

Staying Sharp: Oakland

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THE DANA ALLIANCE FOR BRAIN INITIATIVES

SF: The Dana Alliance for Brain Initiatives. Dana in partnership with the Met Life Foundation, AARP and the Allen Baptist Church has arranged this morning's program. Dana Alliance for Brain Initiatives is a New York based nonprofit organization committed to public awareness about the progress and problems of brain research, and disseminating information on the brain in an understandable and accessible fashion.

We do this in other programs and events like today and publications like the booklets that you'll find and sample bags that we handed out at registration. Those are all based off the program that you will see today. I would just like to thank the Allen Temple Baptist Church, the Bethesda Counseling Center and the Mental Health Friendly Congregations Committee for helping us with this program today. I would like to end my spiel with a quote from one of our chairmen about the importance of neuroscience. "We all have a stake in neuroscience and some time in our lives every last one of us will experience a brain-related disease,

disorder, or brain injury. Neuroscience research is looking at the burden of brain diseases and disorders as our mission, our potential as individuals and as revolutionizing our attack on social and economic problems that face our nation as we enter the 21st Century. All that we are and all that we hope to be is centered in the human brain and mind, and that is why neuroscience is truly a human science. I just wanted to thank you at this point today and I hope this will be a wonderful program. Thanks.

PV: We're starting a little late so the session, we'll plan to go on till 11:30. If you need to leave before then, we understand. This morning we are going to explore the topic of this mysterious brain, but this vital organ. We are going to have four segments, and they should be seamless to you. The first is we are going to address the normal brain, then the disorders of the brain, how you can keep your brain healthy whether we are young or you're seasoned like we are. Then also important to us is we are going to give equal time for questions and answers. So let us begin. We are going to begin first with the normal brain. I'm sorry, I didn't have everyone introduced. See, what happened, the yoga relaxed me so much.

But we're a team so they have permission to keep me on task here. So we do have a panel of exceptional experts, and most are local. But we do have a couple (Inaudible) in the house so they will introduce themselves. I'm going to ask each panelist to introduce him or herself, give you their current position and their area of expertise so you have a sense of where we are coming from. So I will begin with Dr. Eckfield.

ME: Thank you so much. Can you all hear me? It's a real pleasure to be here, thank you so much. It's an honor to be on this panel. My name is Dr. Monica Eckfield, and I'm a nurse. I got my PhD across the bay here at UCSF and I currently am an assistant professor of nursing at Home State East Bay here in Hayward and in Concord. I think that ... psychiatric nursing mental health nursing.

My background is I have two areas that I really get involved in, in my career. The first aging and geriatrics and the second is mental health. My real interest is that inner connection with mental health issues for adults, so it is a real pleasure to be here on this panel today. My specific area of expertise is on hoarder disorder. So there are reasons why these

people can't part with things, and accumulate things to the point where that interferes with their ability to live the way that they want in their home. So really all of this has so much to do with the brain and it is a real pleasure to be here with all of you, to be a member of this esteemed panel.

PV: Thank you, Dr. Eckfield. Next we'll have Dr. Bolds who is also a member of Allen Temple.

JB: Good morning, everyone. I will start by explaining that I was born in Oakland. Lived here for a few years and moved on to Richmond. I went to public schools through Richmond and graduated there from high school. The point here actually I'm getting to is that at some point in time we stray off from the path that we want to be on and so that happened to me. I had to go in the military, and at some point in time I had a very severe accident. Took me back three years to recover. I had multiple surgeries. And from then on I got back on track and finished and graduated from universities here at San Francisco State University and was ... technically here at University of California here in San Francisco. And it was very humbling experience to go there, to be there. But it was actually an honor.

I then moved on to Highland Hospital because most of my life that I can remember I wanted to be a physician. I always wanted to work in the public sector. I tried a little bit in the private sector but I know that wasn't where I wanted to be. So I was trained at Highland and I'm sure everyone here knows where Highland is located.

So I was basically there for 20 years and I recently have moved out to one of our (Inaudible) which is about 26.3 miles from here. I'm putting that out because I have to drive home all the time. But anyway so I came here and I've been there for the last ten years. I don't really dwell on it but I want to say I have six members in my family, six kids. And my wife who is a very awesome, and we talked about her this morning. Recently I have (Inaudible) she is awesome. She has decided at this stage of life that she is going to go back and she is going to get a doctorate in (Inaudible).

She is doing very well and she is pulling out here and she is basically going through it well. I won't prolong this other than I am going to say that based on the little that I have told you about me, I guess I just wanted to say to each and every one

of you that you can mobilize yourself to do more than what you think you can do. I'm just going to give you an example without bragging. But at some point in time I started riding my bicycle. And it was just I just decided to ride again. To make a long story short I am what you call (Inaudible), I did 200 miles in a one day ride on my bicycle. And so it was awesome, and I will just say that it is something that is one of my real pleasures. Sorry that was too long.

PV: Thank you. You are a hidden treasure, Dr. Bolds. Thank you. We'll move on to Dr. Penn.

