Alberta Piano Teachers Association
"The Launch" Webinar Series

"Body Mapping" presented by Dr. Bianca Baciu
October 23, 2020

HOST (Chelsea Bustin):
I'm going to tell you a little bit about our presenter this morning. Dr. Bianca Baciu has led an active career as soloist, chamber musician and pedagogue, and has received numerous awards including the University of Ottawa Marusia Yaworska Award for the most talented musician in Canada and the prestigious Izaak Walton Killam PhD Scholarship for research at the University of Alberta under Dr. Jacques Despres.
She recorded a world premiere CD featuring piano solo works by Canadian composer Jack Behrens, released by Centaur records in 2008. Her book "Death of the Author - A Tribute," discussing postmodernism in Jack Behrens's piano music, was released in 2008 by VDM Publishing in Germany.
Dr. Baciu currently teaches piano and performance wellness at Alberta College, Grant MacEwan University, and also maintains a full private teaching studio in Edmonton, so she is very busy, I'm imagining. [laughter] Yes! Her students have won awards and scholarships at national and international competitions. In 2017, she became a certified mindfulness instructor, dedicated to the study of body and mind awareness strategies as teaching tools in the field of piano performance. She is also an RCM Examiner, a licensed Body Mapping Educator and a certified Performing Arts Medicine Educator.

So we're really really thrilled to have her with us this morning. Before we dive into the session I also want to acknowledge ARMTA, the Alberta Registered Music Teachers Association who sponsored this session for us. We're really grateful for them. They're a professional organization representing and serving over 450 music teachers in Alberta and I did send out some information about them and I'll tell you a little bit more about them at the end as well. We really want to thank ARMTA for sponsoring this session.

So the last--what are we calling this--webinar that we did was more of a presentation style and so today we're hoping for this to be a little bit more interactive, so what I would like to is before we begin here, if you are willing to come into the video portion with Dr. Baciu and I, if you wouldn't mind just putting that in the chat, you can say "yep, I'm in" or do a thumbs up or "I'm okay with that" and then I'm going to start bringing some of you into the video as Dr. Baciu starts to work with us. It's going to be back and forth and so she's told me she's very open to questions. What we would ask is that you keep yourself muted for the majority of the session and then if you want to answer a question or ask a question you can unmute yourself and do so. You can also put questions in the chat box and I'll be monitoring those and make sure that we get to them at the end. I see quite a few of you are great with that so that's wonderful. I'm going to start to bring you in and I'll turn it over to Dr. Baciu to introduce a little bit about the session as I start to bring more of us in here.

Dr. Bianca Baciu:
I am so excited to actually see faces. It's really hard to do these kind of sessions without being able to interact and seeing how people move around and how they carry themselves. You can actually unmute yourselves for now and I think that should be fine so we can chat a little bit and then please feel free to ask questions at any time, especially if I say something that doesn't make sense or I say something that you disagree with or your experience has been different. Please make sure that you

ask or you clarify so that everybody walks away with this with something that is of benefit to them. That's quite a few people. That's nice!

Host (Chelsea Bustin)
Yeah, there's quite a few that are willing so I'm going to keep adding some more in.

Dr. Bianca Baciu
If you can position your laptops or computers in such a way so that I can see you move around the room, we will be moving about a little bit, so make sure you have some space for that. If it's okay to start with this, I would like to hear a couple of words, at least from those who'd like to say a couple of words, I'm not going to push for everybody to say something now, but if there are a few that would like to say something as far as why you're here or your experience with body mapping or your interest or your needs, if there are any injuries or repetitive strain or if there's anything about your playing or your students playing that you would like to address today. So if anybody would like to say anything, please unmute yourself and feel free.

Participant:
I'm hoping to learn something that will help me with the carpal tunnel syndrome that I'm dealing with.

Dr. Bianca Baciu:
Okay. And is it chronic?

Participant:
Yes, I've had it for quite a few years and then it kind of subsided and now it seems to be back in full force again.

Dr. Bianca Baciu:
Alright, sounds good. We can certainly chat about that today. Anybody else?

Participant:
I am hoping to get some help for the arthritis that I have in my wrist.

Dr. Bianca Baciu:
Right. So there's a lot of wrists today. [laughter] Alright, sounds good. Good morning to everyone. I can't see all of you just yet. Some of the screens are still dark of the ones that said that they wanted to come on so hopefully

Participant:
I have neck issues, degenerative disc disease, arthritis, carpal tunnel, tendonitis [laughter]. It sucks getting old. But I do have questions concerning my students, especially the ones that love to sit humped over with their backs like that [curved]. It just makes my body ache when I see this. So yeah, again, proper posture for young students especially. And students that are over six foot three is the other issue.

Dr. Bianca Baciu:
We'll talk about that too. And please ask--these sessions are very flexible. They're always geared towards the kind of group that I have, okay, so based on your needs and your interests I can always cater the content so that we can answer most of the questions if not all of them. Can everybody hear me ok? Yeah? We're all good? Okay. So I'm going to start--yeah, we're ready?

Host (Chelsea Bustin):
Yeah. I had a few people in the chat say that neck and shoulders are things that they're kinda interested in.

Participant:
If we can also do lower back

Dr. Bianca Baciu
Yeah [laughter]

Participant:
Well, that's also from my twins. Nerve damage from my--carrying the twins, so. And then a lot of stuff in the upper spine. And then other stuff. Basically in my spine from here down. If you could do that, I would be so happy.

Dr. Bianca Baciu
It's all about body use, right? And not only as an instrument. It's how we carry ourselves during the day and how we think of our bodies. So I'm going to then start with two questions and you don't have to answer them for me right now. Maybe just think about them. Maybe write them down. Maybe just have them sit somewhere in the back of your head so that at the end of the session, after we talk about all of these things you can see how the answers shape up for you. The first one would be: what is your relationship to the floor? So think about that for a second. What does the floor mean to you? I see some faces going 'hmm, what does that have to do with anything?" We'll get to that. The other one is--probably the important one for today-- "What is it that you want to change?" if there's anything that you'd like to change. In your playing, in your body use, in your students playing. So think about these, maybe write them down and then for those of you who have taken workshops with Michele before, this is just an intro session mostly and it will also have some elements of mindfulness and performing arts medicine so there will be a little bit more coming in than maybe you have been exposed to yet, but if you have taken body mapping workshops or classes then maybe someone could answer this--what is a body map? Somebody who's familiar with the concept. [pause] So this is going well, I should answer that.

Host (Chelsea Bustin)
I think Kara has an answer.

Participant
This probably isn't quite right but my understanding is that it's your internal map of where all of your physical parts of your body are so where you understand your fingers to be or where you understand your hips to be so it's kind of your mental picture of your body.

