

## Sawbones 503: Human Tricks

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**Clint:** *Sawbones* is a show about medical history, and nothing the hosts say should be taken as medical advice or opinion. It's for fun. Can't you just have fun for an hour and not try to diagnose your mystery boil? We think you've earned it. Just sit back, relax and enjoy a moment of distraction from that weird growth. You're worth it.

[theme music plays]

**Justin:** Hello everybody, and welcome to *Sawbones*, a marital tour of misguided medicine. I'm your cohost, Justin McElroy.

**Sydnee:** And I'm Sydnee McElroy.

**Justin:** And all I had to do was say my name, and that's all that I did. That was—

**Sydnee:** That's it, that's your whole job.

**Justin:** Yeah. I'm pretty much done now.

**Sydnee:** That's— I mean, to be fair, in terms of like balance of work.

**Justin:** Right.

**Sydnee:** And who puts in the most effort, maybe— I mean you do more than say your name.

**Justin:** Sorry, I use "say my name" specifically because I was referencing the hit musical *Beetlejuice*, because I actually put I the legwork on the episode, in that I mentioned the vague idea of it to you.

**Sydnee:** That's true, you did. You know what? In my order, in my outline, I don't have that, and that should be— We'll start with that. We'll start with that as our— [chuckles]

**Justin:** Thank you, thank you very much. I appreciate that, thank you.

**Sydnee:** Justin— Well what did you mention to me, Justin? About TikToks.

**Justin:** I saw this TikTok where Alex Brightman, who played *Beetlejuice* on Broadway, and if you've never seen him do it— I feel like there was a time period where he did a song about death on like a bajillion different public venues, but like if you've never seen—

**Sydnee:** On like late night shows and stuff.

**Justin:** Yeah. If you've never— And *Today Show* and all the—

**Sydnee:** Mm-hmm.

**Justin:** You know, obviously at the Tonys. If you've never seen it, I can't even imitate it, but it's like a deep raspy voice that sounds—

**Sydnee:** You can do it, do the Beetlejuice voice.

**Justin:** [imitating Alex Brightman's Beetlejuice voice] It's like a vocal—

**Sydnee:** Yeah.

**Justin:** It's not even that, like it's [imitating Beetlejuice again], "Hey, welcome—" [normal] No, it's not that deep, but it's like [imitating Beetlejuice again] it's this kind of like fry that he uses through the whole show. [normal] Like that's Eric on the— out of tune Eric, Eric on the X.

**Sydnee:** Yeah.

**Justin:** But yeah, that is the— And what he was saying in this TikTok as that, and people always ask him, are you doing that without tearing your—

**Sydnee:** Destroying your voice.

**Justin:** Destroying your voice, 'cause there's ways of doing that, some people learn like how to do, metal vocalists like learn over a period of time how to make some of those noises without doing a lot of permanent damage.

But he was saying that it was a thing he could do. It's just the way he was built, he was able to make that noise without putting the strain on his throat because of different musculature down there or something.

**Sydnee:** And this inspired Justin to ask me about what I have— So I have labeled this episode “unusual human talents.” [chuckles]

**Justin:** I tried for “real world superpowers,” but you wouldn't grant it to me. I will say that if the things are more than the normal human can do, they are superhuman, right.

**Sydnee:** It's hard because— So I put together a collection of I guess superpowers. Superpowers in this— Or fun party tricks in some way? You know what I mean.

I mean, they really run the gamut here of like things that— I mean, I guess they're beyond the fact that I can sing the states in alphabetical order.

**Justin:** Mm-hmm.

**Sydnee:** Charlie can list a hundred digits of pi. These are interesting, but these are like intrinsic. Although I will say that some of the things I mention, you can kind of practice and learn and perfect, so.

**Justin:** Mm.

**Sydnee:** Hmm, it's a bit of both.

**Justin:** Yeah. Right.

**Sydnee:** Bit of both, right? It— But I also think of them as like dad tricks sometimes.

**Justin:** [laughs]

**Sydnee:** And this is very specific to me perhaps. My dad had a number of things he would do to entertain young children that were just like the weird things. I mean like flipping his eyelid inside out.

**Justin:** I mean at— there was a time period where David Letterman would've called these "stupid human tricks."

**Sydnee:** Oh yeah, that's true, they were the—

**Justin:** I mean, right.

**Sydnee:** That was the thing, right? I mean he's—

**Justin:** But there's a difference between— That to me a lot— Most stupid human tricks, which are exactly what we're talking about, a lot of those were things people had learned. And one more thing about, you know, what you're born with.

**Sydnee:** And then— Well, and then that area where we're not really sure are you born with it? Can you learn it? Is it both?

**Justin:** Okay.

**Sydnee:** Is it worth studying? [laughs] Could be another question, which might come up a lot. But first of all, the way that— So I labelled it "the way that Beetlejuice sings," which is Alex Brightman not Beetlejuice. But that's—

**Justin:** No, not the man Beetlejuice.

**Sydnee:** So, okay.

**Justin:** The real Beetlejuice.

**Sydnee:** The way— [chuckles] The way that we make sound.

**Justin:** Mm-hmm.

**Sydnee:** Is obviously with our vocal chords.

**Justin:** Yeah.

**Sydnee:** So they are basically parts of like the mucosal lining that is— that are folded in a way.

**Justin:** Okay, gross.

**Sydnee:** And then they vibrate and make sound, okay?

**Justin:** Okay, cool.

**Sydnee:** Now above your actual vocal folds, vocal cords you could call them, whatever. They're folds, they're cords, they're whichever you wanna say.