MP: Yes, good morning. It's a pleasure to be here. I am a local, native of San Francisco. As was alluded, there is (Inaudible) connection in my background and I went to Hauser University College of Medicine for my medical school. Then following medical school I had done some training at Highland Hospital. So my background is in general medicine but also the alternative perspective that I bring is that I was introduced to yoga, the month after I finished medical school. After I had felt and had this position of the calls and censoring that was taking place with that practice, that was at the back end of being part of my practice

and in and out for the better part of five years.

So from that seed idea, I had my training at Highland Hospital and we wanted to move more in a ... what I would call upstream so more provincial side of health and wellness. So from that space I had a consultancy of healthcare reform. I see self awareness as self care. So I advocate that in a various organizations and also here I teach classes every Wednesday at 6:30 here at Highland. It just helps boost the connection of a deeper sense of body awareness and helps with anger and self empowerment. So I incorporate that in all the workshops that I do and the coaching that I do and it has been big part of that, so I am happy to be here. Thank you.

PV: Last is Dr. Griffith.

PG: Good morning. I am Patrick Griffith and I appreciate the warm welcome I have had from all of the Allen Temple members. As a pretty fortunate individual I have been blessed to reside in the last several years in New York and so I appreciate the welcome as a Yankee. I appreciate the welcome as an Episcopalian. Since Dr. Golds chose to honor his wife, I want you to know that my wife is sitting in the back and after 44 years

she is still willing to put up with me.

The Creator has blessed me to be a neurologist so I work with the medical side of brain issues. I have a particular interest in that I feel that individuals in developing countries are being exposed to the onset of Alzheimer's disease more frequently in the last several years and specifically more frequently than in developed countries. For me that is a research question. And the reason that I frame it in that context is that I have also been blessed to speak at several churches throughout the country and in different parts of the world. Sometimes people say this kind of rhetorical question: If God recognized my trying to be a Christian and trying to live as a Christian, why would He allow me to have memory problems and cognitive problems?

I don't have an answer for that. That's why I am on my knees. But I appreciate you being attentive and you will hear further along some of the things that I am interested in.

Thank you.

PV: So as you can see, we have a powerhouse. We have great minds sitting at this table, and so without further ado we are going to move into some description about just the

brain, this mysterious but vital organ. So we are going to ask Dr. Eckfield to begin talking about the brain.

ME: Thank you. So I wanted to harken back to Dr. Penn's participatory introduction and I would like you all to make fists and put them together. Your fists together like this is a little smaller than your brain. So your brain is a little bigger than this but this is the pretty good approximation. So we never get to see our brains. But I want to show you using your fists a little bit about where things happen in your brain. So with your thumbs looking at you, that is the front of your brain, so your thumbs are pretty much at your forehead. So imagine that if you were holding your brain out and looking at it.

What happens right in the front of it, where your thumbs are touching your fingers, that is called the frontal lobe of your brain. That very front part, right behind the forehead that is where they say your chief executive officer of your mind is. That is where all the decisions are made. That is where the CEO desk is, that is how you frame your day, that is where you organize things. That is where your decisions are made and how you carry out activities during the day. All of that what we typically think of

right behind your forehead. Right in that front part of your brain.

Now, if you think about where your middle fingers touch, that's the middle of your brain there. That is where a lot of our motor control is. So how we move our bodies, when we decide to follow Dr. Penn's exercises and lift up our arms and put them down and lift up that leg, a lot of that motor control is happening in your brain right around where your middle finger is.

A little further back from where your ring fingers touch, that is where a lot of your sensations happen. So your sense of touch, your sense of taste. A lot of how we experience the world is being processed right around there where your ring fingers are. And then further down by your pinkie fingers, that is the occipital lobe, that is where all of the visual input that comes into our eyes actually goes straight to the back part of our brain where those fingers would be. That is where your brain is processing the visual information.

Now, out along the sides, the knuckles, that corresponds to right above your ears and that is the temporal lobe. That is where a lot of our hearing is processed. That is also the place where a lot of our memories get processed and information

gets transferred into them. It's interesting, there is some research that has been done linking since it is our hearing area and some researchers looked at how we use it and whether listening to music as we are trying to learn ... I don't know whether a lot of students who try to study with music on, that may actually help us activate that area and make that information turn more into memory. So that is an interesting link there.

In the middle if you crack open your brain, if you will, and if you look at where your finger tips touch the palms, that inside section is made up of a bunch of different structures that all together are called the limbic system. That's what controls our emotions. So when we feel sad, when we feel happy, when we feel anxious, when we feel a lot of stress going on in our life, it's those inside the brain sections, those fingertip areas, that are touching our palms that are going to activate during that time.

It's really interesting and we'll talk about throughout the day, the weight between our emotional state, that inside brain section, and how we're thinking and how we are able to remember things, and how when we're stressed we're not able to remember things. So that connection, that communication in the

center part of our brains and that frontal part of our brain when we really do our thinking and our planning and our decision making, those two sections ... of course, the whole brain talks to each other a lot, but those two sections, the limbic system and that frontal part where you have what's called your executive functioning, talk to each other a lot.

So I just wanted to give you a visual so you can always turn to and think what's going on, where do I have to focus my thoughts? Another thing, this all about our hands that ... just monitor this and take a look at it. Put it over your heart. One fist is it about the size of your heart. So we are going to talk a lot of us today about something that came up earlier when we were planning this, what is good for your heart is good for your mind. So thinking about your heart, thinking about your brain as we go through the day. So that is a little introduction.