Dr. Bianca Baciu
That's great. So how we think it works together. So if your map has an L shaped foot, you're going to move your body and your feet as if they were organized as an L-shape. If your body map says that your shoulder blades are connected by bone to your spine, which a lot of students believe, then you will move accordingly and your arms will have a lot of restrictions. So it really has to do with how we organize ourselves based on how we think we're put together. We always move based on how we think we're put together. So then body mapping is the constant refinement of this picture that we have of our bodies--of the body map so that our movements become more fluid and more efficient and healthy. It's amazing what a difference it makes. Sometimes it's a simple change of

concept that will release a lot of the tension in the body which is why I have a big passion for body mapping and generally for movement--for healthy movement-- and for how we use our bodies. So why is body mapping important? It's important because it's a tool for improving movement in general, for finding healthier movement, for finding more efficient movement and for finding effortless playing at the instrument which is really important because doing performing arts medicine. I have--before starting it I was not aware about the extent of injury that you can find at all instruments--it's not just piano--it's singers as well, right? It has to do with how we use our bodies and it's not like in sports where injuries are almost glorified and they're catered to and people have teams that will take care of them if that happens. There's a huge stigma that comes with having an injury in the performing arts--you're doing something wrong. So then, because of that we often don't talk about our injuries. We often don't disclose them. We often play with pain. We don't want to lose our gigs. There are a lot of reasons why this has become sort of a shameful situation and so we live through all of this and we're not sure where to go to get some help either. Body Mapping is a great tool in that regard because you can go and do the work yourself. You don't have to go and see--I mean yes if there are medical problems you have to heal them. You have to see a therapist, right, so I should start with this off in the beginning. Body mapping is not meant to heal your carpal tunnel, your arthritis, your thoracic outlet syndrome, all of that. What body mapping is meant to do is give you the tools to change the way you move so that you do not have injuries--so that you know how to move with healthy movement. Are there any questions so far? Please feel free to interrupt or ask or if you have--if there's some interest or if you have adjacent thoughts regarding this please feel free to interrupt. So this is one reason why body mapping is very important.

Here's another reason that's not talked about very often and this comes from mindfulness training. There's an area of the brain that is called the ventral medial prefrontal cortex and among other things this area mediates awareness and the reason why this is very important is because it has direct access to the amygdala in the brain which is the area that is responsible for our stress responses, flight, fight or freeze which are triggered in performance situations, generally under stress but especially talking about performance anxiety. This awareness that comes with body mapping--we call this inclusive awareness and I'll touch on that a little bit more in a minute--gives you the tools to deal with your anxiety in a healthier way in terms of performance and of course this applies to the students as well. Everyone is able to develop this awareness to some extent and then of course with more mindfulness practice it can become quite a helpful tool. So in body mapping we talk about inclusive awareness as opposed to focus because we always say 'oh focus,' or 'get up on stage and forget everybody and just focus on what you have to do' but what that does is induce quite a bit of tension. If you take a second now just put your pens down please and find a point on the wall--a fixed point on the wall and put all of your attention on it. Just do that for a few seconds. Alright. It's wonderful to see you all like this. [laughter]. So focused. Okay, so this is going to prove my point. I wish I could have taken a picture so you can see. How do you feel in your body when you do that because I'll tell you what I see. There's quite a bit of tension in the neck. The breathing has stopped. The jaw is tense, right? So this narrow focus comes with a lot of tension that the body is experiencing because it has to bring all of its potential energy into one narrow space. So now if you are to look at that same point on the wall, but take in the whole wall. Take in any noises that you hear outside, the colors of the objects that you see out of the corner of your eye and sort of feel even in the back of your body. Feel the objects you have in the room as you look at that same point on the wall. I see a couple of people that almost opened their mouths. There's relaxation here. So there's a letting go, there's a taking in of that whole picture. And this is--I mean, going into a lot of depth with this inclusive awareness is a bit outside of the scope of this short session that we have today but just to give you an idea. This is inclusive awareness versus focus on what you're doing. It's like taking a flashlight and shining the light on a very small--say, on your knee on a very small

area so you keep the flashlight very close to you and all you see is the knee. But if you step back a bit you're able to see quite a bit more around you. Maybe your other knee. Maybe your leg. Maybe the bench you're sitting on. It's quite a bit more that can come into the picture and by doing that you're allowing much more space for your performance anxiety, for whatever it is that you're experiencing in that moment. Are there any questions about this?

Host (Chelsea Bustin)
There's one question maybe sort of related to this idea of tension that I've seen come up in the chat a couple of times, especially related to online teaching and the focus that that requires and body positioning and so maybe chatting about that a little bit.

Dr. Bianca Baciu
Yeah. And we'll talk about how we're sitting in general as well. But yes, there have been a lot of eye issues, a lot of migraines and generally exhaustion that comes along with all of this Zoom teaching. I can't--there isn't a magic trick to take that away but what it is is always taking in the space around your screen and always making sure that you're sitting in alignment which we'll get to in a couple of seconds. It's how we sit in our bodies that does not exhaust them to the point that we have to drag ourselves off of the teaching chair or bench or ball or whatever you're sitting on at the end of the day. It's also making sure that you take time--in performing arts medicine they say that for every 20 minutes that we play or teach we should take 5 minutes of rest. We can't do much of that at this point in the lesson. Lessons are not really structured like that. I don't know what parents would think in an hour lesson of taking 10 minutes off after only 20 minutes of teaching. People are not--especially with performing arts--people are not, have not been educated in terms of how taxing this is on the body for the teacher and the performer, so taking breaks is really important and you may think it's not a big thing but it will wind you down. What they say is, if anyone knows [Alexander ??] so lying down on your back and allowing some of that tension that's [??] related to release makes a really big difference. With my students we do that but they have gotten used to the fact that--oh, somebody says that after 20 minutes you can do theory. You can. But basically what it is is giving the brain a break. And not only that but movement. What's really important is that you get to move around, at least for a minute or two. And then you can come back and take another break after another 20 minutes. Performing arts medicine says this is the healthiest way to do it, however we don't do much of this if anything if at all. But something to keep in mind especially if you feel like you're drained, you've had a lot of hours of teaching, your students are tired. Yes, you can change the activities. You can do theory and eye training, but sometimes all they need is to move their bodies a little bit. Alright. Where were we? I wanted to talk about--are there any questions about this? Any other questions? Nobody? Ok. Alright.

So the other thing I wanted to talk to you a little bit is dopamine. Is everybody familiar with dopamine? It's a neurotransmitter, right? It's a chemical that is released in the body and it has to do with how our bodies experience pleasure. So now we know that it's released when people play video games, when they have sexual intercourse, when they eat something very tasty, when they play sports and now there are studies coming out the States that dopamine is also released in great amounts when we practice with healthy movements, when we sit at the instrument and we practice with healthy efficiency this is that same process of releasing dopamine in the body. So then when you have a lot of students who say, 'well I don't really feel like practicing' but that's mainly because it doesn't feel good. If dopamine is released in the body, the body is in a state of feeling pleasure and sometimes it makes a huge difference. I mean, there could be other contributing factors. There can be emotional issues. There can be all kinds of other things that contribute to a practice not being pleasant, but this is one thing that can make a difference--changing the movement and feeling pleasure in how we move at the instrument.

