

BigBrain Radio Show
March 25, 2006

(music)

D: Hey good morning... it's Saturday morning and 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...

Both: The BigBrain Radio Show!

D: So Dr. Z, we had...

Z: Wait! I have to tell you something.

D: Oh, okay. Go ahead.

Z: You look really good. Did you do some burst training this week?

D: I did.

Z: Okay, I can tell.

D: I've been doing it for three years. Remember?

Z: (laughter) How's that lean body mass coming?

D: Excellent.

Z: Excellent. Okay, anyway you were saying?

D: I get all kinds of compliments.

Z: Yeah right! (laughter)

D: I do.

Z: Okay. No comment. So what happened after last week?

D: Well... well last week we had a lot... we had some spontaneous call-ins and we never thought we were a call-in show.

Z: Spontaneous combustion on fitness and health.

D: So we really liked that... so if anybody wants to call in, go right ahead.

Z: Yeah... and also... you can always find us on our website.

D: Yeah.

Z: What is it again? (laughter)

D: Our website? You tell everybody.

Z: www.bigbrainradioshow.com

D: You got it.

Z: Right.

D: So we've got two minutes here... and then we're going to get started on the main meat of the show.

Z: The main meat. Lean body mass. That's good.

D: So I think you probably have some... everybody really ... I love those hot... those fat loss tips you had last week.

Z: Yes.

D: I had patients talking to me about it and everything.

Z: Yeah well you know I think in our culture you know we want to do everything fast. And we want immediate results. So when I said burst

training, 12 minutes a week, like we were flooded with calls about that. I'm going to talk about that today. But there's a little kicker to it.

D: That's what first attracted me to it.

Z: It's really intense.

D: And I know that too.

Z: It takes people outside of their comfort zone. But hey, if you can be done in 4-20 minutes... it might be worth it. Good trade off.

D: Right... some people... like I used to be a high school sprinter so that was like right up my alley. I love that.

Z: Right.

D: Somehow I turned into a long distance runner. I didn't like that.

Z: Well and that's the difference between this long... long-term cardio workout we've been trained to do versus sprinting. So we'll talk about that.

D: What I'm saying is you have to have a good philosophy of metabolism wrapped around it for it to work. Right?

Z: And I have got that for you today.

D: Good. And I've got a lot of cool articles about the brain... how it's wired for money.

Z: The brain is wired for money... and love.

D: Our reaction... and love of course. That's always there.

Z: That's right. Always on the BigBrain Radio Show. So welcome to this Saturday morning. We're looking forward to hanging out with you. We'll be right back. This is the BigBrain Radio Show, AM950 Air America Minnesota.

D: All right.

(music)

(music)

D: All right.

Z: We're rocking out this morning

D: Oh yes.

Z: We got a little dance music.

D: This is the music from The Transporter.

Z: Hmm.

D: Good show, good music.

Z: I think it's good for a BigBrain. Transporter... that's a good theme.

D: Yeah, transport you into the next evolutionary lifestyle... health style.

Z: Trans...transporter... evolutionary health style.

D: Just stay tuned.

Z: (laughter) Maybe we'll just rock out to the music for this show.
Okay what are we doing? Where are we going?

D: She's on the table dancing, all right.

Z: (laughter). All right...

D: That was a good visual.

Z: I had a comment but I won't go there.

D: (laughter)

Z: You know those poles are really big now. Pole dancing.

D: They are.

Z: Yeah. Okay. Anyway. We'll talk about that...

D: That's a motor sensory...

Z: You know what? That might be like a burst training thing. I'll have to figure out how to integrate the pole dancing phenomenon with burst training.

D: It's motor and sensory integration.

Z: I'll say! Come on, let's get off the subject.

D: Okay. What would you like? You want me to talk a little bit about the BigBrain philosophy... and kind of everything?

Z: Oh sure.

D: Why don't I do that?

Z: Oh sure.

D: Well the on the BigBrain philosophy, we're always talking about the motor sensory and the reason I do that is to let everyone know that we are very, very clear how our body works. We're either having a sensory intake with some information for us, or we're having a motor response. And our body uses that, except when it comes in an imbalanced form it doesn't work for us. So we either get too much of a sensory react... sensory input... you know like we see something and it bothers us one way or the other. It's good or bad. And then we get an imbalanced motor response, either good or bad.

Z: You know I love the thing you said on another show about ... you know we say attention deficit disorder... but you can also have attention surplus disorder.

D: Oh yes! You ... we always have attention surplus with the things we value the most. We have no problem doing something that we love to do. We could do it for hours. You have to be interrupted.

Z: And perception is reality. So whatever you're taking in and perceiving ... that input... that's determining some reality for you too.

D: Right. So when you get this imbalanced perception or this imbalanced reaction, it is not best for your forward action days because it isn't as regenerative to your body... because our brain is functioned to function at the middle... where it gives us optimal response. But let's say this is reality. So we're always going to go back and forth between these imbalanced perceptions and motor sensory perception. But as we bring our higher mind into play ... our metaphysical mind ... we cognitively learn how to balance those things out.

Z: You know in the metaphysical mind and brain is that part of us that observes ourselves too... watching ourselves having these reactions but then being able to make a decision.

D: Right. And we have to ... we have two types of reflexes... the one we're used to thinking as a reflex... it's reactive, and sometimes it serves us. Like if you had something that was threatening your life, your reaction would be immediate... even if it was violent, it would probably save your life.

Z: An automatic reaction.

D: Automatic, yes. And then we have what are called agenic reflexes, and those are the ones that we learn...

Z: A what?

D: Agenic... well that means reflex until it's created. Okay?

Z: Oh.

D: It's genesis ... agensis... okay?

Z: Okay.

D: And that comes from our higher mind. So we learn to ... we learn to take information and evaluate it and then allow us to come up to different conclusions so we don't over-react at first. We have to train ourselves. For example, like public speaking would be a perfect example of that. Most people are deathly afraid of public speaking, but you can learn to overcome that and become very, very good at it and using those responses to let us know where you are...

