

BigBrain Radio Show  
6/3/06  
BigBrain Heart Connection

(music)

D: Hey, it's Saturday morning. It's time for the BigBrain Radio Show. I'm Dr. David Stussy and you can call me Dr. D.

Z: And I'm Dr. Zena Xanders and you can call me Dr. Z.

D: And we are...

B: The BigBrain Radio Show.

D: Hey Dr. Z, how's your heart?

Z: Oh, my heart's fabulous. How's yours?

D: No, no, really... how's your heart.

Z: Hold on... let me check it. Yeah, it seems okay.

D: Well, do you really ever think about your heart?

Z: Ah... only when it's broken.

D: It's not really broken. We've been through that before.

Z: Well we're going to talk about that today.

D: Yeah, really. And you know, today's show is called "Heart and Soul". The heart of the matter... we're going to talk about the heart in relation to the BigBrain philosophy. Because people talk about the heart more than they talk about the brain.

Z: Yeah.

D: I mean it's part of our culture. You listen to music... somebody's getting their heart stomped on, broken on... you can get that country song back... get your heart back, get your...

Z: Dog back... get your wife... first and second wives back.

D: Anyway, you're going to love this show. We found some really cool things. And you know... I'm ... let's... what else do you want to say about the heart?

Z: (laughter)

D: I mean I've got some stuff here...

Z: Well here... I have a question for you... because when you told me you wanted to work on this, I said, well, but you call this the BigBrain Radio Show, so we want... it's almost like it should be called the big brain/big heart radio show. So expand on why the heart is so important – even though you call this the BigBrain Radio Show.

D: Well we all know that the heart is really where our feelings are... when you ask people, that's where it's centered at. They don't point to their brain even though that's where we experience things. And so we thought we'd do a little research about the heart and how it's connected to the brain. And I found some really interesting things. Did you know that... I know you know because I told you...

Z: (laughter)

D: ...the heart was determined as an endocrine organ, which means it's a hormone-producing organ...

Z: Say that five times. An endocrine organ.

D: Yeah...

Z: Which means it produces hormones.

D: Yeah, now tell us the name of that hormone.

Z: Oh, you got me tongue-twisted. Okay, are you ready? I've been practicing this. The heart secretes ANF hormone, which is atrial natriuretic peptide hormone. I got it!

D: Yeah. I think acetocolene affects it...

Z: Dopamine and adrenaline. So...

D: Dopamine... that's where... that's the stuff that makes you feel good.

Z: You know me, I love the hormone system so we'll talk about the heart...

D: Anyway, we found out some really cool stuff about the heart. So we are going to get to the heart of the matter.

Z: Come on back to the BigBrain Radio Show. This is AM950 Air America Minnesota. Just getting started.

(music)

(music)

D: Hey, welcome back to the BigBrain Radio Show. You've probably noticed we're having songs about the heart, and...

Z: It's heart day.

D: ...that was Bonnie Raitt.

Z: We love Bonnie Raitt.

D: I actually have treated her as a patient.

Z: Have you?

D: She's so little. She's just a tiny little thing.

Z: Big voice for a tiny gal.

D: Oh, big voice and a big heart, obviously...

Z: So do you want to hear me say that hormone again?

D: Yes I do.

Z: Atrial natriuretic factor. That's pretty good. So this... we... we didn't realize that in 1982 that the heart was actually classified as an endocrine organ. You know we think of it as a pump, but it actually makes hormones too.

D: So considered an organ, yes.

Z: Right. And you know we talk about feelings... like you have a lot of feelings in your heart. Well hormones create feelings. So there's dopamine in there. There's adrenaline in there. I'm sure there's like some...love hormone we haven't even found yet.

D: What does that hormone do.

Z: This hormone... it actually works to... in response to high blood pressure. So it acts to reduce blood pressure, mostly by distending our vasodilating... the arteries.

D: But is that cool? The heart sends its own message. It doesn't come from the hypothalamus. It sends its own message to produce that. I mean it might be a feedback...

Z: Yeah.

D: ...but that's pretty cool. So I think we're going to find out that the heart kind of is a standalone structure that we had never realized before.

Z: Well you know there's that old saying too, are you making decisions from your head or your heart. And women might complain about me that they... they're not coming from their heart enough. Men might complain about women... they're not using their head enough in making decisions.

D: Well, let's see what we find out today.

Z: Let's see what we find out.

D: Well you know... like I said, there's lots of songs. One of my favorite songs is called "Heart and Soul". That is the first song that people learn to play on the piano.

Z: Yeah, who doesn't know that song?

D: In fact that's the only song I can play on the piano.

Z: (laughter) (humming)

D: And did you know that I took piano lessons when I was a senior in high school because I was going to learn how to play the piano. I took it for a year.

Z: And you could... by the end you could play "Heart and Soul"?

D: Well, I could play that... it's the only one I can still play.

Z: (laughter) Okay.

D: I mean, I had good intentions. But anyway, we have the words for "Heart and Soul"...

Z: We should probably post them on the website, don't you think?

D: We are going to post them.

Z: Okay.

D: And if you want to go to just Heart and Soul... if you just google heart and soul, the first thing on there is "Heart and Soul" by Hogie Carmichael... wrote this song. A lot of people won't recognize that name. But they play the music so you can sing along.

Z: Oh, they do?

D: Yeah.

Z: Okay.

D: It's real cute. In fact, you and I have the words here and we probably will sing it.

Z: Okay. Are we going to do that for the grand finale?

D: Well, somewhere during the show we're going to sing it.

Z: All right. All right.

D: When things are lagging or something.

Z: All right. (laughter) which could be any time. (laughter)

D: Anyway... so then we made a list of all the words and sayings that people...

