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Earwax Type

Did you know that your earwax might be wet or dry, depending on your genes?

Charles, you're likely to have wet earwax

Earwax keeps our ears healthy.

What is earwax, anyway?

Our skin produces sweat and oil. This happens in our ears, too. The ceruminous gland is a type of sweat gland located in our ears. It secretes a thick liquid that combines with oil, skin, and dust in the ear to produce earwax, or cerumen.

A protective purpose

Earwax does a few things to protect the health of your ears, whether it's dry or wet:

Prevents the ear canal and eardrum from drying out

Helps keep water away from the eardrum

Traps dust, bugs, and other foreign objects

Out with the bad

Earwax traps unwanted particles inside the ear. Then, with movement of the jaw, it moves out of the ear canal. Earwax can also protect our ears from bacteria and fungi.³ These microbes can't survive very well in the acidic environment of healthy earwax.

Lend an ear to these earwax tales.

Wet earwax and body odor

When bacteria on our skin mixes with our sweat, we get body odor. Sweat is a mix of liquid and fats. People with wet earwax, whose cells produce more fat into their ears, will also have more fat in their sweat.

Fatty sweat gives bacteria more to munch on. which helps them make more stinky compounds

that we associate with body odor. Scientists have found that people with wet earwax have different body odor than people with dry earwax.^{4, 5, 6, 7} The earwax itself smells different, too.^{8, 9}

Earwax reveals the life and history of whales.

Humans aren't the only animals that produce earwax. In the blue whale earwax never leaves the ear canal. Instead, it grows into an earplug. Scientists can analyze the chemicals in the earplug to determine times in a whale's life, such as when it hit puberty, was stressed out, or came into contact with pollutants.¹⁰

Don't reach for that cotton swab!



What we looked at and why

We analyzed a position in your DNA that influences whether your earwax is wet or dry.¹ Humans have two types of earwax:²

- People who have dry earwax have flaky, crumbly earwax that is light in color. It may be tan or grey.
- People who have wet earwax have sticky, thick earwax that's darker in color. It may be yellow or brown.

While this position in your DNA strongly predicts the consistency of your earwax, other environmental or genetic factors may play a role.

Scientific details

ABCC11 helps move fat and substances in and out of cells. Changes in this gene impact how active *ABCC11* is, which influences the consistency of earwax. Normal *ABCC11* activity creates wet earwax while reduced *ABCC11* activity results in dry earwax.

DNA marker

Gene

Your result ^{*}

rs17822931

ABCC11

CC

^{*} Each of your parents provides you with a nucleotide at this position, but we don't know which parent gave you which nucleotide.

Earwax genetics and human migrations



Thank you!

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Important Information

This test won't tell you which type of earwax you have.

This information is based on science that could change over time as scientists learn more about genetics. We looked at a place in your DNA that research studies have found to be linked with the type of earwax someone has.^{1, 16}

Other factors may influence what earwax is like.

Things like the soap you use, whether you have dry skin, and your stress level can also make a difference in how your earwax looks and feels.

References

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