PV: Dr. Eckfield, thank you so much.

PG: So as one of the physicians who is often asked to interpret whether or not a patient is having problems with this normal function, I wanted to add a couple things because it will help your perspective. The way that the brain is created, there are

a bunch of wires within the brain that are called neurons. The way that neurons pass along messages to each other is through a gap that has a chemical in the middle that is called acetylcholine. The reason that that's important to remember is that when we get to the things that we have been led to try or help when the brain is not working properly are agents that can continue to allow the acetylcholine to talk to the different neurons. So that is point number one.

Point number two, Dr. Eckfield mentioned the CXC lobe up front. The workers are like file clerks. The file clerks go into the memory banks and pick out things. The problem that a lot of seniors have is that that process is a little bit slower than we are accustomed to. Sometimes that can be a cause for concern.

So I want to reassure you that you continue to learn throughout your life. You continue to learn and the brain continues to engage in new memories and the way we tell our students is try to be a lifelong learner. This applies just as much to understanding the Bible as it is to understanding your friends and colleagues. You continue to learn throughout your life, and the way that the brain is made, that is something that is facilitating. As a

matter of fact, if you want to challenge your brain do something new, do something that you have never done before.

So it can be a new language, it can be helping your game in terms of playing bridge or any socially engaging activity. So the takeaway from how the brain works is that there's a series of chemical messengers that's accessing these different brain memories. What you want to do is to keep that system going. As that access is occurring, then you form memories. The problem with seniors is that the ones who are having problems, are having problems with new memories or recent memories. Now, they often have no problem with their remote memory. So they remember their first kiss, they remember their first teacher. Some people who have more than one spouse will remember their first spouse – that's a joke!

But those same individuals may not remember what they had for breakfast. They may not remember how they got to church this morning. So that is where the problem comes in. And while it is normal to have senior moments where you may not quite remember why you went into a room or why you started to do something, it's only a problem if that is completely ...

the file clerk can't get it back out. So in my area we almost never interview a new patient unless there's a peer present, a family member, because most of the people who are having problems are unaware of it. They think that the family is being difficult and are making them come to the doctor. So we teach our students, we have two patients – the patient and the caregiver. And each one is just as important – just as important.

PV: So Dr. Eckfield and Dr. Griffith have given us a very descriptive account of our brains is but I am going to go back to Dr. Griffith because I am going to put a little spice in this conversation here. That is I'd like Dr. Griffith to address the issue of is there a difference between the male and the female brain. Ladies in the room – we already know the answer to that! But we'll let Dr. Griffith address that.

PG: On the advice of my attorney, I have been encouraged to give you a different kind of response than Dr. Van is prompting. Dr. Eckfield mentioned hormones, and it's important to know that the indexed case, the first case of Alzheimer's disease was in a postmenopausal female who was European, coming from a developed country. So keep that overarching thing in mind.

Clearly, estrogen, which is a main female hormone, is stimulator into the brain. So in many instances, that's what drives the apparent disparity in the appearance that girls mature a little faster than boys. They're a little bit more organized, etc. And certainly that's what happens in our family.

So yes, there's a difference between how the male and female brain works. All I can say is that's how it is! I don't have any illusions about it. Now, there's a problem. In many of my presentations at church, I often turn that question back to the audience, and say why do we think there's a difference between men and women. The statistic that's just come out in the 2014 figures for the Alzheimer's Association – and we have a representative in the back to my left, and she is waving – think about this: Alzheimer's disease occurs in one out of six women. One out of six women. But it occurs in one out of eleven men.

So clearly, Alzheimer's disease affects women more than men. It's a research question as to why that happens. I can tell you that at another church in Atlanta, one of the ladies who looked like my grandmother – my grandmother was in (Inaudible), does anybody know what that is? She never makes a

mistake. She raised her hand and said, "I know exactly why women have more Alzheimer's disease than men, and specifically why in our research in our database, African-American women have more Alzheimer's disease than African-American men." She waved her finger in front of me like the lady that was present (Inaudible), and she says, "It's because we have to live with you!"

PV: Thank you so much, Dr. Griffith. Dr. Bolds?

JB: Good afternoon. Do you think it has to do with the fact that women live longer than men? So that there's a higher incidence?

PG: Dr. Bolds is giving part of the answer. If you go to a nursing home, you'll see more women than men. So men live less longer than women, that's comment one. But it clearly is not the only answer. Clearly is not the only answer. Some of it is in this hormonal thing that was introduced by Dr. Eckfield, and actually she had to tell me where in her psychiatric practice, there actually are situations where some uncooperative males are given female hormones – I'm serious – to balance things out. It seems to help some of their abnormal behavior.

ME: That is (Inaudible) as in the past, I don't know

how it is these days. But one thing that I have been reading about recently is the effect of stress on men versus women's brains, and the actual physical changes to your brain in response to stress. Women's brains are more negatively affected by stress. We all know that life is getting more and more stressful and just the everyday activities and the number of decisions we have to make, and the number of options of how we sort out and prioritize things. Women have a larger number of tasks that they're trying to balance between work, family, and not to say that men aren't also doing their share. But there's still a greater task density that they talk about for women. That constant level of stress affects women's brains more detrimentally than men's brains.