There's a problem with the sound? Is anybody else experiencing this? Yeah? I don't have original sound on so I'm not sure. Is it really disturbing? How severe is it?

Participant:
It's just a fuzzing sound when you're talking? So it's like a background thing. Yeah, fuzzing or hissing kind of thing. I'm not sure what's causing it. That's okay.

Dr. Bianca Baciu:
I'm not sure what I can do about it right now. If anybody has any ideas. I don't have original sound and I'm not sure what else. The volume is not all the way up because sometimes there's static with that.

Participant:
Are you using a microphone or are you using just the sound?

Dr. Bianca Baciu:
I'm using the laptop, yeah.

Participant:
Oh, it might be the laptop mic. That's probably it.

Dr. Bianca Baciu:
I've never had troubles with it before but who knows. Every day is a different day. Is it okay enough though? Can you hear me? Can you hear me well, can you understand everything I'm saying? Yep, okay. If it bothers you maybe we can disconnect and I can come back on, but I don't know, I don't want to take precious session minutes if we don't have to. You let me know. Okay? Any questions about this? No. Okay, so you see so far we talked about a lot of body awareness and body awareness in terms of what happens inside the body as we play. Often what students tend to think, and some of us too, is that first they learn our notes at the instrument, and body awareness comes later. Body awareness is such an important part of the learning process. It's the first and most important thing that has to come into the learning process. Before learning notes, before doing anything else, and then we talk about how we sit at the instrument and how we initiate the learning process. With the idea in mind that music is movement and everything we do at the instrument is movement, outside and inside of the body so we have to think of everything that we create at the instrument in terms of fluidity and efficiency being that it is movement.

This is a bit outside the scope of body mapping but I wanted to touch on biotensegrity as well before we talk about the main things today which are the points of balance in the body. Is anybody familiar with biotensegrity? Or Tensegrity in general? Tensegrity comes from two words. One of them is tension and the other is integrity and basically it has to do with the idea that in any organism there is a network of elements that constantly expand and contract to maintain the integrity of that organism. So in our bodies, the bones are keeping the muscles expanded. The muscles and the soft tissue with their contraction reflexes are keeping the bones in that same network. I'm going to show you. Here's a model of the spine. This is a biotensegrity model of the spine. So as you see there's buoyancy, there's elasticity and there's tension in a good healthy way, as in things being elastic. Now what happens is if at any place in this structure I take away elasticity, it's going to affect the rest of it and the whole structure will lose its buoyancy. Can everybody see this? So when it's free there's give. There are the bones, there are the muscles, the soft tissues. Now as soon as I go and limit movement in one area of this there's no more buoyancy for the rest of the structure. So what happens with that--go ahead.

Host (Chelsea Bustin):
The word you were saying--biotensity? Is that the right word?

Dr. Bianca Baciu:
Tensegrity.

Host (Chelsea Bustin):
Can you spell it for us in the chat?

Dr. Bianca Baciu:
Sure!

Host (Chelsea Bustin):
Just for those of us that would like to research it a little bit later? It's not a word I'm familiar with at all.

Dr. Bianca Baciu:
Here we go. Tensegrity.

Host (Chelsea Bustin):
Oh interesting. Thank you.

Dr. Bianca Baciu:
So tension and integrity together.

Host (Chelsea Bustin):
Thank you.

Dr. Bianca Baciu:
You're welcome. This is what happens in our bodies. If we have constriction anywhere it will affect the way the whole body works. And if you don't believe me, why don't you go ahead and stand up. Take a second and stand up and wiggle your fingers. Just wiggle your fingers, both hands or just one hand. Now pick a foot--just one foot-- and stand on it. Stand on one foot and wiggle your fingers. Can you feel a difference in your movement? Yeah? Can everybody feel a little bit of constriction? It's because the body doesn't have the previous fluidity in it. So this brings me to how we sit at the instrument and how we carry our body. Anywhere in the body that you have tension. So sometimes people will say 'oh, my lower back really hurts.' Sometimes the reason is your left foot or your right shoulder. It could be so many things, right, because everything is connected with this fluidity of our body. So how do we stay in balance in this biotensegrity structure that we have is by being familiar with the points of balance that we have in the body so that we can always bring ourselves back in alignment. I have a spine here to show you some of the things and my students love this one too because it's colourful. We'll talk about the spine in a second. I might have to--I'm going to write this down in the box here for some of the things that you're not sure about.

So the first point of balance in the body is the AO joint. If you look at the mascot--the body mapping mascot--the printout that you got for the session you'll see that that's the top of the skeleton where the body where the skull connects to the top of the spine is the AO joint or the atlanto occipital joint. That's where our head connects with the spine. Now if you ask people in general and almost every single student where their head connects to their spine, they will tell you

at the back. So what happens with that is a lot of people think that the spine connects to the head somehow like this--here's the head and here's the spine. They will always have their heads forward--leaning forward but if you actually look at the skeleton you'll see that the spine connects to the skull quite a bit more centrally than that. If you put your index fingers in front of your ears--right in front of your ears on one and the other side and you point them at each other, halfway between that distance is where your AO joint is and it's central. At that joint the only movement that is available to us is a very slight like we seem to be nodding. You can't do left or right--that's the second vertebrae but at the atlanto-occipital joint that's all we can do. So what you can try with your students. Actually, if you want to put your thumb on your front teeth and a couple of fingers at the back [of your head] where the indent is, and you gently tilt with your hands back and forth and imagine your joint is right in the center, between your thumb and the back fingers. That will give you a pretty good idea of where your head should be. Most of the time when we sit at the instrument, our heads are way forward. What happens is because the head leads the spine, if the head is out of alignment, then our spine is going to be out of alignment. Questions? I see any questions?

Host (Chelsea Bustin):
So I think I could see myself talking about that with a student, and then would think 'oh that's really cool!', and then what?

