

But Why: A Podcast for Curious Kids

Why does my voice sound weird when it's recorded?

September 4, 2026

Jane 00:20

This is But Why: A Podcast for Curious Kids, from Vermont Public. I'm Jane Lindholm. On this show, we take questions from curious kids just like you, and we find answers. I've been working in radio and podcasting for a long time now. In addition to hosting But Why, I hosted a daily news show in Vermont for longer than most of you have probably been alive! And even before that, I was doing reporting for national public media organizations. So I'm pretty used to hearing the sound of my own voice. I mean, I have to listen to myself over and over whenever I edit these episodes. So the way I sound in my headphones doesn't really throw me off anymore. But some of you might have had an experience where you hear yourself in a recording, like if your adults record you asking a question for But Why, and then you listen back to it, and maybe you've thought, "Wait, that's what I sound like?" That's a pretty normal reaction, and it's not just feeling cringe about the unfamiliarity of hearing yourself talk. It turns out, your voice that you hear as you speak is slightly different from what your friends and family hear, or what you hear when you listen to yourself on a recording. Many of you have been wondering why that is. You've sent us quite a few questions over the years asking why you sound different in your head than you do on tape, so we're going to talk about that in this episode, and we're also going to tackle other questions about your voice and how it works.

Jane 01:51

Now, it's worth mentioning that not everyone is able or chooses to use their voice, and not everyone can hear their own voice, but many of you do, and it's always useful to have more information, right? Our guest for this episode is Dr. Anne Hseu, a pediatric otolaryngologist at Boston Children's Hospital. That's right, otolaryngologist. In plainer English: an ear, nose, and throat doctor.

Dr. Anne Hseu 02:16

But it's funny because when you say otolaryngologist, you're really only including the ear and the throat, and so the nose is not included. And so the proper term to include your nose and throat should be otorhinolaryngologist. But that makes the word even longer.

Jane 02:36

It's funny, too, because you think, well, why would you include a rhino in that? Rhinos don't have anything to do with my nose! But all those pieces of the word mean the parts of your body, just not in English.

Dr. Anne Hseu 02:49

Correct. So "oto" for ear, "rhino" (which sounds like the animal, but it's not), means nose, and "laryngology" or voice is for voice box.

Jane 02:52

Wow, that's a lot of things to specialize in. Why are ears--

Dr. Anne Hseu 03:05

nose,

Jane 03:06

nose, and throat all put together? Because they don't function the same way. They don't have the same, you know, structures. They seem very different. Just they're all in my face.

Dr. Anne Hseu 03:18

That is a good question. They are all close together in proximity, and they basically help with different senses. So, what you smell, what you hear, what you say, and how you communicate, and so that's how it all comes together.

Jane 03:34

So, what we're hoping to talk to you a lot about today is the laryngology part of it, the throat and specifically our voices because a voice is something that, for those of us who are able to speak, can be a really important part of our identity and sometimes we don't think about it at all and we just, you know we're running around on the playground yelling, but when we stop to think about it it can be really confusing. So let's start at the very basic level, and a lot of kids just want to know how does our voice work.

Lyla 04:09

My name is Lyla, and I'm five years old. I live in Conville, Illinois, and my question is, how does our body make our voice?

Sabrina 04:21

Hi, my name is Sabrina. I'm six years old. I'm from New York City. How does your voice work?

Phoebe 04:29

Hi, my name is Phoebe. I live in Portland, Oregon. I'm four and a half years old. How do people get their voices? Bye.

Olive 04:37

Hi, my name's Eli. I'm five years old, and I live in San Diego, California, and and I want to know how do you get your voices?

Dr. Anne Hseu 04:49

That is a great question. So we have this really important organ in our body, and it's called the larynx or the voice box. And basically, this organ sits in the middle of the neck, and it has a role in helping you to

breathe, to swallow, and to talk. So the way that I like to think about the voice box is the voice box is an instrument, and it's made up of two strings, which are your vocal cords, and they vibrate against each other, and then that's how you get the sound out. So in order to get your vocal cords to vibrate, you take a breath in, and then when you breathe out, you push the air from your lungs through your windpipe or your trachea past the vocal cords, which then vibrate. Then the sound passes through the back of your throat, your nose, and your mouth, and then that's what you hear.