Z: Refer to the heart.

D: We came up with about 230... I know there's a lot more. So we're going to post these on the website...

Z: Oh.

D: ... and if people want to add to those, they can do that.

Z: Okay. The words... give them an idea of some of them on there.

D: Well pick out some of our favorites... well heart to heart, obviously...

Z: From the bottom of my heart.

D: From the bottom of my heart. Break my heart.

Z: Yes.

D: Candy heart. Sweetheart.

Z: Change of heart.

D: Cost the heart. Change of heart. Emotional heart.

Z: Heart condition.

D: Heart condition.

Z: (laughter)

D: We have these in alphabetical order too folks. All right?

Z: What's this? Sexy hearted? I never heard that before.

D: I think I made that up.

Z: (laughter) this is a good... I think you should send these to Hallmark. Make some cards out of some of these. Sexy heart?

D: My heart is bursting with pride. Okay? From the bottom of my heart... we said that one.

Z: Yes.

D: Healing heart.

Z: Soft hearted.

D: Soft hearted.

Z: Wear your heart on your sleeve.

D: Wear your heart on your sleeve. Heart in my throat. Okay? The heart melts.

Z: That's good.

D: Melt my heart. A heart of stone.

Z: (singing) Total eclipse of the heart.

D: Ooh, we gotta get that song.

Z: Ooh, add that one.

D: Total eclipse.

Z: Okay. All right. So we've got a list of words about the heart.

D: So we've got heart sound, heart scan...

Z: I'll bet there'll be a rush on the website for valentine's day for this list.

D: These are great actually.

Z: Okay, okay.

D: Make my heart skip a beat. Sacred heart. I always thought that was a good one?

Z: Isn't that the name of a movie? Sacred Heart?

D: Well, it's the name of a school here in Minneapolis.

Z: Oh, right, right, right.

D: So now we know where that came from. I think it has a religious background.

Z: (laughter) I was going to say, I think it came from the Bible actually... but anyway, we'll take credit for it on the BigBrain.

D: Anyway, these are going to be posted. If you want... we would like people to add their name... we'll have a space for them to add...

Z: Oh yeah, email us.

D: We'll have them... a way so they can add to it.

Z: So the website is [www.bigbrainradioshow.com](http://www.bigbrainradioshow.com).

D: You bet ya!

Z: All right.

D: So give us until tomorrow to get it on there. But hopefully Larry will have it on today. Okay? Now...

Z: If he has any heart, he'll have it on there.

D: So anyway, we were looking because we really know that the heart is more than just a muscle. When we went to school it was considered like a... just a... a little... like the size of your first... and it was just a pump... and it was to get oxygen to the organs. But we know intrinsically it's more than that.

Z: It's really the home of the soul, isn't it?

D: Yeah...

Z: People say.

D: But you can just look at the heart itself. Like... we have muscles – we call them skeletal muscles...

Z: yeah.

D: The cardiac muscle is totally different than the skeletal muscle because...

Z: It has its own fibers, right?

D: It has its own beat. It beats on its own.

Z: (laughter) I'm sorry. Nothing... Okay, that's good. Nothing else has a beat by the way. But I got your point. You mean... it can operate independently.

D: Independently. If you take a little cardiac tissue and put it in saline solution...

Z: yes.

D: ...they beat. And the really cool thing is like if you take saline solution of different hearts and put them in and they beat differently...

Z: They synchronize.

D: ...they start synchronizing.

Z: Isn't that cool? That's very cool.

D: Yeah, so there's so communication. So anyway, the cardiac muscle beats on itself... and then the input from the rest of the heart makes it all synchronous.

Z: So what you're saying is the heart doesn't need the nervous system to beat. It can beat independently.

D: It does beat independently.

Z: In saline solution.

D: It's pretty cool. Okay? And then there's these fibers called purkinje fibers...

Z: Say what?

D: Purkinje.

Z: Purkinje. Say that five times fast.

D: I love the purkinje fibers. They're my favorite...

Z: And what do they do doc?

D: You probably heard me talk about this before. Purkinje fibers are fibers that are at the top of the heart called the AV node, which go down... The heart is composed of four chambers. The two atrial, and the two ventricle. And so they pump through... and then they...

Z: Synchronize... pump.

D: ... well then the blood coming through picks up the oxygen and dumps it off... whatever... but the purkinje fibers cause the... It causes the heart – the ventricle to beat real... at a certain rate. It kind of controls the whole rhythm and strength of the heart.

Z: And if you had a problem, it can serve as a back up system for the electrical impulse, but it's not so effective at that.

D: It's almost like a modulator of all the actions of our heart.

Z: Okay, and isn't it connected also to the brain?

D: Well there are purkinje fibers in the brain, which control all motor output of the cerebellum, which is our small brain... the brain that controls all our physical actions and all our sensory modifications. And actually they now know it's really the seat of a lot of our intelligence.

Z: So the heart is also communicating to the brain via the purkinje fibers.

D: Well I think there's some ... some argument there.

Z: All right.

D: I've always said so.

Z: People... people are pretty aware of their hearts these days. A lot of people have heard of pacemakers. But the node at the top is called the SA node... the sinoatrial node... and that's where the immediate electrical impulse starts... in the atrial... and then it goes to the AV node.

D: The electrical heart. Right.

Z: Yeah, and some people have problems with that, so they've had a pacemaker put in.

D: Well that's where you get this mechanical look at the heart... like the pacemaker can put in, it takes over. You can transplant a heart. We're going to talk about all that and how that really is more significant than we think. Right?

Z: Yeah, isn't it true that people who have heart transplants end up with some of the characteristics of the person that the heart came from?

D: We're going to talk about that.

