

LAURA REYNOLDS: I'm Laura Reynolds. I'm with the DANA Alliance for Brain Initiatives. Welcome this morning. Before we get started with the program, we're going to do a ten minute warm-up just to get your blood flowing. So, I'd like to introduce our trainer, who's going to lead us in our brain warm-up, Joia Gencini (?)... Joia is an attorney, in addition to being a Certified Fitness Instructor, and has been teaching all types of fitness classes for almost thirty years. She teaches early morning classes at Fitness Forum in DeWitt, New York. Welcome, Joia...

APPLAUSE...

JOIA GENCINI: Hi everybody! Ohhh! It does work! Cool! Okay! I've already taught once this morning so I am really awake. So, what I'm gonna ask you to do and I've got a chair here because I know you guys have a chair -- I want everybody to stand up... now, do what you can because that's what I always say to people in class -- do what you can; if you don't feel like you can do it, just march along. I won't have ya be movin' because don't hurt anybody else to your sides...

[LAUGHTER]...

JOIA GENCINI: ...ya know... I have a little music that I'm hoping that people will identify with. I didn't bring rap music today... is that okay with everybody?

EVERYBODY: Yeahhhhhh!!!!

JOIA GENCINI: I thought so...

"WAKE UP AND MOVE" MUSIC COMES ON...

JOIA GENCINI: Ah, see!!! We know this, right? Yeah!!! Ready? Let's march! Right foot... owwwwww yeah... we're losing control... no, never... take a deep breath... don't hurt your neighbor... exhale... keep marchin'... now, step touch, right here... little... very little... nice 'n' easy... oh yeah!!!!!! Right foot... you got it... breathe... owwwwwwww!!!! Ready, we're gonna step and push the arms up... Yesssssss!!!! It must come to an end... but not yet... keep going... yeah!!!! Excellent!!! You are gonna feel great!!!! Ohh... Bring the arms front so you don't hurt anybody... Woooooo!!! Owwww!!!! Just one [inaudible]... one more... push... yeah... yeah... woooooo!!!! Owwww!!!! Let's march again!!!! Oww... What are we? Yeah... Alright, we're just gonna sit down... lift... down... lift... down... woooooo!!! Owwww!!! Yes!!!!!! Why should I ever let you go? Two more!!! March... right foot!!! Touch again... Yeah!!!! Let's push up again... woooooo!!!! You got it!!!! Front!! I don't see you smiling!!! That's okay... that's good... ready? Let's march!!! Alright, two touches side... two... two... two... push... push... woooooo!!!! Yeah!!!!!! You got it! You got it!!! Oh, yeah!! Breathe!!! Oh, get that oxygen in there!!! That's the most important thing!!! Woooooo!!!! Ready? March left foot this time!!! [inaudible] up... down... up... down... woo!!! Mama mia:... there I go again... oh... yeah... woooooo!!! Two more, two more!!! Woooo! Left one... march left this time!!! Step touch... left side... woooooo!!!! [clapping]... yeah!!!! Woo hooooo!!!!!! Step push right here, push... push... push... push... yesssss!!! Oh, this is gonna help you stay awake!!!! Alright! Right? Yeah.... March it out!!! Left foot... we're gonna punch the arms up!!!! You got it... you got it... Woooooo!!!!!! Why, why, did I ever let you go?

Ready... front... punch!!! Get those feet apart... uhhh.... Uhh... woop!!! Yeah... yeah... you got it... you got it... Woouoooooooo!!!! Yesssssssss!!!! You love it... you love it... we love it... I love it... they love it... oh, my!!!! Woo hooooo!!!! Let's march... Okay, two touches... yeah! More breathing! More breathing! Oh, my music never stops!!!! Now, we're gonna put these touches together... no... uh uh... no stopping!!!! Woop!!! Okay, I know... this is gonna get tough... two touches... sit down... two touches... sit... two touches... Take a chance on me!!!! One more!!! March it right!!! How we doin'? Do we feel better already? I know we do!!!! Woouoooo!!! I feel great!!! Step touch!!! Woouoooo!!!! Same thing we did before... we can do it... we can do it... yeah... I just want you to know that a lot of my class members are more mature... that's how we're gonna say it... step and push!!! And I told them I was coming... woouoooooooooooo!!!! Uh oh!!! It's gonna be a little tougher now... no arms... no arms... uh oh... [inaudible phrase]... uh oh!!! If you feel more energetic, you can really pull it down! Woop! Woop! Yeah!!! Two on each side... two... Uh oh... I'm makin' ya think, I know... Just single... just single... breathe! Let that oxygen get in there! You got it! We're almost done!!! March right... woouoooo!!!! Ready? Little sitting again... down... lift... down...lift... now, down... knee... woouoooo!!!! Woou hooooo!!!! Yeah!!!! Oh, just a couplamore... breathe!!!! Whoa!! Stand up!!! Back to marching... woou... yeah... four more... four... little [inaudible] forward... [inaudible]... ohhh!!! We're very cool!!! We're almost done... Woou! Yes!!!! Breathe!!! Oh, you're doing so well!!!!!!! Whoou... Four more... four... three... two...

MUSIC WINDS DOWN A LITTLE... BUT DOES NOT END...

JOIA GENCINI: Breathe!!!

TECH GUY: ...one of these guys had the mikes on...

JOIA GENCINI: Keep marchin... keep marching... don't worry about that... Do not worry... because, you know, I've done this to music; I've done it to no music... it doesn't matter... oh, here it comes... woouoooo!!! A little double touch right here... we're almost done... Breathe... okay... bring it down... bring it down... breathe... let's take a deep breath, right here... [inaudible phrase]... again... have a seat... hang on... right here... right here... punch up!!! Punch front, not your neighbor!!! And down... breathe... take it down... just a little kick... kick... kick... Oh!!! So, when you get a little tired later, don't punch anyone... but you can even do this... oh... more... alright... release... take a nice deep breath... and exhale!!! Hands behind the back... release... one more big inhale... and we are done!!! We are ready to listen!!!! And we are ready to what? Stay sharp!!!! Woouoooo!!!

APPLAUSE...

JOIA GENCINI: Thanks, everybody... Woou hooooo!!!!!!!

APPLAUSE...

JOIA GENCINI: Have a great conference?

INCREDIBLY LOUD BUZZING...

MALE: Okay...

REALLY LOUD FEEDBACK...

MARILYN PINSKY: I was gonna... I was gonna ask if I was on but I think I'm on here... it was so much fun! We were standing over there dancing and we said, wait a minute, we're gonna be outta breath... we won't be able to talk... I'm Marilyn Pinsky, I'm the New York State President of AARP and I am so pleased to welcome you all here today. And obviously, you can tell by the numbers that this is a topic of great interest to all of us as we're aging. I first want to thank the DANA Institute, DANA's [inaudible] (13:32) Brain Institute for doing this program with us here again and for the MetLife Foundation who are our sponsors... you know I know that many of you get a lot of annoying stuff from us both by way of mail and phone calls... from AARP but I want you to, as you look around, to realize that this is a result of that because we are continually serving our membership to say what is it that you're concerned about? What is it that we can research and bring to you by way of information and the two highest obviously are always health and financial security but right up there we're amazed and the last couple years that brain health is [at] the top of everyone's list of concerns and certainly mine. I'd like to introduce you to our panel today and I will start out in alphabetical order with Dr. Sharon A. Brangman... Dr. Brangman... is there anybody in the room who doesn't know who Dr. Brangman is? Just out of curiosity...

[LAUGHTER]....