Z: It's more the educated mind, you mean? It's more reflective?

D: Actually... it is educated, but then... here's the cool part. Once you do it for a while, you learn how to balance out the...

Z: You train yourself.

D: It then becomes automatic. It goes back down to the lower brain.

Z: Um hmm... like learning a new skill. And then it becomes automatic. You don't think...like driving.

D: But this is the really cool part. It then opens your higher mind to take on the next problem.

Z: Um hmm.

D: To take the next thing that you have to overcome...

Z: Always taking on new information and integrating.

D: Right. And the reason I say this is because a lot of us spend our time and life thinking that we're supposed to be a certain way. It's always going to be this way the rest of your life. You're going to... you're gonna have what's called judgment, indifference, and then breakthrough. So you have something you're all upset about... you have a judgment about it... then you kind of get indifferent to it... and then right after that – Eureka! It kind of balances out and you see the perfection in the whole thing.

Z: Hmm.

D: Now the problem is, right after that you go back into ... judgment.

Z: Judgment... there's no escaping.

D: Right. And so then we think we're right where we started but we're not.

Z: So it's not like tiger chasing its tail. You're actually spiraling, but you're going up... spiraling up.

D: Right. And that's what I mentioned previous... is that it feels like we've always felt... so we think we're at the same place, but we're not...

Z: You feel upset in the same way... same hormone.

D: Same hormones...

Z: That's why.

D: We are who we are. But we're actually going to the next level and that's what's very, very cool about the human species... because our ability to balance our perceptions and then go to the next level... we're going to automatically run into the next problem because life is about solving problems and becoming more accountable for who you are and what you contribute to the universe.

Z: Hmm.

D: Isn't that cool?

Z: People just want to know that they matter. That was from "Walk the Line." That was June Carter Cash. "Just want to know I matter. Just want to matter."

D: (laughter)

Z: You know Reese... she won the...

D: She did, didn't she...

Z: The Academy Award. Yeah.

D: She did.

Z: Anyway.

D: But see this hopeless search for peace and happiness... you see how ridiculous that is? The... the...

Z: There's a balance of war and peace.

D: There's always going to be war and peace. There's always going to be destruction and construction. Just take our human body. Our body has construction and destruction going on at the same time.

Z: Rejuvenation and decay.

D: We would turn into... I don't know what would happen if we didn't have both because we wouldn't grow.

Z: We'd explode.

D: So... we miss out on the joy of life. Let's take love for an example.

Z: Love...

D: People don't always look for love as an imbalanced perception... a one sided life. They want a person who's nice, supportive, creative, orderly, sweet, being there, helpful, sexy, loyal, smart, attractive, genuine, honest, attentive...

Z: Just like me!

D: ... and the list goes on.

Z: (laughter)

D: Yes, half of you is that way.

Z: Oh.

D: Since you brought yourself up, I'll use you as the example.

Z: Oh dear. I shouldn't have gone there.

D: You know if we could find that person we'd have to enshrine her and send her to Mars because it would throw everything out of balance.

Z: Oh, okay.

D: But remember I said it was a 'her'. The reason I say this is because nobody can match up. Everybody is 50-50. For example, I think you have parts of you that are mean, disloyal, challenging, destructive, disorderly, rude, not there, self-centered, not sexy, dumb, unattractive, fake, dishonest... and the list goes on.

Z: Do you have cameras in my house? Stalking me? Are you stalking me?

D: No, you're a human being.

Z: Oh, okay.

D: So it's kind of like a magnet. People want to have a one... like a unipolar experience...

Z: In a bipolar world.... (laughter)... no that didn't sound quite right. In a multi-polar.

D: There's a ... every magnet has a positive and negative and you could take and slice that, and slice it and slice it and slice it...

Z: In a di-polar world.

D: Yeah... and so you're missing out on the magnetism of life. So when you embrace the magnet part of our personality, which is two sides, then you get the magnetism of life...

Z: And life becomes electric.

D: It is electric.

Z: Electromagnetic energy.

D: Look at this. If our definition of love is that it's synchronis, and that its encompasses a combination of opposites, you know that work together, that means that you could look around since everybody's that way and all you're surrounded by is love.

Z: Wow. What is love... what is that thing you say? Love is the synthesis of ...

D: Of complimentary opposites.

Z: Complimentary opposites.

D: It's the synthesis and synchronicity.

Z: And synchronicity of.

D: So everything is composed of complimentary opposites.

Z: It's not of infatuation and resentment, but a synthesis of the two.

D: Well it's always there. Remember, it depends on the perception at the time. We elect to see one side and we don't see the other.

Z: Okay, well this is interesting.

D: I had an interesting thing... I had a person that kind of ticked me off and I was just sitting here thinking how ticked off I was. Then I decided you know I'm really actually becoming a victim of my emotions and so I just decided to do something nice. So I did something nice for them. And guess what? That charge is gone.

Z: It's about ...

D: And they were actually a nice person.

Z: ...neutralizing charges. Because then you can keep moving forward without getting stuck.

D: We're actually giving authority to our imbalanced perceptions when we let them run us.

Z: And the advantage to balancing it is... you can just keep moving forward? Keep your energy and vitality?

D: This might come as unusual to people, but you should never give your authority to any thing, or anybody or anything other than God, okay? Even God doesn't want the authority.

Z: How about if we say it would be unwise to turn your power over to another authority.

D: Yes... so... but... a good idea sometimes is to take somebody who you think is better than you are and look at that person... read their biography if it's someone famous... and find all the traits that they have that you don't think you have and find out where you have them because you do.

Z: All right.

D: And that really balances out. And then you don't have that person creating difficulty in your life because then you can move to that same level as that person.

