Podcast: Imagine This

Episode: Why do we have bones?

Duration: 9’22

Bri: Hello, Bree here. Before we get started today, I want to say hi to Tai.

Tai: Hello!

Bri: Tai's 12, and he asks so many questions, he has his very own podcast, 'Tai Asks Why'. So what do you ask, Tai?

Tai: I ask questions like, "What is love?", "Why do we dream" and even questions about death.

Bri: Who are you asking?

Tai: I talk to my family, I talk to my friends, and I also talk to these great experts. I even talked to NASA.

Bri: So what's it like to be the one holding the microphone?

Tai: It was really cool. You get the feeling of like, "I can communicate what I need to." It makes me really feel like I'm being heard.

Bri: Check out 'Tai Asks Why' from CBC wherever you get your podcasts. Now, on with the show.

[ABC Podcast sting - This is an ABC Podcast]

Bri: Hello, I'm Bri. Today on 'Imagine This', we're going to be looking at something that we can't always see but we can feel it inside our body. If you put your hands on your knobbly knees, can you feel your bones underneath?

Kids: I can feel wobbly bones. I can only really feel them in my leg.

Hey my bones are wobbling!

Mine can move like this

[clicking]

Bri: Ah, your bones can move?

Yeah.

Bri: Yeah. Are they hard or are they soft?

Bones might be really hard, the hardest thing in our body.

Bri: So what are these hard, knobbly bones doing inside our body?

Jake: My name is Jake, and I want to know why we have bones.

Bri: Good one, Jake. I wonder what our bones do for us.

[Exciting quirky music]

Kids: Just doing nothing.

To make us move.

The bones help us move our leg, help our legs to stand up. Otherwise we'll just slump down all the time like a piece of paper.

If you had no bones and you jumped on to the ground, you would just be a pile of goo.

Bri: So it might not seem like our bones are doing much inside our bodies, except for helping us stand up and not turn into a pile of goo. But I think there's more to it than that. Today on the show we're going to talk to Dr. Emma Duncan. Emma is a professor of medicine at *two* universities, the University of Queensland and the Queensland University of Technology. And she's using her bones to sit and talk with us today. Hi Emma.

Emma: Hello.

Bri: So Emma, I have bones and you have bones. Do we all have bones?

Emma: Yes. We all have lots of different bones. Lots of different shapes. Lots of different sizes. And they do lots of different jobs.

[Quirky playful music]

Bri: Where exactly. Do you think our bones are?

Kids: Inside your body.

They're inside our skin.

Inside you. There's like pink muscles under there.

Yeah.

Bri: What do our bones look like underneath all our skin and muscle?

Emma: We've got some bones that look like pipes. Like our long bones of our arms and our legs. Other bones look like plates. Or like a helmet, like our skull.

Bri: Our skull? You mean we have a bone in our head?

Emma: Yes. Some of our bones work like armour. Our skull is like a helmet put on our head to protect our brain. We even have rib bones, curved bones that wrap around our chest.

Bri: Bones that wrap around our chest?

Emma: Yes.

Kids: So what are these bones for?

Emma: This is our rib cage. And inside are our heart and our lungs

[inhalation, exhalation].

Kids: Soft things.

Emma: Yes, our heart and our lungs and even the brain in our skull. They're all soft parts of our body. Yep. Our bones help to protect our body.

Bri: So all the bones in my body put together, look like a skeleton?

Kids: Skeleton!

Skeletons look a bit like people.

Bri: Yeah. Skeletons do look like people. Emma, am I a skeleton?

Emma: Yes Bree, you’re a skeleton.

[Xylophone sting]

Bri: Wow. So what do my skeleton bones help me do?

Kids: Bones make you move everywhere.

Yeah.

Emma: Yes. Our bones mean that we can move.

Bri: How do our bones move?

[Building anticipatory music]

Emma: Our muscles move our bones.

Bri: So our skeletons get pulled around by our muscles?

Emma: Yep. So our muscles attached to the bones with the ligaments. And then when the muscle squeezes, it pulls on the bones and then that's what creates movement.

Bri: So our muscles and our bones work together to help us move.

Emma: Absolutely! Our big bones working with our big muscles to help us to make big movements like running and jumping. The little bones work with the little muscles to do fine things like doing up a button or typing on your computer screen

[typing sound]

Bri: So if I didn't have skeleton, I couldn't do much at all.

Emma: If you don't have a skeleton, you wouldn't be able to walk or dance. And I've seen that dance move.

Bri: You've seen my funky skeleton dance? Oh, we have to do it. Come on. Let's move those bones.

[Rattling xylophone music]

Emma: This is the funky skeleton dance. Can you wiggle your fingers and wiggle your toes?

Kids: Leg bone out, arm bone out. Move them up, move them back.

Emma: Can you move your arm bones?

Bri: Yeah, I can move my arm bones like this.

[Kids giggle]

Emma: And your leg bones?

[Music builds]

Bri: Yeah. Watch my legs. Watch my legs. Look at them move.

Kids: Leg bone out, arm bone out. Move them up, move them down. Shake your ribs and shake your head. Turn around, I'm going to bed! [Kids giggle]

Bri: That felt great. I love dancing with my skeleton. These bones are pretty amazing. What else can they do?

Emma: Our bones help store some of the things that we get from food.

Bri: Like what?

Emma: Calcium from foods like milk and yogurt and cheese.

Bri: What are our bones storing calcium for?

Emma: For the electricity that works our heart and the electricity of our muscles.

Bri: Wow. So our bones have some very important jobs to do.

Emma: Yes. Our bones make the cells that fight germs.

Bri: Our bones can make stuff.

Emma: Yep. You might not realise this, but our bones even make our blood.

Bree: Our bones can make our blood cells?

Emma: Yes.

Bri: So they don't just help us dance. They help us stay alive.

Emma: Absolutely.

[Dramatic piano music]

Bri: So Jake, underneath your skin and muscle, you have lots of different bones that make up your skeleton. And even if it doesn't seem like our bones are doing that much, they're actually very busy. They help us stand and move and our hard bones can protect some of the soft parts of our bodies. They even make our blood and help to keep our heart beating. If we didn't have a skeleton, we wouldn't be alive. So wherever you go and whatever you do, your skeleton is like your best friend. It's always there with you to help you out. And it will stay with you for your entire life.

[Music concludes]

Bri: Imagine This is produced by me, Brianna Peterson, and is a co-production between the conversation and ABC kids listen. Additional sound and mastering for this episode by Bryce Holiday. To hear more episodes of Imagine This plus a range of stories and music for young children, download the ABC Kids listen app.