Which points to the very real reasons why – and I know looking around in our room a little bit – but towards practicing and learning stress management techniques. Things like yoga, things like deep breathing, walking. And any sort of exercise that we can do that calms our mind, that settles our body, for everyone, but even more importantly for women, this is going to help your brain function and keep your brain healthy, keep those stress hormones from actually littering your mind.

PV: Thank you very much. Before we move on to the disorders, I'd like us to revisit memory. Dr. Griffith made a couple comments, but I would like to just say how many of us have walked into a room and forgotten names or you forget where you put your keys or parked your car. Or you're introducing a very dear friend to someone else and you forget that friend's name. So Dr. Penn, is this normal? Where do you cross the line from normal to abnormal memory loss?

MP: So when it comes to ... it's important with the people who are around you in the observation of some of these normal activities. So we talk about memory, when we place something or we are trying to remember a name of someone, that does happen normally with age. But when things get a little more worrisome, if you're maybe forgetting why you are somewhere or how you got somewhere, that is when it becomes much more worrisome. Again, that's where the caregiver folks that are in the family, they play a huge part in being able to give an extra part of history, the background in a person.

So I want to bring us back to some of the exercises that I showed in the beginning. We recognize that as a

focus on our breath and also to connect with different parts of our body, just knowing where are feet are, our shoulders, and our body. All of those exercises of the brain are what could be called mindfulness. Think of the term mindfulness.

How I like to define mindfulness is simply a non-judgemental acceptance and observation of what is internal and external. So seeing where your body is, it's not judging, being upset that my shoulder got bumped in the morning, or upset by a hand cut or whatever. It's just simply accepting what is going on. All of that is important for brain function and brain awareness, and keeping that hallmark(?).

I suggest and recommend for folks in the morning when they get out of bed to just maybe take 15-30 seconds to simply just feel the different parts of your body. That just grounds you in the day so much. Focus with your eyes when you wake up in the morning, your brain is already on the weekend, the brain is already on what you've got to do. It's like you're out and you are more connected to the present moment. It's interesting, it's like a paradox. When you are more connected to the now, you are in a much better space to perform what to that

you want to bring back to your conscious thought. So all of that has to do with being in that space as much as possible. Life(?) is a big part of that and also (Inaudible).

PG: I'm reminded that I am not an ordained minister so I want to pick up on some of the things that Dr. Penn mentioned. Breathing and is part of the vital ... where the person breaths on a couple of (Inaudible), and then the thing we do in Episcopal church is we exchange God's peace. So that you breathe and then you relax, and pass that along to the next person. So it allows you to think of five common skills that have been alluded to so far so that you can keep track of them.

The first is attention. When you are going into the room and you forget why you were there, it's because you didn't pay attention to what you were about to do. But if it was because you were going to find money or if you were going to find something important, it would have caught your attention. So it is not a sign of any problem. It's just that you weren't attentive to that particular task. It happens to all of us.

The second is memory. You've heard us talk about memory, so there are two kinds of memories that you want

to remember – recent memory and remote memory. While I joke about remote memory in America (Inaudible), I can tell you that lots of caregivers find that they use remote memory ideas to help the person's mood. One of my patients was married to a minister. He got the best cooperation from his middle stage Alzheimer's wife when he played on the basketball team. She was sort of atrophied, nodded her head and then he could get some cooperation. That remote memory is what triggered her to come back to where he was. Very important, very important.

The next is what we have been doing here all along, language. There's a part of the brain that interprets that I'm speaking English and I'm not speaking French, Spanish or any of the few other languages that I know parts of. So there's this wonderful instrument that's interpreting sound and then going to these memory banks so that certain words have meaning. There are parts of the brain that can be damaged where we lose that ability to go in and pick out the meaning of that particular word. Then executive function, Dr. Eckfield mentioned, where up front that is where the decision-making is a part of it and goal-setting. "I want to be a billionaire," goal-setting. And then the planning, and I

guess ladies do more planning than us men. So they plan a meal, they plan the expenditures, etc.

Then judgement which is a tricky one, because it's judgement that says this is more important, this has a higher priority. So on Sunday morning, the appropriate judgement is the first thing to do is to get ready for church. That is different from a meal that you are going to have after church. So there are five target skills and when they are not working like they should, then you start to get into problems. So attention, learning, memory, language, and executive function.

PV: Thank you so much. Now we are going to move into things that are not normal with the brain. We're going to focus on four conditions which you are very familiar with but may not understand. So I am going to ask Dr. Bolds to start with stroke, and the impact on the brain.

JB: Thank you. I have been doing this for 30 years and I was based at Highland for 20 years and now am at Highland. What is a rippling affect for a patient as well as the family as well as the community and the neighborhood is stroke. They could be quite devastating. So to briefly tell you what a stroke is,

basically there are two types of strokes. There are ischemic strokes and then the second one is hemorrhagic strokes.

