

8 tests rolled into a mnemonic to detect weakness in suspected conversion disorder

Vineet Punia, MD, MS, Douglas Opler, MD, and Rashi Aggarwal, MD

Dr. Punia is a Neurology Resident, Dr. Opler is Assistant Professor, Department of Psychiatry, and Dr. Aggarwal is Assistant Professor and Associate Residency Training Director, Department of Psychiatry, Rutgers New Jersey Medical School, Newark, New Jersey.

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DSM-5 criteria for conversion disorder (or functional neurological symptom disorder) requires findings that are incompatible with recog-

nized neurologic or medical conditions.¹ Knowledge of signs specific to conversion disorder may help you diagnose the illness with confidence.

Table

Positive signs of functional motor weakness

Test or sign	How to perform
H oover sign (PPV, 99%; NPV, 96%)	Test hip flexion in the weak leg while keeping your hand under the good heel
A bductor sign (PPV, 100%; NPV, 100%)	A. Patient abducts both legs simultaneously, while supine, as examiner applies resistance B. Patient exerts maximum strength on abducted leg against examiner's resistance
F inger abductor sign (PPV, 100%; NPV, 100%)	Observe weak hand while patient abducts the normal hand's finger against resistance for 2 minutes
S pinal Injuries Center test (PPV, 93%; NPV, 100%)	Passively raise patient's knees in supine position
C o-contraction (PPV, 100%; NPV, 55%)	Observation of antagonist muscle during muscle strength testing
W rong-way deviation of the tongue	Ask patient to protrude tongue
S ternocleidomastoid weakness	Patient rotates head against resistance applied by examiner
G ive-away weakness (PPV, 96%; NPV, 65%)	Ask patient to resist push or pull applied by examiner on any involved joint movement

NPV: negative predictive value; PPV: positive predictive value

Source: Reference 2

We review signs suggestive of conversion disorder. These can be remembered using the mnemonic **How About Finding Some Conversion Weakness** [in an otherwise] **Strong Guy/Gal?** (*Table²*).

Inconsistencies in motor function can be observed on examination. Signs may be consciously or unconsciously produced. Although most of the tests mentioned have high positive and negative predictive values (noted in the *Table²*) they have

limited sensitivity and specificity,³ and the presence of a positive sign does not exclude the possibility of comorbid disease.

References

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The presence of a positive sign does not exclude the possibility of comorbid disease

Response in organic weakness	Response in functional weakness	Comment
Downward pressure felt in good leg	No downward pressure felt in good leg	Classic test; easy to perform
A. Weaker leg stays midline B. Weak leg moves medially	A. Weaker leg stays midline B. Weak leg stays in position	Complex to perform and difficult to interpret
No movement in weak hand is observed	Finger abduction seen in weak hand	Helpful in functional weakness of upper limb
The leg drops in abduction in severe weakness	Both knees remain raised	Useful in severe proximal leg weakness
No contraction of antagonist muscle noticed	Simultaneous contraction of agonist and antagonist noticed, which results in little or no movement at the joint	Might take some experience to appreciate the sometimes subtle co-contraction
Slight deviation towards weak side	Large deviation may be seen, usually away from weak side	Easy to perform
Usually spared with no weakness (secondary to bilateral innervation of its cranial nerve nuclei)	Difficulty rotating to ipsilateral side	Easy to perform
Some strength or resistance is felt during the full range of motion at involved joint	Normal strength is felt and then the limb suddenly collapses, or it collapses from a normal position with a light touch	Needs experience to appreciate; prone to error in patients with pain