How many diagnosed with ME or CFS were given a Neurological Examination before they were diagnosed?

The neurologic examination is typically divided into eight components: mental status; skull, spine and meninges; cranial nerves; motor examination; sensory examination; coordination; reflexes; and gait and station. The mental status is an extremely important part of the neurologic examination that is often overlooked.

A neurological examination is a clinical assessment used to evaluate how well the nervous system is functioning — including the brain, spinal cord, autonomic nervous system, and peripheral nerves. It is usually done by a neurologist, but other physicians may perform parts of it as well.

The exam is not just one test; it is a series of observations and simple tasks designed to identify patterns of neurological dysfunction.

Common Parts of a Neurological Examination

1. Mental Status & Cognitive Function

The doctor may assess:

*Alertness and awareness

*Attention and concentration

*Memory (short- and long-term)

*Speech and language

*Word retrieval

*Orientation (date, location, situation)

*Ability to follow instructions

*Processing speed

In M.E., patients may struggle particularly with:

*Delayed processing

*Word-finding problems

*Short-term memory issues

*Cognitive overload

*Difficulty multitasking

...

2. Cranial Nerve Examination

The 12 cranial nerves control functions involving the eyes, face, hearing, swallowing, and autonomic responses.

The doctor may test:

*Eye movements and pupil reactions

*Vision

*Facial sensation and muscle movement

*Hearing

*Swallowing and gag reflex

*Tongue movement

*Neck strength

This can help identify brainstem or nerve involvement.

...

3. Motor Function (Muscles & Movement)

The physician checks:

*Muscle strength

*Muscle tone

*Coordination

*Tremors or abnormal movements

*Muscle wasting

Ability to stand or walk

Tests may include:

*Pushing/pulling against resistance

*Finger-to-nose testing

*Heel-to-shin testing

*Rising from a chair

*Walking in a straight line

In M.E., some patients experience:

*Muscle fatigability

*Weakness after exertion

*Poor coordination

*Tremor

*Sudden “giving way” sensations

…

4. Reflex Testing

Using a small reflex hammer, the doctor may test:

*Knee reflexes

*Ankle reflexes

*Arm reflexes

*Plantar reflex (Babinski response)

Abnormal reflexes can suggest problems involving:

*Peripheral nerves

*Spinal cord pathways

*Brain involvement

…

5. Sensory Examination

This assesses how nerves process sensation.

The doctor may test:

*Light touch

*Pain/sharp sensation

*Temperature

*Vibration

*Position sense (proprioception)

Patients with neurological illness may report:

*Numbness

*Tingling

*Burning sensations

*Internal vibrations

*Heightened sensitivity to stimuli

…

6. Balance & Coordination

The exam may include:

*Standing with eyes closed (Romberg test)

*Walking heel-to-toe

*Balance while turning

*Coordination tasks

This evaluates:

*Cerebellar function

*Vestibular system

*Sensory pathways

Many people with M.E. experience:

*Disequilibrium

*Motion sensitivity

*Orthostatic instability

*Feeling “pulled” or unsteady

…

7. Autonomic Nervous System Assessment

Some neurological exams also assess autonomic function, especially if dysautonomia is suspected.

This may involve:

* Heart rate and blood pressure lying vs standing

* Pupil reactions

* Sweating abnormalities

* Breathing patterns

Conditions like orthostatic intolerance or POTS are common in M.E.

...

Important to Understand

A neurological examination can be completely “normal” even when someone has a serious neurological illness. Many disorders — including M.E. - involve dysfunction that fluctuates or is not always visible on routine bedside testing.

Neurologists are often looking for:

* Patterns

* Consistency of symptoms

* Signs of central or peripheral nervous system involvement

* Exertion-induced worsening

* Autonomic abnormalities

* Cognitive changes over time

In M.E., abnormalities may become much more apparent after exertion or during crashes, which standard office exams may miss.

Many clinicians and researchers believe that anyone suspected of having Myalgic Encephalomyelitis (M.E.) or CFS should receive at least a basic neurological examination as part of a proper medical evaluation.

That does not mean every patient will show dramatic neurological abnormalities on exam, but neurological assessment is important for several reasons:

*M.E. is classified by many diagnostic criteria as a neuroimmune disease with neurological dysfunction.

*Symptoms commonly involve cognition, sensory processing, autonomic function, balance, coordination, sleep regulation, and neuromuscular fatigue.

*A neurological exam helps document objective signs when present.

*It can help rule out other neurological disorders that may mimic or overlap with M.E.

A careful neurological evaluation may identify:

*Orthostatic intolerance or autonomic dysfunction

*Abnormal reflexes

*Balance or coordination problems

*Sensory abnormalities

*Cognitive slowing

*Cranial nerve involvement

*Tremor or muscle fatigability

Historically, physicians such as Dr. Melvin Ramsay and Dr. Byron Hyde emphasized the neurological aspects of M.E. very strongly. Modern criteria like the International Consensus Criteria (ME-ICC) also place significant emphasis on neurological impairment.

One difficulty is that neurological findings in M.E. are often:

* Fluctuating

* Subtle

* Worse after exertion

* Missed during short office visits

A patient may appear relatively normal during a brief examination yet become profoundly impaired after physical or cognitive activity. Standard neurological exams also do not fully capture post-exertional neuroimmune exhaustion, which is central to M.E.

So while a neurological examination alone cannot diagnose M.E., many experts would argue it should absolutely be part of the assessment — especially when patients present with cognitive dysfunction, autonomic symptoms, sensory disturbances, coordination problems, or other neurological complaints.

References

Neurological examination

A collection of neurological examination OSCE guides (including upper limb, lower limb and cranial nerves) to help you prepare for OSCEs, including PLAB and the UKMLA CPSA.

Our premium OSCE station bank has a comprehensive range of neurological examination stations

https://geekymedics.com/.../clinical-examination/neuroosce/

Neurologic Examination

ByGeorge Newman, MD, PhD, Albert Einstein Medical Center

Reviewed/Revised Aug 2025 | Modified Feb 2026

https://www.merckmanuals.com/.../neurologic-examination?

You Tube examination https://youtu.be/4uAAjYzi7SY?si=DNR9zcDEunY5x_JW

The neurologic examination is an assessment tool used to determine a patient's neurologic function. This evaluation is beneficial in multiple ways, as it assists in the localization of neurologic diseases and supports the process of ruling in or ruling out differential diagnoses. H

https://www.ncbi.nlm.nih.gov/books/NBK557589/

How to do a 4 minute examination. https://www.merckmanuals.com/.../how-to-do-a-4-minute...

#NightingaleContinuum

#GAMEICC