**Justin:** Okay.

**Sydnee:** Which actually are where sound comes from.

**Justin:** Okay.

**Sydnee:** Are the false vocal folds, which are technically called the "vestibular folds," but because they sort of look like the true vocal cords, but they don't actually make sound.

**Justin:** Okay.

**Sydnee:** They are called the— sometimes called the "false vocal cords." Right?

**Justin:** Okay.

**Sydnee:** Same idea. So if you look, and I didn't watch the video, but I think he has actually had endoscopy.

**Justin:** He said it was confirmed by his ear nose and throat doctor.

**Sydnee:** Yes, to look and see if this is what is happening. And so if you look down, the false vocal cords are above the true vocal cords, they look very similar, except they do not— they are not involved in producing sound when we talk or sing or whatever. Except you can use them. You can get them involved.

**Justin:** This is like that— This is like 90% of your brain, right?

**Sydnee:** [laughs]

**Justin:** Like yeah, the 50% of your vocal chords are just laying there, waiting to be tapped.

**Sydnee:** Now, I read a lot of different websites about— This is very fascinating, especially as people who are now participating, I mean we have for a very long time, but at this moment we are actively participating in a musical, I don't think about singing nearly as much as people who professionally sing think about singing.

**Justin:** Right.

**Sydnee:** And how to generate different sounds, you know. And especially if like you're involved in like operatic singing, this is something that you study. I mean, this isn't—

**Justin:** It's scien— I mean it's like athletics. You— It's similar. It's like that level.

**Sydnee:** Yeah.

**Justin:** Of like training your body to do something.

**Sydnee:** Exactly, and we don't— I don't think about singing that way, a lot.

**Justin:** Mm.

**Sydnee:** Right? Like I do think about athletics that way, but we often think that singing is this thing, like this talent that you just have. And I mean obviously that's a little bit right. Your ear for music and the natural tone of your voice, there are some things that are just there, that are intrinsic to you.

But then there are also things that you can practice and develop. What I would say is that while Alex Brightman might be particularly skilled at engaging those false vocal cords, which like you said is something that metal singers do, it is something that operatic singers do, it is also something that you can practice and train and learn to do.

And now, are you thinking like, “Fold in my— [chuckles] You know, like squeeze my false vocal cord.” Obviously it’s not a muscle that you can consciously contract, but you can practice singing in certain ways, there are techniques that you can learn to engage those false vocal cords. I would suggest that probably just his— I mean, this isn’t the first show he’s ever done.

**Justin:** [chuckles]

**Sydnee:** He’s being doing theatre for quite a while.

**Justin:** He’s done a few other skits, I think.

**Sydnee:** Yeah. I mean he’s a professional, I would suggest that he probably has just, through all of his vocal training, has become very good at engaging those.

**Justin:** And maybe strengthened those muscles unintentionally, right?

**Sydnee:** And you can look at— It’s interesting ‘cause I was reading some like otolaryngologist talking about how you can see in vocal cords— Not always, like sometimes the appearance of vocal cords doesn’t mean anything in terms of your singing ability, but their like thinner ones are what like a soprano probably has, whereas like a thicker, meatier vocal cord is what a bass has.

**Justin:** Mm.

**Sydnee:** Like there are things that you can— It’s a muscle, you can— It’s not— You can exercise, not a muscle, but you can exercise these parts of your body. Well they are muscles. And you can squeeze them more, but not consciously, I don’t know. Do you understand what I’m saying?

**Justin:** Yeah, absolutely.

**Sydnee:** You can train yourself to use your false vocal cords, in a sense, and that is— If you have heard like Tibetan chants and like throat singing. Do you know what I’m talking about?

**Justin:** Yeah, Tibetan throat singing, yeah.

**Sydnee:** Those like— All— Like they are using their false vocal cords.

**Justin:** [growls] Like they are— Yes.

**Sydnee:** When you growl, you are probably engaging your false vocal cords. If you make like a growl sound.

**Justin:** Mm-hmm.

**Sydnee:** You're doing that, so like all of us have the ability to do it a little bit. The more you train, the more time you spend on this, you can develop that vocal skill like Alex Brightman obviously has. So, that is what Beetlejuice is doing.

**Justin:** Okay, thank you. We have found— Well, that's one of many things, he's in all sorts of scrapes and hijinks.

**Sydnee:** [chuckles]

**Justin:** [chuckles]

**Sydnee:** It's really impressive, it does sound like it would absolutely wreck your voice, like to do that eight times a week.

**Justin:** Next up Syd.

**Sydnee:** And it doesn't.

**Justin:** Next up Syd, let's talk about ear wiggling.

**Sydnee:** Ear wiggling, so this is one of the ones that, like I said, when I was talking about my dad. My dad can wiggle his ears. You're right now trying to wiggle your ears, aren't you?