Z: Yeah. It's almost like twins separated at birth and they meet later and they see how similar they are.

D: The heart has characteristics of who the person its inhabiting and it reflects our personality.

Z: Yeah.

D: You know like you say 'this guy's all heart'... you can know that... you get particular types of athletes or people who are very passionate. You know that the heart has certain characteristics that are definitely their own.

Z: Right. I bet if you took a sample of Kirby Puckett's heart, transplanted it into somebody...

D: That was a big heart.

Z: Yeah. It was a big heart. He was known for his heart.

D: So anyway, we want people to learn and love and appreciate their heart.

Z: You know and the number one killer... the number one disease, is heart disease. It's the number one problem in our culture. So on a physical level and on a metaphysical level, the heart's like the key.

D: So you know what I decided when I was researching this?

Z: What'd you decide?

D: That the heart has all these problems because we don't appreciate it enough. We give it ... we do all this bad food, we don't take care of it...

Z: We're not loving our heart.

D: Our heart really when we're younger, that's our passion... our energy as a child comes from that. Our ability to do things... A lot of us who are athletes... all of our abilities came from our heart. And we kind of ignore it after that and...

Z: We take it for granted.

D: ... we treat it like a background, miscellaneous thing, you know.

Z: Boom, boom.

D: Boom, boom. It's always beating. 100,000 times a year it beats.

Z: Well did you know that the heart starts beating at 21 days after conception. And that's how they confirm the pregnancy... the heartbeat. So it's even before the brain develops. The heart develops before the brain.

D: Right. At six weeks the heart is about the size of a marble, but it's beating. And from then on, the embryo cannot live without the heart beating.

Z: And, at first... I thought this was interesting... the human heart begins beating at the rate near the mom's... so 75-80 beats per minute. But then it accelerates for the first month peaking at 165-185 beats per minute.

So it starts synchronous with the mom and then it speeds way up. And it's higher.

D: Do you think we could make an organ – an organ... Do you think we could make an organ... do you think we could make an argument that the child and the mother are synchronous at that time from forever?

Z: Oh yeah. Well they call that entrainment... cellular entrainment. That's how they say a mom can always sense when something's up with their child, because they shared... well obviously the same chemistry, but the same heartbeat.

D: Do you know where the other word entrainment is used a lot?

Z: Oh... no. Tell me.

D: Well in quantum physics when they separate these particles...

Z: Yes.

D: ...and they stay... they call it... Einstein they called it “weird science”... the particles can continue to communicate. If you change one from plus the other one goes negative, and one changes negative...

Z: Non-local communication.

D: ...non-local communication.

Z: Wherever the cells were in the universe, they would have this same communication.

D: So by the end of the day, I think we'll see that the heart is actually the center of much of our non-local abilities to communicate.

Z: And we need to take good care of it.

D: Really we need to...

Z: Which I'll have some nutritional pointers on the heart.

D: And exercise.

Z: yep.

D: The biggest thing is I just want everybody to appreciate their heart. So let's just take a moment and appreciate our hearts.

Z: (laughter)

D: Take a deep breath...

Z: Everybody... we'll it's like when you give the pledge of allegiance...

D: Yeah.

Z: You put your hand over your heart.

D: Um hmm.

Z: I cross my heart and hope to die. You know that saying.

D: Well when you ask people where do you experience love, they don't point to their liver, their spleen or their head. They point to their heart. Right?

Z: (laughter) Yeah, hopefully.

D: Well they do.

Z: (laughter) Some people it maybe goes a little south sometimes, but in general...

D: Cynical today? What's going on... what's happening with you babe?

Z: What's the difference between love and sex? Love and passion? Love and lust? Today we're doing the brain heart connection. Another time we'll have to do the heart...

D: Sex...

Z: Sex connection.

D: It's called the lustful heart.

Z: Oh yeah, that sexy heart thing. I knew I'd heard it somewhere before. We'll be right back with more on your heart. Have a heart and come on back. It's AM950 Air America Minnesota.

D: Heart waves to brain waves.

(music)

(music)

D: Hey, welcome to the BigBrain Radio Show...

Z: Now, if that isn't the heart sex connection, I don't know. I just start sweating when I hear that guy.

D: You know my sister...

Z: Huh! He is just pure something, isn't he?

D: When my sister was ... you know she was in high school and she loved Elvis Presley. And she had all his albums, and I was probably in about sixth, seventh grade... you know when you sit in front of the mirror you know and do the little singing thing, I would do all...

Z: No, I wouldn't know anything about that.

D: I used to do all...

Z: The hairbrush?

D: I'd do all these.

Z: (laughter) Elvis... he had a heart.

D: It paid off... it was good.

Z: He really had a heart, didn't he? Look it. He's legacy lives on.

D: He did have a heart. But see then he started doing what I was talking about. He stopped appreciating his heart. Because that's kind of what gave out... and he treated it very badly.

Z: yes.

D: Bad... Elvis... there.

Z: Bad boy, Elvis. So you read a real interesting book. You had some things to report on the heart. What is this book?

D: Yeah. Well you know me. When we decided to talk about the heart, I started looking for different information and I found this book by a heart surgeon. Her name is Mimi... and I'm going to spell the last name. G-U-A-R-N-E-R-I.

Z: Guarneri.

D: She's Italian. Dear Italian.

Z: Mimi. And the name of the book is?

D: "The Heart Speaks".

Z: "The Heart Speaks". That will be on the website.

D: So anyway, she talked a little bit about ... you know her training as a surgeon and how it took a while for her to really appreciate the heart. But then she had this chapter in here called "The Little Brain" and it just blew me away. And then she had... talked about a patient and about sacred relationships, and about the universal heart and ... this was a surgeon and surgeons just don't think this way. Okay? They're very, very ...

