



SoundNEWS

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Can Hearing Aids *Preserve* Cognitive Function?

A recently published study by researchers at the University of Pennsylvania reveals that hearing loss causes accelerated degeneration in the region of the brain responsible for processing auditory information. It is also believed that this degeneration causes an increase in the effort required to comprehend speech—even for those with a mild hearing loss.

And the researchers' consensus for delaying brain atrophy and decreasing the effort in comprehending speech? Hearing aids.

According to lead author of the study Jonathan Peelle, Ph.D., a research associate in UP's Department of Neurology, "As hearing ability declines with age, interventions such as hearing aids should be considered not only to improve hearing but to preserve the brain."

**Wear your technology daily.
Have it fine-tuned regularly.**

The results of this study not only stress the importance of wearing your hearing aids daily, but also the importance of

monitoring your hearing health through regular evaluations, and recalibrating your devices if any changes to your hearing have occurred.

If you know someone who could benefit from our services, or if it's been a while since your last appointment, don't hesitate—please give us a call. We're here to answer your questions, create strategies, and provide solutions for all types of hearing loss.



Free COME IN FOR A
HEARING SCREENING
and receive a trade-up credit!

We'll recalibrate your instruments for free, or, if you're interested in upgrading your technology, we'll give you a \$500 trade-up credit on an AGX5, 7, or 9 two-device hearing system.

Office NEWS

Dr. Hunter and Dr. Meiring hope that this newsletter finds you well and enjoying your summer! We had a new addition to our Family Audiology family this year! Lisha Hemmelgarn, from Burkettsville, is the face you will see when you come to the Celina office. Unfortunately, our long-time office assistant, Denise, has moved on to be closer to her family. We will all miss her so much. Finally, we want to remind you that August is quickly approaching! We have decided to host a 10th Anniversary Luncheon on Wednesday, August 6, at 11:30am at the Galleria in Celina. A formal invite will be mailed soon but please save the date! We hope to see you all there to help us celebrate serving our community for the past decade! May God bless you and your families always!

KALE WALDORF SALAD

Ingredients

- 4 cups raw kale, finely chopped
- 1 cup sliced celery
- 1 large red apple, chopped
- ½ cup walnuts, toasted and chopped
- ¼ cup plus 2 tablespoons dried cranberries
- 2 tablespoons Dijon mustard
- 2 tablespoons water, plus more if needed
- 1 tablespoon red wine vinegar
- ½ teaspoon sea salt

Directions

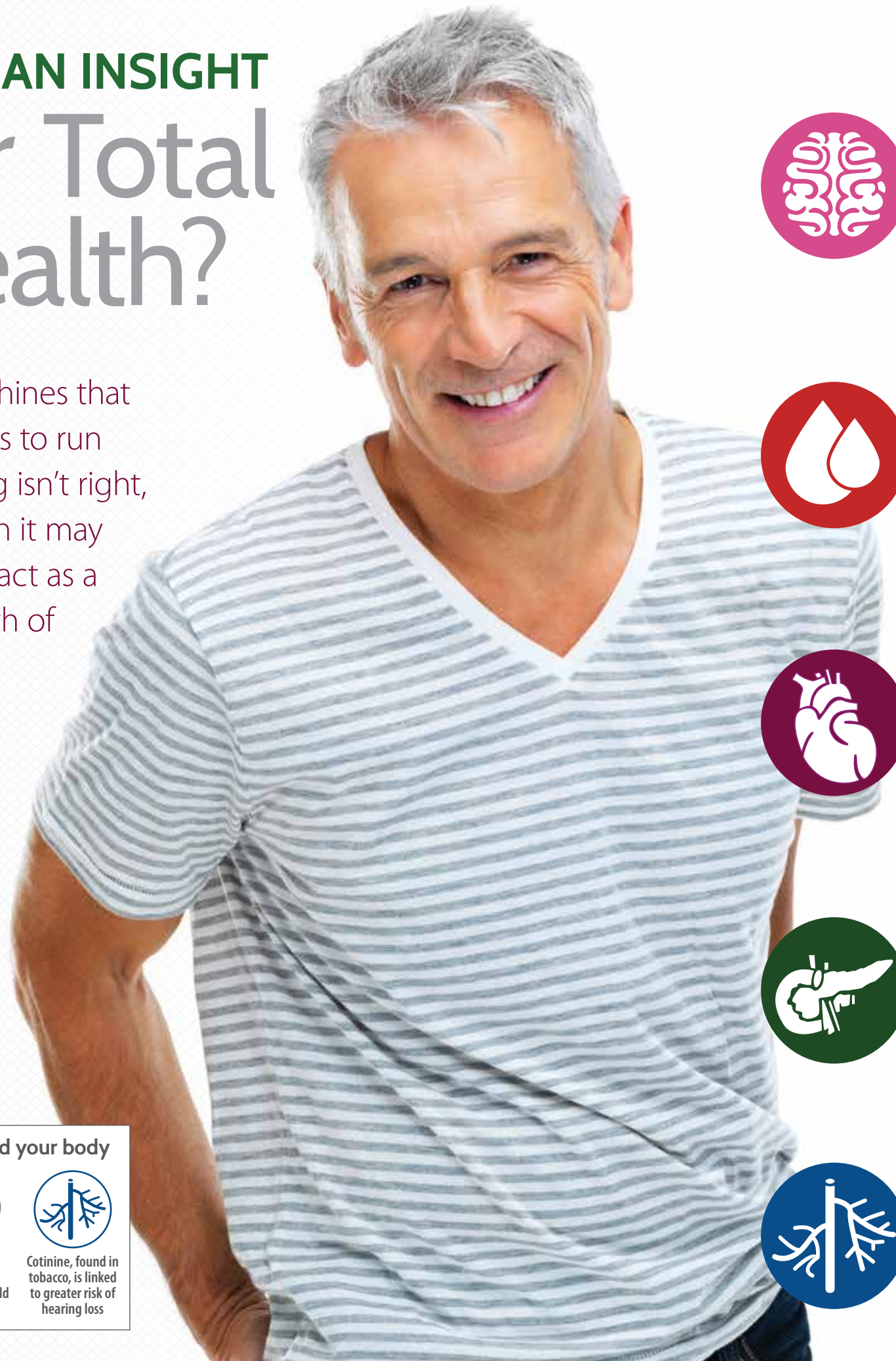
Place kale in a large bowl with celery, half of the chopped apple, ¼ cup walnuts, and ¼ cup cranberries. Put remaining apple in a blender with remaining ¼ cup walnuts, remaining 2 tablespoons cranberries, mustard, water, vinegar, and salt. Puree until well combined and slightly thick, adding water if needed to thin. Pour dressing over kale salad and toss to combine.