MARILYN PINSKY: Really! Two... no, I'm going to tell you anyway a little bit more about Dr. Brangman... she is Professor of Medicine and Division Chief of Geriatrics at SUNY Upstate Medical Center and her practice is located at University Geriatricians which is also the site of the Alzheimer's Disease Assistance Center, known as the ADAC and I know there's gonna be a tremendous amount of questions about the ADAC and she will give you give you their phone number at the end of the program so everyone get prepared to take notes; they're a terrific resource. Dr. Brangman's been on the faculty at Upstate for over twenty-two years and is the Director of the Geriatric Meadow... Medicine Fellowship Program and the Director of... the Medical Director of Greenpoint... excuse me... lemme take a drink of water... probably shouldn't've done the dancing...

[LAUGHTER]....

MARILYN PINSKY: ...Dr. Brangman received her undergraduate degree in biology from Syracuse University and her MD at SUNY [inaudible phrase]... (GLITCH IN AUDIO FILE AT 16:06) ...completed her residency at Montefiore Hospital in NYC... **TOTAL AUDIO DROP-OUT THROUGH 19:09**... ...medications use to inhibit memory loss and I know we're all gonna wanna hear about that... Dr. Aziz (?) (19:15) has his medical degree from Ainschams (?) University in Cairo, Egypt, completed his residency training... (AGAIN WITH THE FILE GLITCH)... turned out a lot of great, great doctors... he then held a position with the Geisinger Medical Group in Pennsylvania and returned to Syracuse to open his private practice. Dr. Aziz is a member of the American Academy of Neurology and is active in various educational and philanthropical [sic] endeavors related to neurological disease. And last but deafening... definitely not last... [inaudible] (19:58) Alpert who is the Commissioner of AD [inaudible] could not be with us today at the last minute and sends her deepest apologies but she has sent the best and the brightest from the Department of Aging and Youth... Joanne (?) Spotodekker (?) (20:14)

is Director of Community Service Programs for the Onondoga (?) (20:17) County Department of Aging and Youth. She's been with county government for more than two decades and has prior experience in non-profits. She holds an MA in Social Policy from SUNY, has a Certificate in Gerontology from SU and is a Certified New York State Ombudsman. Joanne is a recipient of several professional and personal awards including the YWCA Diversity Achievement Award – I was at that luncheon! A terrific luncheon... the Onondoga County Martin Luther King, Jr. Employee Recognition Award, the Auburn Cayuga NAACP Millennium Award, the NAACP Achiever Award and a Special Recognition Award for Work in Elder Abuse Prevention. She has a number of other professional national state awards and including the Excellence in Medicare Part D Outreach which we all know Part D very well from New York State. She's responsible for two major programs in the County, the "United We Ride" Transportation Program and Project Reach. Congratulations... Joanne currently serves as President of the New York State Board of Trustees of the Hearing Loss Association of America and I think that is also a topic close to all of our hearts. So, the way we will [inaudible] the program today, we will spend the first thirty minutes talking about normal brain function and will do this in sort of a discussion among, among everyone; the next thirty minutes will be devoted to brain diseases and disorders and the last thirty minutes will be "Successful Aging" and then we have left time because we really want to know your questions and with that, let us start off... the first question is a "Primer on the Brain" so, gentlemen and ladies, let me throw that out to you...

DR. SHARON A. BRANGMAN: Well, okay... I wanna talk... I have natural projection so hopefully you can hear me well enough in the back... so, when I went to medical school way back when... nrxprm years ago... we were taught that after about age twenty-five, that was it. The brain started to shrink; you had reached your peak and all bets were off; however, we now know that's not true. And that our brains continue to grow and develop and the nerve cells or the neurons continue to make connections all through our life. So, that's important for us to know because it... our brains are very dynamic and that there are things that we can do; it's never too late to keep those connections strong and think of different ways of stimulating our brain and our memories. And so I don't know if you, Dr. Ravashandra (?) (23:29) have any other tips on how... what is a normal brain? And how do we keep it healthy through our life?

DR. RAVASHANDRA (**HARD TO DECIPHER WHAT HE'S SAYING...**): The biggest thing that happened in evolution [inaudible phrase]... (23:40)... the big thing [inaudible] in us and the rest of them is the fact that we developed a new ding called neo-[inaudible]. Neo-[inaudible] is a superficial layer of the brain at the very top. There, [inaudible] all the main centers for the other functions of the body. If you're right-handed, on the left side of the brain, the front, you have your speech center. As you know, we are the only ones who speak; the animals don't speak and yesterday I did [inaudible phrase]... (24:08) in the news that baboons can even read now; they can read a few words so that essentially cut off [inaudible] beyond their evolution came from the primates... then came the man and the woman so these centers of brain [inaudible] totally the speeches in the front (????) (24:24) on the left side for a right-handed person and sometimes with the left-handed person can be on the right side or on the left side as well. Then we have the centers for emotions; we have centers for memory, centers of vision, centers of sharing (?), so if you [inaudible] all these functions above very specialized centers in the... in the top of the brain called the cortex and that is the most important part of the brain to make us function [inaudible] higher functions called cognition. This is what... what keeps us in space (?) with we can have the social interaction, we can function as a human being, we

can [inaudible] (25:01) certain things, all these functions are possible by the neo-cortex and this is where the problem [inaudible] we learn called dementia, [inaudible] Alzheimer's take [inaudible phrase]... it is a [inaudible phrase] atrophy and that is what makes a function of it... with [inaudible phrase]... time [inaudible] eats us away and that's what you're gonna talk about. This is how the normal brain functions... [inaudible]...

DR. AZIZ (I THINK): Just to continuing what you were just started is that even the idea (?) about how the underlying, a little bit of the anatomy, but I'm not going to go into the [inaudible] but just the [inaudible] of the connections, is [inaudible] in the form of nerve cells, we have other nerve cells, like Dr. Ravashandra (?) (25:42) pointed out in the surface of the brain, the cortex and then you have the nerve fibers that go do down from the surface and they connect together through chemical transmitters and then that's how the whole thing works: it's a bunch of nerve cells and [inaudible phrase]... (25:57) from [inaudible] one part to the other through the release of some chemical substance and this continues from the brain through the brain stem to the rest of the body. And then when you start to focus on each part of the brain and see each one of them has its own chemical substance that connects together and with experience and with research, we've found out which part of the brain has to do more with memory versus motor movements, sensory perception, emotions and so on so it's all electrical-chemical type of transmission that we're [inaudible]...

MARILYN PINSKY (I think): Yeah, we hear the term of "plasticity" thrown around a lot, neuroplasticity, plasticity of the brain... what does this mean? And what does this hold for us for the future of our brain development?

DR. SHARON A. BRANGMAN: Well, it kind of follows on what I was saying earlier in that plasticity means that the brain is dynamic and that it can set down new nerve cells and it can improve and regenerate itself over time; we used to think that once you reached the age of about twenty-five, it didn't do that anymore. And so, now even with strokes and other brain injuries, we're seeing that you can re-train the brain, you can regenerate some of those connections and we're learning more about that.

MARILYN PINSKY: What is the difference -- this is a big question I think for all of us -- between the normal forgetting and what's considered memory loss?

DR. RAVASHANDRA: So, the normal forgetting is, for example, I thought of going upstairs to get something from my bedroom and by the time I reached the bedroom, I forgot what I wanted to [inaudible]...

AUDIENCE: [LAUGHTER]...

DR. RAVASHANDRA: ...it's a very familiar thing as I see from the [LAUGHTER]... reactions of [inaudible]... it happens to you, it happens to me... it happens to everybody... at some point, we all have to go through that; but the funny part of it is that doesn't interfere with your activities of daily life. Yeah, I forgot my keys... it comes back to me later and I got my keys and the funny thing about it [is] the more you think about it... what is it? What is it? The more I forget more... it is difficult for me to get that information back but when I'm very casual about it, less anxious, "oh, I went to look for my key..." then I remember it... then I [inaudible] (28:16) the key... so, in other words, minimum brain dysfunction, it does certain amount of delay in memory loss but what does not interfere with your life that is when you talk about dementia, which is a

progressive intellectual impairment, on a steady base (?) [inaudible] of declining, "I'm not the same as last year... next year's not only the same as this year..." it is a steady decline... how it is going to interfere with my life? [inaudible] the thing is most of the people who get memory loss, they don't even know they have memory loss... it's a [inaudible phrase]... (28:49)... that's... they have a very bad [inaudible] about it and they bring the patient to you and this is [inaudible], too, big difference...