Z: Or you feel limited or less than... it allows you to have more freedom to be that too.

D: So this all ties into the BigBrain philosophy, where our values is what kind of drives our perceptions. So it's very important for us to understand our values. Because like I said, we may not know what are values are but we only have to find them by looking at to see what we get attracted to... what do we talk about... What else? Tell me some of the others.

Z: What we wear, how we spend our money, how we spend our time, people in our life... people we surround ourselves with.

D: What you react to. What you're attracted to and what you react to positively and what you react to negatively.

Z: So if you want to change that or you don't like what you see?

D: Well, your values are your values. Your top values are the ones that are going to drive you. But you link what you want to those values. So let's just say that... we'll take the common thing: The guy's attracted to money and his business and the woman wants the family and taking care of the family. But if a woman just stops to think... if the ladies just stop to think that if... what is his value of money, how would you link that to raising a family... or it could be vice versa. And the guy could think my working, how does that link and create a value to my family? And come through with a list of 10-15 things that links his attraction to money or business and how it contributes to family, then he actually links that value and brings it up a level in his life. Does that make sense?

Z: Then they end up having an experience of being more together on the same page in that area.

D: Yeah, I think we should probably do that more often because... like in our clinic, if someone has a job they do not like (because we do have to do some things that we're not attracted to)...

Z: Or tasks in their job that they do not like.

D: And you know it's not high in your values because you don't like it.

Z: How about preparing your taxes?

D: Preparing your taxes... but what are all the things... what are your high values in life though? You've got taxes, now what's your high value?

Z: Beauty.

D: Beauty... so how can doing your taxes contribute to beauty?

Z: Yeah, that's good.

D: So give me an idea.

Z: You give me one. You're the professional here.

D: It's your life.

Z: Well you give me some examples. How would doing my taxes tie into beauty.

D: So to straighten out your money you'll feel less stress. When you're less stressed you're more beautiful.

Z: It doesn't even have to be physical beauty about me. I mean like I appreciate aesthetics... beauty.

D: Well, isn't an organized tax return pretty beautiful?

Z: (laughter) That's a stretch.

D: How about a tax check coming back in the mail? That's pretty beautiful.

Z: Yeah, I never get that either! (laughter) Well, I'll have to work on it.

D: We've stumped...

Z: You can see why I don't like this exercise.

D: Yeah... you have to work...

Z: Called "Stump the doctor"... call in now.

D: You have to work at these things. Dr. Z doesn't want...

Z: Let's see... let's see... What would be beautiful is someone else doing my taxes.

D: We'll think about it on the break here. Okay?

Z: Okay. I'll put my noggin to it. Don't go away. This is AM950 Air America Minnesota. BigBrain Radio Show.

(music)

(music)

D: Whoa! This is the Saturday...

Z: That's kind of intense.

D: ... Do you know why we're going? It's springtime! Oops... I dated the show. Sorry. Anyway... it's the being alive music.

Z: Of being alive.

D: Yeah. We're going to talk about motion and exercise and that's what takes energy, right? We need to create that. So we were in the linking process...

Z: You were linking beauty to my tasks.

D: Did you come up with any more? Am I going to have to ...

Z: You know what would be beautiful, is to ignore that whole subject and go on to something else. How's that? Denial is beauty. (laughter) Can be.

D: And the opposite of denial is affirmation. Okay?

Z: Okay. Well I have an affirmation about health. I'd like to tell you about hormones and exercise. You don't usually hear people talk about hormones with exercise. It's a big mistake we've made.

D: I do, because I'm around you.

Z: (laughter)

D: Most people don't.

Z: Ah, gee. Okay, well my point is, mostly we talk about exercise like physics or physiology... you know like muscle mass and things like that.

But one of the most important aspects is the hormonal aspect. Your body is a chemistry lab not a bank account. And weight loss is much more than calories in, calories out. So the type of food you choose, when you eat it and the amount you consume has a powerful effect on your metabolism. We talk about this a lot. And the same thing is affecting your exercise. There is a hormonal effect of exercise. So for example, a lot of people in our culture try to cardiovascular... or cardio work outs to burn calories. And actually, if you're not healthy enough to do cardio, or if you're doing it incorrectly, you actually break yourself down and raise your stress hormones. So it makes it very difficult to have a good metabolism and lose weight if you're doing this because if you break your body down, what you're breaking down is muscle. And muscle is where we burn fat. That's the furnace of our body.

D: Okay.

Z: And, if you're raising your stress hormones, that will break you down ... it releases sugar from your muscles into your blood stream and that affects insulin and then we've got this vicious cycle of high cortisol, high insulin, storing body fat instead of burning it, and at the same time, taking away the muscle mass, which is the thing we need to burn fat and be strong and healthy.

D: Now so let me just summarize. So what happens... when you exercise you have to...

Z: If you do cardio.

D: ...cardio... so anytime you work a muscle you have to break it down a little bit to get it to change, correct?

Z: Well yes... I'm getting to that.

D: Okay.

Z: Because that's strength training and then there's this burst training. But the first component I was alluding to was cardio.

D: So you're saying when you overdo it.

Z: Okay...

D: What would constitute overdoing it?

Z: Cardio is over 90 beats per minute.

D: Okay good.

Z: All right? Or doing a high intensity aerobic kind of exercise for a period of time that you're raising our stress hormones which are cortisol and adrenaline.

D: And how would people know that's happening?

Z: Well, you could wear a heart monitor.

D: Okay.

Z: So that's one way you would know.

D: And what would your heart rate be over...

Z: Over 90 for sure.

D: Really?

Z: Yeah.

D: Wow.

Z: Right.

D: Okay.

Z: But the point of it is that all the people on the stair steppers and the exercise machines, if they think they're burning fat, cardio is more for building your heart and lungs. Now there is some little fat burning.

D: Yeah... anaerobic, isn't it?

