

Here's how to bring balance into your life

A patient's
introduction to the
diagnosis and
treatment of
dizziness



otometrics

MADSEN • AURICAL • ICS

Dizziness is
the second most common
complaint people bring
to their doctors



Understanding your dizziness

Dizziness is more common than most people think. In fact, it's the second most common complaint people bring to their doctors (lower back pain is first).

It's estimated that as many as 40% of all adults experience dizziness severe enough to warrant reporting it to their doctors. Fortunately, most causes of dizziness are detectable and treatable, especially with today's sophisticated computerized diagnostics, medicines and advanced surgical techniques.

A distinct experience

Dizziness doesn't feel the same to all people, so it's helpful if your physician knows exactly what you are experiencing when you report dizziness.

For some people, it's lightheadedness. Some feel faint. Some feel as if they are moving when they're not.

To some, it feels as if the world is spinning all around them, while others feel as if *they* are doing the spinning. Both of these forms of dizziness are called vertigo. People with vertigo may feel themselves—or the world around them—spinning clockwise; for others, it's counterclockwise.

Some people simply can't maintain their balance, but have no other unusual sensations at all.

Other common symptoms

Dizziness often occurs along with other symptoms. Like nausea. Anxiety. Hearing loss. Pressure or fullness in the head or ears, or a ringing in the ears called tinnitus.

Once again, it's important that your doctor knows if these or any other problems accompany your dizziness.

A healthy part of your body's warning system

Few of us like dizziness any more than we like pain. But, like pain, dizziness is a signal that something else may be wrong—something we need to detect and treat.

A symptom with many possible causes

Dizziness can be a symptom of a variety of health disorders. When you report dizziness to your physician, the first challenge is to diagnose the underlying cause. Most common are vestibular disorders—problems in the inner ear, particularly in the vestibular system which controls our sense of balance.

Other underlying causes can be found in the central nervous system—the brainstem or brain—resulting from disease or injury. Or, dizziness may be a sign of a cardiovascular problem, like high blood pressure or anemia.

Dizziness may even be a reaction to medications, especially to the category of antibiotics called aminoglycosides. Bacterial or viral infections can also produce symptoms of dizziness.

The diagnostic process

The more specific you can be about when your dizziness began, when episodes are most likely to occur, and what sensations you experience; the more information your physician will have to develop an accurate diagnosis.

Sometimes, a specific cause for dizziness can't be identified. But, by eliminating the more serious possibilities, you and your physician can confidently manage your symptoms and enable your body's self-correcting capabilities to take effect.

The diagnostic process is both an art and a science—a partnership between you, your physician, and any other specialists or technicians enlisted for diagnostic support.

Uncovering clues to what's really wrong

Diagnosing dizziness can be complex, and the process usually requires several tests. In most cases, you'll start with a detailed medical history and a physical examination. Because the balance system is located primarily in the inner ear, a hearing test is a common diagnostic procedure, as is eye movement testing.

The anatomy underlying eye movement testing

Although your balance system is located primarily in the inner ear, it is connected with the brain and brainstem, the eyes, and the sensory nerves throughout your body.

Each of these centers sends and receives messages that permit you to maintain your balance. When a disorder is present, these messages cause you to feel abnormal dizziness.

One clearly measurable sign of what's going on with your balance system is a rapid, involuntary eye movement called nystagmus. By stimulating the nervous system in various ways that usually affect balance, and then carefully measuring your eye movements, your physician can learn much about any abnormalities in your vestibular system.

This procedure is called VNG or ENG. VNG stands for videonystagmography, which tracks eye movement through video recording techniques. ENG, or electronystagmography, is the recording of eye movements from electrical signals rather than video recording.

A series of tests for a wealth of information

VNG (or ENG) is really a group of tests that can contribute significantly to the information your doctor needs to diagnose your dizziness.

One test is the saccade test, which looks at rapid side-to-side eye movements. Another is the pursuit test, to measure your ability to follow moving targets. A positioning maneuver tests for motion-induced dizziness.