DR AZIZ (I THINK): Yeah, I just wanna add to that: I think if you imagine it's like a circuit of some sort and this circuit works fine when it is... things are taking its time to work; if you overload it, it just shuts off. And when it shuts off, you know that something is wrong but the circuit is still intact so this is normal forgetness [*sic*]. When you get somebody with dementia, this is something is missing... something is not the same as having three cells and two cells and have a five and a four, so it's [inaudible] (29:28) that the function the way it's supposed to function... this is just to give an idea between forgetfulness and [inaudible] (29:35) which you should really get concerned about at some point...

MARILYN PINSKY: Thank you... oh, sorry...

DR. SHARON A. BRANGMAN: I usually tell my patients there's like three segments to our memory: so, there's a segment called "semantic memory," which is our vocabulary and our development of skills and information over time and that actually gets better with aging; so the more we have experiences and learn new words and that's kind of like the way you develop your profession and the information you need to do your job, that gets better over time. So, that's something that improves with aging; then we have another piece that I usually explain as "procedural memory": that's the memory that we do [*sic*] everyday to get certain things done like tie your shoes, set the table, and ride a bike and that doesn't really change over time. But the thing that everybody notices is our "episodic memory," and that's kind of like our daily diary; that's what our brain does to remember where your car keys are, what time you have to pick up your kids from soccer, to get ready for a meeting at work, to have dinner ready... all of those things and that actually does decline with age because we need to really concentrate more to get that information into our cells in the brain. And in the world that we live in right now, we have SO much information coming in, we really have brain overload. And multi-tasking is supposed to be something that's good and it's REALLY wonderful if you can do five things at a time but our brain was really only meant to do one thing at a time. So, multi-tasking actually makes you stupid; it's not good...

AUDIENCE: [LAUGHTER]...

DR. SHARON A. BRANGMAN: ...and if I look at my kids...

AUDIENCE: [LAUGHTER]...

DR. SHARON A. BRANGMAN: ...they can have their iPad on... their iPod... one of those things... iPad... iPod... they're watching TV... they're doin' their homework and they can do that all... I used to be able to talk on the phone and tell them to cut it out and do all sorts... I can't do that anymore. I have to be able to do one thing at a time; so when you're trying to do too much and you don't keep a focus on the task at hand, then you're more likely to forget it and then that's when everyone gets panicked so, if you can't remember where your car keys are, that's probably because you were thinking of

five different things as you were walking out the door to get your car keys so the way I like to explain it is the difference between normal memory [loss] and something like Alzheimer's Disease is that if you lost your car keys, you can probably remember, re-trace your steps and find it; but if you have Alzheimer's Disease, you usually cannot do that because you can't remember all those little steps in between and when you find those car keys, they're gonna be in a really strange place... like in the refrigerator...

AUDIENCE: SOME SORT OF SOUND...

DR. SHARON A. BRANGMAN: ...or, you know, behind the couch... somewhere very unexpected...

MARILYN PINSKY: You know, that's very comforting because I think so many of us have grown up in a world where we didn't have to do that multi-tasking and now when we suddenly are faced with that, I [inaudible] (32:46) [inaudible] like the... even when the phone rings and some... two people are talking to us at the same time and we just feel overwhelmed, it's so comforting to know that that's really normal and probably a healthier way to be...

DR. RAVASHANDRA: Dr. Brangman really hit the nail on the head... all [inaudible] years... the brain will do what you ask the brain to do... in order to function normal [sic], [inaudible] ask it to collect information and then you've got retain the information, then you have disseminate information; if you do that, that's normal memory process. A very good example is you open your internet, you see yahoo! front page... the home page... and even though you see the picture and you see lotta dings sitting there, you go for the one particular news about Obama or Romney or something like that... you read that even though you saw the rest of information... a few minutes later you're not going [inaudible] (33:41) anything except for [inaudible] about Obama and Romney because you didn't pay attention for [sic] the rest of them... you casually glanced it. So that memory is not going to take; that's essentially what is [sic] multi-tasking does... our [inaudible] as Dr. Aziz [inaudible]... when you have too many things [inaudible] it becomes a scatterbrain... you don't really pay attention to the particular detail... you almost suddenly don't remember some (?) so it's all the way you train your brain... [inaudible phrase] (34:11)... that makes the difference from one individual to the other, too... some people got photographic memory... how did they get it? They got a technique of training the brain the way they really want... some people don't... so, that makes a difference between one person to the other...

DR. AZIZ: Yeah, I think just to reiterate the point is that part of the memory thing is trying to pay attention to the memory you're getting... if you [inaudible] (34:32) in it... and try to absorb it which give it time to assimilate and be stored, so when you need it later you can find it easy... our brains... we mention about plasticity... it's really true and in a certain way which is really very interesting is that we get so much informational bombardment, so much information throughout our day, you know, with the assimilation of the visual [inaudible] (34:56)... auditory.. smell... whatever... what's interesting is that most of may not be so that important to the brain so it really doesn't store it and so when you try to remember when you're driving how many people you have seen on the road, probably you won't remember anybody because this is probably... although you've seen everybody, might've heard noises but... you didn't have enough time to get all this information stored then so when you try to retrieve it, you can't get it back... but that's

natural, that's normal for the brain because the brain can store what is important for us every day to do so, that's how we should think about it... [LAUGHTER]...

MARILYN PINSKY: I think those of us who are at a certain age talk a lot about the fact that we can't retrieve things in the short term but that we can remember... I can remember my locker number from Port Jervis High School but I can't remem... [LAUGHTER].... I can't remember something that I wanted to do that afternoon; what is it that... that makes us have the longer term memories and not the instant recall of short term?

DR. SHARON A. BRANGMAN: Well, it's really stored in different parts of the brain; so, long term memory is in one set of tracks and short term memory is in another set. And when people have a serious problem such as Alzheimer's Disease, those long term memories are usually over-learned and they... they are the last to go... it's the new information that you're trying to get in that has trouble settling into the brain. So, families often come in to our office and they say, "well, how come they can remember things when we were first married or when we were in high school but can't remember the conversation?" And the wife gets really mad at her husband because he doesn't remember anything she tells him to do and I'm saying is that new...

AUD:: [LAUGHTER]....

DR. SHARON A. BRANGMAN: ...but, is that old, you know? But it's really getting that new information into our computers... our brain is probably the best computer there is and that's the challenge.

DR. RAVASHANDRA:: It's very interesting you said it's computer... the memory is just like the hard drive. You can have a terabyte, you can have a gigabyte... depending upon how god made you... you have certain amount of memory that comes with the package deal... so if you took the memory, the first memory you put in as a child, if you call it a new memory, as you get older and older that becomes older memory because... because of neuro-plasticity, you're molding and shaping your brain as time goes by so memory gets [inaudible] (37:30) so now look at brain as a part and the memory is printed (?) to the brain... the oldest memories are sitting at the bottom of the part and there comes a time, depending upon your hard drive, the hard drive is gonna be full... but you wanna put in new information still... you're living... so the only way you can put it is you take the memory at the top, but the new memory in so if you do that as soon as it's detected (?) (37:54) it's the new memory that affected... the immediate memory that's affected. There is [inaudible] memory sitting there nice and safe; this is what Alzheimer's Disease is. You lose all the new ones, the immediate one; finally, the part itself gets disintegrated. The brain need to shut and even the memory sitting there cannot stay there any more... then we forget everything... this is the natural process of memory loss.

