repeated inconclusive tests, consolidates illness beliefs and worsens prognosis.

DIFFERENTIAL & COMORBIDITY

- Epilepsy is separated from dissociative seizures by video-EEG telemetry, the diagnostic gold standard, supported by absent postictal prolactin elevation.
- Multiple sclerosis, myasthenia gravis, movement disorders, and stroke remain in the differential, but misdiagnosis rates since the 1970s sit near 4%.
- Factitious disorder and malingering are separated by intent and external incentive, not by positive signs, which are present in genuine functional symptoms.
- Somatic symptom disorder, chronic pain, fatigue, migraine, anxiety, depression, and PTSD co-occur frequently and each deserves independent treatment.
- Suicide risk is elevated, and patients with dissociative seizures have standardized mortality comparable to that seen in drug-resistant epilepsy.

Treatment

EVIDENCE-BASED MANAGEMENT

PHARMACOLOGIC

- No medication treats the functional symptom itself, so prescribing targets comorbid depression, anxiety, migraine, or pain rather than the motor deficit.
- **Sertraline 50-200 mg/day** or another SSRI is reasonable for comorbid mood and anxiety disorders, which are present in a majority of patients.
- **Duloxetine 60 mg/day** helps when chronic pain or fibromyalgia accompanies the functional presentation and limits rehabilitation participation.
- Taper antiseizure medications once dissociative seizures are confirmed on video-EEG, since they add adverse effects without any benefit.
- Avoid opioids and benzodiazepines, which deepen dissociation, impair motor relearning, and predict worse functional outcome in this population.

PSYCHOTHERAPY

- **CBT** for dissociative seizures improved psychosocial functioning, distress, and clinician-rated change in the CODES trial, though not monthly seizure counts.
- Specialist **physiotherapy** using retraining of automatic movement, weight shifting, and distraction is first-line for functional motor and gait disorders.
- **Psychoeducation** delivered as a positive diagnosis is itself an intervention, and demonstrating Hoover sign to the patient often produces immediate change.
- Trauma-focused therapy including **EMDR** or prolonged exposure applies only where PTSD is present, not as a default assumption about causation.
- Multidisciplinary rehabilitation programs combining physiotherapy, occupational therapy, and psychology outperform single-modality care in cohort data.

ADJUNCT & SUPPORTIVE

- Give the diagnosis explicitly, name it as functional neurological disorder, and explain it as a software rather than hardware problem that can improve.
- Direct patients to neurosymptoms.org and FND Hope, since credible written explanation reduces the drive for further investigation.
- Stop repeat investigations once the positive signs are documented, and write the reasoning in the record so the next clinician does not restart the cycle.
- Occupational therapy and speech therapy address functional cognitive symptoms, dysphonia, and return to work planning alongside physical retraining.
- Duration of symptoms before diagnosis is the strongest modifiable prognostic factor, so early referral matters more than any specific therapy choice.

CLINICAL PEARLS

- This is a rule-in diagnosis: Hoover sign and tremor entrainment, not a normal MRI.
- Show the patient their own positive sign. The demonstration is the explanation.
- Misdiagnosis as functional is rare, near 4%; the greater risk is delay in naming it.

References

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NOTE

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