

HEALTHY OUTCOMES

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VERTIGO Getting the Right Diagnosis

by Health After 50 | January 19, 2017

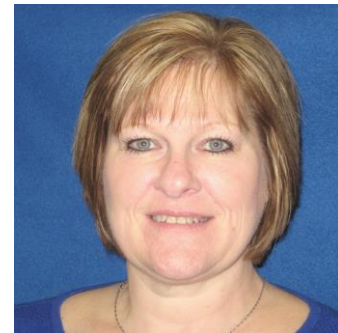
Have you ever turned your head and then had the world suddenly start to spin around you? This dizzying sensation can be both disconcerting and potentially dangerous. Losing your equilibrium could cause you to fall and fracture a bone.

If you're an older adult, one likely reason for your dizziness is an inner-ear condition called benign paroxysmal positional vertigo (BPPV). The condition affects up to 10 percent of adults by the time they turn 80, according to researchers at the University of Connecticut Health Center in a review published in the *Journal of the American Geriatrics Society*. BPPV is responsible for about half the cases of dizziness in older adults.

As common as BPPV is, some primary care doc-

(Continued on page 5)

Welcome to Centre
County's New HCQU
Nurse!



Welcome to our new HCQU employee! In December, **Marilyn Moser** accepted our offer of part time employment as the Centre County Regional Nurse for the HCQU replacing recently retired Linda Dutrow. Marilyn has eight years of experience in a wide variety of nursing. In her most recent position, Marilyn has provided education to staff, families and clientele. With the help of Carol Sumner, RN (HMJ) and Sandy Corrigan, RN, (Blair) she has been actively familiarizing herself with all of the provider entities in Centre County. We look forward to seeing her enhance the team's quality with her high level of care, concern, and compassion for others. We are confident that she will find her work to be rewarding, challenging, and meaningful. Welcome aboard! ■

INSIDE THIS ISSUE:

- 1 - Vertigo: Getting the Right Diagnosis
- 1 - Centre County's New HCQU Nurse
- 2 - Ah-Choo! 11 Fun Facts About Sneezing
- 3 - Meditation for Your Brain and Body

Ah-Choo!

11 Fun Facts About Sneezing

We all sneeze, especially when we have allergies or a cold. And though some sneezes are brief and barely perceptible, others are distinct enough to leave a lasting impression. We've all heard an ear-piercing sneeze, or one that sounds like a loud bark. Or someone who never sneezes just once, but in a cluster of 5, 10, or more. Here are some facts about why we sneeze, what happens when we do, and whether a big enough sneeze can be—yikes—dangerous.



1. What does sneezing do for us?

Sneezing is a reflex that protects us from irritants or foreign particles that might otherwise get into our lungs. When you sneeze, it's because sensory receptors in the nose are activated by a pollutant, an allergen such as pollen or dust, or other particles. The activated receptors then send signals to the brain, specifically the brain stem. The sneeze expels mucus along with the irritants.

2. Can you get injured by a forceful sneeze?

There have been reports of sneezing causing physical problems. For example, Major League baseball player Sammy Sosa sprained his back after sneezing violently, and, as a result, missed a month of games. Other injuries that have reportedly resulted from sneezing especially forcefully, or from holding back a sneeze, include stroke, miscarriage, car accidents, broken blood vessels in the white of the eye, retinal detachment, and fainting—but most of these are quite rare.

3. Can sneezing rupture an eardrum?

By keeping your mouth shut and pinching your nose to stifle a sneeze, you increase the risk that you could cause damage because of the buildup of pressure against the eardrum. There have also been rare reports of hearing loss and vertigo from suppressing a sneeze.

4. Why do some people sneeze much louder than others?

The strength, sound, and volume of a sneeze have to do with many factors, including anatomical and physiological differences among people, such as the strength of abdominal muscles, lung volume, and size of the windpipe or trachea, as well as the amount of air inhaled and whether most of the sneeze is expelled through the mouth or the nose (the mouth is louder). Interestingly, one survey found that many people report they sneeze differently in private vs. in public.

(Continued on page 8)

Meditation for Your Brain and Body



by Berkeley Wellness | April 2016

People who meditate regularly say it reduces stress and improves well-being, among other mental, physical, and spiritual benefits. And doctors often recommend meditation to help treat chronic pain, anxiety, high blood pressure, and many other conditions. How it works is not fully understood, though research is accumulating—and encouraging.

Meditation helps you draw attention inward and calm the mind. It comes in many forms, which typically involve combinations of postures, breathing, sound, visualizations, or movement (for example, walking meditation). One of the most popular and best-studied is mindfulness meditation, which comes out of the Zen Buddhist tradition. You practice being aware of the present moment by observing your thoughts, feelings, and sensations, without making judgments or allowing yourself to think about the past or the future.

