



National Institute of
Neurological Disorders
and Stroke

Bell's Palsy



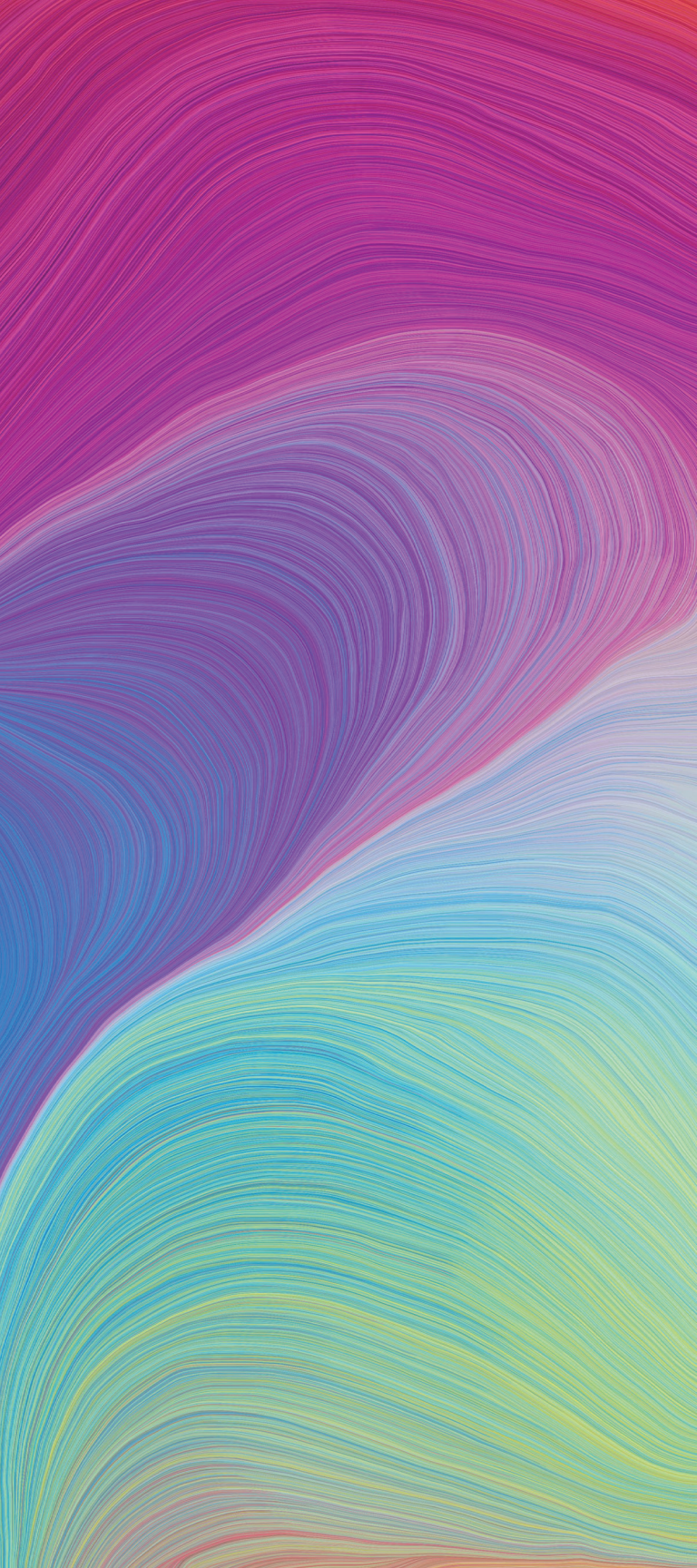




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What is Bell's palsy?

Bell's palsy is a neurological disorder that causes paralysis or weakness on one side of the face. It occurs when one of the nerves that controls muscles in the face becomes injured or stops working properly. Bell's palsy is the most common cause of facial paralysis.

Symptoms of Bell's palsy include:

- Sudden weakness or paralysis on one side of the face
- A drooping eyebrow and mouth
- Drooling from one side of the mouth
- Difficulty closing one eyelid, which causes eye dryness

Most often these symptoms lead to significant facial distortions.

People living with Bell's palsy also may develop:

- Facial pain or abnormal sensations
- Excessive tears in one eye
- Problems with taste
- Sensitivity to loud noises
- Pain around the jaw and behind the ear
- Problems eating or drinking

In rare cases, Bell's palsy can affect both sides of the face. Symptoms appear suddenly over a 48- to 72-hour period and generally begin to improve after a few weeks. The symptoms vary from person to person and can be mild to severe. People with Bell's palsy usually recover some or all facial function within a few weeks to six months. Sometimes, the facial weakness may last longer or be permanent.

Bell's palsy results from a problem in the seventh cranial nerve, also called the facial nerve, which connects the brain to the muscles that control facial expression. The seventh cranial nerve also affects taste and ear sensation.

Who is more likely to get Bell's palsy?