Lydia 05:39

I'm River. I live in Creemore, Ontario, Canada, and I'm four years old and three quarters. And my question is, how how do we speak from a voice box?

Fiona 05:54

My name is Fiona. I am six years old. I live in Hancock, Michigan. How do voice boxes work?

Dr. Anne Hseu 06:04

So it's not an actual box, but it's a structure that is made up of muscle, cartilage, and tissue that sits in your neck, and this is where your vocal cords live, so that the vocal cords vibrate, and then the sound comes out.

Jade 06:22

My name is Jade. I'm eight years old. I live in Moraga, California, and my question is, what makes our voices so different?

Ruby 06:33

My name is Ruby. I'm six years old. I live in Moraga, California. Why do people have different voices?

Evo 06:40

My name is Evo. I'm six years old. I live in Jersey City, New Jersey. Why do different people have different voices?

Essie 06:50

Hi, my name is Essie, and I live in Escondido, California. And I'm eight, and I have a question. Why do we have different voices?

Olive 07:02

Hi, my name is Olive. I am seven years old. I live in Saegertown, Pennsylvania. Why do some people have high voices and some low?

Oliver 07:13

I'm Oliver and I'm three years old, and why does everyone have different voices?

Dr. Anne Hseu 07:19

Yeah. Well, the structures are a little bit different. So, when you think about your vocal cords and the sound that you hear, the vocal cords can be different in structure. So, in the same way that you can

pluck a string on a violin or you can pluck a string on a piano, the structure of the string determines how it vibrates and the sound that comes out. So some vocal cords are bigger, they're thicker, they can be skinny, they can be tight, and the way that they vibrate changes the sound. And then once the sound goes through the vocal cords, it also has to pass through your face. And so people's faces are different, and the insides of your faces are different. Your nose is different. Your mouth is different. The way you move your tongue is different, and so when the sound travels through these areas, then there's a different what we call resonance, which is the sound that is being shaped through these areas, and the entire tract, where the air goes through the vocal cords, the back of the throat, the nose, and the mouth, that's called the vocal tract, the entire vocal length.

Goni 08:30

Hi, But Why. My name is Goni. I'm eight years old. I live in Brookline, Massachusetts, and my question is: Why are girls' voices higher than boys?

Cooper 08:43

Hi, my name is Lando, and I am eight years old, and I live in Columbia, Tennessee, USA. Why do boys have deeper voices than girls?

Lyra 08:52

Hi, I'm Lyra. I'm five years old, and I live in Malmesbury, the UK. I want to know why do girls have a different voice than boys.

Jane 09:04

Before Doctor Hseu answers, I just want to point out that while there are trends that we can recognize in many girls' or women's voices versus many boys' or men's voices, they're just trends. Everyone has a different voice. Some men have higher voices, and some women have lower voices, and there's a range all the way through for all kinds of people, regardless of your sex or gender. But some of the typical differences have to do with the ways our bodies develop as we get older.

Dr. Anne Hseu 09:34

Yeah, so the vocal cords when you're younger are pretty similar, regardless of whether or not you're a boy or a girl, and so again, when you think about that string, the pitch that comes out or the sound that comes out is dependent on the structure of the vocal cords. And so, if you have vocal cords that are roughly the same size, the same weight, the same tension, then you have voices that are more similar. But once you get to puberty or your teenage years, what happens is you have hormones that are in your body, and they circulate and they cause different parts of the body to grow in different ways in boys and in girls. But some of the structures that change in your body include your vocal cords and your voice box. So in boys, it's a more dramatic change where the entire voice box or larynx increases in size, and then the vocal cords also change in character a little bit as well. So overall, the vocal cords are bigger, longer, and thicker, and the girls' vocal cords remain shorter, thinner, and tighter. And so, when the air moves through those, it's a different sound, and it becomes more of a pronounced difference after puberty.