Z: Tend to be a little more left-brained traditionally.

D: Well they even get rigid. They don't... won't change, even when change takes place around them. Okay? So we have to wait for time to go by...

Z: Some surgeons. I think you'll get some nasty emails if you say...

D: Oh yeah.

Z: ... but in general.

D: I don't mean that.

Z: You don't mean that. What we're saying is to be a surgeon you have to be meticulous and organized and very precise.

D: yeah.

Z: And so sometimes that spills over into the other areas of their life.

D: You know that makes me laugh. I was talking...

Z: You would not be a good surgeon.

D: I was talking to somebody this weekend who was a plastic surgeon... a couple weeks ago... and he was a... he had had a drinking problem and I asked him about it.

Z: (laughter)

D: But you know how meticulous plastic surgeon would have to be? And he was telling me how he had his drinking organized. It was just like he had this operating room...

Z: His jigger, his shot...

D: At 5:00... oh yes! I mean... and then he was talking about how much more time he has because he had all this...

Z: That's because he's a recovering alcoholic.

D: Yeah, he stopped drinking.

Z: And he's not doing surgery under the influence, right? Okay. Anyway, back to the board.

D: That follows just what you said there.

Z: Okay. Good.

D: Anyway, so... it's a great book. And she starts out saying about ... you know in medical school they learned that there was a ... they thought the heart was a simple, mechanical pump that weighs about 10 ounces. It's a fist-sized organ. I said that. Average beat is 72 times a minute. And it beats about 100,000 times a day.

Z: Um hmm.

D: It has four chambers. We talked about that. And they thought it's sole purpose was to transport oxygenated blood ... that means blood that has oxygen in it ... to the brain and other organs because we can't live without oxygen.

Z: That's right.

D: And she saw it was an isolated organ, regulated by the pacemaker, transplanted with donors, and bypassed with open-heart surgery, with the help of a machine, and that's all you needed to do.

Z: So what did she find out besides all that?

D: Well she says I now view the heart now as a flower... an exquisite...

Z: Exquisite

D: ... exquisite layer opening to the next. It is to this large multi-layered heart of feeling and poetry, intelligence and spirit, that I have dedicated my life.

Z: Wow, it sounds like she had a transformational ...

D: Brings a tear to my eye.

Z: ... experience.

D: Oh yeah...

Z: That's amazing.

D: See as a child she was that way. Her mother died of heart disease...

Z: Hmm.

D: ... which was very uncommon for the early Italians in the United States because they kept up their culture with the Mediterranean diet. And so her mother was one of the first people to die and she saw that change. But she had this spirit – this Italian spirit – that she had to kind of stifle when she went to medical school.

Z: Um hmm.

D: And then she kind of realized herself again. Cool, huh?

Z: So what's this idea about it being the little brain? What's that all about?

D: Well she ... just what I said. You know people... when you ask people where they feel things, like love, they point to the heart. They don't point their spleen, their bladder, their brain or anything else. They always point to their heart. And so ... Western science had always felt that the center of our ability to sense life really takes place in the brain...you know internal... We've talked about that a lot. The physical brain and you know we're kind of more fans of the metaphysical brain, but they're both important. And I think there's a metaphysical heart. So what we really think there's a physical and a metaphysical heart. So our whole body probably has this component. But we're going to take these organs and look at them. But you know when you're confronting a loved one... or for the

fearful or dangerous situation, where does that come from? Where do you feel that?

Z: Um hmm. In your heart.

D: In your heart, right? And the brain alone used to be thought as the courier of it, but now we know that's not true. It waits for instructions from the heart.

Z: Hmm.

D: Cool. Do you want me to go on with this?

Z: Well, it's occurring to me... this idea of being open hearted... you know when they say... you know if someone is closed off, they're really not communicating on that more metaphysical, energetic, emotional level. So the idea I think of a lot of life is to really feel things and be open hearted. And be willing to experience life – the good, the bad, the ugly, the painful, the joyful.

D: Well it's all experience of living. It's just what we call it. So when our heart tells us something we might, by emotions, tend to give it a grade one way or the other. But really, it's just our heart, you know, responding to life itself... no grade involved. You know our friend John... Dr. John Demartini has talked about this forever.

Z: Um hmm.

D: About how the... you know, light comes down through the brain, into the heart, opens the heart and then the heart connects with the soul and then we experience our purpose in life.

Z: That's right.

D: So, I guess the purpose of this show is to open the heart, show how it's really connected to the BigBrain. It's like an important part, or an engine to the BigBrain. And without the heart we really can't fulfill our purpose in life.

Z: That's right.

D: And so we want to create appreciation. And the reason we want to create appreciation ... because if you let something ... Well, like in a relationship...

Z: Yes...

D: If you don't appreciate things, what happens?

Z: It can deteriorate.

D: It could, right.

Z: Or go away.

D: We don't might want to make that mistake. And money... appreciates.

Z: Right.

D: Things that we consider valuable appreciate.

Z: Things are either appreciating or depreciating. There's really no staying the same.

D: Yeah so we are...

Z: It's either growing or dying.

D: This would be a good time to tell everybody that we're going to do a 2-3 week... maybe 4 week ... session on ....

Z: This is one of a series of conversations about the heart.

D: Yes. Very good. You said it much better.

Z: (laughter) I'm not sure which week it will be, but there's a lot to say.

D: You don't even have that written down. You just said that... you said that right from your heart.

Z: I did. I just... coming from my heart today.

D: I think that's... I can see that.

Z: (laughter)

D: So take over baby.

Z: Yeah... you're blushing. That's funny.