**Justin:** I am wiggling my ears.

**Sydnee:** I don't have glasses on, and you are sitting—

**Justin:** You should trust me.

**Sydnee:** — more than inches from me.



**Justin:** Okay, I'm gonna come over here so you can—

**Sydnee:** Well I can put `em on. Look, they're right here.

**Justin:** No, you can keep `em—

**Sydnee:** They're right here, look, I can put them on.

**Justin:** [from a distance] It's fine, it's fine.

**Sydnee:** I— Without my glasses, my vision is— You are wiggling your ears.

**Justin:** Thank you.

**Sydnee:** Look at that. You were right there with like 10 to 20% of the population.

**Justin:** We should note that. [chuckles]

**Sydnee:** That can wiggle your ears.

**Justin:** That's such a big difference. 20 is twice as many as 10, we should have a better idea.

**Sydnee:** Justin.

**Justin:** That's a huge amou— lack of specificity.

**Sydnee:** As I was researching these different sort of human stunts, I at times would get frustrated because I was like, "Why don't we have a number? We should know this," and then at other time I would feel like, "Why have we done these studies on this?" [chuckles]

**Justin:** I know.

**Sydnee:** "This doesn't— Is this where our money is going?"

**Justin:** Right, okay, fair.

**Sydnee:** You know? [chuckles]

**Justin:** Fair enough, fair enough.

**Sydnee:** There's still cancer, like why are we— You know what I mean?  
So—

**Justin:** Kind of a specious metric, but yes I understand what you're saying.

**Sydnee:** You know, I— So there have— We have done studies on ear wiggling, so just do with that what you will. Like... why, how, how many people.

**Justin:** Sometimes sci— You're a scientist, and maybe you just got off a really hard one. You know? Maybe your last experiment was like— it took so long, it was so rigorous, and it was peer-reviewed and double-blind, and so hard, and you're like, "Guys, can we just knock out a fun one?"

**Sydnee:** It's so—

**Justin:** "For the next month."

**Sydnee:** Well.

**Justin:** "Can we just like cut lose and do some fun— a fun one?"

**Sydnee:** [sighs]

**Justin:** "A light one."

**Sydnee:** This is like that— This isn't obviously something that you'd grapple with in medicine and science, but I think it's like a life struggle. The— Our need for whimsy, versus our responsibility to do stuff that needs done.

**Justin:** Mm-hmm.

**Sydnee:** But then our— then we crave whimsy.

**Justin:** Mm-hmm. Yeah.

**Sydnee:** And how do you meet those needs. Right? I don't know.

**Justin:** I understand.

**Sydnee:** Anyway, we did study ear wiggling, [chuckles] whether you think we should've or not. So okay, you have three extrinsic oricular muscles.

**Justin:** Extrinsic?

**Sydnee:** Mean— There are muscles like intrinsic to the ear.

**Justin:** Oh.

**Sydnee:** And then there are ones that are sort of around the ear.

**Justin:** Okay.

**Sydnee:** There's one like in front of your ear, anterior, there's one behind your ear. Bet you could guess what that's called.

**Justin:** Your rear—

**Sydnee:** Post—

**Justin:** Your rear ear?

**Sydnee:** Posterior.

**Justin:** Rearior?

**Sydnee:** Posterior.

**Justin:** Posteriorior.

**Sydnee:** And then there's one above it.

**Justin:** Like— Sorry, posterior earior?

**Sydnee:** No. Anterior, posterior, and not a rearior. [chuckles]

**Justin:** Posterior ear.

**Sydnee:** And then what— [chuckles] Stop. And then above it.

**Justin:** Yeah.

**Sydnee:** Superior.

**Justin:** Superior.

**Sydnee:** Anyway.

**Justin:** Superior ear. [snorts]

**Sydnee:** They can move our ears around.

**Justin:** Got it.

**Sydnee:** And mammals, a lot of mammals have similar muscles surrounding their ears, and—

**Justin:** To help you hear, right?

**Sydnee:** They can move. Yeah, and so like a great example of a mammal whose ears move to help localize sounds or respond to sound better is sitting right here to my left, stalking another great example, who is hiding in the corner right over there.

**Justin:** Would you tell her to chill?

**Sydnee:** I don't know.

**Justin:** Olive.

**Sydnee:** Our cat— We got another cat, and they're just like— It's just been a struggle.

**Justin:** It's— Sydnee assures me—

**Sydnee:** There's just so much jealousy.

**Justin:** It's the playdate. Sydnee assures me that this orange cat is just—

**Sydnee:** The playdate is never-ending.

**Justin:** Okay.

**Sydnee:** We're having trouble. We're gonna get— they're gonna get there. But their— cats' ears move around. Our ears, probably at one time in our ancestry, benefited from their ability to move around.

**Justin:** Mm, so this is a vestigial talent I got here.

**Sydnee:** To an extent. Obviously, the muscles in our ears also provide like structure.

**Justin:** Mm-hmm.

**Sydnee:** To our ears, and somewhat the function. They're primarily structural, but the point is they could probably, at one point, move a lot more. And now they don't really need to, so they don't. But if you can, you know, start to like feel and use those muscles.

**Justin:** You never know.

**Sydnee:** You can move your ears. Not like a cat.

**Justin:** Maybe you squeeze out an extra percent of hearing though.

**Sydnee:** No.

**Justin:** I mean they might help.

**Sydnee:** That doesn't make you hear more. A study in 1949 of 104 men and 70 women looked to see— They wanted to know how common is the ability to wiggle your ears. They also were trying to figure out genetic, like is it genetic? So like sibling matches, parental, you know, whatever.

They found that it kind of seemed to have a dominant inheritance pattern for the most part, where like if your parents could— Or like you probably had a parent who could if you could. But there were some cases of people

who wiggle their ears and neither of their parents could, so then maybe it is also something that can pop up sporadically.