Ischemic stroke is basically a loss of supply to an area of the brain that is language, and that is basically a loss of oxygen to the area. There are three subtypes to that process that go to the brain. One is thrombotic, in which you have what we would call plaque, a material that builds up within a vessel. It eventually ruptures, and the ruptured material that is released from that necrosis is basically then diluted throughout the vessel, the arteriole vessel, and can lodge into an area where it's so small that you can get an insult beyond that point because there's no oxygen or nutrients getting to that part of the brain. That is the thrombotic stroke.

The second one which is more common is metabolic strokes and basically that is a clot that is coming from a particle, usually carotid of the heart and that is going to another area of the brain where again the lodging of this clot will cause the deprivation of oxygen and nutrients in the brain and then the brain has to be there for a certain amount of time and that can get in that area so that is a stroke.

The third subtitle is ischemic, is the strokes is what you call TIA – trans-ischemic attack. It's a little hard to explain this kind of attack but generally it is basically a transient episode of a neurological disfunction. That goes to a focal part of the brain where there are four or five different places where this focal part of the brain, the swelling of the brain, and then the brain stem as well as the spinal cord where you get these areas that are very transient and that part of the brain, TIAs. Hypertension is a very common cause and essentially you can get signs that basically are sensory loss, motor loss, visual loss, and there are a few others as well. So in terms of speaking, being able to or not be able to see correctly. So those are ischemic strokes. Then there's another set of strokes that can occur and they are called hemorrhagic strokes.

Those are (Inaudible) as well but they are basically has to do with blood. So blood is going to actually be the cause of the release of a person having a stroke. There are basically two areas, the intercerebral area and as well as the (Inaudible). I have heard people say we have a (Inaudible) at that the, or he had a stroke that actually was on the top of his brain. So

those are actually are two causes, the ischemic stroke and the hemorrhagic stroke.

I just want to tell each of you about how the stroke could happen and areas that basically can affect this, and of course is much more broad than that, to be more specific, because most people have been very shallow ... anybody in or anyone who has seen a person who has had a stroke. So it is one of those things. So what I wanted to focus in on after telling you that is those things are the elements that put the risk of a stroke that is treatable and where there is ability that you can change that problem of having a stroke by following those immediate causes and risk factors and reducing them. They are reducible.

So everybody pretty much knows what they are. They know it is high blood pressure, they know it's back pains. They know it I basically has to do with let's go have a look (Inaudible) ,they know it has to do with obesity. They know it has to do with activity which is not begun (Inaudible) for which we also know that people who have a stroke are at high risk as well. And there are a few other causes that people will who have had heart attacks in the family or higher rates of (Inaudible) also to those as

well. So there are a lot of data out there and data is very ... speaks to one(?) in some areas and more complex in other areas.

So to think about getting your blood pressure down, getting your blood sugar down and under control to be able to get the cholesterol (Inaudible), and have much ado about getting that cholesterol down and much ado about obesity, about what you eat and about your activity or lack of activity. I will just will share with you about as a sideline (Inaudible). It really took me from a big change into reducing my risk scale. There is one thing to talk about that because we all know that all of these are very ... have created enormous problems out there and even though it's difficult to laugh about it. Some parts of this is completely potentially funny.

Because what I find is because when I do this 24-7 and is actually patients or clinicians and I do it every day five days a week. One thing I find is ways people get out of treating themselves better. What people get out of not taking their medication for hypertension, what they will do to get out of taking their medicine for diabetes. It is completely absolutely hilarious. I can have somebody who will tell me and I can say, "Why are you

not taking your medicines for your diabetes?" "Well, I had to take a break." "What kind of break did you have to take?" "These pills are just clogging up my system here. I can't change, I think it's doing something to my liver, it is doing something to my kidneys and it just goes on and on."

I said, "What about your diabetes?" He said, "Oh, my diabetes, I'm doing fine. I'm doing well. That's not a big problem." So there is a big (Inaudible) out there and this one it is a serious discussion because it's something that really if you really look at it you can significantly alter these risk factors that I have actually been speaking of. I don't want to keep going on because we (Inaudible) with diabetes, but I will show you some factors with diabetes and high cholesterol, they go with obesity, and they go with smoking, they go with that.

But one of the other things I just could go on is daily activity. I just want you to know that most of the time if we are impacting, we begin to be afraid of being impacted, and we're not sure when that should happen and when should that occur. I think as lessons would be seen by (Inaudible) is that there is a way to move this wherever you are sitting. You can stand up, and you

can sit right where you are. So inactivity, I would say I really would hope that one of the things I push significantly is to become more active. And people get it.

PV: Thank you, Dr. Bolds. That was very, very interesting. So on top the risks, of just explaining the early warning signs of stroke so you can be informed.

PG: The best way to think about the early warning is that the most damaging kind of stroke, think of the word fast, F-A-S-T – face, arm, speech, and tongue. Time is critical. If you start to have trouble with your face twisting or your arm dropping and you are dropping things out of your hand at the same time that your face is twisting, and that the words that you are trying to say are not coming out right, that people don't quite understand you, that is something that requires a call to 911. Do not wait for the doctor to call you back. Have a family member take you to the hospital directly.