D: Okay. So in the 1960s and '70s there was a group of ... a couple people called John and Beatrice Lacey...

Z: John and Beatrice. Yes.

D: They were researchers of the heart. And they're the ones that kind of started opening the door. Now I'm getting all this information from this lady, but...

Z: From the book "The Heart Matters"... "The Heart Speaks", excuse me.

D: And it was not just a pump. It had its own nervous system. It had its own intelligence. It had its own decision-making powers, and it had its connections to the brain. They found that the heart actually talks with the brain... communicating in ways that affect how we perceive and react to the world. They found this was true.

Z: Hmm.

D: And we'd been talking about it so when I started reading this I'm going... Geez!

Z: Had another one of those experiences.

D: Come here. Let me put your hands on my head!

Z: (laughter)

D: This would be a good time to sing Heart and Soul! (laughter)

Z: (laughter) Go ahead, Elvis.

D: But over the decades they found the heart had its own unique logic. It often... You know, we've talked on this show about the autonomic nervous system. It's the automatic nervous system that controls and is considered the thing that runs the heart.

Z: Yes.

D: They said that it often diverged from the command of the autonomic nervous system, which is...

Z: The heart was like on its own.

D: Had it's own... just like you said, it can do it's own hormone. Ah, they theorized that the heart tuned the senses. So it sets our senses, or how we perceive things. And indirectly the muscles with the language that is transformed in a nerve impulses that permeate the brain. So the muscles of the heart communicate to the brain.

Z: Okay. What about the transplant person? Were you going to say more about that?

D: We're... well that's a little later. We'll get that on there.

Z: Yes?

D: Oh, I thought you were going to talk about your...

Z: No, I wanted to hear more about this.

D: Well there was another guy, Dr. Andrew Amore... love... okay?

Z: Amore.

D: And he was...

Z: That's Amore... Oh! That's a good son!

D: Mm hmm. Write that one down.

Z: (singing) When the moon meets your eye, like a big pizza pie,  
that's amore.

D: See, you did what everybody else did. You went from the heart  
to love.

Z: Oh, see? You can't help it.

D: Everybody does that. I even did it when I was putting these  
songs together.

Z: Ohhh...

D: When we come back we're going to get in much more depth  
and speed things up to make Dr. Z happy.

Z: And I have some good supplements for your heart.

D: Here's a very good friend of mine... and whenever I think of  
the heart I always think of John because he... he really came from his heart.  
You got anything you're going to say about the...

Z: I'm speechless.

D: ... radio station...

Z: Come on back.

D: Which radio station should they come back to?

Z: AM950.

(music)

(music)

Z: Everybody now.

D: (singing – Heart & Soul)

Z: That's good.

D: Okay good.

Z: I never learned this part on the piano.

D: (singing)

Z: All right. (singing) Look at me. It's got me loving you.  
Madly.

D: Okay.

Z: Wow. Okay, those words will be on the website. That's fun. You know you kind of know the first verse, but like any good Christmas carol, you don't know the last three.

D: (laughter)

Z: (laughter) And I didn't know there was that little interlude there. Oh, but your lips were thrilling. Okay.

D: Yes.

Z: So we're doing the heart today. And Dr. D is enthralled with this book by Mimi, "The Heart Speaks".

D: Yeah, I am. Just because...

Z: You had some more philosophical thoughts about the heart from that book.

D: What really makes the book great is you have this heart surgeon. She is trained. She's an authority on the heart. She's operated on

many hearts... and that's all she did when she got out... all she did was do these stent surgeries... you know where they put the little thing in and it opens up the heart...

Z: Stint, stent... whatever.

D: This woman did a lot. But I was just impressed with her.

Z: Okay, so what else?

D: Well, you know over the years there have been this argument about whether the heart was the center – over the centuries, not the years – the heart was the center of our being or if the brain was. And they were called cardiocentris or braincentris. Well the ancient Egyptians were cardiocentris.

Z: So they thought the heart was the center of the human existence?

D: Um hmm. Have you ever heard of the book called “The Book of the Dead”?

Z: I haven't, but I'm sure you have.

D: Oh, you haven't heard of “The Book of the Dead”?

Z: Is that the one that goes ‘oh my heart, which I had for my mother, hail to you my heart, hail to you my entrails’? You mean that one?

D: That's it!

Z: Oh yeah! Now I remember.

D: That's a passage from that ...

Z: I thought you meant that other one that was like oh my dead heart. I get those two mixed up all the time.

D: When people get real “woo woo” they get into “The Book of the Dead”, okay? Anyway, the ancient Indian medicine played reference to

the heart, as did traditional Chinese medicine. And you know... you're trained in acupuncture. You know how important the heart meridians and the heart... the pericardial and the governing in ...

Z: Yeah, there's actually whole meridians for the covering of the heart, the pericardium.

D: They said the original... the body is the instrument of the heart. Of the heart. Not the heart is the...

Z: So say that again.

D: The body is the instrument of the heart.

Z: Not the heart an instrument of the body.

D: Mm hmm. Aristotle even believed that the heart was the central structure that communicated between it and the rest of the body. It was the seed of the soul.

Z: It's kind of like that old physics lesson, where we used to think that the earth was the center of the universe and the sun revolved around the earth. But then we came to see the sun was the center.

D: Well there... and that was cool... but there was a shift. Plato came along and he saw the heart as a knot of veins and a fountain of blood.

Z: Oh yeah. He was a pretty practical guy.

D: And actually, you know he wrote some different things...

Z: How romantic.

D: ... but he took more of the left-brain approach...

Z: Yes.

D: ... and that kind of permeated medicine for centuries after that.

Z: Interesting to get some feedback from cardiac surgeons today.

D: Yeah.