Dr. Bianca Baciu:
Then comes our kinesthetic centers. Our kinesthetic centers our body and movement, right? So if the student can start mapping where that joint is, they won't hold their head here anymore because it won't make any sense. Does everybody have a flowerpot or something similar nearby? Or a jar, or a big cup. Sure! That works! Okay, so take a look at this. If you do this with a student, it's eye opening. So if everybody can find a support space for their elbow. You can put your elbow down if you have a desk in front of you or a ledge or anything, a shelf, anything that will give you support. I'm going to use my hand just to hold my arm so you can see. Okay, so this is my neck, this is my head here. So now if I start tilting forward, the more I tilt forward the harder it will feel on my forearm. So this pot is pretty heavy, I don't want to dump all the things out of it, but if you start tilting the forearm forward to support this pot that is moving forward you will feel the strain on your muscles--the muscles of your forearm. By the time we're here [heads forward]--our heads are usually what, 10-12 pounds? By the time they're down here, the neck perceives them as if they were 60 pounds. That's how biotensegrity weighs on the muscles of the neck when the head is not in alignment and all the way down like a lot of the students. It's not just when we play, it's when we walk around too. We walk often with our heads forward, leading the way. So seeing that the head is so so important in seeing or ensuring that there's alignment in the body it's important that your students understand where the head connects, where it belongs in the body. Or, not always, but with reminders, it's a process, right, with reminders they will be able to find it in their practice which is what we want. We don't want them to just view it as a lesson. We want them to be able to find it when they practice in their own bodies and in their everyday use as well. Questions about this? Okay.

The AO joint is really really important because of this. Another reason why it's important is because if you look at the mascot, if you look at the page you will see that the third point of balance is the lumbar spine, so our lower back. I'm going to skip over the arms for now and I'll go back to them later on. The lumbar spine, when in alignment, is right under the AO joint. A lot of people think that the lumbar spine is quite a bit more arched than what it actually is. A lot of them think it's far--quite a bit forward, which brings me to sitting up straight. Why can't we sit up straight? I hear a lot of piano students and teachers saying 'if you want to have good posture at the piano you

have to sit up straight.' But can we sit up straight? [our spine has a] curve in, curve out, curve in, curve out. Lumbar in, [tailbone?] out, so everything's like this [makes S shape]. It's a bit of a spiral. So can we sit up straight? Not really. What happens when people try to sit up straight, they sit up and they bring their shoulders back and their head back and they overarch their back from here [mid-back] to their bottom, to make sure that they have good posture. Yeah, go ahead.

Host (Chelsea Bustin):
I was just going to say, could you talk about that one more time a little closer to your laptop? We were having some trouble understanding you with that section.

Dr. Bianca Baciu:
Okay, so, from where?

Host (Chelsea Bustin):
When you stood up to talk about the spine and you talked about the lumbar part. From there on was a little bit hard to understand.

Dr. Bianca Baciu:
Yeah, so I was talking about the fact that a lot of people have a lower arch lumbar spine when they're trying to sit up or stand up straight. Actually why don't you try yourself? You can stand up or you can keep sitting down if you like and whatever standing up or sitting up straight means to you go ahead and find that and see what your shoulders do when you do that? A lot of people put them back and your chest forward. What happens to your pelvis then? It tilts, right, and there's an overarch in the lumbar area. Does that make sense to everyone? Yeah. So a really good way to bring your lumbar spine back in alignment is to walk backwards. Go ahead and try that. Find a place on the wall that you can fix your eyes on and go ahead and walk backwards and what you can see happen is that the head has a tendency to go back into its place and the lumbar spine will align underneath the AO joint. So take small steps, yep. Make sure you have room. There's a question here from Stephanie. She says "I wonder if I can sit and play one hour of repertoire with straight posture." No, we're not straight. That's the whole point, right? The spine is all curved. What we don't want is to be straight because straight means tension. We're going to flatten ourselves. We're going to bring our body parts out of alignment so that we can fit a straight line, but we're not a straight line. We are all curved inside our bodies. So what we do want is a sense of alignment of our points of balance because from there you have fluid healthy movement in all directions. Does that make sense Stephanie, I hope. Yeah? Okay. Are there any other questions that I didn't see?

Host (Chelsea Bustin):
I don't think so. The sound seems to be better when you're closer to the mic. Has it been better for you guys too? Yeah? Okay.

Dr. Bianca Baciu:
Okay. I turned the volume all the way up, so hopefully. Again, I've never had problems, and this is a really good microphone that I have here, so I'm sorry that that's the situation we have here today but as long as you can still hear me and you understand everything I say, so just make sure you ask questions, okay? It's really important to understand why we shouldn't sit up straight, because that's all tension and what it is and what we talk about in body mapping is that using big movements--we're not going to be sitting for one hour and playing repertoire in the exact same place in the exact same position with the exact same sound. The idea is to move however we need to move to allow us to return to our alignment to our points of balance. The idea is to feel --so when we sit in alignment the idea is so the head is spinning upwards, and there's a sense of suspension

and buoyancy and when we move out of alignment, which can happen, right, there are pieces that sometimes don't leave you any other option but to go out of alignment but knowing that is very important for awareness. It's important to know when you are in alignment and when you are out of alignment so that you can return to it. So what should we say instead of sitting up straight? Sit in alignment. Sit so that there's freedom in your body. 'Sit up straight' takes away a lot of your freedom. So going back to the arms, which was our second point of balance. Um, sit neutral. Well that's interesting. Well, I guess it depends what neutral means. I would be curious about it [???]. Usually when we say neutral it means neither this nor that. That's much harder to explain to a student.

Host (Chelsea Bustin):
My teacher at the time explained it as a way of, so you felt almost weightless and buoyant so that there wasn't stress on the spine. I think that's what she was trying to accomplish with me anyways because I was so straight.

Dr. Bianca Baciu:
Right. I think one of the ways to find buoyancy is to find your support. So what supports us when we sit or stand? That's a really important question because that's how we find buoyancy. You're moving upwards and you have that support but we can move away from it in suspension whereas if you were just floating around like balloons in the air there wouldn't be much alignment. It would be flimsy. Does that make sense? So there always needs to be a point of support. When we sit, we have the sit bones, right? So here's something that's really important about finding these. How do we find these if the head is out of balance and you're sitting. Because we can't just sit on the bench and say 'bring your head in alignment.' What's that going to mean to a student? Not much unless you put a flower pot in their hand. So what you can do is find the sitting bones. Actually everybody can do this. So put your hands under your seat, one on the other side, and find those two bony tips. Can you hear me? Can you hear me?

Host (Chelsea Bustin):
Rosemarie, we can't hear what you're asking.

Participant:
I had my mic muted. Sorry. Where are we supposed to put our hands?

Dr. Bianca Baciu:
Under your bum cheeks [laughter]. Under your bum cheeks and find the bony tip and then one on the other side. Those are your sit bones. And just sit for a second. Just feel them. Wiggle around. Find them. Those are your sit bones, and that's what we sit on to find balance. So when we sit at the instrument, we bring ourselves up from the sit bones up. We bring ourselves up into spatial alignment from the sit bones. Now go and sit just a little bit back--just a little bit back of your sit bones. You're going to find that your abdominal muscles contract, that your knees are constricted because they're trying to keep you from falling over. You're going to find that your head is moving out. Now come back and move forward of your sit bones being in alignment. What happens now? If you're way forward of your sit bones there's tension in your thighs and in your feet and again your head will hinge forward. Now this is not to say that we can't shortly visit these positions. It's really important that we don't spend a lot of time there so that it becomes our alignment. A lot of the kids, young or old it doesn't matter but especially teenagers, play way back with the head hanging forward and the back arched so there's a lot of compensation in the muscles that happens with this because everybody's working really hard to keep you in some kind of alignment. That's why the arms--we'll get to the arms, I should try to get to the arms [laughter]. We'll get to the arms super

soon. So finding your sit bones means you have support and then from there you bring your head in alignment.