The best chance of fixing a developing stroke is within the first three to four hours. So don't sit at home thinking that it is going to go away. It is better to have a false alarm. Go to the emergency room and let them decide whether or not this is a

stroke that is starting to occur or it is early in the stroke and it is fixable. What is important there is you take what Dr. Bolds said, prevention is better than cure, prevention. So if you follow those vascular risk factors they he enumerated, and he may not have emphasized stress management as much because it's the stress management that throws effect your blood pressure. The stress management that throws off your diabetes and throws off your eating so that your sugar is not where it should be and your cholesterol is not where it should be. Because you are under stress in your life or in your family.

So try to think of brain healthy lifestyle. Brain healthy lifestyle, and an easy way to remember that is what is good for the heart is good for the brain. So you do what Dr. Bolds says and look at those vascular risk factors, and try to modify them, then you are much further along the line. Now, I practice in a part of the country in southeastern United States that's called Strokeville. There are eleven states in the Southeast that have more stroke than anybody else. There are three states that have more stroke than the other eight states in the belt, and that is called the stroke buckle. Georgia, what else, what would you think?

W: Alabama.

M: Louisiana.

PG: North Carolina, South Carolina. If you know your geography, there is a little buckle there on the east coast. Those three states are physically contiguous and researchers don't understand why that happens. And unfortunately, if you are born and raised there, they say you wear the belt or buckle all your life. So it's incumbent on you, if you have family from that area, to be even more conscientious about fixing those stroke factors, because the better you can do to prevent it, it is a lot more than you can do to cure it or go to rehab, etc, because that damage is done.

My interest as a neurologist is that one of the causes of cognitive problems – remember we listed those five cognitive skills – is a kind of memory and other problems that occur after stroke. Now, depending on how far back you go, there used to be a time they called it multi-infarct dementia. Anybody remember that? Then we changed it to vascular dementia. And the new term is called post-stroke cognitive impairment. There's an ongoing study out of Birmingham, Alabama, that keeps a

database that is called the ARC(?) where they are looking at the fact that people in those states – so extends to Alabama, Louisiana, Mississippi – they seem to have more cognitive problems because they are having more strokes. The question is where do you stop, where do you prevent it from going on. The answer is attention to the vascular risk factors that Dr. Bolds mentioned.

PV: Thank you so much. There are a couple of disorders of the brain that we tend in our community, in our church, in our homes, not to speak about, and they are Alzheimer's and depression. We don't have time to cover both, but because depression, you really can't catch depression from someone. You know that you have ... but depression is so closely related to stroke, and I am going to ask Dr. Eckfield to talk to us about depression and what are the signs and symptoms, and is depression normal.

ME: Thank you so much. So depression is one of the most common mental health issues among any age group but it is often something that goes under-identified and under-treated in older adults. I started talking a little bit about some of the

differences in the signs and symptoms of depression in older adults compared to younger adults. When you think of depression in younger adults, we think of people being profoundly sad and not being able to get out of bed. They are losing weight, they're not eating or they are overeating. We think that people who either are sleeping all day and all night and they can't get out of bed or they are just so depressed they can't think at all and they suffer from insomnia. A lot of those symptoms are consistent across age groups. But in older adults, what we tend to find is that we don't see that profound sadness in the same way that we do in younger adults.

That is one of the things that we tend to think as the hallmark of depression but when it's not there in older adults, we don't quite understand what is all about. But what we often see in older adults is more of a withdrawal from their activities, a withdrawal from their families and from society. So they may not act really sad about things. They may not say that they are feeling sad. They just don't feel good they just don't feel up to it, they just don't feel that they can take any pleasure out of engaging in certain activities that they used to. Maybe they always

loved the holidays and preparing for it. In the past couple years, mom and dad really haven't participated much in the holidays.

So this withdrawal from activities that used to be really important to them is more of a sign of depression than sometimes we recognize. We also see in older adults an increase in their somatic symptoms. So they may feel physically worse, they may feel more achy, they may complain of problems, they may just not feel as good and we don't tend to think of that right away as being related to depression yet that is what we are finding in our mental health communities.

But one of the things that often comes up is sometimes at another conference, their doctor says, "You're looking okay. We don't find anything wrong." Yet they still get these extra aches and pains and they don't feel like engaging in much. Those are often signs of depression. What can we do about this, once we suspect that, be it friend, family member might see more of a depression. Certainly there are some antidepressant medications that you can try but it's not the silver bullet.

What actually is a silver bullet, there's a couple and it is going to be tweaking(?) of what is good for the

brain and what is good for the heart. Getting back engaged, social engagement, reaching out to those friends, inviting them. Invite them again when they say no to come and join you at church, have them join you for dinner, have them join you for a walk around the block. Social engagement is staying engaged, it is one of the best ways both to stave off depression and to treat the depression. How does someone reengage and get back in and stop withdrawing from their life and being reengaged in their life. Exercise helps, it's amazing. And people of all ages, let me take older adults, being able to walk more, do some stretches. On a regular basis, preferably with a group of friends so you have social engagement, you've got the social contract with other folks that you are going to meet up and you are going to do this thing together. That then exercise, moving around, that is what psychologists have talked about, it releases different endorphins and things like that in your brain that help to improve that connection between that system and the way you are thinking, and just then your general outlook. It's amazing that those two things, the social connection and the exercise, how much that will do sometimes as much or even more than antidepressant medications to help someone come out of

depression and also to stave off those symptoms of depression.