Z: If anybody wants to... go to our website and leave us...

D: Any unique stories you have about the heart.

Z: ... and email. We'll share those emails on another show.

D: Well one of the important things is the body... we developed in a certain order. And the first thing formed is the...

Z: That would be the embryological development?

D: Yes. So the first organ formed is the heart. And when we die, it's the last one to die. It's always the reverse of the way we develop.

Z: Hmm.

D: Like the very last thing to die in human beings is the virus.

Z: So when the heart stops beating, that's when they declare the moment of death.

D: Um hmm. I used think it was the brain, but it's really the heart.

Z: Um hmm.

D: I mean when the people are... you know where they have to hit... they don't pump their brain, they pump their heart to get it going again.

Z: Mm hmm.

D: Every... what is it? Every ten seconds... the ability to get them back. The longer they're out ... the heart is stopped... the less chance they have at recovering.

Z: Mm hmm. Because more heart cells die.

D: Mm hmm. And the brain isn't necessarily the big guy. So, that was pretty cool. Now there's this other thing that we actually do know... that we have an electromagnetic energy... not just the electric energy, but electromagnetic, like the earth's electromagnet. Okay?

Z: Mm hmm. Mm hmm.

D: And that the heart is 60 times – 60 times – higher in amplitude... that means the spike that it has... than the field of the brain.

Z: 60 times?

D: Yeah.

Z: Wow.

D: It emits energy 5,000 times stronger than the brain's.

Z: Hmm.

D: And it can be measured more than 10 feet from the body.

Z: The electromagnetic energy...

D: Mm hmm.

Z: So if you had a device to detect that... ten feet away feel someone's heart.

D: I'm kind of grooving on this heart.

Z: Hey!

D: Anyway we want everybody to know that your heart is very, very powerful and we need to take care of it. So when we talk about it... talk about it... we really want you to really be serious about your ability to appreciate and have the metaphysical experience of life really is dependent on your heart as it is the brain. Okay? It's very sensitive to emotions. They use a thing called a heart rate variability pattern just to determine how well you are and your ability to respond to things.

Z: Right. And you can use biofeedback to calm down some of those emotions. But they check your respiration and heart rate. That's biofeedback.

D: Every beat of the heart sends complex signals to the brain and other organs. Every beat.

Z: I'm sure.

D: So if your heart's racing it's getting, you know...

Z: Speeding everything up.

D: Yeah, speeding everything up and there isn't time. Remember we said... when we were talking about that book "Blink"...

Z: Mm hmm.

D: That the only time you can't use your ability to think without thinking is when things happen too quickly.

Z: Yeah, you lose the sensitivity of your intuition.

D: Yeah.

Z: Things happen too fast.

D: Yeah, so there goes... this is the...

Z: And you become reactionary.

D: So that ... and they use the term when the heart is beating too fast.

Z: Hmm.

D: So all the organs are not... are just being bombarded with information they can't have time to think about it.

Z:            Hmm.

D:            Pretty cool, huh?

Z:            Emergency situation.

D:            It also sets the pace for the brain and the respiratory center... our ability to breathe. So now we have breathing our lungs; we have the heart and the brain; they're all kind of controlled by the heart. And the heart itself controls the heart. What if it's not the brain telling the heart what to feel, but the heart informing the rest of the body? Here's a cool thing. What if changing your mind, actually involves changing the heart?

Z:            Mm hmm. You know that expression "he's had a change of heart", "she's had a change of heart"... and then their whole life can change.

D:            You know it's so much more powerful too. You say I'm going to change my mind. That's okay, but changing your heart actually has a more profound...

Z:            But we all have made those resolutions... trying to change your head about losing weight, staying in a relationship... but those changes don't last very long. If you haven't engaged the heart in a situation, it's temporary. When you have a change of heart, the earth moves.

D:            John talks about it all the time because really that's a source of unconditional love... when you're at that point then you can move in any direction you want.

Z:            Mm hmm.

D:            Wow! I'm so excited. I can't stand it!

Z:            (laughter)

D:            Boy, she calls this the universal heart. And she came to this conclusion about ... it's called the universal heart because our hearts are actually all connected.

Z:            Uh huh.

D: So we've talked about the BigBrain and the BigBrain philosophy that metaphysically you can make an argument that we are all connected. All right? On the brain I guess because we use the brain as kind of the source of intelligence or cosmic intelligence or whatever it is that we want to call it. Where our thoughts come from; where thinking exists... we don't know. We think it's out there but maybe it's in the heart.

Z: Well the brain is definitely interpreting things that are going on. But we're starting to see that the heart maybe has a lot more to say about it.

D: Well, we are conditioned to have a limited perception of our own consciousness and power. We think the mind, body and spirit are fragmented. What if... but we're not living in a world of vision, it's actually all connected? Okay? Like we're all... the hearts... all the hearts are connected, just as all our metaphysical brains are connected.

Z: Cool. Far out.

D: Comment about that.

Z: Far out.

D: Well now here's my next statement. What if consciousness isn't contained in the body, but that the body is contained in consciousness.

Z: That's very cool.

D: Uh huh.

Z: You know that's like... um... there's an energetic field and then the thing shows up in the field. So it's kind of like the heart is determining the physical nature of the being.

D: Well, there was this guy named Dosey... I think his name was Larry Dosey, but he had a book called "Reinventing Medicine"... Again, we'll put any of these books we refer to on the website... and he had these different paradigms. And we're in what's called a Phase Three Paradigm where he proposes that consciousness not combined to an individual body but radiates outside as John Demartini talks about all the time. And

radiation... Buckminster Fuller... they all talked about radiation... Radiation is really where the communication takes place between all human beings. But anyway, it's the area of the nonlocal mind. Minds sprint infinitely through space and time. Our ability to communicate nonlocally seems to take place not just in the brain, but in the heart also. And I use that example... the beating hearts... how they will synchronize even when they're separated. Anyway, there was another guy, a psycho immunologist... one of the things we're going to do in a later show is talk about the heart and the immune system...