MARILYN PINSKY: So, this is a little bit of a controversial question to end this section with but is there a difference between a man's brain and a woman's brain?

AUDIENCE: [LAUGHTER]....

EVERYBODY TRYING TO TALK OVER ONE ANOTHER... 38:33

[inaudible phrase]...

DR. SHARON A. BRANGMAN: ...[inaudible]... yes, definitely... uh, well, yes, biologically, there is and it's kind of funny 'cause I have so many stories of my patients where the wife will send her husband to the grocery store for two things, like say, bread and eggs, and he comes back with corn and cookies and all these other things and she says, "See!!! He doesn't remember anything I told him!" And I said, "well, is this a husband function? Or is this a brain problem?" So, sometimes, we do have selective memory and especially with people who you have probably heard all their stories if you've been with them a long time, you were probably there when a lotta those stories occurred and you kinda start to shut those off so there is a certain kind of way that people who have been together a long time communicate so it may look like a male or a brain... a male or a female brain thing... but I think it has more to do with the way we interact with people, especially people that we've known for a long time. That being said, yes, there is a difference in the brain and a lot of it has to do with estrogen receptors... women clearly have more estrogen than men but there are some estrogen receptors in the brain that impact men; a lot of women complain about having more memory problems around menopause and we know that that is a factor that's very specific for women. There is something that happens as the estrogen levels go down that make it harder to remember certain pieces of information and in terms of the research that's been done, there was a time when we were recommending estrogen replacement to help bolster memory but we now know that isn't really a good way to do it and that taking estrogen after menopause can actually increase your risk of Alzheimer's Disease as well as heart disease and other problems. So, there are changes. There's no... there are differences but the basic function of our brain doesn't really have a gender per se.

DR. RAVASHANDRA: If you ask me I will say that this is what I've been taught: the woman's brain is a little smaller than the man's but it's part of they know the functions better than the man...

AUDIENCE: [LAUGHTER]....

DR. RAVASHANDRA: Don't ask me how but that's how they do it...

AUDIENCE: [LAUGHTER]....

DR. RAVASHANDRA: ...but on the serious note, men are more... they try to be more analytical. The greatest thing about a woman's brain is the bonding (?). There is no other species in the world where the man is bonding and nurturing the child better than the woman; it's a mother's... you know, we all know mom and I don't have to go into it in any detail but bonding is so specific to the woman's brain and that's mainly because they have a little different temporal lobe on the limbic cortex than the men. [inaudible] (41:39) that you know each area has got a little more on the side, a little less on the side, but overall, no, they are equal. All [inaudible phrase]... (41:48)...

DR. AZIZ: Yeah...yeah... I do agree... there is a difference... structural differences, biological differences... and I think it's... the only studies they made are about who is better in speech... who is better in abstract ability or figuring things out... men, women and so on and definitely, there is a slight difference which is natural I think [inaudible] (42:08)... definitely it makes a big difference. I mean, you see in practice like Dr. Brangman mentioned that you know, when a woman do come around menopause, [inaudible phrase]... this is something we having the major issue is forgetness...

memories, I should say... and when you talk and examine and do all this studies, we do realize that this is simply normal, natural hormone changes in life... so there's no question there is some slight differences there...

MARILYN PINSKY: Joanne...

JOANNE: Yeah, I'd like to... I [inaudible] answer that question, that's for sure...

[LAUGHTER].....

JOANNE: ...but I would like to say from the [inaudible] (42:42) point of view, the reason I'm here today is to give the audience some local resources. So, the first thing I'd like to ask is who is not from Onondoga (?) (42:50) County? Who in the room is not from Onondoga (?) County? Hello... well, welcome... what I would like to tell you [is] that every county within New York State has a local Office for Aging so when I talk about the resources that we have here, you can contact your local Office for Aging to see what they have... to see what programs are like... I'd like to talk to you just for a second... I don't want [inaudible] (43:14) discussion about dementia and from our perspective, you know, you see the... you see the patient; we see the caregiver; we see the stressed out caregiver who calls us and says, "what's available? What can I do? The keys are in the refrigerator... I can't leave the house... I can't go get my hair done..." So we have a couplathings, first we'll invite you to our after-discussion to go over [inaudible] (43:36) and we have public information specialists to [inaudible] and we want to... a couplathings I wanna say... talk about... that we have caregiver programs. We have in-home respite (?) services for adults who are sixty and above who have dementia and other related illnesses; we also have the Caregiver Institute, The I Care Institute and that's run in conjunction with the Alzheimer's Association. Those are free classes for caregivers that are available right now; one of them, Dr. Sharon Brangman, is the instructor for it and that is "Caregiving and the Aging Process," so, when I listen today about dementia and what happens in the process of that, our role, my role here today, is to let you know that the local Office for Aging has some services that are available to you and I thought this would be a good time to bring in what we do preparatively...

MARILYN PINSKY: Thank you. Now and we will now, with that, segue into what is not normal brain function? We'll talk about Alzheimer's, dementia and I think we'll start out with what is the difference between Alzheimer's and dementia?

DR. SHARON A. BRANGMAN: Well, dementia is the general term for memory problems that get worse over time. And there are [sic] a long list of things that can called... cause dementia. So, you can get dementia, for instance, from AIDS, you can get dementia from Mad Cow Disease... you've all heard about that in the news... Parkinson's Disease can give you dementia... you can also get dementia from strokes; however, in our country, the most common cause of dementia is Alzheimer's Disease so that's why those two words are often used interchangeably. But in our office, we see dementia that is caused by any long list of medical problems and our job is to try to figure out what specific category that person falls into. I don't know... is that... has that been your experience?

DR. RAVASHANDRA: Yes... precisely. I think [inaudible] (45:42)... see a patient with dementia in the office... I can pretty much show 85% of the dementias I see are Alzheimer's Disease. So, I pretty much... when I [inaudible] (45:53), I say probable

Alzheimer's Disease even though I haven't done any testing but if you do the testing inevitably (?) in the long run you will see, Alzheimer's dominates the [inaudible] for picture. All the other differential diagnoses we [inaudible] in putting Parkinson's... Mad Cow... hypo-thyroidism... Vitamin B12 deficiency, syphilis... you can list a whole host of things... they all [are] much less common than Alzheimer's Disease. And we know Alzheimer's Disease because it is the most characteristic it's pathology and when you take a piece of the tissue of the brain and look at in the microscope, you can very clearly diagnose it as Alzheimer's. And that is the most common dementia know to man.

DR. AZIZ: Yeah... in my practice, I usually... when I see somebody coming to the office with memory issues is try to like we spoke about just try to [inaudible] (46:43) whether normal aging, forgetness [sic] versus actual dementia and once you sort this out and then you get into the issue maybe this is dementia, and then based on the history, usually by the time that you talk with the patient, family... this really very important when you come and go to the physician's office it's really get as much information as you can about the whole condition... it's really helpful for the treating physician, the diagnosing physician, to make a diagnosis. When you/we (?) make a diagnosis, 89% almost accurate just by listening to the story; the rest is just the studies we do, the examination and then you do X-rays, CAT scans, MRI, you can pinpoint it, bring it up from 70% or 80% to like 90, 95% sure patient has dementia and maybe this is [inaudible] looks more like Alzheimer's dementia so I think a big part of it goes with the history and then comes the examined side...

DR. RAVASHANDRA: We're still do all the best [inaudible] mainly because, as medical students, we've been taught when you make a diagnosis, you better make sure you don't miss any treatable diseases. If you miss an untreatable disease, you don't lose very much there; but with treatable disease, it's a big thing to miss so we approach it so to make the difference we have to do some testing; that's the only way you can differentiate Alzheimer's from the less common [inaudible] (47:57) disease; for example, brain tumor can mimic like dementia and there is treatment for some brain tumors so that's the reason we do a lot of testing...