Subjecting meditation to scientific testing is a challenge, in part because states of mind are hard to measure. But research over the past 30 years suggests that mindfulness meditation may be a helpful tool in treating a diverse array of conditions, including chronic pain, hot flashes, insomnia, psoriasis, and fibromyalgia, as well as certain psychiatric disorders. It has been shown to alter aspects of the immune, nervous, and endocrine systems and produce changes in areas of the brain associated with memory, learning, and emotion.

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Meditation...

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Among the research findings, all from 2015:

Brain health. In a preliminary study in *Frontiers in Psychology*, long-time meditators showed less-pronounced age-related atrophy in gray matter on MRI brain scans, compared with non-meditators. And the affected area was less extensive in the meditators. (On the other hand, meditators may simply have healthier lifestyles overall, which can have positive effects on the brain.)

Depression. In a British study in the *Lancet*, involving 424 people with recurrent major depression who were in remission, an 8-week program of mindfulness-based therapy was as effective as antidepressants in preventing relapses over the next two years.

Pain: A meditation program was found to decrease pain better after eight weeks than a home-based exercise program in a study of people (mostly women) with chronic neck pain, published in the *Journal of Pain*. Meditation may have worked in part by reducing stress, which is often implicated in neck pain. In addition, anticipating more pain makes current pain worse; being attentive to the present helps prevent this, earlier research has shown.

Sleep: In a study in *JAMA Internal Medicine*, people with moderate sleep disturbances followed either a mindfulness meditation program or a sleep education program. After six weeks, benefits were seen in both groups, but the meditators reported greater improvements in sleep quality and less daytime fatigue and depression.

Just say “om”

To get the most from mindfulness meditation, you should practice it regularly. You can learn the basics at programs offered at many medical clinics and community centers. Free guided meditations are available for download from the UC Berkeley Greater Good in Action center (select “Mindfulness”). You can also purchase books, audiotapes, or DVDs; or check out YouTube videos of Jon Kabat-Zinn, PhD, who founded the Center for Mindfulness in Medicine, Health Care and Society at the University of Massachusetts and is largely considered the pioneer of mindfulness in the West. ■



Vertigo...

(Continued from page 1)

tors may not immediately recognize the condition in older patients, and diagnosis may be delayed or missed, report the study's authors. One reason is that dizziness can be caused by any number of conditions ranging from arrhythmia and heart disease to allergies and infections as well as other types of balance disorders, including those brought on by medication. Because of the wide range of possible causes, patients may go through a multitude of tests before a diagnosis is reached, thus delaying referral to a specialist. Some doctors may chalk up dizziness to aging or take a "wait-and-see" approach when vertigo occurs only occasionally and for short periods. Indeed, in some people vertigo may go away on its own. But many others with BPPV don't get the treatment they need to relieve their symptoms, putting them at risk for a debilitating fall.

What is BPPV?

BPPV is a sensation that comes on suddenly with the feeling that you're spinning even though you're not actually turning. The word *positional* in its name refers to the fact that certain head positions can trigger the dizziness. Typically, the dizziness will come in episodes, triggered by movements like getting out of bed or turning your head. Each vertigo episode is quick, lasting a minute or less, but you might have several dizzy spells over a period of about two weeks. You might also have nausea along with vertigo. Symptoms can be a little different in people over 70, who tend to feel unsteady or off-balance rather than dizzy, which can also contribute to a delay in diagnosis.

Although BPPV isn't life threatening, it can be life altering and profoundly affect one's quality of life. The spinning sensation could potentially lead to loss of balance and falls, and since older adults are already more vulnerable to bone fractures, the risk of a fall might make a person fearful of going out and doing things. BPPV has also been associated with depression in older adults.

A crystal-clear cause?

BPPV stems from your vestibular system—structures inside your ear that help orient you and keep you balanced. This system includes three fluid-filled, semicircular canals lined with sensory hair cells that continually detect your head's position. Sacs within this system contain calcium carbonate crystals called otoliths, which are embedded in a gel-like substance. These crystals help sense your body's orientation to gravity as you move.

Age, injury, or other factors can dislodge the otoliths and cause them to float freely in the canals. In this setting, after you move your head, the momentum of the crystals in the canal may make them bump against the tiny hairs lining the canals. This creates a false sense of movement even after you have stopped turning your head. This combination gives you the sensation that you're spinning.

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Annual Fundraiser

Tickets are now available at the office for The Arc of Susquehanna annual fundraiser to be held in April. The tickets are \$20 each. If you are interested in purchasing tickets to this wonderful event, please contact Linda Wenrich, Administrative Assistant at pfarc@ptd.net or call 570-286-1008. ■

Vertigo...