Bell's palsy can affect anyone of any gender or age, but most often affects people ages 15 to 45.

A risk factor is a condition or behavior that occurs more frequently in those who have a disease or condition, or who are at greater risk of getting a disease, than in those who don't have the risk factor.

Risk factors for Bell's palsy include pregnancy, preeclampsia, obesity, hypertension, diabetes, and upper respiratory ailments.

The exact cause of Bell's palsy is unknown. Some evidence suggests inflammation and swelling of the seventh cranial nerve is involved, but the reason for this swelling is unclear.

Possible triggers of Bell's palsy may include:

- An existing (dormant) viral infection, such as herpes simplex or varicella (chickenpox)
- Impaired immunity due to stress, sleep deprivation, physical trauma, minor illness, or autoimmune syndromes
- Infection of a facial nerve and resulting inflammation brought on by a disorder such as Lyme disease
- Damage to the myelin sheath (the fatty covering that insulates nerve fibers)

How is Bell's palsy diagnosed and treated?

Diagnosing Bell's palsy

A doctor will perform a physical exam to check for upper and lower facial muscle weakness on one side of the face (including the forehead, eyelid, and mouth). They will ask when the symptoms began. During the exam, the doctor will rule out other possible causes of facial paralysis. There is no specific laboratory test to confirm diagnosis of Bell's palsy.

Usually, routine laboratory or imaging studies are not necessary. However, these tests can sometimes help confirm a diagnosis or rule out other diseases or conditions that can cause facial weakness. If no specific cause can be identified, the condition can be diagnosed as Bell's palsy. Imaging studies may be useful if there is a gradual progression of facial weakness or if more than facial expression, taste, and hearing sensitivity are affected.

Electromyography and nerve conduction studies may help determine how serious the disorder is and the chances of recovery. Laboratory tests for Lyme disease and other viruses may be considered to aid in diagnosis.

Treating Bell's palsy

Common treatments for the symptoms of Bell's palsy include medications, eye protection, surgery, and other therapies.

Steroids may be prescribed for new-onset Bell's palsy. In most cases, oral steroids should be started within three days of symptom onset to reduce inflammation and swelling and increase the chance of recovering facial nerve function. Some people with Bell's palsy may not respond well to or be able to take steroids. Sometimes antiviral medications may also be prescribed to help increase the chance of recovering facial function.

People experiencing pain with Bell's palsy may find relief by taking pain medications such as aspirin, acetaminophen, or ibuprofen. To avoid dangerous drug interactions, if you are already taking prescription medications, talk with your doctor or pharmacist before taking over-the-counter drugs.

If the person has trouble closing one or both eyelids, lubricating eye drops or eye patches can help keep the eye moist and protect it from debris or injury, especially while sleeping. Physical therapy, facial massage, or acupuncture may help improve facial nerve function and pain. In some cases, cosmetic or reconstructive surgery could fix a permanently crooked smile or an eyelid that will not close.

What are the latest updates on Bell's palsy?

The National Institute of Neurological Disorders and Stroke (NINDS), a part of the National Institutes of Health (NIH), is the nation's leading federal funder of research on neurological disorders. NINDS conducts and supports an extensive research program to increase our understanding of how the nervous system works and what causes the system to sometimes go wrong. Some of this research focuses on learning more about the nerve mechanisms involved in facial movement and control and the circumstances that lead to nerve damage and facial paralysis.

This research may help scientists find the definitive cause of Bell's palsy, leading to the discovery of new, effective treatments.

Scientists are studying the effects of facial paralysis surgery to understand its results on individuals' function and quality of life. Other researchers are evaluating a potential therapy for eye issues that can occur in people with facial nerve palsy. In another study, investigators are looking at electrical stimulation to treat facial paralysis and nerve weakness.

For articles on Bell's palsy research, search **PubMed** (<https://pubmed.ncbi.nlm.nih.gov>), which provides free access to a database of published biomedical literature.

How can I or my loved one help improve care for people with Bell's palsy?

Consider participating in a clinical trial so clinicians and scientists can learn more about Bell's palsy. Clinical research with human study participants helps researchers learn more about a disorder and perhaps find better ways to safely detect, treat, or prevent disease.

All types of participants are needed—those who are healthy or may have an illness or disease—of all different ages, sexes, races, and ethnicities to ensure that study results apply to as many people as possible, and that treatments will be safe and effective for everyone who will use them.

To learn about clinical trials on Bell's palsy, search **Clinicaltrials.gov** (<https://clinicaltrials.gov>), an NIH database that has information about federally and privately funded clinical research studies.

Where can I find more information about Bell's palsy?

Information may be available from the following organizations and resources:

Genetic and Rare Diseases Information Center (GARD)

<https://rarediseases.info.nih.gov>

888-205-2311

MedlinePlus

<https://medlineplus.gov>

National Organization for Rare Disorders (NORD)

<https://rarediseases.org>

800-999-6673

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