DR. SHARON A. BRANGMAN: And we do, we have a big focus on medications because as you know, as we get older, we take more and more pills and a lotta those pills were tested one at a time in really healthy people, younger people and then as we get older, you're taking so many pills that can interact and we know that there are some pills that can affect memory, your level of alertness so one of the things that we do is that we ask you to bring in all of your medicines, whether they were a prescription or over-the-counter and look at them because sometimes they can be playing a big role.

MARILYN PINSKY: Now I know why... carrying in all those pills... what is "mild cognitive impairment"? When you hear that term thrown around but it sounds a little more benign than the what we're talking about...

DR. AZIZ: Yeah, this is a very new... I would say relatively new... only say five, ten years been known about it. It's an interesting concept whereby it is an area where people or patients are getting forgetful but they don't have dementia; they are functioning very well at everything else, day-to-day living, but they are forgetting and they are concerned about their forgetfulness. And then when you examine them and we do this testing, we find very subtle changes in exam; not really significant enough to say, "oh, this patient's demented..." but you say, "well, this is definitely not tried (?) (49:29)... and

the interesting thing too is to when you get information, not just from the patient but from the family members, noticing some changes, and also you have to consider the pre-existing level of functioning of the person you're talking to. Talk to somebody with a very high level of functioning and they slip slightly, they can tell there's a problem... which is still very good for anybody else... [inaudible] there is... there's a slight difference. So, I think you have to consider the base-line level of functioning of the person you're talking to and then when you find from the history, there is something very subtle going on, that's what they call the "mild cognitive impairment." So there is something but there's not dementia; and now that we are realizing more and more, then they are starting looking into [inaudible phrase]... (50:14) and trying to see what's going on with this group of patients: are they are just over-concerned about the memory? That's why they are just worried about forgetfulness and they are perfectly normal, aging... or this group of patient are [sic] gonna go on to develop Alzheimer's eventually and when they are doing a lot of research and the result of the research are very interesting is that the bulk percentage of these patients from [inaudible] (50:39) [inaudible phrase]... might [inaudible] go on to develop Alzheimer and this is important for us to know why because with a lot of the medicines we have available now, to treat Alzheimer, are actually medications to slow it down so the earlier you diagnose it, even before it develops, it would be nice to use it, the medicines like that, or to stretch (?) the ability of the brain to function...

DR. SHARON A. BRANGMAN: So, if I'm at a... at the... the Alzheimer's Disease may occur on a continuum and it may be one of the most perfect chronic illnesses that are out there so that it could be starting as early as our thirties or forties but because there's so much redundancy or brain reserve, we don't see those symptoms until we're in our sixties, seventies or older. So that when we look at mild cognitive impairment, as Dr. Aziz just said, it could be the earliest stages; we know that a lotta people who have mild cognitive impairment do move on to get Alzheimer's Disease but not everyone does so we're trying to figure out who is in which category. So, those "senior moments" that we all have, where you forget something, they may start to happen in a more... in a larger degree but you don't meet the diagnosis for Alzheimer's Disease so we wanna keep an eye on you but we can't say that you have Alzheimer's Disease.

DR. RAVASHANDRA: You know, this follows a scientific term called "abiotrophy." What it essentially means you have a group, collection of cells in the brain but they all don't share the same longevity. There's a group of cells that is going to die in twenty years, some in forty years, some in sixty years, some is gonna take you to eighty-five years... so if they all die at eighty-five, you've lived a good life... it's a gracefully getting old...

MARILYN PINSKY: [LAUGHTER]...

DR. RAVASHANDRA: ...but when you losing it partly here and there, you can see what it's gonna do: there's gonna be decline in memory in that area, a little bit more, a little bit more, little bit more... finally, you decline so bad... it's a... this is a disease in continuum which Dr. Brangman was talking about...

MARILYN PINSKY: Is this inevitable? Are we all gonna start having mild cognitive impairment?

DR. SHARON A. BRANGMAN: It's not inevitable; we know that the biggest risk factor having a memory problem is old age and a generation ago, people would die of heart attacks at early ages or certain cancers or infections, even, before antibiotics were so pop... so well-used... people would die from infections; so now, we have taken care of a lot of the major illnesses that used to shorten our life spans in say our forties or our fifties. We have more and more people now reaching the age of eighty and eighty-five and beyond so the fastest growing segment in our country are [*sic*] people who are eighty-five and older. And that also coincides with the group that has the highest risk of having a memory problem but I have many patients in my practice who are in their nineties, their upper eighties and their brains work well so we know it's not inevitable and the trick, the key is to don't wait 'til you're eighty to figure out what to do to keep your brain healthy; what we have to do is start looking in middle age and maybe even young adult age, and think about what we want to do to look (??????) well as we get older. Now, the problem is is that our society is just focused on youth and it's real hard to tell young people to think about how you would wanna live in forty, fifty years or beyond because everybody is looking at youth. So, we spend a lotta time focusing on the superficial measurements of youth, you know, botox and hair dye and all of those things that make you look *externally* younger but we need to look at those things that help us be *internally* younger and it's not too late to do it but you wanna start planning that ahead of time.

DR. RAVASHANDRA: In other words, the message is very clear: the disease in most (?) both the structure and the function of the brain and as we get older and older there is going to be some change in structure and believe me, if we lose that structure, it's not gonna come back. You lost it. But the function doesn't always to correlate with the structure. I can have thousand brain cells, I can afford to lose two hundred; I can still function the same level. It's a well-known fact in Parkinson's Disease, well-known disease, you lose 80% of the cells before you become clinically having symptoms of Parkinson's... 80%... body is... can deal with the [inaudible] (55:29) very nicely. So, as Dr. Brangman said, the most important point is prevention is better than cure: what can I do to prevent Alzheimer's Disease? How can I enhance my ability to postpone this disease? Or even prevent this disease? I think that's where the emphasis [is] going to be.

MARILYN PINSKY: Alright... one of the questions that I think you get a lot in the office, Joanne, that you can all answer is, can you drive during the earliest stages of Alzheimer's Disease?

JOANNE: I think it [inaudible] (56:02), Marilyn, caregivers wanting to say, "how... what can I do? How can I take the keys away?" in Onondoga (?) County, there's such a geographically diverse, we have the City of Syracuse... we have the suburbs and then we have a lot of rural areas as well. And transportation is so important; people wanna get out and people wanna continue to get out. What we talk about is how we can say that you may not be able to right away take those keys away but let's see what options are available for public transportation; let's see what options are available for, in certain areas that have [inaudible] (56:38) programs, Volunteer Driver Programs, let's see what we can do to maybe re- or send someone back to driving school. Let's see how we can look at what medications they're taking, if there's any other physiology or physical problems that are going on. So, we have that discussion a lot with caregivers and we try to come up with some solutions for them, particularly if they can't drive or need not to

drive then how we can get them from Point A to Point B because we don't people to be isolated.

MARILYN PINSKY: Thank you...

DR. SHARON A. BRANGMAN: Well, driving is probably the trickiest thing that we deal in our office because we know that driving means independence. And we don't have the best of public transportation or you certainly don't have that ability... FILE ENDS MID-SENTENCE AT 57:23.1

MUCH MORE OF THIS ON THE ACTUAL VIDEO – PROBABLY FIFTY-THREE± MINUTES... (VIDEO TS ON DVD 3)

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FILE 3
Start from 60 minutes to 1 hour and 50 minutes

Ravashandra: They extend, finally, they reach a state called neurism (?), (inaudible) their own (inaudible)

Moderator: Okay, so if they were born, and as they grow, and usually children start speaking around three years old and they can't speak, what is the problem?

Ravashandra: The problem is that there is (inaudible), there is some injury done to the brain structurally, and the baby's head is passing through the birth canal, which are called microscope injury. You don't have any skin to show, and the level of technology at the present time, you can't see them. We assume, we presume. Their injury was done. That's how people are born with cerebral palsy. People born with speech deficit. And further other impediments in the nervous system. It's a kind of (inaudible).