**Justin:** Hmm.

**Sydnee:** We don't know.

**Justin:** Okay.

**Sydnee:** I thought this was the strangest point. In this study, men were more likely to be able to wiggle their ears than women, by like 54% versus 22%, so that's like double.

**Justin:** Okay.

**Sydnee:** More than double.

**Justin:** Yeah.

**Sydnee:** And they attributed that, this is 1949, they attributed this to, this is a quote, "A factor of training and on the fact that men are, even in childhood, more interested in sports, and have therefore made more efforts to practice this accomplishment."

**Justin:** This accomplishment of ear wiggling?

**Sydnee:** Yes.

**Justin:** Because they're involved in sports?

**Sydnee:** Training. Training.

**Justin:** [snorts] God, man.

**Sydnee:** It's a factor of training. Men are training to wiggle their ears from a young age, because they're interested in sports, and what greater example of an American sport is there than ear wiggling?

**Justin:** So, come on ladies, get it together.

**Sydnee:** Yeah. So that's— There you go. That's the— It is pretty rare if you can wiggle your ears. Although we do think that it is something that perhaps you can learn, even though it does seem to—

And then I don't know if it runs in families, is it just 'cause like if you have a dad like mine, who could wiggle his ears, are you constantly trying to wiggle your own ears?

**Justin:** Mm.

**Sydnee:** And engage those muscles.

**Justin:** Maybe.

**Sydnee:** Which like through biofeedback, if you can isolate—

**Justin:** Awaken them.

**Sydnee:** [chuckles]

**Justin:** Yeah.

**Sydnee:** Anyway.

**Justin:** Alright Syd, what about...

**Sydnee:** [chuckles]

**Justin:** Tongue stuff.

**Sydnee:** [chuckles] I probably shouldn't—

**Justin:** We've been married almost 20 years now, where are you at on tongue stuff?

**Sydnee:** I probably shouldn't have titled this section "tongue stuff."

**Justin:** Yeah, but it's done now.

**Sydnee:** Yeah. Well Justin, are you interested to know how— what percentage of the population can roll their tongue?

**Justin:** Hey, I— Are you interested to know something? What percentage of the population has attempted to roll their tongue in the pa— that's listening to this, in the past like 30 seconds? It's 100%.

**Sydnee:** Okay.

**Justin:** 100% of people listening to this have attempted to wiggle their ears, and have attempted to roll their tongue, guaranteed.

**Sydnee:** So here's what I want you all to do. All of you right now, try to roll your tongue, and then try to do the clover thing, where you turn your tongue into a clover leaf.

**Justin:** No no no no no.

**Sydnee:** You can also try to turn it on its side.

**Justin:** Turn it on its side?

**Sydnee:** Mm-hmm.

**Justin:** Oh, oh no.

**Sydnee:** All the way. But I'm not doing it 'cause I can't do it.

**Justin:** No, the clover leaf is the devil's work.

**Sydnee:** And then they—

**Justin:** I worry that that one is an evil omen sometimes.

**Sydnee:** [chuckles]

**Justin:** Possible.

**Sydnee:** How many people can roll their tongue? And I'm gonna tell you what the answer is after the Billing Department.

**Justin:** No kidding.



[transition music plays]

[ad break]

**Justin:** Alright Syd, how many?

**Sydnee:** 60%, that's not as exciting as it is like—

**Justin:** No, that's like just enough for it to not be interesting. [giggles]

**Sydnee:** No, it's not. Okay, I will say, it's not—

**Justin:** It would be more interesting if— Can I say this? I would argue that 40% of the people can't do that. [chuckles] That's— So that's actually— I'm gonna be a little glass half full.

**Sydnee:** I— Here is what I'll tell you.

**Justin:** I can't do it.

**Sydnee:** There have been multiple studies on tongue rolling. The clover thing seems to be more rare, so if you've been sitting there doing the thing—

**Justin:** In defiance of God.

**Sydnee:** — where you like try to turn it into the clover, or if you can turn your tongue all the way like perpendicular.

**Justin:** Yeah, either one of those.

**Sydnee:** `Cause apparently some people can do.

**Justin:** Yeah.

**Sydnee:** I've never seen anyone do that.

**Justin:** If you can do the clover thing, drive straight to jail.

**Sydnee:** No, don't do—

**Justin:** [wheezes]

**Sydnee:** There's nothing like wrong with you.

**Justin:** Turn yourself in.

**Sydnee:** There's nothing wrong with you, okay.

**Justin:** Except for the wickedness in your heart that makes your tongue do that.

**Sydnee:** It's just what— how you can isolate muscle fibers. You have four paired intrinsic muscles.

**Justin:** Were you about to say "how you were made," and you were afraid I was about to say "By Satan?"

**Sydnee:** [chuckles]

**Justin:** So you bailed. I get it.

**Sydnee:** There are four paired intrinsic muscles in your tongue. I— You don't need to know the names. Does anyone care? Nobody cares about the names. The point is there's a bunch of muscles in your tongue.

**Justin:** Somebody cares, probably.

**Sydnee:** And they change the shape of your tongue, which is useful for like talking and eating and swallowing and the other stuff. But you can also, because your tongue has muscles in it, multiple muscles that make it form different shapes, you have the ability to curl the edges up and roll it into a tube sometimes. Not everyone does.

**Justin:** Good. [chuckles]

**Sydnee:** It is [chuckles] widely thought that this is a genetic trait. It has been called into question before.

**Justin:** Really?

**Sydnee:** Whether the tongue rolling thing is something you can learn. The clover thing we feel fairly confident is genetic, and is actually probably a recessive trait, because it seems to be more rare.