Z: Well, again... a little bit of a misconception. But my point is, we have a more effective program for burning fat and building your lean muscle mass and it's not cardio. The most effective champion in the fat loss gain is strength training. And that's because strength training elevates growth hormone, which helps the body build up instead of breakdown, and you build more muscle mass and that means a better metabolism, better insulin sensitivity, better use of blood sugar and better fat burning.

D: Well that sounds good. Now strength training... that's another thing you have to be a little careful with, because people take it past their joint level. They do it more... do it too fast and things like that.

Z Well there's a lot of incorrect exercise going on. You just have to walk into your gym and watch some of the people working out to see the biomechanics are really bad. But if you get a personal trainer, or you know how to workout correctly, let's just say that muscle strengthening done correctly builds muscle mass and it's the better thing to do than cardio for burning fat because you're building more muscle mass.

D: Well I know for myself, when I started working out I had this unique ability to get stronger as I go along. It sort of just charges my body up.

Z: Yeah, that's one of your human glitches. That's like one of your quirks.

D: I'll look like I can't even hardly do it and I'll like triple it or something.

Z: Well, and you may be an example of this new concept that everyone is so excited to hear about last week, called burst training. Now burst training is basically interval training... or people know it like sprinting.

D: Um hmm.

Z: So you wouldn't sprint for two miles. You'd sprint for 30 seconds and then you'd rest. Right? Like the 30-second dash from high school... everybody remembers that, right?

D: Actually it was the 100-yard dash.

Z: Oh. Well I think I did the 50-yard dash. I'm pretty sure we had that.

D: And the 200 and the 400.

Z: I'm pretty sure I was damn good at it too. (laughter) But anyway... the point is that we now know that one of the most successful ways to burn fat is to do burst training.

D: Right.

Z: Or sprinting.

D: Um hmm.

Z: And this is going to turn some people's philosophy upside down. What if I told you that you didn't have to stand on that darn stair stepper for 30 minutes or do the elliptical for another 30 to burn fat. You could go out – after doing your conditioning of course ... say we've got you conditioned... and do eight, 30-second sprints.

D: You can do them on the treadmill... you can do them on the bike.

Z: That's true. You can do it swimming, running, rowing...

D: It's a little harder.

Z: The concept is you are maxed out for 30 seconds.

D: Right

Z: So you have to be in a particular shape. Caveat, or area of warning: You know if you went out and just started sprinting right after you hear the show, you could rip the connections ... the tendons and ligaments that connect your muscles to your bones. So you have to condition your body to start sprinting.

D: Yeah because you'll over... your gto or your stretch in your tendons.

Z: That's right. Your tendons need to get in shape too. So what we suggest is three weeks of moderate sprints to strengthen your joint's

connective tissue and prep your muscles for this full blast exertion. You look excited. Look, you can hardly sit still.

D: Well I was a high school sprinter. You know that. That's when I was probably in my...

Z: In your best shape right?

D: Best shape, yeah. I was laughing because I thought... I had a doctor who worked for me and I told her to do these trainings and she... about three weeks later I said, "You really look good." And she said, "Well I've been doing those sprints you told me to do."

Z: (laughter)

D: And she did it and it worked.

Z: Right. I guess this really started coming to the light in about the year 2000. There was a gentleman ... his name was Phil... I wrote it down... I lost it here... here he his... Phil Campbell. He created this Sprint 8. Anyway, that's where you do the eight sprints, 30 seconds long.

D: Even Bill Philips, with his body makeover used to recommend this intensity... concept.

Z: Right. And last week I recommended this burst training, which is a little... Convenience is really important to people and exercise. Like I love to run out and do some stairs over at the high school football stadium. But it's freezing, and it's icy, and I don't go out in the winter. So for me to do these little burst trainings throughout the day, I have this little stair stepper machine...

D: There's some stairs right here...

Z: (laughter) And I don't like to embarrass myself in front of other people. So anyway, I have this thing... it's called an x-ciser... people emailed me about it.

D: Oh right. This is great.

Z: Yeah... and you can email me and I'll tell you about it. You can get them through me. But it's a little mechanism for a few hundred dollars that you can do these little bursts in the privacy and comfort of your home until it gets nice outside and you can out on the track and do this burst training.

D: Well the thing on top of this is that you can come in ... and you know I have one of those range of motion machines that does that...

Z: yeah.

D: That machine that they see advertised...

Z: You have a really fancy one.

D: ... very... Scientific American Discovery and all that... Anyway, it's very fancy. But when you do that, you can... then you can go out and do the things you love. The sports you love... if you want to go for a long run that's just enjoyable, you just do that once...every once in a while.

Z: Right. That's great.

D: It really allows you to enjoy your body a lot more.

Z: If you do your 4-12 minute workout, then the extra time you don't use at the gym... that other hour... you can go practice the skills to improve your sport. Now I love this because I love to play tennis. I don't want to have to sit and do my aerobics for an hour, then go play tennis. I can do my 4-12 minute sprint training, play my tennis and be getting in great shape.

D: And by the way, some of this does apply to body building... of the intensity... the moving and the slow and fast movements...

Z: All right. Well you can educate us on that next.

D: I will do that.

Z: (laughter) Next time.

D: Yeah, next time.

Z: Next time.

D: It actually does... part of it does.

Z: All right. That's good. All right. And one thing people should know about this is that the... one of the reasons it works to strengthen you so well is that when you exercise like this in particular, it increases your human growth hormone. Some people do you know are taking injections or human growth hormone, that are costing somewhere between \$500 and \$1,000 a month. You can do natural hormone... human growth hormone replacement by doing this interval sprint burst training.

D: Yeah and it's real growth hormone, it's not being injected.

Z: It's the real McCoy and you don't have the danger.

D: There's so real side effects from that other process.

Z: Human growth hormone is known to boost your strength and shrink fat cells.

D: I should tell you about this patient... little boy and growth hormone... I gotta tell that story.