Jane 10:55

So, when we think about how we talk and the the ways that we sound, it's interesting sometimes to think about how we make our voice. And you you mentioned that it's a little bit like well, it IS an instrument, and we all have slightly different instruments. We have different face shapes. We have different widths of our vocal cords. But we also are able to play our instruments a little bit. I'm talking in a certain way now, but I could also raise my voice if I wanted to, and I could talk like this, or I could talk a little bit lower. How do we know where to settle in our vocal ranges, and how do we play with the sounds?

Dr. Anne Hseu 11:38

Yeah, so you have certain control of your vocal cords, the way that they move in and out, and you can lengthen them and make them tighter, and you can make them shorter, and you can make them looser. And so, when the sound goes through the vocal cords and the vocal cords vibrate, you can talk like this if it's really tight, or you can talk like this where the vocal cords are nice and loose and thick.

Lydia 12:03

Hi, my name is Lydia, and I'm five years old, and I live in Seattle, Washington. And my question is, why does your voice sound different when you're sick?

Dr. Anne Hseu 12:19

That's a good question. So again, the sound has to travel through your nose and your mouth when it comes out. And so, if you're sick, sometimes you have a stuffy nose and you're congested. A lot of snot comes out of your nose, and so then the air is not traveling through the nose as much when you're talking, and then you sound like this.

Jane 12:42

So it's just because the air isn't going through your nose.

Dr. Anne Hseu 12:46

Correct.

Finley 12:46

I'm Finley and I come from [unclear] and I'm five and why, when you hold your nose, does your voice sound different?

Aydin 12:56

My name is Ayden. I am six years old, and and I'm from Ottawa, Canada, and my question is: When you block your nose, why does your voice change?

Jane 13:09

Same thing. The air isn't moving through your nasal passages, so it sounds different. When you say the letters M and N, and the sound that the letters N G together make, some of the air you are breathing out moves through your nose to make that sound. So if you block your nose or have a stuffy nose, those sounds don't sound normal. But sometimes when you're sick or after you've gone to a sports

game or a concert and cheered really loud all evening, you can also kind of lose your voice, or sound hoarse and scratchy.

Olive 13:44

Hi, my name is Olive, and I'm seven years old, and I live in Vancouver, Canada. And my question is, why do we sometimes lose our voice?

Ella 13:54

Hi, my name is Ella. I'm six years old. I live in Storrs, Ohio, and my question is, what causes you to lose your voice?

Dr. Anne Hseu 14:04

You can also have laryngitis, which is basically inflammation of the vocal cords. And so, if your vocal cords are swollen, then that changes the way that they vibrate too. And you could sound hoarse, or you could sound different.

Emi 14:18

Hi, my name is Emi. I am six years old, and I live in Granite Bay, California. And my question is, why does your voice sound funny when you yawn?

Dr. Anne Hseu 14:32

Yeah. So same thing. When you're yawning, you're changing the shape of the mouth, and so it's not just the air traveling through the nose, but it's also how the air is shaped in your mouth with you know you opening your mouth or you moving your tongue or moving your teeth or your jaw that creates the sound. And so when you're yawning, you're controlling that.

Jane 14:54

I use my voice all the time for work, but I'm not often thinking about how I'm using my tongue and teeth and lips to make the sounds. I do think a lot about my breath, though, making sure I have enough air in my diaphragm to say a full sentence without petering out before I can finish my thought and take a breath. It's fascinating and a little distracting to think about how I speak while I speak. Coming up, why does your voice sound different to you than to other people, and does helium really change your voice?

BREAK 15:33

BREAK

Jane 15:33

This is But Why. I'm Jane Lindholm. Today we're talking all about our voices with Dr. Ann Hseu, a pediatric otolaryngologist at Boston Children's Hospital. So, Dr. Hseu, I'm listening to you, and you sound lovely. And I'm very used to listening to myself in headphones now. But when I was first starting to do radio, listening to myself on headphones was sometimes uncomfortable. And then, if you have to listen to yourself on a recording, it always sounds so different than you think you sounded, and you're like, "Oh, wait a minute, that's what I sound like?" So we have a lot of kids who are wondering, why

does our voice sound different when we hear it outside of our heads than it does when we're just talking?