IS YOUR HEARING AN INSIGHT Into Your Total Body Health?

Our bodies are biological machines that require clean fuel and nutrients to run properly, and when something isn't right, we can usually feel it. Although it may not seem like it, your ears can act as a barometer for the overall health of your entire body.

Research over the past several decades has shown that hearing health is closely related to many bodily processes, including memory, heart function, blood health, and even stress and anxiety. Whether those processes cause or simply indicate a hearing impairment is still up for debate, but the correlations are there. Knowing your body's relationship with hearing can help you stay mindful of your overall well-being and can help create a path for healthier living.



Brain

The strong correlation between dementia and hearing loss has been well documented recently in study after study, but perhaps less well known is that older individuals with hearing loss experience a greater rate of brain shrinkage.

Effects: Although the brain naturally shrinks with age, the rate of atrophy increases by an additional cubic centimeter per year in those with at least a mild (25 dB) hearing loss — and shrinkage occurs in regions associated with processing sound, speech, memory, and balance.

Prevention: Johns Hopkins researchers who ran the January 2014 study determined that the atrophy may occur due to a lack of stimulation of the auditory nerve that connects to that part of the brain, which makes it all the more important to consistently wear, clean, maintain, and update your hearing technology.

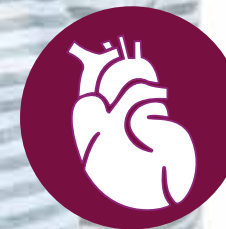


Blood

Sickle cell is known to cause fatigue and pain in sufferers because the red blood cells in the body are misshapen. These misshapen blood cells restrict blood flow, which makes delivering oxygen to the cochlea (the organ in the inner ear most responsible for hearing ability) more difficult.

Effects: Much like diabetes and heart disease, the impacts of sickle cell on hearing are slow to develop and disrupt hearing more over time.

Prevention: Treatments can prevent blood cells from sickling, helping the anemia and lowering risk of organ damage through improved blood flow.



Heart

Many of the same unhealthy patterns of behavior that affect the heart — poor nutrition, lack of exercise, and smoking, to name a few — are related to loss of hearing, and it's no surprise why: Hardening or narrowing of the arteries due to heart disease restricts blood flow to the cochlea.

Effects: These restrictions can starve the cochlea of oxygen, which is necessary for healthy cells. Hearing loss may also be a predictor of heart disease, as the inner ear is so sensitive to blood flow that possible abnormalities in the cardiovascular system are more easily recognized here than other less sensitive parts of the body.

Prevention: Taking better care of your ticker can not only increase your life span but can prevent compounded hearing loss as well.



Pancreas

Diabetics typically have impaired blood flow, like individuals with heart disease, which can cause damage to the delicate inner ear.

Effects: When diabetes is untreated, narrow blood vessels or abnormal blood flow can prevent the cochlea from receiving blood and can harm the body's ability to flush toxins from the inner ear.

Prevention: A 2008 study performed by the National Institutes of Health (NIH) and published in the *Annals of Internal Medicine* reported that diabetics are more than twice as likely to be affected by hearing loss — so be sure to keep up with treatments!



Circulation

Support for the idea that stress may be a factor in hearing loss and tinnitus is on the rise.

Effects: According to one study from the NIH, stress leads to vasoconstriction, decreasing oxygen delivery to all areas of the body, including the inner ear. Unfortunately, two of the most common stress relievers also cause vasoconstriction: cigarettes and alcohol.

Prevention: If stress or anxiety have caught up to you, exercise, yoga, and meditation are all proven, healthy alternatives to stress relief. And better yet, exercise works to improve blood flow and heart health.

What the research says about hearing loss and your body



Untreated mild hearing loss (25 dB) can double the risk of dementia



Up to one-third of sickle cell sufferers may also suffer from hearing loss



Those with heart disease are up to 54% more likely to have hearing loss



Diabetics have a 20% higher prevalence of mild hearing loss



Cotinine, found in tobacco, is linked to greater risk of hearing loss