

## **BELL'S PALSY**

Bell's palsy is a neurological disorder caused by damage to the seventh cranial nerve, also known as the facial nerve, which results in weakness or paralysis on one side of the face. The paralysis causes distortion of facial features and interferes with normal functions, such as closing the eye and eating. Patients often fear that they have suffered a stroke, with permanent damage to their health and appearance, but Bell's palsy is not related to that condition.

The onset of Bell's palsy is usually sudden. Many people wake up in the morning and find that one side of their face is paralyzed. Milder symptoms include tingling around the lips or a dry eye and usually progress quickly, reaching maximum severity in 48 hours or less.

## **ANATOMY**

The facial nerve controls the muscles that move the eyebrows, close the eyes, and move the mouth and lips. It also controls the tear glands, one of the salivary glands, and the taste buds in the front of the tongue.

Electrochemical signals are relayed between the brain and many facial muscles by 7000 nerve fibers that comprise the facial nerve. When the facial nerve is damaged, as in Bell's palsy, the action of each nerve fiber is disrupted. Because the facial nerve controls several functions, several symptoms occur.

## **INCIDENCE AND PREVALENCE**

Bell's palsy affects about 40,000 people in the United States every year. It affects approximately 1 person in 65 during a lifetime. It is more commonly seen in young adults and persons of Japanese descent have a slightly higher incidence of the condition. Bell's palsy is the most common cause of facial paralysis worldwide and one of the most common neurological disorders involving a cranial nerve.

## **CAUSES**

Viral infections such as herpes, mumps, or HIV, and bacterial infections such as Lyme disease or tuberculosis can cause inflammation and swelling of the facial nerve that causes Bell's palsy. A tumor, skull fracture, or neurological condition caused by chronic disease (e.g., diabetes, Guillain-Barre syndrome) can also lead to Bell's palsy. One common cause is root canal teeth. As a matter of fact this may be the underlying cause of all the other causes.

## **RISK FACTORS**

Conditions that compromise the immune system, such as HIV, increase the risk for Bell's palsy. Stress, pregnancy, and diabetes are also risk factors. Diabetics are more than 4 times as likely to develop the disorder compared to the general population.

### **RISK FACTORS INCLUDE THE FOLLOWING:**

Mercury (and other heavy metals) cause neuropathies.

Bacterial infections such as Lyme disease , Rickettsia (e.g. R.Mt Spotted fever), typhoid fever, tuberculosis

Neurological disorders such as Guillain-Barre syndrome, multiple sclerosis, and myasthenia gravis

Traumatic injury to the head or face

Tumor causing nerve compression

Viruses such as influenza, the common cold, or infectious mononucleosis, herpes family, mumps

Diabetes

Pregnancy

Physical stress