Nathaniel 16:18

Hello, my name is Nathaniel. I'm eight years old and I'm from Toronto. And why is it that when you record your voice, it sounds different to you, but it sounds the same to other people?

Kinley 16:31

Hi, my name is Kinley. I'm 11 years old and I live in Cleveland. My question is: Is why does our voice sound different in our brains, but then it sounds different to other people.

Isaiah 16:43

Hello, my name is Isaiah, and I'm six years old, and my and I live in Norristown, Pennsylvania. And my question is, why does my voice sound different when I record it and when I hear it?

Rosie 16:57

My name is Rosie, and I'm six years old. I live in Pottstown, Pennsylvania, and I want to know why does your voice sound different to you than it sounds to other people?

Dr. Anne Hseu 17:09

So when you're listening to someone's voice, basically the sound comes out of their mouth, travels through the air, and then reaches your ears so that you're listening to someone, but when you're listening to yourself talk, you listen to the sound that comes out of your mouth, travels through air, and goes to your ears. But you're also listening to the sound as it travels through your own body, including your bones and your skull, the tissues in your face, before it gets to the ear. And so by the time that the sound gets to your brain, your brain has to combine the sound that comes through the air with the sound that has traveled through the bone and your tissue and puts it all together, and so that's the way that you sound to yourself. But if you listen to a recording of yourself, that's just the sound traveling through the air, which sounds different to you, and so that's why you're like, that's not me, but it is you.

Jane 17:55

So, are you sort of hearing the vibrations within your own body when you hear yourself talking?

Dr. Anne Hseu 18:12

Yes, and those vibrations tend to be a little bit deeper, a little bit richer in sound, which is why a lot of people say they sound different when they're listening to a recording.

Lyra 18:24

Hi, my name is Logan. I'm seven years old. I live in Pennsylvania, from the United States of America, and my question is, why don't we like the sound of our own voices?

Dr. Anne Hseu 18:39

Yeah, well, I would say that everyone sounds a little bit different, and you get used to what you're used to. And so, when you listen to a recording and it sounds different than what you're used to, it makes sense that you're like, well, maybe that's not me. But I would say both are you, and both sound good.

Jane 18:56

Yeah, it's hard. Sometimes we're really hard on ourselves, and we get used to the way we sound in our own heads, and then when we hear ourselves on a recording, I I don't know, I think adults are especially guilty of this. Adults are really hard on ourselves, and we need to be kinder because we just sound like what we sound like, and we all sound great.

Dr. Anne Hseu 19:16

Yeah, I completely agree.

Jane 19:18

All right, another question that I think as a doctor, you might tell us not to try, but some kids have noticed that when they suck in a little bit of a gas called helium, it can make your voice sound very, very high. What's going on there?

Cooper 19:35

Hi, my name is Cooper. I'm 10 years old, and I live in [unclear], Alberta. And my question is: How is helium so light, and why does it make your voice squeaky?

Alexandra 19:46

Hi, my name is Alexandra, and I live in Appleton, Wisconsin, and I am 10 years old. My question is: Why, when you inhale helium, does it make your voice change?

Dr. Anne Hseu 19:56

Yeah, well, I understand why kids want to do this because it can be kind of fun and it can kind of be funny, but it's true you shouldn't do this all of the time. So helium is a gas that is basically less dense or lighter than the air that we breathe, which means that when sound is traveling through the helium, it travels through it faster. So when you inhale helium and then you are talking, and the sound is moving through the helium that you have in your body, it travels much faster, particularly through the throat, the nose, and your mouth-the areas that create that resonance-and so your voice ends up sounding much squeakier and much higher.

Jane 20:39

And you know, you said that helium is less dense than air, and this is, of course, why a helium balloon floats, because it's less dense than air. But I had never thought about it as the sound can travel faster because it's almost like it has less drag; like there isn't something pulling on it. And if you think of something more dense like air, it's a little thicker to go through. So that's what's happening with the sound with your voice?