**Justin:** Yeah.

**Sydnee:** Whereas tongue rolling, as I've said, is like 60%. And they've repeated this study multiple times and they all hit around 60% in the repeated studies, same for men and women.

It's weird that we've done so many studies on this. Why are we so interested in this? They've done twin studies to see if it's genetic, and what's weird about that is that there's like a 20% discordance, meaning one twin can and the other can't, identical twins.

**Justin:** That's weird!

**Sydnee:** What sense does that make? So does that mean it's not actually genetic? No, because they think it's probably incomplete penetrance. And what that means—

**Justin:** So the epigenetic markers aren't making a complete connection with the RNA.

**Sydnee:** There's more—

**Justin:** Fibers.

**Sydnee:** This is where genetics gets so weird, is that [chuckles] in science, at some point in your life, whether or not you are a science person now, whether or not you are in a scientific field, at some point somebody told you about Mendell, somebody told you about peas, somebody should you a punnett square.

**Justin:** Punnett square.

**Sydnee:** Right? Like we've all— We all were introduced to this. That is so just like the very basics. There's so much more. And I'm not saying I'm the expert 'cause I'm not a geneticist.

**Justin:** I think you're the expert, Syd.

**Sydnee:** I'm— [chuckles] I'm not. But the— But what it means is just because the DNA is the same, just because the instructions, the blueprints are the same, doesn't necessary—

Well, and that kinda makes sense. If you gave Justin instructions on building something out of wood, and me instructions on building something out of wood, and we had the exact same instructions, I guarantee you our product would look very different.

**Justin:** We would have different approaches, different art styles.

**Sydnee:** Well you're also more skilled, but the point is there's more to genetics than just punnett squares. A 1980 study... Man, this is my fav— I love that people are doing this. Humans, I just— Humans will just human, we can't help it. It was looking to see if there was an interaction between ear wiggling and tongue rolling.

**Justin:** Yes, like they're tied together.

**Sydnee:** Meaning if you could do one, are you more like— Why?

**Justin:** Why?

**Sydnee:** Why would there be? Why would there be?

**Justin:** Why wouldn't there be?

**Sydnee:** What would we do with this information? There's a question for you. If we— Like whatever the answer is.

**Justin:** You never know, hun.

**Sydnee:** Well no, I understand—

**Justin:** You never know.

**Sydnee:** — the idea of—

**Justin:** Have you heard about the pencils in space? Have you heard about this? Have you heard about the pens that can write upside down?

**Sydnee:** [sighs heavily] But the thing is... they did find that in men, this is another where like it's— they split down gender lines. In men, they are more likely if they have one of these abilities to have the other, but in women there was no connection. What... What could that— The— This makes me think that one or both can be learned.

**Justin:** Mm.

**Sydnee:** Because I also think... that this is like— Okay, you know those birds of paradise that do little dances?

**Justin:** Sure, we love those—

**Sydnee:** To attract a mate.

**Justin:** Yeah, we love them.

**Sydnee:** I think it's kinda like that. I think you're like, "I need to attract a mate, check this out, ear wiggling. Not enough for you? Tongue rolling. Not enough? Watch me do both."

**Justin:** Okay.

**Sydnee:** "Now I'm gonna pretend my arm is broken and flip it around."  
[chuckles]

**Justin:** "Look at this, I'm gonna do the Billy the Boneless Boy dance."

**Sydnee:** [chuckles]

**Justin:** I will grant you that your point makes sense if you segue into your next one which you have here, which is licking your elbow. Now that I could see as a seduction technique. Like I could absolutely see that you could use that to lure in potential... partners.

**Sydnee:** I— Does it make you feel better to know— 'Cause this made me feel better. I do not have a percentage to tell you of how many people can lick their elbow.

**Justin:** Okay.

**Sydnee:** We did— We have not, to my knowledge, now there's a lot of studies out there. We have not, to my knowledge, done a study specifically looking at how many people can lick their elbow. It is pretty rare.

It is thought like you— the statement is often made that you cannot do it. That it is impossible to do. That isn't true, of course. We should not speak in absolutes, especially again with humans. Because if you say "we can't do it," someone out there is gonna break their arm, or their tongue I guess, in an attempt to do it.

If you have a hypermobility syndrome, you may well be able to do this, because your joints extend further than the average joints, and your tongue may extend further than the average tongue. [chuckles]

**Justin:** Yeah.

**Sydnee:** And so the combination. But generally this is thought to be very rare, nigh impossible. What I thought was fascinating is as I was looking into like is there somewhere out there where I can find a number, I found a whole wikiHow article.

**Justin:** On how to lick your elbow? Oh my gosh.

**Sydnee:** On how to lick your elbow.

**Justin:** Weird crossover. Fantastic.

**Sydnee:** I just thought it was fantastic that like they're like, "Here's one technique where they're—" and they're like, "Do some stretches first," and then they told you like, "Hold your right arm out with your palm flat, pull back at your shoulder as far as you can. Wrap your arm around your chin, bring your arm up to your mouth. Pull your arm backwards, crane your neck forwards." [chuckles]

**Justin:** [scoffs]

**Sydnee:** Like I mean like I could've— [chuckles]

**Justin:** Yeah, the whole thing.

**Sydnee:** I was—

**Justin:** Do it.

**Sydnee:** This is what I would think if somebody was like, “Stick your tongue out as far as it will go,” and then they have a second method where you lie down and do it.

