



Functional Movement Disorders: Essential Facts for Patients

WHAT ARE FUNCTIONAL MOVEMENT DISORDERS?

Functional movement disorders (FMD) are abnormal, involuntary movements or body postures which are inconsistent and incongruous with organic disease. FMD are caused by abnormal signals sent by the brain, and not caused by brain damage but rather result from brain malfunction.

WHO IS AT RISK TO DEVELOP THEM?

FMD are thought to be more common in women, young people and those with existing neurological or psychiatric diseases. There appears to be an association with depression and anxiety, early life trauma, stressful life events or difficult interpersonal relationships.

WHY DO FUNCTIONAL MOVEMENT DISORDERS HAPPEN: THE NEUROBIOLOGY AND SCIENCE BEHIND FMD.

Science can't yet entirely explain why FMD occur. Research findings implicate three main processes in the neurobiology of FMD: abnormal attentional focus, abnormal beliefs and expectations, and abnormalities in sense of agency (sense of voluntary control over one's movements.) In the brain, there are circuits encoding different types of movements, thoughts and emotions.

WHAT ARE SOME COMMON AND UNCOMMON CLINICAL PRESENTATIONS OF FMD?

FMD may present with tremor (a rhythmic, oscillatory movement of a body part), dystonia (abnormal posturing), walking difficulties, sudden jerks, slowness of movement and tics. Most FMD have an abrupt onset and tend to remain constant or occur episodically and are distractible.

HOW IS THE DIAGNOSIS OF A FUNCTIONAL MOVEMENT DISORDER MADE?

The diagnosis is made by a detailed history followed by clinical examination. Certain neurophysiological tests (such as a tremor study or brain wave test (EEG) and can rule out structural brain disease. A CT scan or Brain MRI may be obtained in selected patients.

CAN FUNCTIONAL MOVEMENT DISORDERS BE TREATED AND WHAT ARE COMMON TREATMENT APPROACHES?

1. The treatment plan starts with detailed explanation of the disease may serve as a cure for some patients. especially with milder symptoms.
2. Treatment approach to FMD follows a multi-disciplinary plan and can include the following:
 - a) Treatment of psychiatric co-morbidities such as anxiety, panic disorder, depression, obsessive compulsive disorder and post-traumatic stress disorder.
 - b) Cognitive behavioral therapy (psychotherapy): counseling to address abnormal perceptions, beliefs, behaviors and triggers, improve emotional regulation and provide tips to avoid stressors that provoke symptoms and coping strategies to solve current problems.
 - c) Physical therapy with motor retraining: Abnormally learnt motor programs need to be unlearned and approaches to increasing a person's sense of agency/awareness are instituted. The goal is to reduce symptom severity with distraction and focus on improving functionality,
 - d) Other lesser used potential therapies: hypnosis and biofeedback.
 - e) Prognosis for FMD patients: early diagnosis and young age may predict good outcomes.

It is important to emphasize the potential for reversibility if the patient accepts the diagnosis and follows the treatment plan.