Z: Yeah, it's important.

D: I'll do that when we come back. Okay?

Z: All right. This is the BigBrain Radio Show. You're listening to Dr. D and Dr. Z. We're talking about fat burning, love, healthy brains, big ideas. We're covering it all today.

D: It's brain waves to radio waves.

Z: This is AM950 Air America Minnesota.

(music)

(music)

D: All right. The BigBrain Radio Show. Memories... Our planted memories do cause us a lot of distress because we usually have an imagination with it, with overreaction. But that's another story. Let's just talk about... we were talking about growth hormone, weren't we? A little bit?

Z: Yeah. We were talking hormones... and the point is we want to do this in a safe and healthy way... not having to do injections.

D: Right.

Z: Or weird programs that hurt us more and hurt our metabolism and age us faster.

D: And it does age us faster when we do it that way. We want ageless body... timeless minds...

Z: Ooh, I think I've heard that before.

D: Yes. So anyway, you were talking about... I had this little boy come in and he wasn't growing and they were getting ready to do...give him growth hormones, which they should if he needed it. So I took some x-rays of his growth plates and they were all there and stuff. And so I started treating him. And so he went back ... I treated him for two months... He went back in to start getting the growth hormone... they test him and his pituitary gland was normal... he had grown two inches.

Z: So... um... probably had seeing an endocrinologist... putting a shout out... because that's a hormone doctor. So you were working in conjunction with a medical professional...

D: Well they hadn't done it yet... they were getting ready to... and I said "fine"... he probably does need it...

Z: But you were adjusting him concurrently.

D: ...because he was pretty short.

Z: Right.

D: And so... but... the pituitary gland kicked in after we started adjusting him because it's a function that controlled the brain and he's grown two inches and they're not going to give him the shots right now.

Z: So your example isn't about strength training and human growth hormone, it's about activating the brain through chiropractic and allowing the growth hormone.

D: But that's what ...exercise activates the brain also.

Z: Right, but in this point you were talking about chiropractic...

D: So there's ways you do it generally and the ways you do it specifically. I mean the reason is because it brought a tear to my eye, okay? He was real... excuse me... I'm going to start crying now. His mother was so happy.

Z: So hormones are important. We gotta have them.

D: By the way, his sister came in because she had been wearing ear things since the day she was born...

Z: Hearing aids?

D: Hearing aids... and now she can hear... when she has water in her ear, like in a tub, she can now hear... and even though they say there is no nerve there, she can now hear. The doctor can't explain it. And she's been getting treated too.

Z: Wow. Fantastic. Good job Doc!

D: Yeah.

Z: Those are great stories.

D: They are good stories, and they're fun... and you know we don't start out saying we can fix these things, we just say we're going to try and see what we can do to help it respond to the treatment they're getting.

Z: Restore the body to normal.

D: Yeah.

Z: As much as possible, and let the body do the work.

D: So speaking of the brain...

Z: Yes... speaking of the brain...

D: I have some great articles here.

Z: All right. We're going to do a little article review.

D: I'm in the process of doing a seminar that involves some of this so I just thought I would share this with our listening audience.

Z: Good. We have a very smart listening audience. They will like it, I'm sure.

D: Well this article goes back to Money Magazine in October of 2002, but they did a study and they wired the brain and its response with money. There was a guy who agreed to be wired up... and... do the things that they do... and watch them. So I'm just going to start out talking about this article. And at first it said ... how we got our brains... As a specie, we were hunter gatherers living in small bands, and we needed to have a way to react to our environment. So we were able to solve short-term problems, but we were not very good at long-term problems and this was due...

Z: (laughter) I don't know if that's changed very much.

D: Well, we're supposed... that's what we were talking about at the beginning of the hour... about our long-term ability to change our reactions. Okay? And so... if you take a tour of the investing brain... because they used... they did like an experiment with ...where the guy was simulating investing. All right? But he was being observed on an MRI. And there's a thing called the amigdulla... it's deep in the lower part of our brain... and it's the one that reacts and gives us fast emotions of fear and anger. So it isn't the threat of physical damage that set it off, it's just the fact whether there's a gain or a loss. So with money, they noticed that the amigdulla kicked in right away... all right?

Z: Either way? With gain or loss?

D: Gain or loss, right... because we need to have an idea about it. So what they found out is that... then it activates our hippocampus, which is in our brain... for those out there that don't know about our hippo...

Z: Isn't that our long-term memory?

D: Our long-term memory.

Z: Okay.

D: So now it starts leaving a little memory pattern. So that's going to affect about how we act to money, all right... and between the hot emotions of that, it allows you to start doing certain things. But then you get in a pattern, where the amigdulla wants to start picking out things that give us a little bit of a rush...

Z: (laughter)

D: ... you get what's called... Well first of all, human beings have what's called a prediction addiction.

Z: Oh, I like this.

D: We insist on believing that we can predict the next item in a series of events.

Z: That's probably how we learn to survive.

D: Like lotto... and the thing is, it turns out that we have no choice. We can't do it. We have to forecast what we think is going to happen. And it's called the prediction addiction. And it has to do with a little structure called the nucleus accumbens...

Z: Easy for you to say. How do you spell that?

D: Accumbens.

Z: Accumbens.

D: And the anterior singular girus.

Z: Okay.

D: Okay? Well they react and they start leaving a little memory and repetitively. And the thing is you only have to have an event happen two times, and these babies have it locked in.

Z: Wow. Smart brain.

D: You heard the old thing “three times” is the choice?

Z: Yeah... three times the charm...

D: Yeah, the problem is it starts getting used to the patterns and we can't recognize value. So if it goes up and down, it has a harder time recognizing something that really has value because it can only recognize the highs or the lows and they can't coordinate the two.

Z: I don't get it.

D: Well if you... if this thing only recognizes the peaks, of values...

