



Retraining the Brain to Treat Chronic Back Pain

More than 25 million people in the U.S. live with chronic pain. This is pain that lasts for more than three months. The most common type of chronic pain is chronic back pain.

Often, no physical cause for this pain can be found. In these cases, it may stem from brain changes that persist after an injury healed. These brain changes provide a warning for you to restrict your movement and let the body recover. But in some cases, they can cause the pain to persist long after the damage has healed.

Researchers have developed a treatment called pain reprocessing therapy (PRT) to help the brain "unlearn" this kind of pain. PRT teaches people to perceive pain signals sent to the brain as less threatening.

A research team performed the first clinical test of PRT. Participants had mild to moderate chronic back pain for which no physical cause could be found. The volunteers received one of three treatments: four weeks of intensive PRT, a harmless injection into the back, or continued standard care.

After four weeks, 66% of people who received PRT reported being pain-free or nearly pain-free. Less than 25% of people who received injections and 10% of those receiving usual care reported similar improvements. Brain scans showed that people who received PRT had less pain-associated brain activity.

"This isn't suggesting that your pain is not real or that it's 'all in your head," says Dr. Tor Wager of Dartmouth College, who co-led the study. "What it means is that if the causes are in the brain, the solutions may be there, too."



Dealing With Dizziness Getting Help for a Balance Disorder

You need your sense of balance to stand, walk, bend down, drive, and more. If it gets disrupted, you may struggle to work, study, or even do simple daily activities. Balance problems also increase the risk of dangerous falls.

"Balance is really your sixth sense," says Dr. David Newman-Toker, a neurologist at Johns Hopkins University. "But we're not usually aware of it, unless it's broken."

Many things can affect your balance. Being hungry or dehydrated may make you feel lightheaded. Some medications can make you feel dizzy. Health problems that affect your inner ear or brain can also

throw off your balance. These may include infection, stroke, or a tumor.

Usually, a disruption in balance is temporary. But some things can cause long-term balance problems. So how do you know when to be concerned?

"If your symptoms are severe, or last for a long time, that's an indication to have things checked out," says Dr. Michael Hoa, an ear, nose, and throat specialist at NIH. "Pay attention to things that aren't normal for you."

You may feel like you're moving, spinning, or floating, even if you're sitting or lying still. Or you could feel like you're suddenly tipping over while you're walking. You might have blurred vision or feel confused or disoriented.

Pinpointing the Problem

Tiny organs in your inner ear form the core of your balance system. They communicate with your brain to give you a sense of your body's position.

"But your balance system isn't just your inner ear," Hoa says. "It's input from your eyes. It's your muscles, joints, and spine. It's your vision."

That makes balance disorders tricky to diagnose. "A change in any part of the system could contribute to changes in your balance," he says. "Sometimes that makes it hard to distinguish one balance disorder from another."

A new balance problem can sometimes signal a medical emergency, like a stroke. So it's important to get symptoms checked out as soon as possible.

"The most important things to tell your health care provider are the timing and triggers for your symptoms," says Newman-Toker. This will help them narrow down the possible cause.

Common Causes of Balance Problems

Identifying what's causing a balance problem can be complicated. Several disorders have similar symptoms.

An infection or inflammation of the inner ear can trigger dizziness and loss of balance. This is called labyrinthitis. Inflammation can also affect the nerve that sends signals about balance to the brain. This is

called vestibular neuritis.

The most common cause of dizzy spells is called benign paroxysmal positional vertigo, or BPPV. This occurs when tiny crystals in the inner ear fall out of place. BPPV can cause a brief, intense sense of vertigo triggered by certain changes in the position of your head. The spells last less than a minute.

A less common, but recurrent, cause of balance problems is Ménière's disease. This can cause vertigo, hearing loss, and a ringing or buzzing sensation in the ear. It's not known what causes this condition. But people living with it often have extra fluid in their inner ear.

To determine what's causing your symptoms, your health care provider can do different tests. These include a hearing exam, blood tests, or tests to measure your eye movements. If these tests can't rule out a stroke, you may also need an MRI scan.

Newman-Toker's team is experimenting with goggles that measure eye movements automatically. They're testing whether the goggles can help doctors in the emergency department make better diagnoses.

Because some balance disorders can look similar, people may not always get the right diagnosis and treatment on the first try, says Newman-Toker. You may need to visit another doctor or try different treatments before you feel better.