Z: Mm hmm.

D: ... and how it all connects together. So if you're wondering why we have an immunologist here... and he... he was a groundbreaker in heart transplants. Because what's one of the biggest problems they have with heart transplants?

Z: The rejection?

D: Yeah, so the immunology makes a big difference.

Z: Right.

D: So the cells of living tissue have the capacity to remember and memorize characteristics of human beings. We talked about that. And ... so he thought what if we talked to some of these people who had heart transplants.

Z: Okay.

D: And there were like 10... about 15% of these people reflected characteristics of the people they got the heart from. Now they...

Z: Real specific things though, right? Not just like a personal ad where "likes to walk on the beach", but they had specific habits that then were reenacted in the person that got the heart transplant. Right?

D: That's correct.

Z: Things they used to say.

D: So he told us...

Z: Things they used to do.

D: ... He told the story about Glenda. And Glenda was a medical doctor and her husband was killed in a car accident. And she started having like dreams of him like he was trying to communicate with her and so he went and visited the person who had gotten her husband's heart.

Z: So her husband had donated his heart and then the wife went to visit the recipient...

D: Uh huh. And she said she's... so... she was talking about that she had gotten a message from her husband everything was copasetic and the mother of the... it was a teenager that got the thing ... said isn't that funny because ever since the surgery he's been using that word, copasetic.

Z: Huh.

D: You know, everything's cool...

Z: Yeah.

D: And he'd never used that before in his life. And then he had gone from being a vegetarian to a meat eater.

Z: The son.

D: He'd gone from heavy metal to playing golden oldies.

Z: (laughter) That's funny. Now that's funny. For a teenager? Heavy metal to golden oldies?

D: Yeah. He had actually taken on this... poetry... he was into poetry and writing. He had never done that before.

Z: Wow.

D: He was taking on all the characteristics of this ... I'm using the word Glenda because she was a physician and she had the ability to be accurate in her communication about these characteristics. And she thought that was pretty cool.

Z: Yeah, that is interesting.

D: So maybe we all carry parts of our heart... even people... you know how when someone passes away from us?

Z: Um hmm.

D: And you know we really actually want everybody to know that those people never die... they never really leave us... they just change in the form... but one of the forms is in our own heart.

Z: Hmm.

D: In our own metaphysical brain, but in our own heart also. And you don't have to be sad. You have to have joy. If you want to be sad you can, but the joy is they're still there... just in a different form.

Z: Even without a heart transplant... energetically.

D: Without a heart transplant. Well, you have genetics and you have just the transfer of nonlocal communication that takes place between the heart. I mean everybody can tell you... you know you've been thinking about something that was in your heart, and then somebody else has the same emotional reaction in a distant location. So we are here to say that the heart is really part of the nonlocal communication and the existentialists of the universe, but not in a negative way but in a positive way how we're all connected.

Z: That's right.

D: Um... so... they call it the collective heart and it starts in the mother's womb and it goes on. It's... it's pretty cool.

Z: (laughter)

D: I can't even say any more.

Z: (laughter)

D: Do you want to tell us something about...

Z: Well, we want to thank Mimi Guarneri for many of these insights.

D: Yes.

Z: Because as physicians a lot of times we deal with the more practical aspect of heart, heart disease, keeping your heart healthy... but really, out of our commitment to keep the metaphysical aspect of everything in mind on the BigBrain Radio Show, we were really excited to find these things about the hormones and the emotions and the transplants and the different points of view about the heart.

D: Well there's actually more, because I discovered this thing called... No, I'm not going to go into it now. It was called "heart math", which this whole system of rehabilitating the heart and how healthy we are by using the emotions of the heart and connecting it to the brain. So we're going to go in future... about the scientific basis of the heart, the immune system of the heart, the ability of the heart to actually be a source of increased intelligence; the ability of the heart to increase our human performance.

Z: And when we come back, we're going to talk about some of the real basic fundamental things you can do to keep your heart healthy because we're concerned that we're not taking really good care of our hearts.

D: The stuff that works. I want to read this last paragraph that she had in this part of the book. Here's what she said: "I came to appreciate the collective heart in all its infinite varieties, starting it's timid tick deep in the mother's womb, just as an ancient heart in a nursing home finally falls silent. So that the beat continues through time, the rhythm of our great eternal life."

Z: Hmm. Beautiful. Come on back for stuff that works... about the heart. This is the BigBrain Radio Show. AM950 Air America Minnesota.

(music)

(music)

D: Hey, welcome back to the BigBrain Radio Show. And we're having a heart felt day.

Z: Kind of got lost there in the music, didn't you? Kind of dancing around in your chair. Forgot you were supposed to come on back.

D: So we're singing about the heart today folks.

Z: Yes.

D: And you know how easy it is to get into love... but now we're going to get into something even cooler.

Z: Well, I wanted to just give a shout out. I'm on my way to a seminar by a wonderful man, Dr. Mark Houston. And some of you may be familiar with Dr. Houston. He has a book called "What Your Doctor May Not Tell You About Hypertension". And one of the first signs of disease in the heart and the circulatory system is hypertension, also known as high blood pressure. So I will have more to report. But for today I wanted to talk about some of the lifestyle and supplement things that you could do if you're experiencing high blood pressure or hypertension. Now you know the normal range is somewhere from 90-135 on your systolic or your upper, and you don't want to go any higher than 90 on your diastolic. So you this 120/80, 135/90 is really the outside border of having a healthy blood pressure.