Moderator: Okay. Hi, this question is for Dr. Aziz. I don't know what's happening or why what's happening is happening, but nothing is sticking up here. I was taking some classes a few months ago and I got so discouraged and gave up because nothing's sticking up here. (laughter) So I don't know if I should be seeing, my nurse practitioner says nobody can do any—a neurologist cannot do anything, but I'm really concerned about it.

Female: And that leads to a question that people often don't know which doctor, what type of doctor to see, so maybe you could--

Aziz: Yeah, this is a point worth talking to. And that's something concerning you, you feel different from what it was a year, two years ago. Definitely something is going on. And I would pursue it, if it was me, I would pursue it. I would see definitely a specialist, (inaudible)otology, or geriatrics, or you want to see neurology. We both deal with similar issues.

Female: OK.

Aziz: You have to be evaluated with the history, exam, and testing, and see if this is actually a problem to be concerned about or simply normal aging.

Female: Alright, okay.

Brangman: So it's hard to know, your learning style changes as you get older. So the way that you learned when you were younger may be different now. There are certain medications that can affect memory, and other medical problems, so it's hard to just come up with one solution without a more global evaluation.

Female: Yeah, okay.

Brangman: But my rule of thumb is if it concerns you, you should pursue it and see if there's an answer.

Female: Yeah, because it's really bugging me, you know. (laughter) And I'm not.. I'm only in my middle 50s, so I'm worried about it. Thank you.

Female 2: My question is directed to obviously aging, but do you have any kind of train the trainer programs? I go to Planet Fitness, I'm 66, I go to Planet Fitness every day for an hour, hour and a half and exercise. But I would teach, I would go to places at like... my parents live in senior housing, I would do an exercise program for them, but I don't know how to get it started, so... that's what I'd like to know.

Joanne: I'm gonna ask Marilyn to repeat your question for me, I should start at the beginning, I'm president of the Hearing Loss Association, Board of Directors of New York State. So I want to make sure I got every word of what you said.

Marilyn: This is someone who exercises regularly and would be willing to take a train to trainer course at--

Joanne: Oh.

Marilyn: Work at volunteering senior centers.

Joanne: Say no more. I think that's a wonderful idea, I mentioned earlier I step(?) up at Stat Falls(?), and we're currently in the process of a train the trainer program. And that's really all about sustainability. The foundation has the, this is the grant we (inaudible) for a certain period of time. But how are you going to sustain this so we can wipe out all of the falls here in Onondaga County, then I would love to give you more information about that, because there are training classes gonna be starting very shortly.

Marilyn: OK.

Joanne: So if I could see you afterward, I can get you connected to that. And you say your parents are in a senior housing here in the county?

Woman: Yes, they are.

Joanne: Wonderful.

Woman: And my mother, actually, my 87-year old mother goes to Planet Fitness and does two miles on a treadmill everyday.

Joanne: Wow. (applause)

Woman: She has Alzheimer's. My mother does have Alzheimer's, she's been diagnosed with that, but and I do think the exercise helps, or it's not taking it away, but it does help.

Joanne: Thank you, thank you so much.

Another woman questioner: What role does genetics or family history play in predisposing you to Alzheimer's?

Brangman: Well, we're learning more and more about genetics, and it doesn't have a direct link in many cases. We do know that people who get dementia before the age of 65 may have more of a family connection to it than those people who get it in their seventies or eighties. But we know that there are some genes that are associated with Alzheimer's disease, but we don't think they're always expressed. So if you have a first-degree relative, like a parent or a brother or a sister, with Alzheimer's disease, your chance of getting it is a little bit higher than someone who doesn't have that in their family, but it's not 100%. So in other words, there's also a relationship with your environment and your own personal health that may trigger some of those genes.

Ravashandra: Interesting, genes and Alzheimer's disease came, after we know the fact that peoples with Down Syndrome, although it's called Mallowism(?), they all become demented by the time the age of 40, 45. And they don't have(?) Alzheimer's disease. It's a trisomy(?), it's a trisomy-21, it's a chromosome-21, so interesting genes has been for long time, as Dr. Brangman said, you know for sure that it's family Alzheimer's disease, when we say family, you're not buying more genes. They're all exposed to the same water, environment, etc., etc. So in a particular family, it happens. But if it does, it is usually of early onset. Around age of 45, 50 years time dementing. And it's a very aggressive cause. It progresses very fast (inaudible).

Marilyn: May I just ask the people who are visiting tables if they would be very, very quiet. Yes, sir.

Male: Can you tell me how regularly meditating on a regular basis affects the mind?

Marilyn: Ah, how regular meditation affects the mind?

Brangman: Well, we know that people who meditate by whatever method, whether it's praying or quiet time, it can reduce anxiety. And it can reduce stress. And we know that stress hormones are not good for brain health. We also know that people who can do that kind of focus quiet can reduce certain brain waves, so that they have more of the relaxing brain wave than those people who don't. I don't know if anyone has looked to see if there's a direct relationship between that and the development of diseases like Alzheimer's or not, but again, it's one of those activities that doesn't hurt, and it probably has some personal benefit, if nothing else.

Male: Does it make a difference if you listen to music while you're doing it?

Brangman: If you listen to music while you're meditating?

Male: Yeah.

Brangman: I don't think—I don't know enough about it in terms of preventing Alzheimer's disease, is that what you mean? I think in general, it doesn't hurt your brain.

Male: Maybe wake up the brain, develops it more, and stuff.

Brangman: Well, we know that music does activate certain centers of the brain, and can even reach people who seem to be really advanced dementia. So enjoying music helps to strengthen certain brain connections and again, it's in that same category of things that helps, probably doesn't hurt.

Marilyn: Thank you.

Ravashandra: Do you know that there is a new (INAUDIBLE) called MRI of the brain. It is an entity of (inaudible) called functional MRI. University of Philadelphia, they have done research on Buddhist (inaudible). Put them on the MRI machine, with a functional MRI working, and ask them to meditate. They can actually show the changes in the brain function in the areas of the brain where it's dealt with meditation. And this has been proven (inaudible), so I think it's a long way to go. Eventually we'll get to it. So it does have an affect on the brain.

Female: Hi. My question has to do with what I think is too much passive stimulation of the brain, listening to music, reading, watching television, movies, etc. And more concerned with that executive function, being to me, very important in brain health, can you talk about any, either research related to that, or tips for how to exercise your self-control, your self-will, your ability to make choices?

Brangman: That's a very good question. I don't know if I would classify listening to music as passive because we know that it has a huge benefit to the brain. But exercise your brain to say problem solve, and to work through some of the complex functions, I think I'm not aware of any studies, but I know that comes from things like social interaction, talking with other people, discussing ideas, reading books and discussing books, all of those things, directly or indirectly, work those areas of the brain.

Female: Yes, I'm also thinking about people who might really learn new things, like pick up the guitar at age 80, or do something that involves really choice-making and learning and problem-solving in a way that would stimulate--

Brangman: Well, again--

Female: Actively.

Brangman: I understand, I know that people who maintain that passion and that love for learning, who take on a hobby and learn all the details of it, do help to increase their brain capacity. And we're trying to see if that translates into something like delaying Alzheimer's disease or preventing it. Right now, that research isn't 't as clear, but again, it's something that doesn't hurt. The person's enjoying it. If you're forcing yourself to do it, just because, and you're not enjoying it, it's probably not worth it. But we do know that people who age well are those who maintain that desire for lifelong learning and curiosity. And are doing things to maintain those kinds of relationships and connections.

Woman: Thank you.

Another woman questioner: Hi, my question has something to do with drugs. I have a couple friends who, one had a stroke, and a couple other people who are on Statin's(?) and Lipitor. And they were concerned that they had heard that they can contribute to memory loss. Could you speak to that?

