

National Institutes of Health / U.S. National Library of Medicine



REVIEWED

By Chris at 9:23 am, Sep 06, 2019

[Home](#) → [Medical Encyclopedia](#) → Focal neurologic deficits

URL of this page: [//medlineplus.gov/ency/article/003191.htm](https://medlineplus.gov/ency/article/003191.htm)

Focal neurologic deficits

A focal neurologic deficit is a problem with nerve, spinal cord, or brain function. It affects a specific location, such as the left side of the face, right arm, or even a small area such as the tongue. Speech, vision, and hearing problems are also considered focal neurological deficits.

The type, location, and severity of the problem can indicate which area of the brain or nervous system is affected.

In contrast, a nonfocal problem is NOT specific to a certain area of the brain. It may include a general loss of consciousness or emotional problem.

Considerations

A focal neurologic problem can affect any of these functions:

- Movement changes, including paralysis, weakness, loss of muscle control, increased muscle tone, loss of muscle tone, or movements a person cannot control (involuntary movements, such as tremor)
- Sensation changes, including paresthesia (abnormal sensations), numbness, or decreases in sensation

Other examples of focal loss of function include:

- Horner syndrome: small pupil on one side, one-sided eyelid drooping, lack of sweating on one side of the face, and sinking of one eye into its socket
- Not paying attention to your surroundings or a part of the body (neglect)
- Loss of coordination or loss of fine motor control (ability to perform complex movements)
- Poor gag reflex, swallowing difficulty, and frequent choking
- Speech or language difficulties, such as aphasia (a problem understanding or producing words) or dysarthria (a problem making the sounds of words), poor enunciation, poor understanding of

speech, difficulty writing, lack of ability to read or understand writing, inability to name objects (anomia)

- Vision changes, such as reduced vision, decreased visual field, sudden vision loss, double vision (diplopia)

Causes

Anything that damages or disrupts any part of the nervous system can cause a focal neurologic deficit. Examples include:

- Abnormal blood vessels (vascular malformation)
- Brain tumor
- Cerebral palsy
- Degenerative nerve illness (such as multiple sclerosis)
- Disorders of a single nerve or nerve group (for example, carpal tunnel syndrome)
- Infection of the brain (such as meningitis or encephalitis)
- Injury
- Stroke

Home Care

Home care depends on the type and cause of the problem.

When to Contact a Medical Professional

If you have any loss of movement, sensation, or function, call your health care provider.

What to Expect at Your Office Visit

Your provider will take your medical history and perform a physical examination.

The physical examination will include a detailed examination of your nervous system function.

Which tests are done depends on your other symptoms and the possible cause of the nerve function loss. Tests are used to try to locate the part of the nervous system that is involved. Common examples are:

- CT scan of the back, neck, or head
- Electromyogram (EMG), nerve conduction velocities (NCV)
- MRI of the back, neck, or head

- Spinal tap

Alternative Names

Neurological deficits - focal

References

Daroff RB, Jankovic J, Mazziotta JC, Pomeroy SL. Diagnosis of neurological disease. In: Daroff RB, Jankovic J, Mazziotta JC, Pomeroy SL, eds. *Bradley's Neurology in Clinical Practice*. 7th ed. Philadelphia, PA: Elsevier; 2016:chap 1.

Griggs RC, Jozefowicz RF, Aminoff MJ. Approach to the patient with neurologic disease. In: Goldman L, Schafer AI, eds. *Goldman-Cecil Medicine*. 25th ed. Philadelphia, PA: Elsevier Saunders; 2016:chap 396.

Review Date 10/18/2018

Updated by: Alireza Minagar, MD, MBA, Professor, Department of Neurology, LSU Health Sciences Center, Shreveport, LA. Also reviewed by David Zieve, MD, MHA, Medical Director, Brenda Conaway, Editorial Director, and the A.D.A.M. Editorial team.

How helpful is this web page to you?

Not helpful

Very helpful



A.D.A.M., Inc. is accredited by URAC, also known as the American Accreditation HealthCare Commission (www.urac.org). URAC's [accreditation program](#) is an independent audit to verify that A.D.A.M. follows rigorous standards of quality and accountability. A.D.A.M. is among the first to achieve this important distinction for online health information and services. Learn more about A.D.A.M.'s [editorial policy](#), [editorial process](#) and [privacy policy](#). A.D.A.M. is also a founding member of Hi-Ethics and subscribes to the principles of the Health on the Net Foundation (www.hon.ch).

The information provided herein should not be used during any medical emergency or for the diagnosis or treatment of any medical condition. A licensed physician should be consulted for diagnosis and treatment of any and all medical conditions. Call 911 for all medical emergencies. Links to other sites are provided for information only -- they do not constitute endorsements of those other sites. Copyright 1997-2019, A.D.A.M., Inc. Duplication for commercial use must be authorized in writing by ADAM Health Solutions.



Page last updated: 03 September 2019