**Justin:** I think it—

**Sydnee:** And this person is—

**Justin:** Yeah.

**Sydnee:** I don’t know, the position they’re in and the face they’re making, I don’t know if they’re angry. “Pretend you’re a villain in an old movie and you’re covering your face with your cape.”

**Justin:** [laughs]

**Sydnee:** “And don’t struggle.” And I mean I— There is diagram after diagram. I— Really, I would advise you, check out the wikiHow page on how to lick your elbow. And then they— And like the first question from the community Q&A is “Why do people wanna know how to do this?” [chuckles]

**Justin:** Fair. Now this next one here, Syd, I didn’t know this was special, ‘cause I’ve always been able to stick out my tongue and touch my nose.

**Sydnee:** No you can’t.

**Justin:** Yeah I can.

**Sydnee:** Oh, oh.

**Justin:** [sighs] What’s up now?

**Sydnee:** And you can probably gue— Listeners at home, you can probably guess what Justin has just done.

**Justin:** He's— I stuck out my tongue, and then I touched my nose.

**Sydnee:** And then he took his finger and he touched his nose, and it was very clever.

**Justin:** It— Gosh, everybody loved it.

**Sydnee:** He was very clever.

**Justin:** Talk about dad—

**Sydnee:** Yeah, everybody's cracking up.

**Justin:** Talk about dad tricks, man.

**Sydnee:** There's a name for this one. If you can stick your tongue out and touch the tip of your nose with your tongue, not your finger, it is called gurlinsine. There's a whole name for it. And that is because, while generally speaking, only 10% of the population can do this. So this one's really rare.

**Justin:** Mm.

**Sydnee:** If you can do this one. This is way rarer than like rolling your tongue.

**Justin:** Mm-hmm.

**Sydnee:** But if you have Ehlers-Danlos syndrome, which is a connective tissue disorder, half of people with this can do it. Which is why this thing has a name, because Robert Gorlan, who— a pathologist who also studied a lot of like otolaryngology and like dental and, you know, oral problems.

**Justin:** Mm.

**Sydnee:** Medical issues, described it because if somebody was able to do this, then there was a much greater likelihood they may— This is not diagnostic. There is definitely people who can do this who do not have Ehlers-Danlos.

**Justin:** But it's a sign of the—



**Sydnee:** There are people with Ehlers-Danlos who cannot do this. But if you can lick your own nose, that's very rare.

**Justin:** Mm, good to know.

**Sydnee:** Yeah.

**Justin:** What about The Rock's patented move here, raising an eyebrow? Now you called me into the bedroom to attempt this, and I raised my right eyebrow, which honestly I don't— I haven't been able to do this for a very long time. I was in like my 30s before I figured out how to do this.

**Sydnee:** This is—

**Justin:** As a data point. [chuckles]

**Sydnee:** So I was looking up how many— like the trick that people like to do, I guess, is to make their eyebrows dance, which I can understand what they're referencing. I can't say I've seen a lot of people just do that, like for fun. Like—

**Justin:** No. No way.

**Sydnee:** You know, make your eyebrows go up and down.

**Justin:** No way.

**Sydnee:** My dad can do both independently of one another. That is more rare. So most people can raise one eyebrow or another, but raising both independently of each other seems to be a more rare talent. And this is something that has been—

**Justin:** Stretching the limits of the term [chuckles] "talent."

**Sydnee:** [chuckles] "Talent." And we don't know exactly— So like right now, try it at home, try to raise just one eyebrow. And if you—

**Justin:** Realizing I couldn't raise the other, it actually kinda wiggled me out a little bit. [laughs]

**Sydnee:** It's like— It's making me very stressed.

**Justin:** I know, it's very stressful. [chuckles]

**Sydnee:** 'Cause I can't make it equal, and so I don't wanna think about it. But if we— We don't know exactly why.

**Justin:** Oh wait, am I doing it? [laughs]

**Sydnee:** [laughs] I don't like you lookin' at me that way.

**Justin:** We gotta make this a video podcast.

**Sydnee:** I know, yeah we need a picture of this. It— Okay. We don't know exactly why, it might be genetic, that we can do one or the other.

It also may be, and this has been studied, do we have dominance of one side in our facial muscles the way that we have dominance in our hands? So like right-handedness, left-handedness, do you have right-facedness and left-facedness? [chuckles]

**Justin:** [chuckles]

**Sydnee:** And those muscle are stronger on that side of your face. Is that why most people who can raise an eyebrow—

**Justin:** Whoa, I don't know, that's weird.

**Sydnee:** — can only ever raise the one? Now again, this is something— So your frontalis muscle, which is the big muscle, band of muscle that goes across the— your forehead.

**Justin:** Yeah, and it can get tensed when you're stressed.

**Sydnee:** It does, it can get really tense and tight, and sometimes it's the cause of tension headaches, for instance. It can— It is what causes your eyebrows to raise, and you can—

There are methods of biofeedback that we already know about and study as a way of like trying to voluntarily relax that muscle, to help ease tension headaches.

**Justin:** Mm.

**Sydnee:** The way that that works is like that you have to learn what that feels like for that muscle to contract. And so sometimes they can use like a little electric stimulation, so you can start to feel what it feels like for your frontalis muscle to contract. And then if you know what it feels like when it contracts, you can start to practice voluntarily relaxing it.