Dr. Anne Hseu 21:03

Yeah, exactly. So sometimes I like to think about it as again thinking about instruments. So normally when you're talking, it's like you are blowing through a trumpet, right? But when you inhale the helium, all of a sudden you're talking, and the air is moving through a different instrument, like a flute, and so it sounds different when it comes out.

Jane 21:27

Everyone's voice sounds and works differently, and at the end of the day, what's most important is that we're able to communicate and share with the people around us, and that's where otolaryngologists like Dr. Hseu come in.

Dr. Anne Hseu 21:40

As I mentioned before, the voice box is really important in making sure that you can breathe and you can swallow. And so, any time that you're having any difficulties with those things, we want to pay attention because it could also affect your voice. Also, we want to make sure that when you're communicating, that you're able to do so without pain, right? Like you're not supposed to talk and feel like it hurts all the time, and so that would be a clue that something needs to be taken a look at. The last thing is, again, you should be allowed to scream. You should be allowed to make funny voices. You should be able to, you know, talk as much as you or your parents will let you. And so, if you are using your voice and you're losing your voice a lot to the point where you know it's hard to get the sound out, then that's when we'd say you know we should take a look and see what's going on.

Jane 22:31

So, Dr. Hseu, if I open my mouth right now as we're having this video chat, you're going to see inside my mouth, but you can't see my vocal cords. So, if I was telling you I was having trouble speaking, how would you check that out?

Dr. Anne Hseu 22:42

Yes, so the voice box sits lower in your neck, and so if you look in the mouth, sometimes you can see the very tippy top of the voice box, but you can't actually see the vocal cords. So we have this really cool instrument in our office that looks like a spaghetti noodle. It's teeny, teeny, tiny, and what we do is we numb up your nose, and then snake this teeny teeny tiny noodle through the nose, and it goes through the back of the nose to the top of the throat and sits right on the voice box, so that we can actually see the vocal cords and see them move in and out, and make sure everything is working correctly.

Jane 23:19

Because it's not actually a noodle.

Dr. Anne Hseu 23:21

No, but it looks like a black spaghetti noodle, so that's why we call it a noodle.

Jane 23:25

But it's a camera.

Dr. Anne Hseu 23:26

But it's a camera. It's teeny tiny, and oftentimes we can record the exam, and we can actually show you the inside.

Jane 23:33

That would be so cool. I would love to see. I love seeing inside my body, and I would love to see my vocal cords moving.

Dr. Anne Hseu 23:41

It's a really neat exam, and it's really fast, usually takes less than a minute, and it's really neat to see.

Jane 23:48

Thanks to Dr. Ann Hseu, pediatric otolaryngologist at Boston Children's Hospital, for demystifying how our voices work. For a lot of us, using our voice to communicate is a really big part of our life. Maybe even more than we give it credit for.

Dr. Anne Hseu 24:03

You know, sometimes people forget how important your voice is until someone tells you that you're not allowed to talk. And so sometimes I challenge people to say, okay, just for like an hour, two hours, try not to say anything and see how hard it is, or see how much you rely on your voice, even for people who say, "Oh, I'm a pretty quiet person. You know, I don't talk a lot," all of a sudden, you realize how much you use your voice and how important it is.

Jane 24:31

That's it for today. As always, if you have a question about anything, have an adult record you asking it on a smartphone using an app like Voice Memos. Then have them email the file to questions-at-butwhykids.org. And again, if you don't use your voice or if you're nervous about asking your question, you can always have your adult write it down and send it to us, or have them record themselves asking for you. But Why is produced by Sarah Baik, Melody Bodette, and me, Jane Lindholm, at Vermont Public and distributed by PRX. Our video producer is Joey Palumbo, and our theme music is by Luke Reynolds. If you like our show, please have your adults help you give us a thumbs up or a review on whatever podcast platform you like to use. It helps other kids and families find us. We'll be back in two weeks with an all-new episode. Until then, stay curious!