Participant:
I just wanted to add something really quick about that that I've noticed with my younger students. If they don't have a foot stool, especially at home. I have one in the lesson but they absolutely have to have a foot stool at home and I actually get the parents to take a picture and send it to me and we have this little thing in the binder that they look at every day because otherwise--kids are used to doing this in their everyday lives anyway--they're short and adult sized chairs don't fit them, so they do all sorts of funky things with their legs or they'll sit on their feet, or wrap them around the piano bench and so that's the other point of balance so.

Dr. Bianca Baciu:
That's a really important point. You need support under your feet. At any age. Because what happens--the spine is weight bearing and also weight delivering. It bears our weight but it also delivers the weight into the bench if we sit or if we stand through the pelvis into the legs, into the floor. So the floor is our support and when we sit the bench supports us in a sense but the floor is really important and if you don't have a good connection with the floor, your abdominal muscles are gonna be--other muscles too. You see a lot of people playing with their abdomen contracted and because the foot and floor are not making the kind of contact that you need to have for support for the body. Does that make sense? Okay. Somebody says "I've got a 4 year old student with foot support--" There are those adjustable foot stools that come really really high, so even if you have a little peanut they make them that they come so high that you should be able to use it.

Alright, so the arms. A lot of people, and especially kids, if you ask them to draw--just out of curiosity, ask your students to draw their arms and their spine and what you will see is that they draw bones from their shoulder blade if there are even shoulder blades and the spine. A lot of people think that their shoulder blades are connected to the spine by bones and because of that when they move their arms they don't move their shoulder blade. Their movement is restricted because you can only get so far with the arms without moving the shoulder blades. In body mapping we say that any movement that is 30 degrees or more away from the body requires the shoulder blade to move. So if in your body map there are a bunch of bones at the back that are restricting your shoulder blade then there's going to be a lot of this [small movements]. This is where you find a lot of finger technique--a lot of playing just from the elbow down. Questions about this? Is it a revelation to anyone? Alright. So the arms are like a yoke that's just balanced over the spine. They're suspended from the top of the head by soft tissue and they're supported from underneath by soft tissue and muscle. So they are--there is always a feeling of suspension and buoyancy in the arms but if the head is out of balance then the arms will be restricted and out of balance as well. Does that make sense? Because all of the soft tissue by which the arms are hanging from the head will be dragging the arms forward if the head moves forward. Does this make sense? So anytime the arm moves away from the body--because I see a question here-- it's called a humero-scapular rhythm. I'm going to type it. So the humerus is your upper arm bone and the scapula is your shoulder blade. Humero-scapular rhythm. It's really really important that the students understand at any age that the arm should not be moving away from the body without the shoulder blade being engaged and also understanding where the arm connects to the body. If you ask everybody, or anybody what the first arm joint is, they'll say somewhere here, maybe here [upper arm], I don't know. The arm connects to your sternum here [bottom of neck] so your clavicle connects your arm and it's the only bone that actually connects your arm to your bony structure. The only bone. The rest is all soft tissue and muscle that creates support for the arm. So anytime we move the arms we have movement here [clavicle] if the arms are free, and movement at

the shoulder blade. I see a lot of people going 'huh' [and nodding]. But this is what freedom is. It's finding the origin of movement and where arms move from--where everything moves from and what affects our movement. Right? So if any of these six points of balance (and we've only covered three), but if any of these points of balance is out of balance, all of the others will be as well. Any questions about the arms? Or I will move on to the hips. No questions, okay. Yeah? Do we have a question?

Host (Chelsea Bustin):
Yes, there's one in the chat. With our arms forward while playing or typing or playing violin, the tension still builds due to the position of the body. How do we deal with this?

Dr. Bianca Baciu:
But are they--if we are in constant movement, tension cannot build unless we're not in alignment. Does that make sense? So if our arms are forward and we're always with them forward. It doesn't matter what we do, they're always here, and our head is forward than that's not really in balance? So always--if you feel tension, something is out of balance for sure. You have to find what it is. You go back to your sit bones, you bring your head back in alignment, and then find what is restricted and where, if that makes sense.

What were the three points of balance? Okay, so so far we have the AO joint, we have the arms and the lumbar spine. Abdominal muscles are not points of balance, though there is a point to be made about the core in general. You will see that all of the points of balance that we talk about are close to the core of the body. This is like the core of an apple that supports the apple, not like your surface abdominal muscles. They call them core in your gym class, in your Pilates class, but that's not [laughter] really the core of the body. The core of the body is at the center of the body that holds you from where you can move in all directions with efficiency and fluidity if you're in balance.

Okay, so now with the hips there's a very common misconception that when we bend over we have to bend from the waist, but what is the waist because there's no--if you look in an anatomy course, there's no waist. There is no anatomical body part called the waist. So if you look at the way the body is built and where there's freedom in terms of bending over or moving sideways, that's at the hip joint. A lot of people think that their torso ends at the waist and their pelvis is somehow part of the legs, but that restricts movement quite a bit and also your breathing. So if you want to all stand up and find your hip joints, they are not where your waist is. Your hip joints will be where your leg, if you swivel your legs, go ahead and swivel it. Yep! They'll be quite a bit lower. Right here. So put your hand where you feel that little indent in the side of your leg and swivel your leg and you'll feel movement not at the waist but quite a bit lower. Can everybody feel it? Just swivel your legs and see if you can feel it and I'll show you. Here, this is Bob. So here, this is the top of our femur bone right our upper leg. This is the greater trochanter. This is where our hip joint is as opposed to up here. Down here, this is where we move from. This is where we bend forward from. So if you try to bend forward from the waist, that is going to put a lot of stress and tension on your lower back muscles and on your lumbar vertebrae which are not designed for bending over. They're designed for support. So if you have a lot of lower back pain, one of the reasons could be that you move from your waist a lot. When you bend over to brush your teeth, maybe you bend from the waist. When you bend over to rinse your dishes in the sink, maybe you do it from the waist. If you can find and it looks like most of you have found your hip joints. If you can find your hip joints and bend from there, you will find a lot of freedom. I know it looks odd to bow on stage from your hip joint. I get it. A lot of the students are very reluctant about this and they don't feel quite right, but here's this: you can try it and feel no tension, or you can continue bending from the waist and straining your back. And yes, maybe when you're seven it doesn't matter that much, but even a seven year old body can

feel the difference between pull in the back and no pull and freedom when you move from the hip joint. Any questions about this?

