Could certain foods and nutrients affect your hearing?

The tantalizing clues from studying 250,000 men and women.

David Schardt • NutritionAction.com

November 23, 2016

"For a long time, hearing loss was considered an inevitable part of aging," says Sharon Curhan, a Harvard Medical School and Brigham and Women's Hospital physician and epidemiologist. "But it's becoming more and more clear that there may be things that we can do to prevent or delay it."

Curhan is also a leader of the Conservation of Hearing Study (CHEARS), which is looking for associations between a number of medical, dietary, and lifestyle factors and hearing loss. She and her colleagues are analyzing data collected from three major ongoing cohort studies that include over 250,000 participants: the Nurses' Health Study I (NHS I), the Nurses' Health Study II (NHS II) and the Health Professionals Follow-Up Study (HPFS).

So, what about the effect of certain foods or nutrients on hearing? Only a handful of studies have looked at this, but they offer some tantalizing clues.

Omega-3 fats. Curhan's team found that nurses who reported eating fish two to four times a week had a 20 percent lower risk of hearing loss than those who ate less than one serving a month. The omega-3 fats in fish may explain why.

"A higher intake of omega-3 fats may improve blood flow to the cochlea," suggests Curhan. The cochlea is the cavity in the inner ear that looks like a snail shell. It takes in sound vibrations and converts them into a neural signal. Then the auditory nerve sends those signals to the brain for decoding.

"The cochlea is highly metabolically active, so it is critically dependent on having an adequate blood supply," Curhan explains. What's more, she adds,



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"omega-3 fats help stabilize cell membranes so they become less vulnerable to injury, and they may help protect against inflammation and blood clots."

Still, says Curhan, "it's hard to disentangle what's due to omega-3s and what's due to fish, which is a rich nutritional package."

Vitamin C. "We found that women who consumed at least 1,000 milligrams a day of vitamin C, mostly from supplements, had a 22 percent <u>higher</u> risk of hearing loss," says Curhan. But the link didn't show up in men, so it's not clear what's going on. Most people wouldn't get this much of the vitamin by sticking mostly to vegetables and fruits for their C.

Folate. "In our studies, people who had higher intakes of the B-vitamin folate over time had a <u>lower</u> risk of hearing loss," says Curhan. Fruits, vegetables, and beans are rich in folate.

(Folate is the generic term both for naturally occurring folate in food and for the folic acid that is used in dietary supplements and fortified foods.)

This finding on folate is backed up by a Dutch study that gave 728 older men and women either a high dose of the B vitamin (800 micrograms a day) or a placebo for three years. "Individuals who received the folate had a slower decline in their hearing sensitivity," says Curhan.

However, the Dutch food supply wasn't fortified with folic acid like ours is, so some of the people in this study may not have been getting enough folate to start with. Because of fortification here, "it's much harder to find people in the U.S. who have very low intakes of folate," says Curhan.

(Since 1998, the B vitamin has been added to most breads, cereals, pasta, and other foods made with refined grains. That fortification has cut the risk of spina bifida and other neural tube birth defects by nearly 30 percent.)

Carotenoids. Among women—but not men—those who consumed the most beta-carotene and beta-cryptoxanthin had a <u>lower</u> risk of hearing loss. Both carotenoids are found in fruits and vegetables.

Why might these carotenoids matter? "The ear works so hard, and it has such a high metabolic rate, that it can generate byproducts of metabolism that can be potentially toxic," explains Curhan. "Beta-carotene and beta-cryptoxanthin are effective antioxidants that may help prevent that damage."

The best advice for protecting your hearing

While researchers hunt for clues, here's what experts recommend:

Avoid loud noises.

- Don't smoke.
- Keep a lid on your blood sugar.
- Lose (or don't gain) excess pounds.
- Aim for 30 to 60 minutes a day of exercise like brisk walking.
- Fill half your plate with fruits and vegetables.
- Eat fish twice a week.



✤_{*} How Loud

Firecracker, shotgun firing

140 Jet taking off

140-165

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