Z: Oh it only rep... Oh I see. It only recognizes highs and lows. So then you loose the ability to find the medium... the balance?

D: Well, there's one other problem. We've got dopamine kicking in.

Z: Oh yeah.

D: They don't call it “dope” for nothing. All right?

Z: Right.

D: And they love that... and the dopamine... that's kind of interesting because we'll play... Our brain loves long shots... so we get a little rush... if we win... Okay it isn't winning, it's winning the big one.

Z: You can see how gambling addiction is a really serious, easy to ...

D: So once a gain becomes associated with a cue the brain releases dopamine on cue, even before the gain occurs.

Z: In anticipation.

D: Um hmm... And then even if you don't get it, it still does it but then it sucks it right back.

Z: Does it really uptake it right away?

D: Um hmm... right away. So then it's like a withdrawal.

Z: Ooh... what a mess.

D: Ohhh... so then you'll do it again thinking it's gonna come back... that is where you get your addiction.

Z: So what are you supposed to do? Or how do you avoid this?

D: Well, fortunately we have our frontal lobes.

Z: Oh yeah, the executive center.

D: That's the CEO. That's what controls what we have happen.

Z: All right.

D: And this article... this guy, Antonio Demasio, is a very famous writer about the brain. He's actually from the University of Iowa. And he says you just have to kind of learn to keep everything in balance. He talks about different people... what you can do... in this article...

Z: This kind of ties in to the beginning of the show where we talked about being reactive versus... what did you say? Genic and age...

D: Here's an interesting one. They say change wallets. If you... if you're chasing a certain stock you know, and it keeps losing... and you have

a tendency to do that... you put a certain amount of money in one little account and that's only the money you can use for that.

Z: And that works for the brain?

D: Yeah, you have to learn how to do that. Or if you research better, which is a frontal lobe, you'll get better results. Okay? Or if you start looking at things in the long run, like we've been talking about this morning. Or if you use your cortex and think a little bit more about it and diversify it... try new experiences so you can start seeing the value across it.

Z: So using your neo-cortex, or your frontal lobe... the human part of us more.

D: You can program yourself.

Z: Because those other parts of the brain are the more reptilian, more basic parts of the brain.

D: The lower mind.

Z: The lower mind. So you have to use a higher brain.

D: Now you need to have that. It has to kick in for the thing to be long-term like I said. But once you go up and you handle it, then you can drop it back down to the lower brain and it becomes automatic. Okay/

Z: Oh, you train it. You train it from the higher part and that conditions the lower brain.

D: The reason I like this article... It's just a reflection of pretty much how the brain works on everything. Love... everybody gets addicted to love. They get addicted to food. They get addicted to exercise, like we talked about.

Z: You know when they talk about 21 days to a new habit? I'm sure part of that is just retraining the brain and the biochemicals.

D: It for sure is that.

Z: Yeah.

D: Definitely is that.

Z: So it takes just a little while.

D: Another good article I had said, “Why Johnny Can’t Save for Retirement”.

Z: Wow.

D: That’s kind of odd sounding, isn’t it? Well what they said is they found out that most people took retirement and that we humans have two minds. What did I just say? We have a positive and negative. So we have the calculating, cognitive, most advanced part of our brain, and we have the part that’s emotional.

Z: Yeah.

D: And so... everybody gets kind of bent out of shape. The lower mammalian brain was designed to survive in the environment. So it’s kind of emotional and reactive. So when people think about saving, they... they want security so they want someone to tell them what to do but they don’t want to tell them exactly what to do. So a lot of these 401(k)s you know they’re so restrictive. People don’t save really well with that. But if they give them too many choices, they’re terrible. They use the example of... there was the experiment where they put this... like jams out for them to decide... they had like 30 of them.

Z: Jams... like jellies?

D: Yeah. And no one bought any. They put out six, and they sold like crazy.

Z: Oh because if you have too many choices you can’t participate or choose at all. It’s overwhelming.

D: So if the choices are too structured, we’re not... we’re not... we...

Z: We feel...

D: Over...

Z: Suppressed.

D: But if they're not structured enough, we never make the decision.

Z: We're overwhelmed.

D: See how it gets the conflict? And they actually really are going back to our friend, Plato, who was the first one to actually kind of recognize the soul and the heart and mind. And he said it's a lot easier to depict them as kind of rational, but we're really driven by our irrational sides and you have to take in both accounts...

Z: Our lower mind side.

D: ...our lower minds in order to that. Okay? Ah... let's see... if there was anything else in there. But it was pretty interesting because it was really trying to look at what we can do with the changing environment in terms of money with all the government kind of pulling out of... you know Social Security isn't considered to be worth much and the 401(k)s... Do you know that only a third of eligible workers have actually filed for 401(k)s?

Z: Because they're just not that attractive anymore?

D: Ah, they just... they want to think like they're more in control. They've either put it in low returns or they put it in too risky of returns. Either one. Because they went and surveyed to find out what happened, so either way they were out of balance again... like I was talking about earlier. They weren't in balance.

Z: Hmm.

D: Okay? Not that 401(k)s are the greater choice. I think they're actually a very poor investment, but they're at least available for people. So evidence... and hard choices overwhelm our better self. All right?

Z: All right. Hey, did you have anything over there on rich... why rich people live longer? Did you tell me you had something on that today?

D: I do. I have that here.

Z: I was really curious about that. What is the story there.

D: Well it says the rich are really different. It's not that they're soft in places where others are hard, it's that they are alive after poorer people are dead.

Z: Okay. And why?

D: Well, you would think that was because they ... you would think it's because maybe they have better environment, but it actually has to do with their... their ability to balance these thoughts we were talking about. They can see both sides of the picture usually.

Z: Rich people have better balanced thoughts?

D: Yeah, they're easier to see... well they have the opportunity to ... to look at both sides of the picture. It is... Oscar winner directors and actors live longer than non-award winning actors and directors. People getting some reward. You know what I'm talking about?

