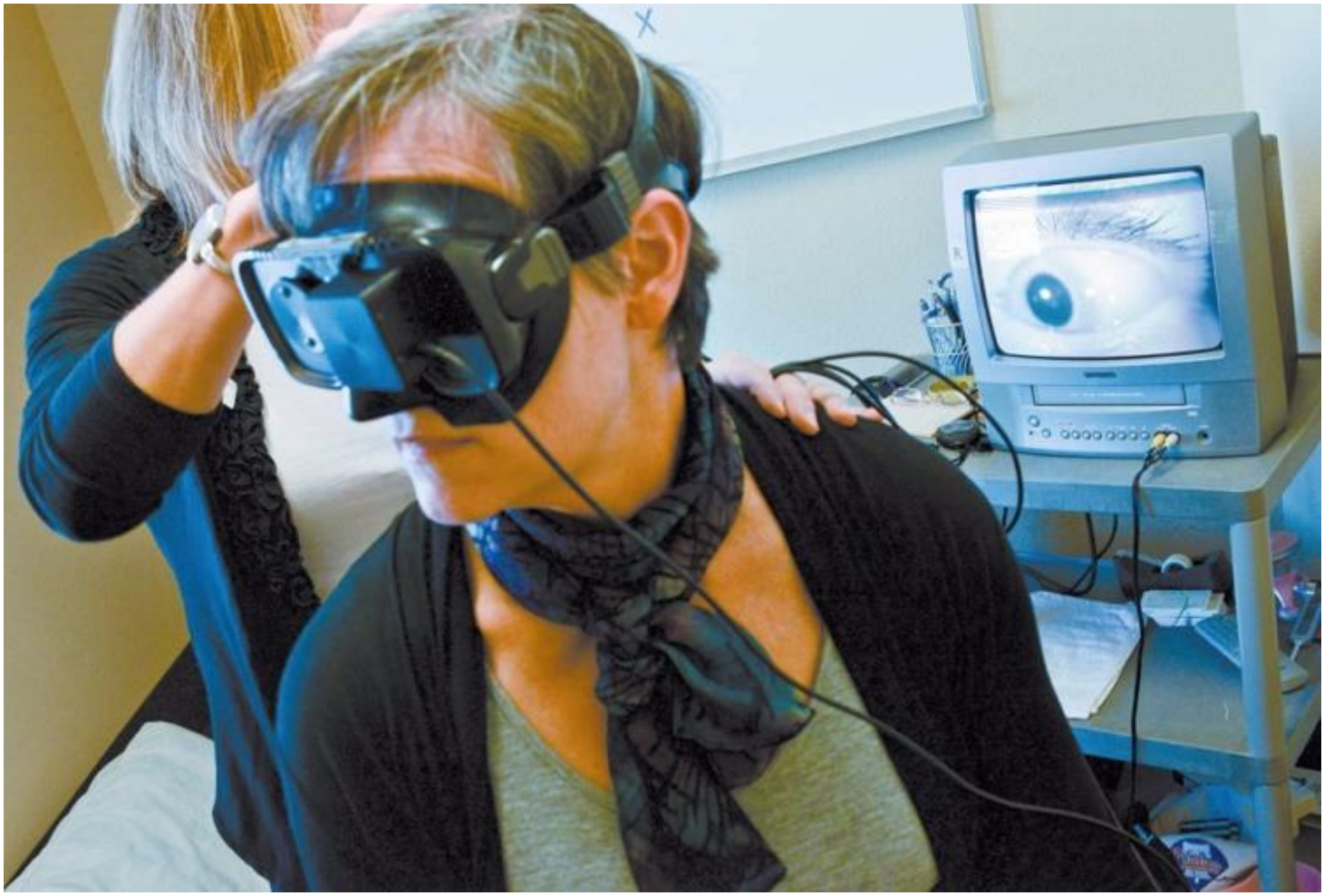
FEATURED

A balancing act

Bozeman physical therapist helps people with equilibrium issues

JODI HAUSEN, Chronicle Staff Writer Sep 16, 2012



Advance Performance Rehab physical therapist Nancy Astrup turns the head of her patient Pam Refling while watching how her eye reacts during a check up for Refling's benign paroxysmal positional vertigo Wednesday afternoon.

Mike Greener

For nearly two decades Karen Thornburg suffered constant vertigo – a condition that causes one to feel like the world is spinning out of control.

For Thornburg, any time she bent over, it was like she had consumed too much alcohol. She couldn't turn over in bed without getting the spins and the associated nausea.

"I could no longer go to the gym," she said. "I could no longer do yoga or sit ups. I had to be careful every single time I got out of bed or I would get dizzy and sick to my stomach."