D: Do you want to tell people what those numbers mean?

Z: Go ahead.

D: Well the top number is the pressure your heart beats at... actually contracts. And the lower number is what it rests at. And the difference should be 40. So even if they go up a little bit, if you still keep that 40 you're healthier than if they aren't. So that difference of 40 is very

important because that creates the lag time so parts of your heart can beat together.

Z: So if you're suffering from some type of hypertension or high blood pressure... you know there's these basic lifestyle things that are helpful. Obviously you don't want to be adding a lot of salt to your foods or eating foods high in sodium. And a lot of packaged foods are filled with sodium... prepackaged foods. Again you want to avoid a lot of sugar sweetened foods and high fructose corn syrup is really the culprit there. And that will add to like diabetes like syndrome too. You want to eat foods high in minerals like calcium, potassium, magnesium. Things like milk, yogurt, melons, oranges, tomatoes, green leafy vegetables. And again, we can put this on the website if you want to hear more about this. One of the most important supplements are the Omega3 oils... the fish oils, which we talk about a lot. And you can also get those in salmon, sardines, mackerel, herring and tuna.

D: Really, everything that we have talked about so far on the BigBrain Radio Show in terms of healthstyle and diet and eating are to support a healthy heart. And the thing you really want to see here is it's all connected. I mean what is high blood pressure? If you looked at the body as a set of machines... let's just go backwards from what we've been talking about... and there was like all these gauges... if one part was breaking down, it would create a pressure in the rest of the body. So it can be the kidney; it can be your adrenal glands; it can be your pancreas. It can be lots of things that are actually creating the high blood pressure. That's just the numbers that are telling you you've got a problem. And usually when it's there, it hasn't been something that just came on...

Z: Right.

D: It's usually something that's been developing.

Z: Usually high blood pressure is one of the last symptoms to show up systemically a condition that may have been coming on for 10 years. Poor lifestyle habits perhaps.

D: Yeah, your heart is set to adapt to everything. And when it isn't adapting that's when it starts having high blood pressure.

Z: Right. But it may not show up for a long time.

D: Long time.

Z: So ... also just wanted to let you know that in addition to a good multivitamin set that you need to take every day, there's a supplement called argenine that's very helpful for hypertension. And also potassium is very important. So if you're interested in a protocol for hypertension, or to learn more about these healthy lifestyle habits, this is something that I do in my practice and consulting. You can find me on the web at [www.keepthezestforlife.com](http://www.keepthezestforlife.com). Or we will have some of these suggestions also on the website [www.bigbrainradioshow.com](http://www.bigbrainradioshow.com).

D: You know I was reading this book by a man who won the Nobel Prize for this. And his ability... he found the heart worked, but the argenine ... he was actually the one that discovered that... but there's another amino acid called citrolene and ... it was very hard to find, but I did find it. And so one of the things... and it creates nitrous oxide, which is so important to the heart. All kinds of functions; even sexual functions. So ... we're going to talk more about some of his work, because we're going to go in much more depth on the things we're talking about right now.

Z: Also wanted to let people know that if your situation with your blood pressure has gotten to a point where you need to be on medication to control it... because it can be very damaging to have high blood pressure... there are different categories of medications. And you just want to make sure that you've discussed with your doctor, or that you're knowledgeable. You can pick up Dr. Houston's book again, "What Your Doctor May Not Tell You About Hypertension"... But first of all, high blood pressure is often controlled by diuretics, but there are other kinds of drugs that do different things to your system. There's vasodilators... there's calcium channel blockers; there's beta blockers. There's another category of ace inhibitors. So you just want to be very careful that the medication that you're taking is affecting your blood pressure in a good way. And if it isn't, you might need to try a different category of medication. You might need to affect something different in your system.

D: Another thing is sometimes people just say... we've gotten so tuned to medication that we just say well I just take the medication. But in reading that book by Dr. Houston, these medications have serious side

effects that pretty much damage the way your heart functions and you're pretty much going to be on them forever... with consequences such as diabetes and loss of energy, that you don't want to have. So rather than putting off the exercise or putting off losing the weight or doing the healthy things, do not depend on these drugs if you can help it.

Z: Well one of his points is that it's much more effective if you can, to manage high blood pressure with natural supplements, good eating and lifestyle... and really the key to a lot of that is keeping your weight down. I think we all know if you lost weight, your blood pressure would go down. Which ties into my commitment to people having a healthy metabolism. So again, if you're interested, you can email us.

D: Well again, we said that this develops over time so you wouldn't want to use like a one-time silver bullet approach. You really want it... your body has lost its health. You would have to re-heal your body in order to get rid of the blood pressure. So you need to take on a healing lifestyle.

Z: Right.

D: And that's something we're happy to talk people about.

Z: That's right. It's a bigger commitment.

D: Then you've got your exercise.

Z: Yep. And if anyone's interested, the Ex-Cisers are on the way. So you can find those ... the burst training is excellent training for the heart. And they found that even though your heart rate and your blood pressure will go up slightly while you're exercising intensely, it actually comes down and is lower for more of your lifestyle if you condition your heart like a muscle.

D: I've been doing these sprints... more of these sprints too.

Z: Yeah, and how's your heart?

D: My heart's wonderful today.

Z: Well this is wonderful doing a heart... heartfelt show. It was a very heartfelt hour together Dr. D.

D: We're going to out with "Deep in the Heart of Texas". All right?

Z: We'll be listening for you. Thanks for joining us this Saturday. We'll hear from you next Saturday 11:00 a.m. on the BigBrain Radio Show. This AM950 Air America Minnesota.

D: Yahoo!

(music)

(end)