Finding What Works

Some balance disorders have straightforward treatments. But others can be tricky. For BPPV, a trained health care provider can perform a series of simple head movements. These move the loose crystals back in place.

Ménière's disease is harder to treat. Lifestyle changes like stopping smoking and eating less salt can sometimes reduce symptoms. New drugs are now being tested to treat Ménière's disease in clinical studies.

Hoa's lab is trying to identify possible causes of Ménière's disease. They're looking at how genes, proteins, and the body's disease defense system (the immune system) may be involved. They suspect that what's currently called Ménière's disease may be several different conditions. Pinpointing the

differences may lead to more personalized treatments.

But currently, few effective drugs exist for long-term balance problems, says Dr. Anat Lubetzky, a physical therapist at New York University. "For many people, the solution to a balance problem is balance rehabilitation." Rehabilitation teaches you ways to adapt to dizzy spells. It also focuses on strengthening muscles and preventing falls.

"People with balance disorders can enter a vicious cycle of the fear of falling," Lubetzky says. "They may avoid activity, which can then create muscle and bone problems."

That, in turn, can increase the risk of more falls. "You have to gain your confidence back," she says.

Lubetzky is researching the use of virtual reality, or VR, to better understand and treat balance disorders. Many people with balance disorders struggle in environments with a lot of sights and sounds. So her lab creates virtual scenes, like subway stations, for rehab sessions. These scenes let people practice walking in small virtual crowds.

As people build their skills, the scenes can get busier and noisier. The team hopes that these programs will help people regain their confidence in busy environments without leaving the safety of the clinic.

Whether it's rehab, medications, or other treatments, it may take time to find something that works for you.

"If things don't go how you've been told to expect them to, be aware that you might actually not have the right diagnosis," Newman-Toker says. You may need to go back to your health care provider or see a specialist.

It may also take time to gain your confidence back. In the meantime, anyone living with a balance disorder—either temporarily or permanently—can also do simple things at home to prevent falls and accidents.

Article reprinted from NIH-News In Health

Living With a Balance Disorder To help prevent falls and other accidents:

- Avoid walking in the dark, either inside or outside.
- Wear low-heeled shoes or walking shoes.
- Use a cane or walker, if necessary.
- Add handrails to stairwells and bathrooms in your home.
- Stay physically active to improve your balance and strength. A physical therapist can help you learn to exercise safely.
- Talk with your health care provider about whether it's safe to drive.

NOTICE OF ANNUAL MEETING OF MEMBERS

The Annual Meeting of the Members of Premier Business Association will be held at 12444 Powerscourt Drive, Suite 500A, St. Louis, MO 63131, on Friday, February 11, 2022 at 10:00 a.m. (CST) for election of Directors and for the transaction of such other business as may properly come before the meeting and any adjournment thereof.

The above notice is given pursuant to the By-Laws of the Association.

PROXY

Premier Business Association February 11, 2022 Annual Meeting of Members THIS PROXY IS SOLICITED ON BEHALF OF PREMIER BUSINESS ASSOCIATION

The undersigned member of Premier Business Association does hereby constitute and appoint the President of Premier Business Association, the true and lawful attorney(s) of the undersigned with full power of substitution, to appear and act as the proxy or proxies of the undersigned at the Annual Meeting of the Members of Premier Business Association and at any and all adjournments thereof, and to vote for and in the name, place and stead of the undersigned, as fully as the undersigned might or could do if personally present, as set forth below:

1.	FOR [], or to [] WITHHOLD AUTHORITY to vote for, the following nominees for Board of Directors:
Jacque Bardgett, Jerry Talamantes and Nathan Dierking			

2.	In their discretion, the proxies are authorized to vote upon such other business as may properly come before the
	Meeting.

This proxy, when properly executed, will be voted in the manner directed by the undersigned member. If no direction is made, this proxy will be voted for the election of directors and officers.

DATED:	, 2022	
	Signature	
	Name (please print)	

Please date and sign and return promptly to 12444 Powerscourt Drive, Suite 500A, St. Louis, MO 63131 whether or not you expect to attend this meeting. The Proxy is revocable and will not affect your right to vote in person in the event that you attend the meeting.

St. Louis, Missouri January 10, 2022 Date

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For information regarding your membership and association services, call or write:

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Consult your doctor before starting any exercise program.