Z: Well I can see that... reward... yeah.

D: So it feels like they have a reward for what they do. And ... so it isn't just because they are able to take care of themselves better, they actually have a different brain... cognitive brain process. What's the famous movie, you know, where... was it Pygmalion... you know where...

Z: I don't think I was born yet.

D: Where Dr. Doolittle ... the woman... turned her into a beautiful woman and stuff...

Z: I don't know.

D: ...and then she blossomed.

Z: Hmm.

D: Because you can take people and train them to think that way.

Z: The ugly duckling/beautiful swan syndrome.

D: It's a famous play... what is the name of that play?

Z: Yeah... I think Pygmalion... I think you're right.

D: Well actually it has a more common name. Ah... the benefit of having money can be simply just having better healthcare or food, but just for example they gave the example of a guy who takes a trip across the country. He gets to sit in first class... he's going to be more comfortable... he's not going to be as irritable...

Z: That makes him live longer? But those guys are up there drinking scotch and eating bad airplane food... and...

D: Well they just said they measured...

Z: Half of them are – not all of them.

D: ...they were more relaxed when they got done... they weren't as irritable... they were easier to handle... When the luggage was late they handled it better and stuff like that.

Z: Oh... I don't know if I agree with that study, but it's interesting. Where did you get that?

D: I got that from Forbes Magazine.

Z: Oh, okay... well they're kind of reliable... I don't know. They may have something at stake in saying that.

D: February 14 of 2006.

Z: Okay. Was that the billionaire one? Or was that Fortune Magazine with the billionaires?

D: That was the billionaire one. It was just in there.

Z: Okay, the billionaire issue.

D: This is a great article. It's about men, women and money.

Z: Men, women and money. Okay.

D: Think you know what your spouse wants? When it comes to money you better read this article. When it comes to getting through to each other about money, spouses have some work to do. The survey shows that men and women may not be exactly from different planets, but they certainly operate on different financial orbits. For all our sophisticated financial knowledge, the vast majority of married couples still divide on the family financial structure. Most admitted that they go along traditional lines. The women handle the spending and budgeting and the men make the big decisions about long-term investing. But here's the interesting... is that ... actually there's lots of fights over it. Okay/

Z: Fights over money? No!

D: Yeah, 7 out of 10 actually owned up to arguing about it. In fact, money causes more fights than sex, even in-laws.

Z: This... I don't think this is new, is it?

D: No, well... this is the part you're going to like. Husbands were especially clueless... tending to underestimate how much women care about almost every financial issue from investing and saving, from retirement to paying off debts.

Z: I can see that.

D: What spouses think their partners think about money is not really what they think. For instance, a survey found that 27% of men thought their wives think of the right investments as important; over half said they really cared about the investment. They wanted to have something to do with it.

Z: Oh yeah.

D: 45% of the men say that the cash stash for emergencies is very important. The spouse... the wife... thought it was 67%.

Z: Hmm.

D: So women have... and this is the reason because women have a better right brain and the thing that connects the two brains. So women are actually more perceptive than men.

Z: They have a bigger corpus collosum.

D: Remember I said they spot the problems and they just go right down the...

Z: Well that's the physical part of the brain. The right and left brain in a woman's brain are connected with a thick corpus collosum.

D: Remember I told... I told you women will go and see the doctor first? They're much more perceptive about when things aren't right.

Z: And integrated. Guys tend to be more one-sided.

D: Yeah... what's that dog?

Z: Scooby-Doo.

D: Scooby-Doo.

Z: Scooby-Doo.

D: Yeah.

Z: All right. Coming back. We've got Endotrim.

D: Oh...

Z: We're shifting gears... from brain corpus collosum to burning...

D: Exercise... exercise... exercise.

Z: Burning fat and easy things to do with supplements. Come on back. BigBrain Radio Show. AM950 Air America Minnesota.

(music)

(music)

D: Okay. That's the BigBrain Radio Show. There's many forms of pleasure and there's many forms of pain. And we have to know that they both contribute to who we are as a human being. And so we were just reading a little article about men and women... the difference in women and obviously they are very intuitive about money and men need to listen to women and what they have to say. And so that was my final part of that. Okay?

Z: (laughter)

D: And so... because a lot of us really want... we want to please each other, we want to please ourselves... let's go to something that's a little more pleasing, okay?

Z: (laughter). Well and there's a difference in men and women with their percent body fat and lean muscle mass so maybe that's a tie in.

D: I've never noticed!

Z: (laughter) Women have more body fat because they bear children.

D: Actually if they go below a certain percentage, their menstrual cycle stops and their hormones get thrown off ...

Z: That's right.

D: ...and it's quite bad.

Z: A lot of us don't have that problem, but... you're right.

D: I've seen it though. I have athletic patients who way, way, way...

Z: Yes... no, you're right. I mean... yes... under eating and eating poorly are probably as common as overeating and eating poorly.

D: Or they exercise it off. Their brain is on overdrive for that dopamine.

Z: Yeah.

D: If they don't exercise like two hours a day, they just go nuts.

Z: Yeah, they miss the adrenaline.

D: Yeah.

Z: So anyway, last week we talked about some products to support weight loss and fat burning and I talked about carnitine, which... carnitine is miraculous and wonderful for fat burning. It has to do with the mitochondria. So that product seemed to interest people. Today I have a product for you... it's called Endotrim. And if you're interested, you know you just contact me. My website... www.keepthezestforlife.com. But Endotrim is a comprehensive endocrine and metabolic balancing formula designed to promote optimal body composition. So here's what this product can be used for and is great for: appetite control... that sounds good... blood sugar support... fat loss... improving your metabolism... improving your muscle mass... and stress control. What do you think? Sounds good, huh?

D: It sounds like the perfect product. Do you have it available for anybody?