PV: Keep it moving. Thank you.

ME: One of the things too that people who are starting to suffer from some depressive symptoms, one of the things that they will notice is that their memory is starting to slip and they start wondering if this is early signs of Alzheimer's or some other sort of dementia. And it turns out as we are talking to folks and as we are doing research on this, these memory blips, well, again it's normal in someone that reaction to things sometimes slows down. If you are starting to notice more memory slips it may actually have more to do with depression than actual cognitive declines.

That is the good news, that if you are feeling like your memory just isn't quite as sharp as it used to be, think about depression and think about some of these strategies to pull yourself out of depression because that can be reversed. That's correctable, whereas cognitive decline is a different thing. So that's what I wanted to say.

PV: Thank you Dr. Eckfield. Anybody want to comment?

PG: Two quick comments. Dr. Eckfield introduced the term 'reversible,' and if you think of the word dementia, the first two, the D and E are the only ones that are reversible. The first D are drugs, and what we tell patients when they are coming for an evaluation is bringing everything in the medicine cabinet. A lot of patients think that if it is not a prescription then it's not a drug. The problem is that some of those medicines block one of the chemicals we talked about earlier which is acetylcholine. So your doctor needs to know what medicines you are on – drugs.

The second, the E, the E is emotional and that is where the depression comes in. Everything else may be fixable and in terms of getting level but the only two are depression and drugs, these top drugs and the depression you get treated. So we teach our students, there are four D's. If a senior comes to you and their problems, four D's. Is it depression? Is it drugs? Is it D-E which is an acute change in mental status usually associated with a fever but it could be with other problems like dehydration etc. And then the last D is dementia.

So when you come to the doctor, ask him which of those four D's you're in and what does he or she

recommend. And you say what does that have to do with staying sharp, which is what we are about today. To stay sharp, there are four strategies, so lots of fours. First, increase your level of mental activity. Exercise your brain. To say the second one, increase your physical activity that Dr. Penn and Dr. Bolds talked about.

The third, increase your level of social engagement that was just mentioned by Dr. Eckfield, and that will keep you from getting depressed and withdrawing. And then the last thing is eating well and controlling the vascular risk factors that were enumerated on Dr. Bolds and that is where the brain healthy lifestyle comes in. So four elements, four strategies to fix them and we're good to go. So it's called four strategies to stay sharp. One, increase your level of mental activity. Two, increase your level of physical activity. Three, increase your level of social engagement. Four, eat well and control vascular risk factors. Develop brain-healthy lifestyle.

PV: Thank you very much. I am going to move us on to another ... Dr. Bolds?

JB: Actually we were talking about depression and actually that's a significant part of these risk factors and

particularly I really want people with diabetes, I think they should all be evaluated for depression. The numbers of ... depending on what you read and what studies you listen to, we talk about 30-40 percent of people who are diabetics who have depression. So why don't you just piggyback on the fact that it's really worthwhile, people with diabetes, not only risk factors but diabetes in particular to consider having them evaluated for depression. Thank you.

PV: You can see how all of these conditions are inter-related. The next condition, I wanted to ask how many of you woke up in the middle of the night last night after you went to sleep? So sleep is also or sleep disturbance as we age is also a condition, so I am going to ask Dr. Penn what happens to our sleep as we age? How much sleep do we actually need?

MP: As folks age, there is a bit of a decline of the amount of hours that we sleep, so you may notice that normally you slept eight hours and as you get older, you are over 50, it may go down a couple hours at a time. But what is important though to recognize a lot of good things are taking place during sleep with genes, within there is protein synthesis that helps create all the hormones, so sleep is very important and that is what actually

takes place.

But one thing to think about here, when you think about caffeine and what our habits are before we go to sleep, does anybody drink a cup of coffee after dinner? I will say a couple things. So this is one thing that happens so it can affect sleeping. But the other thing that was mentioned when we were talking about how depression and certainly mental health challenges can affect sleep, and it is important to recognize that sleep may be an indicator for having more discussion with regard to a professional on what the deeper rationale would be for changing.

But I think I want to share about how important stress reduction and how much stress in our lives can affect our sleep too. We are going to sleep, a lot of times the mind tends to ruminate, not to keep silent on what you have done during the day and what have you, and that obviously affects what we were talking about earlier, the way that mind activates.

It's important when you go to bed to have some sort of sleeping ritual and one thing that I would suggest is to say one to three words that you feel thankful for the day. You can

say (Inaudible) thanks. And it is important to say that in when you are going to bed and also in the morning. So I have started this kind of ritual to keep connected to myself, to the family and to again that type of moment(?).

So having a sleeping ritual whether it be speaking words in the morning and at night but also it is important to say as consistently as you can a when you go to sleep. There are a lot of changes, the challenges that are taking place when you go to bed as if you are in bed and you are reading and you are watching TV in bed, and normally people do that, but that you may not recognize that can affect how deep and how much quality your sleep is because your body, our bodies like habits.