**Justin:** Mm-hmm.

**Sydnee:** So I feel like because of that, you could definitely, if you wanted to put in the time and effort. [chuckles] Train yourself to raise both of your eyebrows. I feel like that's possible, like this is—

**Justin:** Believe in yourself.

**Sydnee:** — could be something that with enough time and effort you could learn. Is that what you wanna do with your life minutes? I don't know. That's not a question I can answer.

**Justin:** Right.

**Sydnee:** But.

**Justin:** But it's possible.

**Sydnee:** But it is, and right now, I guarantee you you're trying to raise both eyebrows, and you're gonna ask everybody in their— in your life, especially in your family, "How interesting is that?"

**Justin:** Yeah. Double-jointedness, Sydnee. Double-jointedness.

**Sydnee:** So.

**Justin:** It seems to have been a playground legend, but I don't know if it is I the real world.

**Sydnee:** Well I think most people know that like when we say double-jointed, it's kind of a misnomer.

**Justin:** Right.

**Sydnee:** You don't have two joints where most people have one.

**Justin:** It's basically more flexibility, right?

**Sydnee:** Yeah, more hyper-mobility would be the term we would use, but yes, you're more flexible. And that— And there's a wide range of what that means. And let me just say, I am talking about... probably more like, "benign" would be the right word, benign hyper-mobility.

**Justin:** Okay, got it.

**Sydnee:** Okay? I want— I wanna be very clear that this is differentiated from hyper-mobility that is present in hypermobility syndromes, most well-known I think is Ehlers-Danlos syndrome. Which is a rare genetic disorder, in which case you may well have hypermobility in lots of joints.

**Justin:** Mm-hmm.

**Sydnee:** That can be part of it. They're different—

**Justin:** That isn't necessarily like—

**Sydnee:** They're different types of it.

**Justin:** Yes, but it's not necessarily a... Well, "beneficial" is a strong word.

**Sydnee:** No.

**Justin:** But it's hypermobility that impacts your life negatively.

**Sydnee:** Exactly, it can have some sort of negative interfere— Like it can interfere with your daily functioning, right?

**Justin:** Got it.

**Sydnee:** Because that's— And you know, that— we'll often use the word "disorder," meaning that it impacts your life in some way.

**Justin:** Right.

**Sydnee:** That you have to adapt to, or that you may need, you know, some other sort of medication or equipment or something to help you function. I am talking about hypermobility just on its own, which again, about—

There was a study done in 2004 that said about 20% of adults probably have some hypermobility, and that's a long— Like that's a big range, what they mean by "some joint hypermobility." The vast majority of people with hypermobility, and I would put myself in this category, never experience any negative effects from it.

**Justin:** Okay.

**Sydnee:** So like my thumbs bend really far back.

**Justin:** It's weird.

**Sydnee:** It's— I only it look weird, and it was something that I didn't know how weird it was. My dad's do too, so genetics, but I didn't know how weird it was until I saw other people reacting to my weird thumb and freaking out.

So like— But that's— Really, I'm not particularly flexible in other ways, but that was— that is something for me. That has never impacted my life in a negative way.

There are people who, because they have hypermobility in other joints, like shoulders or hips or knees, may experience a dislocation or some pain as a result of that. But for the majority of people with just plain old benign hypermobility.

**Justin:** Mm.

**Sydnee:** Isolated, it's not really a problem for them. Now why? There's a lot of different reasons. Because hypermobility is a big giant bucket.

**Justin:** Mm.

**Sydnee:** And there's lots of different flavors of it. Sometimes it's a different in collagen, in the connective tissue, in the way that it's shaped

and formed. Sometimes it has to do with the shapes of the ends of our bones.

**Justin:** Mm.

**Sydnee:** So like I think the best example is if you think of a ball and socket joint.

**Justin:** Mm-hmm.

**Sydnee:** And a ball and socket joint is where the end of one bone is rounded, like a ball, and the end of the other bone is like cupped, and they fit together, a ball and a socket. You get it?

**Justin:** Yup.

**Sydnee:** If that cup is deeper or wider, or the ball is smaller or larger, or it's more shallow, you can see how it would change how far that joint can flex and move.

**Justin:** Okay, yeah.

**Sydnee:** And bend and rotate.

**Justin:** Yeah.

**Sydnee:** And so then you get like kinda isolated hypermobility, like if you've seen anybody who can like clasp their hands together behind their back, and then take them all the way up over their head.

**Justin:** Yeah yeah yeah yeah.

**Sydnee:** Somebody on *Perfect Match* was doing that the other night. [chuckles] I— That like their shoulder joints are doing something that... the average shoulder joint usually can't do. And then the other thing are things like muscle tone.

**Justin:** Mm, makes sense.

**Sydnee:** Can affect your hypermobility. And proprioception.

**Justin:** Hmm.

**Sydnee:** Your ability to sense where you are in space can a— If your proprioception is off, you can hyperextend joints in ways they're not necessarily "supposed to" quote unquote go, right? So, it's a wide range, and for me it's just my— especially my left thumb.

**Justin:** I'm not even gonna try this last one against Sydnee, because you made such terrible fun of me when I attempted it earlier.

**Sydnee:** Okay, this one really blew my mind, and I have dug around on the internet, and so this is like— This is gonna be our interactive part, as interactive as a podcast can be, 'cause like I don't know when you're going to listen to this, but I'm gonna need some feedback. Can we make a poll?