Z: The perfect product. I do. And I wanted to tell people... sometimes people tell me... there are products you buy at the health food store or the drugstore, that they have taken and it speeded up their metabolism or speeded up something... they lost some weight... they stopped taking it... they gained a lot of weight back and they felt terrible. So people are afraid to take certain products. You know when I was young it was Dexatrim... it was almost like ephedrine and caffeine...

D: You know I'll just be an advocate for you here for a second... because really what you've been saying all through the show, and what we... when we're talking about the brain or it is nutrition and health and the gut ... is

you need a program that has a healthy metabolism so that things you do actually contribute to what you want to accomplish. And that's why they know the products they get from you do that.

Z: Right. And the products I recommend are pharmaceutical grade, you know available only through health practitioners. You can't buy them in the health food store, or the grocery store or Walgreen's. So when I tell you about a product, it is the highest grade.

D: When you say pharmaceutical grade, some people might think that means drugs.

Z: No, it's just made as clean as a medical product would be made. And it's refined and all the ingredients... especially this company that I work with... they try to use all organic ingredients, pesticide free, non-allergenic, so you're getting a health product. Anyway, in this Endotrim, it has a non-stimulating American Ginseng for cortisol balance and it has herbs for enhanced glucose control and insulin performance. Which those two things – insulin and cortisol – determine a lot about your health and your fat and your metabolism. I talk about the two sides of the metabolism all the time. Building and using... the building side is insulin, the using side is cortisol. This product also helps your thyroid function. And you'll like this Dr. D, it has Gabba in it, which is kind of the brain's own form of valium. It calms down the brain and it helps with craving control ... and you know a lot of people eat because they get stressed out and they have stress-related or emotional eating.

D: Right. Gabba is good for the temporal lobes and the temporal lobes are kind of your reaction... the right is for your reaction to yourself and how you view yourself and the left is for society.

Z: Right.

D: And so... we have both of those in our life... you know the groups outside of ourselves... so it's the law of the one and the many.

Z: Right.

D: The one is on the right and the many is on the left.

Z: And we've been breaking up some of the misconceptions about how to lose weight, how to have a healthy metabolism, and the new research is showing, just like this burst training, that healthy functioning of the body depends not so much on low fat content, but on a higher percentage of lean body mass. So whether it's the burst training or taking Endotrim to build your metabolism and build your body mass, you're going to be more effective in your health and your weight maintenance if you're emphasizing keeping your lean body mass.

D: You know this is the part of the program we call "Stuff that Works" and obviously this is stuff that works because you're... it has the result we want and it's guaranteed – not guaranteed, but it's easy to use after you get started.

Z: That's right. One last thing on... I just want to let people know about this hormone called Leptin. A lot of people have heard about Leptin. And what you want is a low fasting Leptin level and Leptin is the hormone that tells your brain you're full. Okay? So if you want to lose weight and keep it off, you must first maintain lower Leptin levels so that your brain and body tissues can relearn how to listen to Leptin. So this product, all the wonderful things it does, one of the other things it does is make you more sensitive to the hormone communication of leptin.

D: And our sensitivity of our body really determines our perceptions and our perceptions determine how we see life.

Z: Our reality.

D: Life is based on your perceptions, not what really happened.

Z: Good. So if you're interested...

D: You can turn yourself from victim to victory by following the processes heard on this program.

Z: Oh my gosh. Or by using Endotrim.

D: Yes.

Z: Or Carnitine. So anyway, that was our stuff that works today.

D: I got one thing...

Z: What do you got?

D: Well, I had another interesting patient... I don't know why I'm talking about patients today, but she came in... and she'd been in an accident. She was doing really well, but when she drove she'd get all these pains in her neck. So I looked at her eyes... and a lot of people don't know that the eyes develop at the same time as the muscles along our spine in the embryo.

Z: Okay.

D: Those are called homologous columns. They develop at the same time. So when your eyes get thrown off, like they do with car accidents... with the brain stem... So when she was looking certain ways that was reactivating muscles that were out of balance in her spine. So we just checked her eyes and went through a series of exercises and the pain went away.

Z: And vice versa... because if you whiplash your neck, those little spinal muscles throws the eyes off. People can't focus sometimes...

D: Right.

Z: ...after they've hurt their neck.

D: So they have a lot of people that have...

Z: Get headaches.

D: Yeah, and what we find out is when we get to talking to them they have blurry vision they hadn't really told us about because they don't always tell you everything...

Z: Um hmm.

D: Or they'd been having sensitivity to light...

Z: Or they can't read anymore.

D: They can't read, or they start skipping... or they find they can't do things because they don't feel as sure about what they do... or they don't want to drive. And so those are things that we take care of all the time and they're very easy to do.

Z: So you're stuff that works is getting some chiropractic attention for your neck, to help your eye tracking?

D: Yeah, just to see how it's all kind of connected. You know?

Z: That's good.

D: I figure if I talk about enough things, somebody's going to hear something that's related...

Z: (laughter) You've got a little something for everybody. That's a BigBrain idea.

D: You know we do something for everybody. We really do.

Z: More for less... Less for more I mean.

D: And that's what I hear from patients.

Z: Less for more. We're trying to give you ideas where you get more ...

D: For less.

Z: ...benefit for less effort.

D: Yes.

Z: Yeah.

D: And it lasts forever.

Z: That's right. Good.

D: Yeah. Well thank you. It's been a beautiful morning.

Z: Yes. Great... another great Saturday on the BigBrain Radio Show. We look forward to seeing you next week and hearing from everybody. Please feel to email us at the BigBrain Radio Show.com. You can find me at www.keepthezestforlife.com. Dr. Z and Dr. D here on the BigBrain Radio Show.

D: We're going to share value, purpose, love, happiness as a gift from God to experience the light of our souls and the wisdom of our hearts.

Z: Great to hear you. Great to see you. Come on back next week. This is AM950 Air America Minnesota.

(end)