(Continued from previous page)

BPPV doesn't always have a clear cause in people over 50. Most likely, age-related degeneration wears down and loosens the crystals. Women are more susceptible than men to BPPV. This type of vertigo has also been associated with long periods of bed rest during illness or after surgery. Conditions like Ménière's disease and inner-ear infections (vestibular neuritis, herpes zoster oticus) can trigger BPPV. Or it can occur as a complication of sinus or ear surgery.

Diagnosis maneuvers

If your doctor suspects you have BPPV, he or she may try to set off your vertigo by performing a test called the Dix-Hallpike maneuver. Your doctor will turn your head, then have you lie on your side. He or she will look for rapid, involuntary back-and-forth eye movements—a condition called nystagmus—which are a sign of BPPV.

The Vestibular Disorders Association suggests that you have a better chance of getting an early diagnosis for the cause of your vertigo if you follow these recommendations when you visit your doctor:

- **Share as much medical information as you can with your doctor.** Bring a list of all the prescription and over-the-counter drugs and supplements you take. Be prepared to provide your family's medical history as well as your



Avoid a Vertigo-Related Fall

Having benign paroxysmal positional vertigo puts you at greater risk of falling. Follow these tips to prevent injury:

- Avoid sudden movements. Move very slowly anytime you stand, bend over, or turn your head.
- When you stand, hold onto the armrests of a chair or the side of the bed to steady yourself, or use a cane for support.
- If you do get a dizzy spell, sit down right away.
- Don't watch TV, read, or look in the direction of bright lights while you're having a vertigo attack. Doing so can worsen symptoms.

own. Note when your symptoms occur and what may make them improve or worsen, so you can accurately describe episodes to your doctor.

- **Ask questions.** Speak up if you don't understand something the doctor tells you. Ask the reasons for any tests. If your doctor chooses to watch and wait before making a diagnosis, ask why he or she has chosen this approach, especially if you're experiencing bouts of dizziness that are troublesome and may make you lose your balance.
- **Seek a second opinion.** Consider consulting a specialist in balance disorders, such as an otolaryngologist, a neurologist, an otologist, or a neuro-otologist.

Treating vertigo: The Epley maneuver

First-line treatment for BPPV is a repositioning maneuver involving a series of head movements that shift the crystals out of the semicircular canals into an open area where they can dissolve. The most effective repositioning procedure is the Epley maneuver, similar to the Dix-Hallpike maneuver

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Vertigo...

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used to diagnose BPPV. The Epley maneuver involves the following steps:

1. Your doctor turns your head to the side while you're seated on a table.
2. He or she then quickly guides you to a lying position on your back with your neck extended off the table and your head still turned at 45 degrees. Moving to this position, in which you'll remain for about 30 seconds, intentionally triggers vertigo and nystagmus.
3. Your doctor then rotates your head in the opposite direction. You'll stay in that position for another 30 seconds.
4. The doctor rolls you onto your side with your head pointed to the ground at a 45-degree angle.
5. After 30 seconds, you'll sit up again.

Your doctor will repeat this sequence as many as five or six times until you no longer experience nystagmus. The Epley maneuver is safe and effective for most patients, but it can trigger temporary nausea, vomiting, and fainting. In about 6 to 7 percent of cases, the crystals may shift to the opposite ear canal.

People who are very frail or who have a neck or spinal injury or condition, certain vascular disorders, or a detached retina may not be good candidates for the procedure. If you're unable to undergo the maneuver, your doctor may prescribe medications such as antihistamines, anticholinergics, and benzodiazepines. However, older adults need to be cautious about taking these drugs because of the risk for serious side effects like confusion and falls. Surgery is rarely used for BPPV, but it's an option if other treatments haven't worked. One procedure places bony plugs to block the part of your ears that's causing vertigo.

Up to 37 percent of people with BPPV experience some mild residual dizziness for two to three weeks after undergoing the Epley maneuver. You'll need to follow up with your



doctor about one month after the procedure. If you're still experiencing vertigo, your doctor may perform additional tests to look for another cause, since other central nervous system disorders may mimic BPPV. You should also call your doctor if you experience any hearing loss, vertigo not triggered by movement, changes in gait, nausea, or vomiting after BPPV symptoms have subsided.

The risk of BPPV recurring is about 15 percent. Your doctor may show you how to perform maneuvers on your own at home to help manage any future episodes. ■

When to Seek Emergency Help for Vertigo

Call 911 or visit the emergency room if you have any of these symptoms along with vertigo, which could signal a more serious problem:

- Double vision
- Hearing loss
- Trouble speaking
- Weakness, numbness, or tingling in an arm or a leg
- Difficulty walking
- A severe headache
- Vomiting
- Fever

Ah-Choo!...