Host (Chelsea Bustin):
I feel like this would be a really great way to introduce this to some younger students, too, in the context of a bow.

Dr. Bianca Baciu:
Mmhmm. What it is, so you will see if you try to move only from the hip joints but with your legs straight, your knees will lock. So for support, ideally our knees are slightly bent and our ankles a little bit as well and then we can bend on top of that with a lot of support from the ground. Does that make sense? I know it doesn't look as pretty. But then again, we're all about pretty here in places and times when we don't need to be like wearing really high heels on stage and killing our legs and feet to try and pedal with those on. Whoever said we need to do that I don't know but we do it. It's just one of those things. I have to be pretty on stage and so I have to move my body in a really healthy, fluid way. So this brings me to the knees, and we don't talk about knees so much because we sit at the instrument but they can lock and they can experience a lot of tension if we're out of balance. So the knees can be bent, right, which we know, can be in balance, or can be locked. If the lumbar spine is out of balance your knees will lock so you don't fall over. If your head is out of balance your knees will lock so that you don't fall over. So there's a lot of wear on the knee and on the thigh muscles to keep us from falling over and a lot of people that have hamstring problems that are chronic, they are not from working out, have them because of their body use, because they're often out of alignment and then the knees can't--the thigh muscles have to work really hard to keep us.

What about a curtsy instead of a bow? Sure, you don't see much of that on the big stage [laughter]. Anything--people are not that educated in terms of this--so you have a really fancy audience eating their bon bons and seeing a curtsy instead of a respectable bow. I'm fine with that if you ask me, but I don't know again [laughter] what's a matter of what's acceptable out there or not. Little kids are fine to do curtsies I think but bring a teenager to do a curtsy and I don't think it's going to work that well. They'll feel awkward too, doing it, because it's not a cutesy thing anymore, right? We can get away with a lot of things when we're little. Yeah, go ahead, Chelsea, you wanted to ask something.

Host (Chelsea Bustin):
Yeah there's a question in the chat to me. If you have double jointed knees, should you still bend them a bit while bowing?

Dr. Bianca Baciu:
So double jointed situations are different and with that you have to work with therapists usually because what happens is a lot of people stiffen the muscles around the double joints and you will see this with students who are double-jointed in the hands as well. There will be a lot of stiffness in the hands and in the forearms so that they can avoid their joints collapsing and that only leads to more problems because it's not going to fix the double jointedness. What it is mostly with these situations--I mean they make all kinds of contraptions to put around your joints that are double jointed to allow for freedom to some extent but to keep them a little more reliable but mostly understanding the double joints in the context of the body is most important and what its place is and what its strengths and weaknesses are. People who are double-jointed have a lot of flexibility so that's good because some of us don't have, right? They just have way to much of it but in the context of a body that needs flexibility that, if you can make it work to your advantage and in a

healthy way is not necessarily something that is not at all beneficial so I always say unless there's a medical condition that needs to be addressed, work with the body that you have and find fluidity in it the way it feels and the way its designed and put together. Any other questions that I missed? Okay. So the last point of balance--

Host (Chelsea Bustin):
We have one here. On the video. Go ahead and I'll ask you to unmute there. You'll have to just click unmute. Do you have an unmute button there? There we go, Lynn.

Participant:
Okay, so my question is, how would you suggest working with kids with double-jointed fingers then?

Dr. Bianca Baciu:
I wouldn't--I would never ask them to find strength in the muscles surrounding the double joints because what they will do is they will stiffen them. I would work with very small, soft movements. The joints do become a little bit stronger with time. They'll never be not double-jointed but if you gain a bit more strength, so it's very small steps. So it's never make sure that this is rigid or this is stiff or this is hard or strong to support your double joint. It's "okay, you have this softness in your hands. Let's work with it. Let's see what you can do." A lot of people use their hands as the primary tool of delivering or of making music and a lot of people are not used to using their upper arms. If the upper arm and shoulder blade and collarbone can take most of the load of what needs to go into the instrument then the double joints don't interfere as much, right? But a lot of people see in terms of making dynamics happen, a lot of people think that playing forte means you have to push harder into the keys. Well, a double joint is going to completely collapse under that, right? Understanding that an arm and a hand remain soft as you do that and that all you need is to bear your speed--because you already have mass--into the key takes a lot of the load off the double joint. So it's talking about speed versus load, talking about speed versus weight or force.

Participant:
So would you say then that with double-jointed kids--like I've had people in the APTA festival and the comments for some of these kids is, 'You didn't play with curved fingers.'

Dr. Bianca Baciu:
Okay, but okay so here's this--this is one of my favorites. Why do we play with curved fingers? Can everybody actually let your arms just dangle down. Put your arms down and let them dangle, then lift your hand and look at it as it is, as it was dangling. We all have slightly different shapes to our curves but a hand that is healthy and fluid never rests like this [curved inward]. Why do we play with fingers that are so curled in that become unusable and there's a lot of tension in the hand? Which brings me to this. Ask your students to draw a picture of their palm. Every time I do that I get a black hole here and some fingers sprouting out of it. But what's here [palm]? What is all of this? This is actually finger bone. The fingers connect into the wrist. The thumb has a joint here at the wrist. But people think the thumb is this long so they don't use half the thumb. So often you see kids just play like this [tip of thumb]. There's complete immobility here because of the lack of use of the whole thumb. Arpeggios would be so much easier. Everything would be quite a bit more fluid in terms of movement of the fingers if the fingers were allowed to use their whole length. Does that make sense? So there's this [skeleton hand]. This is our palm. This is our finger bone going all the way to the wrist. The wrist has eight bones. They all slide against and around each other to allow for that flexibility. So people that have carpal tunnel very often have issues with it because there's constriction here through this area and the reason for that is that the wrist is either too high or too

low or there is what is called ulnar deviation. This is one of the most common causes of carpal tunnel. It's because there's no alignment between the little finger and the ulna. Yeah, go ahead.

Participant:
No go ahead. I just have a question when you're done.

Dr. Bianca Baciu:
When I'm done? Okay. Don't let me stray too far from what you wanted to ask because I might end up somewhere else completely [laughter] and then it will be hard to ask the question. We have two bones in our forearms. There's the radius and the ulna and for the hand to be straight and strong, this alignment is what you need [ulna]. A lot of people think that the hand is strong on the thumb side and they need to align with their thumb at any given time with their radius but that creates a lot of constriction here [ulnar side] and also in the forearm muscles. If we do--a lot of people are surprised-- if you were do to a tug of war, say with a broomstick, how do you put your hand on it? Like this, so that it's aligned with your thumb, or like this? If you look at monkeys and how they hang from branches, they don't go and grab the branches like this with alignment here. They do it like that [ulnar alignment]. Does that make sense? So I can't remember who had the carpal tunnel issue, but it's often the alignment in the wrist here and often the constriction that we have. So the wrist is not neutral, we want the neutral--basically the arms deliver into the keys through the fingers, right? But if your wrist is here or here, then that flow is stopped. We have nerves, the medial nerve that goes through here, we have blood vessels. We have a lot of important things that go through this connection space here, which is why it's important to keep them free. Do you want to ask your question?