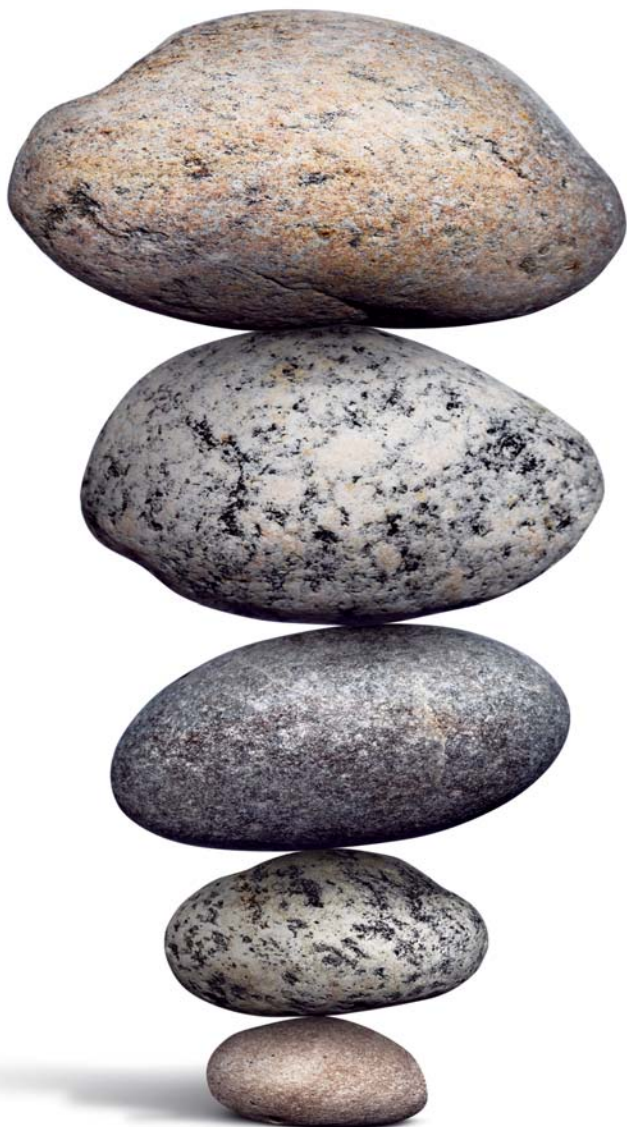
Caloric tests involve introducing warm, and then cool, air or water into the ear; and then measuring the resulting changes in eye movement.

During VNG tests, goggles housing sophisticated cameras will be placed over your eyes. If testing is performed via ENG, electrodes are placed near the eyes. Both methods are designed to carefully monitor your eye movements.

For some of the tests you will be seated, observing light targets whose movements are precisely planned and controlled to evoke normal or abnormal eye movements. For other procedures, such as the caloric test, you will be lying down. The entire sequence usually takes about 45 minutes.

Your physician may order some or all of these tests, and others, depending on your history and symptoms. Each contributes distinct, valuable information to your overall diagnostic picture, which may not be available through any other means.

How to build
balance and
confidence



Getting back on balance

Based on the results of both your eye movement testing and other tests, your doctor may arrive at an initial diagnosis.

In some cases, accurate diagnosis will require further test procedures. Once a diagnosis is determined, a range of safe and effective treatments is available to control most of the conditions underlying dizziness. Some conditions can be managed with medication and/or diet. Some can be treated with special “maneuvers” which involve simple movements of the head and body. Others require surgical intervention, or physical therapy and exercise.

Whatever the cause of your dizziness, the key to its solution most often lies in a timely, accurate diagnosis made possible by advanced diagnostic instrumentation; followed by careful adherence to your physician’s treatment plan.

Find out more at
www.otometrics.com



Otometrics is the world's leading manufacturer of hearing and balance instrumentation and software - innovative concepts designed to help health-care professionals make the best possible decisions. Our solutions range from infant screening applications and audiologic diagnostics, to balance testing and hearing instrument fitting.

Headquartered in Copenhagen, Denmark, and with a center of development in the United States, we maintain a global network of distributors and subsidiaries. Otometrics is part of GN Store Nord.

● Hearing Assessment ● Fitting Systems ● Balance Assessment

GN Otometrics, Europe. +45 45 75 55 55. info@gnotometrics.dk
GN Otometrics, North America. 1-800-289-2150. sales@gnotometrics.com
www.otometrics.com