**Justin:** What?

**Sydnee:** Can we make a poll?

**Justin:** Probably a way to make a poll for this.

**Sydnee:** There's gotta be a way for us to make a poll.

**Justin:** We'll make a poll.

**Sydnee:** I need to know this, Justin.

**Justin:** Tell you what, I'll make a poll and I'll put it on— in the... the comments of the post.

**Sydnee:** Will you do that?

**Justin:** Yes, I will do that.

**Sydnee:** Because I— Okay, this is not real science, because in real science we need like a random sample and we need to blind it, and there's a bunch of stuff we gotta do. So this is just for funzies. We're just doing this for funzies.

This is— Okay. Can you flare your nostrils? [pause] And I don't mean like move your whole upper lip. Like that's what— When I asked Justin if he would flare his nostrils, you were— You wanna do it for me? You were like scrunching up your whole face.

**Justin:** You don't have your glasses on, I'm not gonna do that for you. Just so you can laugh at me again.

**Sydnee:** I can just— I mean you can— Justin, can you verify that I am just flaring my nostrils?

**Justin:** [whispers] You are.

**Sydnee:** Yeah.

**Justin:** [whispers] It's incredible.

**Sydnee:** Ju— They just like flare open and closed. So I'm using one of my nasalis muscles, or well my nasalis muscle that has two parts, one muscle has two parts. And it sits on the sides of your nose and gives it its shape and structure by compressing all that cartilage.

So like the tip of your nose is also mushy and made of cartilage, right? If you go up— like just above, like on the sides of the bridge of your nose, this is all— There's muscles in here, and it— the main function of these muscles is really just to give it that structure, and compress that cartilage, and give it that shape.

Because your nose doesn't move a bunch. [chuckles] It do— You don't need to pick things up with your nose, or whatever. But... some of us can use that muscle to flare our nostrils. Now I have found this stat that only 30% of people can flare their nostrils. I assumed everybody could do this.

**Justin:** Mm-hmm.

**Sydnee:** But obviously, here we have our sample of two, it's 50/50. Now that's not a good sample.

**Justin:** No.

**Sydnee:** It's two people.



**Justin:** It's not.

**Sydnee:** But I am now— And I cannot find a source for this. I have scoured the internet for a source for this “30% of people can flare their nostrils” statistic, and I have found it quoted many places, but not cited.

So I don't know where it comes from. Why do we think only 30% of people can flare their nostrils? Somebody must've said this at some point, but is this true, and can we?

Now, I will say, I was actually looking to see if we can wiggle our noses. Like can anybody do what Samantha on *Bewitched* could do? That's what I really wanted to know.

**Justin:** The [sings] do do do do do! [normal] Where her nose scoots back and forth?

**Sydnee:** We— That is not something— We just don't— The muscles don't do that. The way she's doing it, and if you look— Like [chuckles] I was watching all these clips of *Bewitched*.

She's actually sort of moving her entire upper lip and that part of her face. She does do it really fast, which is impressive, I can't do it that fast, but that's what makes it look like the nose is wiggling. There's a video of Jessica Chastain doing this.

**Justin:** Really?

**Sydnee:** 'Cause she wanted to learn how to do it because of *Bewitched*. [chuckles] And she can do it too, so I guess it is something you can probably teach yourself how to do. To wiggle your nose back— To wiggle your upper lip back and forth so quickly that it makes it look like your nose is wiggling. But flaring your nostrils, this is what I need to know.

**Justin:** Okay, there'll be a—

**Sydnee:** Can you flare your nostrils?

**Justin:** There will be— I— Rachel's gonna put a poll in the post.

**Sydnee:** Okay.

**Justin:** So go to [mcelroy.family](http://mcelroy.family)—

**Sydnee:** This is gonna—

**Justin:** — and find the post about this episode.

**Sydnee:** This is gonna be a purely anecdotal. We don't— This is not a scientific number. I don't want to— I don't wanna put more misinformation out there if this 30% is also fake, 'cause I can't verify it.

**Justin:** But maybe we can get somewhere with this data.

**Sydnee:** Maybe we can get somewhere. Can you flair your nostrils? And if you're not sure, have someone look at your while you're doing it.  
[chuckles] Justin didn't know.

**Justin:** Hey, while you're heading over to [mcelroy.family](http://mcelroy.family), maybe you should grab yourself a ticket to come see *Sawbones*. That's our podcast that you're listening to now.

**Sydnee:** That you're listening to now.

**Justin:** This— It's this one. We are going to be performing with *My Brother, My Brother And Me*, a bunch of stinkers if you ask me, July 18<sup>th</sup> in Detroit at the Fisher Theatre, July 20<sup>th</sup> in Cleveland at Temple Live.

You can get tickets over at [mcelroy.family](http://mcelroy.family), just look for the tours, or anywhere that fine tickets are sold, I guess. Get tickets to those, please come out, it will be fun, and afterwards you get a free *My Brother, My Brother And Me* show, but you have to buy tickets to our show. That's the way I'm pitchin' it.

**Sydnee:** It'll be a lot of fun, we haven't done a live show in a while and I've missed it, so I'm lookin' forward to it.

**Justin:** Thanks to the Taxpayers for the use of their song "Medicines" as the intro and outro of our program, and thanks to you so much for listening, we really appreciate you.

[theme music fades in]

**Justin:** That's gonna do it for us. Until next time, my name's Justin McElroy.

**Sydnee:** I'm Sydnee McElroy.

**Justin:** And as always, don't drill a hole in your head.

[outro theme music plays]

[ukulele chord]

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