Participant:
Yes. I have a student who broke both of her wrists in December of 2018 and she still has a lot of pain. She's gone to lots of places to try to fix it but she is double jointed too and right now she's playing her little fingers like this, like way back. I don't know what I should tell her to do with them. I have asked her to try to play with this.

Dr. Bianca Baciu:
No, you don't want to curve the fingers. Okay, why don't we want to curve the fingers? There has to be an understanding of why we do and don't do things because otherwise things don't stick. Even your students, even if they seem really mindless, but if they understand something, it will stay with them even if they don't always do it. What happens with our muscles is that they're grouped in pairs. So when one muscle in the group is working the other one is resting like the biceps and triceps, like the muscles we have in the forearm. So when we curl the finger, which muscles do we use? Curl your fingers and feel. We use the underneath muscles, right? When we lift the fingers, we use the muscles above. So that means at any given time we use both muscles. Which one gets to rest? This is called co-contraction and while in some cases like double-jointedness and some other areas can be useful to [??], it's not something we want in the forearm because then nothing ever lets up. Then we're always tense. Now, if you are able to think of the fingers as moving from the wrist then there's still a slight curve so you won't end up with fingers that are flat or straight then you'll have a lot of freedom. Does that make sense? So you know this needs to go to a doctor to see if there are restrictions in the wrist, to see if it's healed well, to see if all the bones are aligned, if they're where they have to be. If there's simply just weakness in the hand in that case you don't want to curve for sure. You just want to work with the length of the hand with an understanding that a lot of the movement is directed from here [shoulder]. Does that make sense?

I just want to quickly touch on the last--on the sixth point of balance which is the ankles. A lot of people think that the ankle and the tibia, so the lower leg bone and the foot are aligned like so in an L shape. What actually happens is the tibia, so the big bone of the lower leg connects quite a bit more centrally with the top of the--with the talus bone. But when we think that it connects at the back of the foot we deliver all our weight through our heels to the back of the foot instead of it being distributed equally through all of the arches of the foot. So we have an inside arch, an outside arch and then the arch across and many other arches. So basically what we want to maintain stability and to maintain alignment is when we walk to deliver our weight into the whole foot and we can't do that if we think of our leg connecting to our foot at the back of the foot. Does that make sense? It's the same thing, so how does this apply to playing? When we sit down, a lot of the times our feet are way in front of us, way behind us, you name it. You see it all. The feet have to be right under the knees for support and the weight is distributed into the foot. Then I'll get questions like "well okay, but what about if I pedal?" If you pedal, that's a lever and that's different and even then you engage your whole leg all the way to hip joint, but the foot that stays on the ground for support, that one has to provide full support through the whole full. Actually, take a second and walk around. For now don't change anything, just feel where you deliver your foot, your weight. Is it going through the heel and does it stay in the heel? Where's your head as you do that? Where's your lumbar spine as you do that? So now walk a bit more slowly and as you walk think of your tibia connecting into the top of your foot more centrally so that your weight is delivered into the back, sides and front of the foot. There's a three point balance that's created there that's created between your big toe, your fourth toe and your heel. It's like a triangle of balance.

I know there will be more questions, but I want to do one more thing and then you can fire away. We will still have a few minutes left because I see questions here about how to get my students to keep their feet on the floor and this and that. There's a really neat exercise that I love that you can use with any age group to find balance and that includes the adults. Let me know when you're ready to stand up so we can try it. Alright. So now find your balance from what you know with your weight distributed through the whole foot so your legs will stand right into the center of the foot and then will be distributed evenly throughout the foot and then your knees will be not locked. Right? Locked is [not freeing?]. And then feel your head on top of your ankles and then the lumbar spine will be right under the AO joint. So now move your weight forward and into the front of your foot and feel how your knees lock and how your spine goes out of balance. Now move your weight back into the heel and feel your knees lock again to stop you from falling over. Okay, now find your center. Now imagine you have a pencil pointing to the ceiling from the point of your head. You can close your eyes if you think you may not get dizzy and it's really sharp. Without moving anything just creating little circles from the ankle, start moving your body around in big circles and draw circles with the tip of your pencil on the ceiling. So you'll feel yourself moving through the front of the foot to the back, back to the center and see those circles as if you were actually drawing them. Really sharp and fine. Keep breathing and then as you get more comfortable, start making smaller circles. Smaller, smaller, even smaller until you stop in the middle, until your circle is the smallest you can have and it becomes a dot and then just stay there and feel where that is in your body. That's beautiful alignment. There's length in the spine and there's freedom for breathing. When you're ready you can come sit down. So I know that we have to end this soon. Chelsea, you let me know. I'm open for questions.

Host (Chelsea Bustin):
We've got about ten minutes.

Dr. Bianca Baciu:

Sure. Any questions you like about anything, even things we didn't talk about or maybe things--because just an hour it's extremely difficult to go into any kind of depth with this but this is basically what it's meant to do is open the door so that you're curious then.

Host (Chelsea Bustin):
Yeah, i feel like it's the tip of the iceberg but it's made me curious about it for sure.

Dr. Bianca Baciu:
It is. It is, but it's--we can't not be curious about our bodies because sometimes they feel so good when we do the right thing so that in itself is enough reason not to mention we feel so much better. So any questions you have, anything you like, anything I didn't talk about, anything.

Participant:
Hey! I just had a question about the shoulder blade. If you can give me some ideas on how to kind of help the student play from the shoulder blade.

Dr. Bianca Baciu:
Let me see. Do you have a wall there?

Participant:
Uh, not really.

Dr. Bianca Baciu:
Is there a wall anywhere around you where you can turn your computer so I can see you at the wall?

Participant:
That's like the closest one right there but.

Dr. Bianca Baciu:
A clear wall where you can go and stand by the wall and put your hands on the wall like this.

Participant:
Like this?

Dr. Bianca Baciu:
Yes, but you have to feel it otherwise it's all words. Okay, but that's not going to help, you have to. Do you have no wall in that room that we can use? A door? A door works too.

Participant:
I can try this one.