(Continued from page 2)

5. Why do we close our eyes when we sneeze?

It's really a blink and it's part of the many coordinated movements that are part of the involuntary reflex of sneezing. It's also theorized that the eyes blinking or briefly closing is a biological adaptation—a way to shield them from whatever irritants are being expelled during the sneeze.

6. Why do some people sneeze two or three times in a row?

It may depend on what it takes to clear the nose of contaminants as well as individual variations in the sneeze reflex. In one lab study, researchers found that nasal cells from people with sinusitis didn't respond to a sneeze in the same way as those of healthy people. It's possible that sneezing doesn't completely clear the nasal passage in people with sinusitis, which in theory might lead them to sneeze multiple times.

7. Is it true that some people can't stop sneezing?

Yes, there have been reports of extending bouts of sneezing. There was a case of a young girl who sneezed more than 200 times in 20 minutes, and a teen boy who sneezed three



to six times a minute for more than a month. According to Guinness World Records, the longest sneezing fit ever recorded was a 12-year-old girl who sneezed about a million times over a year and only stopped sneezing after more than 2.5 years.

8. When you sneeze, how fast and how far are the particles propelled?

The velocity can vary based on the size of the body frame of the person sneezing. Some reports clock a sneeze as hurling particles at up to 100 mph. Others, however, suggest it's considerably less. A small study in PLOS ONE showed the maximal velocity may be 10 mph. The distance particles can be propelled could be as far as 20 or so feet, depending on factors that include the weight and size of the expelled particles.

9. Can we control whether we sneeze?

Yes. Sneezing is a respiratory reflex that consists of two parts: the first involves something irritating sensory receptors in the nose. The second involves inhaling deeply, closing or blinking your eyes, then exhaling explosively. You may be able to stop the reflex during the first part by, for example, putting a finger under your nose, but once you inhale, there's no turning back.

10. Why do some people sneeze when they look at a bright light?

Genetics determines the "photic sneeze reflex," also known as sun sneezing or the "ACHOO syndrome" (autosomal-dominant compelling helio-ophthalmic outburst). The tendency runs in families and may affect up to

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Ah-Choo!...

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35 percent of people. Scientists attribute it to a crossover of nerve signals such that when bright light stimulates the eye's optic nerve, it also stimulates the nerve responsible for the sneeze reflex.

11. Is it true your heart stops when you sneeze?

Despite popular belief, your heart does not stop when you sneeze. This myth may have its origins with people feeling that their heart “skipped a beat” when they sneezed. That occurs because of changes in the internal pressure in the chest cavity, which can, in turn, alter heart rhythm. ■



PPC Meeting

The upcoming PPC meeting will be held on Tuesday, April 25, 2017. The meeting will begin at 10 a.m. and run until 12 noon. Location TBD. Check our website for updates:

www.geisinger.org/hcqu

Save the Dates!



Day of Wellness

APRIL 26, 2017

10 A.M. – 2 P.M.

Schuylkill Mall, Frackville, PA

FMI: smlong@geisinger.edu

Health & Wellness Fair

OCTOBER 19, 2017

9 A.M. – 2 P.M.

First Baptist Church, Danville, PA

FMI: lgmurphy@geisinger.edu

Sponsored by the Central PA Health Care Quality Unit
and Intellectual/Developmental Disability Provider Agencies of Schuylkill County

All Are Welcome!



HCQU
Spring
 Day of Learning

Thursday, May 11, 2017

Shiloh United Church of Christ, 500 Bloom Street, Danville, PA 17821

Alzheimer’s in the Aging Individual with IDD *presented by Jan Reisinger MBA CAE Education and Outreach Coordinator Alzheimer’s Association PA Chapter*

C-Diff and MRSA *presented by Dr. Stanley Martin, Staff Physician GHS, Infectious Disease*

Next Steps into Autism *presented by Andrea Layton, M.A., BCBA ASERT Communication and Resource Specialist*

- *Learners will be able to explain changes across the lifespan for someone with autism*
- *Learners will be able to list at least 2 unique challenges to adults with autism*
- *Learners will be able to explain basic principles of Applied Behavior Analysis (ABA)*
- *Learners will be able to use basic principles of ABA to evaluate problem behavior*



Registration:	8:30–9:00 am
Morning Session I:	9:00–11:00 am
Break:	11:00–11:15 am
Morning Session II:	11:15 am–12:15 pm
Lunch on your own:	12:15–1:30 pm
Afternoon Session:	1:30–3:30 pm
Q&A, Evaluations:	3:30–4:00 pm

**To register, email Lesley at lgmurphygeisinger.edu.
Include your name, title, organization and email.
Register before May 5, 2017.**

Check our website for updates: www.geisinger.org/hcqu