Ravashandra: Recently, there has been many articles appearing on Statin(?) and memory loss. It has never been proven as (inaudible) that Statin(?) can lead to memory loss, but there is a speculation Statin therapy can cause memory impairment. There has not been a large randomized clinical study that has taken this topic, so as it is, we can only hint on it(?) at the moment, but there is some speculation that long-term Statin therapy can affect the memory. But on the

contrary, they may look at it that (inaudible), what are the short-term benefits and long term benefits of Statin, as the knowledge exists at the present time, I would take the Statin therapy, because the danger from the stroke is much higher than the memory loss. That can be potentially (inaudible), so we continue to give Statin, and as a stroke neurologist, I'll continue to give Statin with the existing knowledge. So the answer to the patient is continue to use Statin.

Brangman: That's also something where I individualize the care very carefully. Because I might have a person who's 90 years old, and they're on Statins, and we know that as we get older, low cholesterol is not a good indicator of longevity and doing well. So we have to kind of temper that a little bit. And you know, the FDA did just issue a warning about memory loss with Statin therapy. We don't know yet, how long, and what it exactly means. So if I had a patient who was 40 or 50, and had 30 more active years of life, I would focus my measurements on my management to the different way than if they're 88 or 90. So we have to kind of not do the one-size-fits-all, but figure out what makes sense for that individual patient.

Woman: So someone who had a stroke in their early sixties, you might be concerned about the long-term Statin use, possibly, if that turns out to be--

Brangman: We might, but it also may be very important for that person to be on Statin because of their medical issues.

Woman: Right. Okay. Thank you.

Brangman: So you can't make a general statement.

Ravashandra: So the most important thing there, the statistics, if you get (inaudible), a chance for getting a stroke in the first three months, is significant. In the same way, if you get a stroke, the (inaudible), and it is gonna happen within 3 to 5 years. So you talk to the (inaudible), and they're getting (inaudible) risk of stroke, so we have (inaudible).

Woman: Thank you.

Another woman in the crowd: My question, too, is on medicine, and Dr. Brangman, I think I heard you say that estrogen is not good for, maybe contribute to Alzheimer's. What about, is it all forms of estrogen, including vaginal estrogen?

Brangman: No, that isn't 't absorbed the same way as the pill is.

Woman: Okay.

Brangman: So that's in a different category.

Woman: Okay. The second question is, what about baby aspirin? Is that still in favor?

Brangman: That's another area with a lot of debate, and it's hard to make a general statement for everyone, so again, I take care of people who tend to be in their upper 80s and 90s and beyond. And I know the side-effects from an aspirin a day is often more significant than preventing a heart attack or a stroke. A lot of that information about an aspirin a day was done on a different population than the patients I normally take care of. And so I've had a lot of patients who are in their 80s and 90s who get a severe ulcer, and they bleed, and it can be life-threatening, whereas I'm not sure how much we actually reduce their risk of having a stroke or a heart attack. But then again, if I had someone who had a stroke, I might look at it differently, so it's not a one-size fits all. We really try to look at that person and figure out what makes the most sense.

Woman: Thank you.

Man: Spoken about the relationship in estrogen and memory? What about the relationship between testosterone and memory, that's number one. And number two, you commented on (inaudible), excuse me, antioxidants. (inaudible) mentioned both of them, what about oxidants? Those two questions.

Brangman: Okay, don't ask too many questions, cause I'll never remember them all. (laughter) Okay, well, testosterone doesn't have the same impact as estrogen does. And maybe Dr. Aziz can speak more about that.

Aziz: There have been some studies linking memory changes with low testosterone level, and I'm getting more into (inaudible) level in male patients, and interested in finding some positive results. I recommend seeing an endocrinologist and whether they need to be treated or not. But we don't have any good proof at this point that supplementally taking extra, will make any change in memory, improve it, or will it actually slow down the change in memory. So we don't have this yet.

Brangman: And testosterone can cause other problems, so again, we're weighing the pros and cons, and trying to make a decision that makes sense for that person. And then in terms of antioxidants, we know that just the wear and tear on the cells as they're working, creates these chemicals that can cause damage. And antioxidants are helpful in reducing some of that damage. We used to think high doses of vitamin E might be helpful, we now have moved away from that, but we do know that a diet, again, that is based in, this is mostly in vegetables and fruit, that have antioxidants, are good for the brain. So those are chemicals that are in blueberries, they're in citrus, like in vitamin C-containing vegetables, but we don't recommend people take high doses of vitamin E at this time. And fish oil, which is a way of helping, it has a lot of different functions, it helps to lower the bad cholesterol. It may also help to keep the blood vessels a little bit

more elastic and softer and not hard. You don't want hardening of arteries. And it may also have a benefit on the nerves in the brain as well.

Man: Okay. Thank you. Question, you earlier stated a balanced diet, controlled blood sugar, control of blood pressure, cholesterol, etc. is important not only to the rest of the body, but important to the brain. Would people, and you mentioned people with diabetes, have a greater chance of getting Alzheimer's or brain problems, as well as physical problems? So for people with type 2 diabetes, has there been, I know it's recent, but has there been investigation into bariatric(?) surgery, for people that are not incredibly obese, but have type-2 diabetes, because it's my understanding that anyone, virtually anyone that's had bariatric surgery mysteriously, and no one can say why, no longer needs to take medication for diabetes. So I guess the theory is if diabetes, which we know can tremendously hinder you physically, no matter what level you keep it at, and mentally, is there a suggestion, not suggestion, but are people looking into bariatric surgery to control or eliminate diabetes, type-2 diabetes in a person which--

Marilyn: Who would like to—(cross-talk)

Brangman: Well, that's not my area of expertise. But I know that that's not a surgery that you want to do across the general population, and it's for select individuals. And you're right, people who have had that surgery have a marked reduction in diabetes. So I don't think that it's been done long enough to know what it means down the road in terms of their brain health, but I think you can kind of say that if you're reducing the risk of diabetes, you're helping the brain be healthy.

Man: And also, I was thinking too that the comments that people that people that have type-2 diabetes have many different types of pills, and if it eliminates those pills that cross use of different medications, people (inaudible) (cross-talk)

Brangman: Well, I think we need a special session on bariatrics, 'cause I don't think I'm gonna be able to answer much more than that.

Marilyn: Thank you.

Man: (inaudible)

Aziz: Let me just add one more thing here, because diabetes is definitely an issue with vascular changes. The opposite side, hypoglycemia, is a big factor in memory loss. So I think patients who are so strict about the blood sugar, they have more tendency to have low blood sugar, than the normal blood sugar, and this hypoglycemia, believe it or not, is one of the main factors of memory loss too. So be careful with that.

Woman: is that too much or too low?

Aziz: Too little, yeah. I mean, the blood sugar falls below the normal range most of the time, so that's not good for the memory.

Woman: Wow, I've never heard that before. Did everyone understand that? Would you like to hear it repeated?

Aziz: Well, hypoglycemia, which is blood sugar below the normal range, our blood sugar normally ranges from 80 to 110, 120, and this is naturally controlled by our body (inaudible) and the other hormones released. It keeps it in check within a certain range, all the time. Now, if you're like this, and you're going diabetic, which is more common than hypoglycemic, diabetic is blood sugar above the normal range, most of the time, and hypoglycemia is blood sugar has a tendency to drop below the normal range. Like 70 or 60. Both the ends are not good. We know of course diabetes has a certain risk, everybody talks about. Hypoglycemia is not good either. If you, again, I've seen a lot of people that are so strict with the blood sugar that the blood sugar, it tends to drop so low, and that's when they get confused, forgetful, and so on and so on, and you wonder why although the blood sugar is well-controlled, hypoglycemia is not good either. So you have to have a happy medium between the normal range.