Dr. Bianca Baciu:
But you have to be able to--okay, first stand in alignment. So make sure you're in alignment and then you gently press your hands against the wall. You can put your chest to the wall. And now as you press your hands against the wall, you're going to try and slide your shoulder blades out without doing anything else. It's a minimal movement. It's very very small but they should move. So basically as long as you can feel them. This is usually a partner exercise. You have a partner behind you who can trace with their fingers around the shoulder blade and they can help you with feeling that movement against their fingers how the shoulder blades move. But this is the best way.

With little kids, unless it's experiential--actually with anyone--unless we feel it it's not really something that we can embody and if you just talk a lot about it really that's all it is--just talk. So it's really important that whatever tools you have and whatever room and environment, you can make it work for you. You can get them to put their hands on the wall and just gently slide their shoulder blades out. It's a very small movement but it's accessible and that's all they--

Participant:
Thank you so much.

Dr. Bianca Baciu:
You're very welcome. Here's another one. As you sit at the piano, get your--just one arm at a time--across the body without lifting the shoulder because you'll see them do this [lifts shoulder], right? So just go across one way and then come out the other way and if their parent is in the room to help feel around the shoulder blade they can put their fingers around the shoulder blade and they'll feel that movement. Another way to feel buoyancy with the arms is to use pool noodles if you have them. I got a big pool noodle from the dollar store and cut it. I'll show you. Pool noodles. You put them under the armpits and then you play. What it is is it creates a sense of buoyancy, especially if there's a lot of rigidity through the arms and through the back. It creates that sense of suspension and buoyancy for the arms and then of course you take them away and try and recreate that feel.

Participant:
Thank you! And also that explains a lot of problems that people have with walking and in the knees and ankles and all that tendonitis, so thank for that.

Dr. Bianca Baciu:
You're welcome. Any other questions? Oh, somebody wants to review the six points. Okay. So the AO joint, the arms, the lumbar spine--

Participant:
Also I just wanted to just clarify. The knees should be above the toes when you're playing. Is that what you're saying? Or when they're sitting at the piano?

Dr. Bianca Baciu:
Can you see?

Participant:
Yep.

Dr. Bianca Baciu:
Okay, the knees are above the ankles.

Participant:
Okay.

Dr. Bianca Baciu:
So they're not here [forward] and they're not here [backward].

Participant:
Right. Yeah it was that positioning.

Dr. Bianca Baciu:
It's just like when you sit. Like when we sit, right? So the knees are in alignment with the ankles.

Participant:
Perfect.

Dr. Bianca Baciu:
You keep flow, you want to have that flow between the [?].

Oh somebody's talking about shoulders. Okay. What's a shoulder? Because the shoulders are not a point of balance. Did you know just like the waist there's no shoulder in anatomy? If you ask your students where their shoulder is, they say "well, it's a bit of this, a bit of that." A bit of clavicle, a bit of upper arm bone and a bit of shoulder blade. But that's not actually your shoulder. So the arm. What is the arm? The whole arm structure is the clavicle, the shoulder blade, and the whole arm. Does that make sense? So do you still need me to type them? It's the AO joint, the arms, the lumbar spine, the hips, the knees and the ankles.

Host (Chelsea Bustin):
That's awesome.

Dr. Bianca Baciu:
Is that clear? Okay.

Host (Chelsea Bustin):
We probably have time for one more question if there's something else really burning. I know that there were a few people in the chat that were wondering about maybe any other resources you recommend, someone had asked where they could get their own Skeleton Bob,.

Dr. Bianca Baciu:
There are a lot of resources. So if you go to that website, thebodymap.org, it's full of resources. There are all kinds of documents that are attached there, there are suggestions for books, you name it. As far as the Bobs, there are medical websites for teaching students where people can buy a lot of them.

Host (Chelsea Bustin):
Sharon, I see you've got a question, right?

Participant:
Yeah, when someone was talking about avoiding sort of a claw, do you actually have them think of the movement from the wrist? Is that what you said?

Dr. Bianca Baciu:
Yeah, the fingers move from the wrist. Here.

Participant:
Yeah, that's what I thought, I just wanted to clarify it. And that makes sense to me, because I'm always trying to get that arch, so.

Dr. Bianca Baciu:

Here's the arm. Here's the whole arm. So basically what we have here is--and here is how it's connected. Here's the clavicle at the front, shoulder blade at the back, and the arm is a big ball and socket. Socket's small, ball is big, that's why it's so easy to dislocate our shoulders. It has a lot of room, a lot of give and then there's the hand. So the fingers, you can see, there's nothing else but the wrist bones and then the joints with the fingers. This is where the fingers start. There's nothing in between them. So for them to move freely, they have to move from here. A lot of people just move from these knuckles here so they have a lot of restriction in the palm and then you get the curved fingers.

Participant:
Thank you.

Dr. Bianca Baciu:
You're welcome.

Well you guys I know that there are likely many more questions. If you feel like me sometimes these sessions are so wonderful because they get us started to think about these things, things that we don't naturally think of on our own and so I think I'll make sure I send out that website that Dr. Baciu had mentioned.

Dr. Bianca Baciu:
I just typed it in.

Host (Chelsea Bustin):
Oh perfect!

Dr. Bianca Baciu:
It's in the chat.

Host (Chelsea Bustin):
Perfect. So she put it in the chat there for us. Then we will be putting up a recording of this session for APTA members only online. I'm really appreciative of your patience through some of the audio hiccups we had today. If you think it would be beneficial to have a transcript of the session let me know, because that's an option too and it might be nice to go back and read through some of the things we learned today so let me know if that's something you might like.

Then you can also save the date for November 27 which is our next webinar with Adam Johnson presenting, let me find the title here, it's really awesome-- "May the forces be with you: finding the nature in the notes". I know that just the title of that alone has peaked my interest so save the date for November 27th. We will be getting more information about how to register to you for that. I want to thank ARMTA again for sponsoring this session and just a huge thank you to Dr. Baciu for being with us.

Dr. Bianca Baciu:
Aw, you're welcome. It's my passion so I love sharing. I'm sorry about the technical difficulties. We were perfectly fine this morning. Sometimes when there are a lot of people on, sometimes the sound goes belly up. It is what it is but I'm glad we could connect and I'm open to any questions by email or anything else.

Host (Chelsea Bustin):

Well and Dr. Baciu we will be in touch because I saw many comments from people who would love a session number two, so we will be in touch for sure.

Dr. Bianca Baciu:
As you know, these sessions are best in person because they can really experience what it is, but certainly I'm happy to continue.

Host (Chelsea Bustin):
Yes, and we are really hoping for the conference to be in person in 2021, or at least a hybrid of in person and online and so we'll look forward to that and we'll be in touch with you.

Dr. Bianca Baciu:
Sounds good.

Host (Chelsea Bustin):
Thank all of you for being on here. Thank you for being willing to come on video. Stay warm, stay safe, and we will see you in November. Thank you everyone.

Dr. Bianca Baciu:
Thank you. Buh-bye everybody!

Host (Chelsea Bustin):
Bye!