If a habit is to watch TV or read, your body is going to know you need to stay up for awhile, going to bed, versus that you go to sleep or rest and whatnot. So creating a habit of setting a time frame for sleeping, creating a mental habit of appreciation for the day and having words to say when you go to bed and in the morning it is very important. Also what your caffeine intake maybe before you got to sleep. So it is important that within two hours or so of sleep that when you really have that

cup of coffee, make sure you have it earlier in the evening, but not within two hours or so before you're going to sleep, so that is important for that. The health service(?) during a sleep there is a lot of just your body wants to regenerate a lot. So the more quality sleep that you have, the better the brain progresses and the better your cognition can be in the morning and the better you can think in that sense. So with sleep it's good to think long term to see where ... how your mental health is and physical health is.

We were talking about a segue into this overall healthy aging that we are going more towards, towards the tail end, that physical activity whether you are in a walker(?), whether you are part of a health ministry, having a sense of physical activity, social engagement and mental activity, all that connects to how well your sleep is and it happens now there is a definition of just overall health that the World Health Organization is using it and it is that balance of mental, physical, and social wellbeing, not just absence of disease. So it is finding that balance.

Just an example that I would like to share is a woman who belongs to my church, she is 82 years old and she is

from Trinidad. She really just represents each of those areas of healthy ageing – mental, physical and social engagement. She goes to church every week and she attends workshops very frequently. Recently had gone on a retreat when she (Inaudible) so in burning compulsions and we saw her at a little digital game that was like a poker game. That had her brain going.

So all those areas just really come into a good balance and it really takes that space of recognizing how important self-care is in your process of moving to growing a little bit older. And one of the last things that we are going to talk about healthy aging is having young friends can be very helpful, and that is healthy aging so everybody wants to have the youngsters come to town. But all that is very important. So staying connected and I think the simple formula for healthy aging, be a part of a group and have more interaction with the folks in that group. I wanted to share moving in a group, all of that keeps one connected and is very important.

PV: Thank you, Dr. Penn. The last segment of our time together this morning will be your questions to us. we learn so much from you and we learn so much from each other,

but before we move to that segment I am going to ask each panelist to give us ... you actually heard so much information this morning, so we just want to give you something to put in your toolbox that you can take away and say, yes, today, this is what I have learned and I can embrace and I can recall is that you are seeing these. We have this list here so we are going to help you to take something with you. So I am going to start with Dr. Griffith and ask him what he has to contribute.

PG: I would say the most important thing as a neurologist is to look at the nongenetic things that affect memory problems and all the cognitive functions. The nongenetic things are the vascular risk factors that were enumerated by Dr. Bolds. What we are finding is there is this tremendous overlap between dementia and the different types of dementia because Alzheimer's is only one type of dementia, the most common, is that the vascular risk factors seem to influence Alzheimer's disease and that may be the main thrust of researchers around the country and around the world is how can you manipulate things that are not genetically appropriate. And as a comfort, only 10 percent or so of these areas that cause problems with the brain that end up as

dementia is related to what you've got in your genes. So the vast majority can be modified. That's the takeaway. Work on brain healthy lifestyle.

PV: Thank you Dr. Griffith. Dr. Penn?

DP: I am going to leave you with three tenets of healthcare reform and that can be brain care reform. So that is informing your body, empowering your mind and healing your spirit. So about any type of movement and if there is one movement that I want to remember it is that shoulder shrug in terms of that is how the (Inaudible), that is inhaling, that is breathing in to the brain and that is connecting with your body and being very present in the moment in your body.

Empowering your mind – we spoke about before going to bed and have a word that is an appreciation of the day that we live and also have that same feeling in the morning. So I was just thinking one word, one word that is about appreciation of the day. You end the day with it and you start the day with it, so it empowers your mind.

The healing of spirit, if you are a church member here at the Allen Temple you are going to be healing

spirit. If you are part of that some memory connected to your spirit. If you are a part of some ministry, you're connected to your spirit. Again, informing your mind, empowering the mind and healing your spirit, you can do that.

PV: Thank you Dr. Penn. Dr. Bolds?

JB:: This is always a little tough because this is a kind of moving target, but I really think that it is as a clinician and seeing patients, one of the things that I really try to emphasize to them is that if you do better, you deserve better and you are better.

ME: To me, the last thing that I would like to leave you with is the idea that your body and your brain are very, very resilient and it is never too late to start something. You can always learn something new and you can only start a new exercise routine that you are matched to your physical limits. It is also never too late to stop something.

I just want to talk about smoking as a risk factor for all of these issues because a lot of folks, especially smokers and they have been smoking for decades and they are rather(?) healthy whether they are smoking or not, they form certain habits. "I can't change, I am too old to change." There is

no such thing. And the medical evidence is very resilient. It doesn't matter if you have been a smoker for decades; if you stop, your body will start to heal itself. There is no complete perfect image(?), you feel it directly, so those risk factors even if you stop smoking now. If you stop and you quit and you don't make it, you are more likely to try again and to stop than someone who never tries quitting in the first place. So I really want to emphasize that our bodies are very resilient so it is never too late to start a good habit and it is never too late to stop one. So thank you.

PV: Thank you. Now we will have questions and answers. Before we start, you know that we are people of storytelling but we would ask that you move through the storytelling and ask your question. And that way we'll get straight to your question if at all possible, and one question per person. We should have two roving mikes. And I will acknowledge you, for you to speak.

(END OF TAPE)