Thornburg suffers from benign paroxysmal positional vertigo, or BPPV, brought on by whiplash suffered when she was rear-ended in three separate crashes.

Doctor after doctor told Thornburg there was nothing they could do. So she, like many others, suffered with the debilitating condition for years without relief.

Then Thornburg read an article that changed her life and the life of a Bozeman physical therapist.

“Dizzy?” the headline read. “Have you been suffering from this?”

The article revealed a treatment for BPPV as first described by Dr. John Epley in 1992 and directed readers to contact a physical therapist for treatment.

Enter Nancy Astrup.

When Thornburg brought the article to Astrup, a physical therapist with Bozeman’s Advanced Performance and Rehabilitation Services in 1998, Astrup had never heard the treatment and told Thornburg she’d need a couple of days to research it.

After years, relief

Medical professionals have determined the condition is sometimes caused by head trauma or degeneration of the vestibular system of the inner ear. Microscopic bits of calcium carbonate called otoliths, which reside in a chamber of the inner ear, send balance messages to the brain. When those otoliths, sometimes referred to as “crystals” or “ear rocks,” are knocked out of that chamber, they collect in the ear canal’s fluid, disrupting balance signals to the brain.

Now widely known as the Epley maneuver, the treatment involves a medical professional guiding a patient through a series of head and body positions to roll the otoliths back where they belong relieving the patient’s vertigo.

A few days later Thornburg first showed up in her office, Astrup piloted Thornburg through the maneuver.

And within 48 hours, 18 years of dizziness came to an abrupt halt.

“It’s why I had to get into this,” Astrup said, standing in her small treatment room last week. “She started me on a different path.”

Now when Astrup, who has since received specialized certifications to treat vestibular disorders, performs the Epley on patients, the effect is often remarkable.

“It’s like that curtain is lifted,” she said. “We’re complicated little creatures and that tiny little structure can be life-changing.”

A common malady

BPPV is known generally as a vestibular disorder because it has to do with the vestibule portion of the inner ear and affects balance.

Statistics on the incidence of vestibular disorders vary widely, according to the Vestibular Disorders Association. But some studies indicate as many as 35 percent of people aged 40 or older nationwide, or about 69 million, have experienced some form of vestibular dysfunction, the association reports.

About 8 million American adults report chronic balance problems, and 2.4 million have chronic dizziness.

About 85 percent of people aged 65 and older experience dizziness. BPPV, the most common vestibular disorder, is responsible for about 50 percent of that group's symptoms.

And more than half of people with clinical depression may also complain of vertigo, Astrup said.

Long-term effects

Pam Refling, 60, hit her head getting into a car and had her first experience with vertigo in 2001. A retired clinical lab scientist, Refling has experienced the condition about three more times since.

Like Thornburg, Refling suffered with BPPV for years until learning about the Epley and finding Astrup.

"She was such a savior," Refling said.

Because Thornburg and Refling experienced vertigo for so long, both women say it's taken a toll on them even when they don't have symptoms.

"It's affected me because I'm kind of on guard," Refling said. "If I feel a little dizzy, I think it's going to happen again."

"It's part of my life," Thornburg said. "You don't know when it's going to happen, so you're always on guard. It just weighs on you all the time, that unknowing."

"It didn't really affect my way of life but it affected my mental state," Thornburg said. "I was always thinking about it. When I had no other option, I learned to live with it. I had to learn to manage it by avoiding those activities that would make me dizzy."

Threat of relapse

Though Thornburg and Refling found relief, the cure isn't always permanent. In fact, once someone experiences vertigo, they're more susceptible to getting it again. Both women said they visit Astrup regularly.

When they do, Astrup straps blackout goggles on them that have a camera inside so the therapist can watch her patients' eye movements on a screen as she helps them into different positions.

Astrup watches for nystagmus – bouncing eye movements that indicate dizziness.

BPPV notwithstanding, there are myriad other things that cause balance issues — stroke, inner ear infections and neurological diseases, to name a few.

“Every organ, every medication can cause dizziness,” Astrup said.

That’s why diagnosing the root cause can be difficult. But once a diagnosis is established, Astrup works with patients to retrain their brains or, in the case of BPPV, relieve the symptoms.

Exercises like balancing on one leg with or without eyes closed and eye-head movements help send the proper signals to a brain that has experienced disruption.

“When a system is impaired or damaged, you have to give the brain new information,” Astrup said. “And it takes time to train a different part of the brain to compensate. But the brain is very pliable in being able to be retrained.”

That’s good news for Astrup’s patients, regardless of their condition.

“Yes, I have this sense of fear,” Refling said. “But now I have the confidence knowing that I can do something about it.”

Jodi Hausen can be reached at jhausen@dailychronicle.com or 582-2630.