Brangman: That's it, that's true for blood pressure too. So I've seen patients with very high blood pressure, and they're more confused, and very low pressure, when they don't get enough blood going through the brain, you're also confused, so just as I said with diet, you don't want to be on any extreme you want to be in the middle.

Man: Hello, for those people who have been taking statens for long period of time, say more than ten years or more, and are concerned about memory loss, other than following the proper diet and exercise and everything you've suggested, any other medications or... things to follow that you would recommend?

Brangman: No, but I wouldn't tell you to stop taking your staten on your own, I would say you definitely need to speak with your doctor. And again, it's an individual thing, it depends on all your other medical problems, for a staten may be very important for your overall health to manage other pieces of your medical problem. So I wouldn't make a change just based on the concern about statens in memory.

Man: Thank you.

Another man: Concerned about reduction in fine motor skills, (inaudible) longer to button and unbutton my shirt. And all along I'm beginning to see some difference is that all apart of the brain not working (inaudible) as well as it used to?

Ravashandra: When you do moments like that, (inaudible) there is a system of brain called extraperiminal(?) system. So there is something happening in that area. There are many things you can do, the most common thing we worry about when people are fumbling with the fingers, putting buttons on, is Parkinson's. Even though normal aging can participate in that, if it persists, and along with it something else happens, (inaudible) to Parkinson. One of the reason I put the Parkinson at the top of the list is it's a real treatable disease. You're missing a chemical, (inaudible) chemical (inaudible), something to be kept in line, I will mention it to my family doctor, if necessary ask for a neurologist.

Man: Thank you.

Joanne: May I just interject for one second. I didn't have time to talk about our new our new Connects office here in Onondaga County. Again, every county in the state has one. Our New York Connects office can come out and do an in-home assessment on a person of any age. (inaudible) to take a look at opportunities of daily living to see where the deficits are and see where the strengths are in what people need and what resources are available. So if I have anything to say, for you to take away today, it's to contact the office for aging in our New York Connects number. So we'll be able to provide some homecare when the time comes for you and your loved one when you're not able to perform those activities of daily living on a regular basis, so just wanted to get that in there.

Marilyn: Thank you.

Man: The panel discussed things like the Mediterranean diet, which I can relate to, and exercise, which I certainly can relate to. And given the fact that at least from my reading, etc., we tend to be, we seem to be an overly prescription, medicated society in the U.S. And just wondering, as I said, I can understand the Mediterranean diet and the exercise, prescription drugs I do not understand. I've heard that they can be a component, or a player, to slow down this deterioration of brain function. Is that true?

Brangman: Well, medications is a huge term. So we'd have to talk specifically about which pill. And as a geriatrician, I have a healthy respect for pills. I have seen them be very effective, but I also know that they can pile up and they can cause a lot of problems. So I don't want to speak in general, but we know that there are some pills that can make your mind fuzzy. A lot of the sinus cough cold that ingredient that makes Tylenol, the PM, those are antihistamines, and as we get older, many of our brains are more sensitive to those antihistamines than when we're younger, and it can cause a lot of cloudy thinking. It can also change your blood pressure, so that when you stand up, you don't get enough blood to go through your brain, and it can make you fall. So there are a lot of medicines that older people buy from the drugstore, without a prescription, that can be a

problem. Then there are medicines that are prescribed, that when they work together, they can be a problem. They can increase your risk of confusion, and your risk of falling. We talked about making sure your blood pressure isn't too high, but we also don't want it to be too low. So medicines can improve your quality of life. They have certainly helped people live longer and live better, but we also have to have a healthy respect for them, and we also need to be as a group not so pill-oriented. So I have patients that come to the office, and they feel upset if they don't leave with a prescription. Do you mean I took a day off from work, and I brought my mother here, and you're telling me to just have tea, and no prescription? We want a pill. We also see a lot of commercials on TV that tell you about a pill for things that aren't even a disease. And we want 'em. So we have to realize that there is no magic pill. And that each pill has a group of side-effects, and we have to always weigh them, the pros and the cons. And when you're taking more than one, we have to do more weighing. If you're taking four or five, we have to do even more weighing. So again, it's a matter of moderation. I don't think someone should be on no pills, and having a miserable problem with a disease that we could help them feel better, but we should also not think that there's a pill for every little itch, and eyelash misalignment out there (laughter) that you should be taking.

Man: So there are medications that can slow this brain function deterioration down, but if you're taking five other medications--

Brangman: We have to look at the whole picture, so there are a group of medicines that do help people who have Alzheimer's disease. They don't reverse anything that's already been lost, they don't cure the disease and make it go away, they don't keep the disease from getting worse. But what they can do, in those people who it works in, is it can level off, it can slow down some of the symptoms, so in other words, we're buying some time. We're trying to postpone that time when people have such advanced disease that they need heavy duty care. So there are medicines out there, we don't have a cure yet, there's a lot of research still going on to figure out what works and what doesn't, but we do know that if we have Alzheimer's disease, that there are ways we can help you manage it, and that there are ways we can help you look at the bigger picture, and figure out what makes sense for you.

Man: Thank you.

Marilyn: I know we're down to almost one question Laura.

Laura?: Maybe we can just do these last couple of questions really quickly.

Marilyn: Can we do it real quickly, thank you.

Woman: First of all, I'd like to say thank you, what you guys did for us. I'm always going to be twenty-four, no matter what, and when I go to the beach I'm proud.

(laughter) I do want to mention something about keys, I lost my keys four years ago when I was 51 years old, and I have not found the keys, and went to rearrange the house (laughter) and I did everything and I still haven't found those keys. Is that a sign? (laughter)

Brangman: Generally speaking, no. I just think--

Woman: (inaudible) Never found those keys!

Brangman: I think—(cross-talk) But the thing is, can you solve the problem?

Woman: (inaudible) live alone, so there's nothing take them.

Brangman: Well, there's a little gremlin that lives in my house. And he takes things all the time. So you might have--

Woman: Well, there was a lot of keys on there, so he must be pretty big.

Brangman: That's not the only thing that you should worry about. You look at a bigger picture than just the keys.

Woman: Okay. Alright. So there's no need for alarm. But I'm still 24. (laughter) Thank you.

Another woman questioner: This is a question about the effect of long-term use of heavy duty psychotropic medication, and aging. I think I'm specifically asking because my mother is only 56, and her mannerisms are almost like 85 or 90. She walks with difficulty, she shakes, she's confused and it's taken a toll. It's like she's aged 30 years prematurely.

Ravashandra: The most important thing about psychotropic medications, as a person taking them in the long-term, they deprive the brain of a chemical called (inaudible). It's a (inaudible, chemical name) blocking agent. That puts on a system of brain called extrapremetal(?) system. Extrapreminal(?) system is for movement. So you're gonna clear the movement disorder and the most common movement disorder that's associated with psychotropic medicine is Parkinson's. It can cause Parkinson-like disease, so it's called Parkinson(inaudible). So naturally, just like a Parkinson's patient, they all shake, they have trembles. They all shuffle. They lose their balance. They have a tendency to fall. They get slow. (inaudible) They also can get rigid. So usually, when the psychotropic medicine is prescribed by their doctor, it's very common (inaudible) to the side-effect of this medication, usually gives an antidote along with the medicine. In other words, you have an anti-Parkinson's medicine with it, but in spite of that, in the long run, what happens is these (inaudible) and they can give side-effects. Sometimes, irreversible, unfortunately.

Woman: Thank you.

Aziz: Let me address one point, because there has been a new thing coming up of this psychotropic medication that we prescribe for some—

(AUDIO AND VIDEO CUT OUT ABRUPTLY, 01:33:00)

(AUDIO AND VIDEO RESUME, 01:33:59)

Aziz: -- definitely, something is going on.

Woman: Yeah.

Aziz: And I would pursue it, if it was me I would pursue it, I would see definitely with the specialist, (REPEATING FROM EARLIER ON TAPE)