Upgrade your brain as you transition through menopause Transcript

(Transcripts are generated by AI and may contain errors)

Speaker Introduction and Credentials

Welcome back to the Reverse Alzheimer's Summit. I'm so excited to introduce you to Doctor Luanne. Present, Dean. She has completed her degree in neurobiology at UC Berkeley, graduated from Yale School of Medicine, and did her internship and residency at Harvard Medical School.

She's also served on both the faculties of Harvard University and the University of California at San Francisco. She founded the Women's Mood and Hormone Clinic at UCSF.

You can see why I'm delighted to have her here today. Her New York Times bestseller, The Female Brain and its follow up, The Male Brain, continue to be read around the world, and her brand new book, The Upgrade How the Female Brain Gets Stronger and Better in Midlife and the Life and Beyond was released today.

Now, as the Lynne and Marc Benioff endowed Professor of Clinical Psychiatry at UCSF. Doctor present Dean continues to speak, write, research and consulting.

Thank you so much for joining us today. Thank you for having me. What a great summit and what a great topic. Just amazing that you're doing this. I really appreciate this for women on women's behalf.

So you I mean, thank you for showing up today because it's a busy day. Your book is being released and you have spent decades of your life really dedicated to understanding the role of hormones in the brain and why menopause creates this big shift in how the female brain works.

We know that dementia affects women at double the rates of men. And so let's dive in to what happens in our brains as the estrogen fluctuations are taking place.

Okay. What's important to know, is that all of our life, from the beginning, from when we're born, the female brain has estrogen in it. And until we die, we have estrogen.

So it's not like we have no estrogen. But of course it fluctuates. And starting at the puberty time when we start our periods roughly about age 12 plus or minus two years, for women, that fluctuation starts to come out of the ovaries, and the estrogen will go up for the first two weeks of the cycle, and then it will dive down as the progesterone comes up when the egg is not related.

So we have this rolling up and down hills of estrogen and progesterone in our brain through the cycle every four weeks, every actually every day it changes a bit.

And what we know happens from working back in the 1990s is that estrogen stimulates lots of areas of the brain, but particularly we look at the hippocampus.

And those of you in this field know that the hippocampus is a really major, major memory area in the brain. And it causes all of these little batons and synapses to sprout, almost like a really bushy tree.

In the spring, everything grows like crazy, and it starts to touch the other neurons and make synapses.

Estrogen, Menstrual Cycles, and Brain Health

During the first two weeks of that cycle, when the estrogen is really pumping out like crazy from the ovary. And so that is what we're used to. It then gets torn back down and at the end, last two weeks of the cycle because progesterone reverses what estrogen does.

So that's just what the female brain is used to during the menstrual cycle. Gears up into what I, what I call in my book. I've called it the transition, which starts between age 40 and 50.

I call those the transition years, aka perimenopause. So that's when we call or called the sputtering ovary syndrome. When the ovaries are starting to make less and less estrogen.

As we go up towards the cessation altogether of our estrogen. And so when we lose estrogen, what's happening cognitively. So, that sprouting and that stimulation of nerves and in the brain, the neurons and the synapses are all stimulated also.

So the other things that estrogen does in our brain that you need to know about is that estrogen also protects the brain. It's called a neural protective agent for many reasons, but let's just name a few.

So it helps to keep the blood brain barrier healthy and intact. And what the blood brain barrier does. It's a really cool filter. It doesn't let toxic stuff into the brain to damage the brain, but when it gets like little moth eaten holes in it, you know, if it's not working properly, it will let bad toxins from the blood into the brain.

And you know, we don't want that. So estrogen helps keep that nice and intact. Estrogen also stimulates what we call the little every little cell in your brain.

And your body has a little powerhouse. Lots of little powerhouses in each cell. I call them like they're called mitochondria. I like to call them like the Mighty Mouse powerhouse, because it's really what makes the energy in your body and in every cell.

Estrogen stimulates that and keeps it working. And when you get the estrogen decrease in the perimenopause and menopause, that can go down by about 50%.

Studies show sometimes a big decrease in kind of the powerhouse energy in the brain and all over the body. So estrogen is quite powerful in things other than just sprouting those dendrites to make synapses.

So you can just see it's got all of these, activities in it that really help our brains and our bodies be their best. And then let's go into because we think you've established this is really important.

So before we skip it, I want to talk about progesterone because a lot of the emphasis is put on estrogen. But what about the other female hormones. So let's think about progesterone.

And when it comes into play now we always always have even men. We have a small amount of progesterone that's made by our adrenal glands all of our life.

So this is small like a little bit of a mountain. But the in females the major progesterone, the word pro is just around gestation. Just around means gestation.

It means pregnancy and holding a pregnancy Pro gestation. So it's the function of progesterone is to maintain a pregnancy. So of course now we call do day.

Let's go back to the menstrual cycle for a minute. Day one of bleeding is called day one of the menstrual cycle. So the first two weeks of the mental cycle is when the egg is first starting to be developed.

And usually 8 or 9 eggs start to develop at the same time. And they have a little race during those two weeks about which one's going to be first and which one's going to be the best and which one's going to get, obviously.

So all that time of the first couple of weeks of the menstrual cycle is when these eggs are developing and there's lots of estrogen being made in the follicles to, to help to develop the egg.

So as estrogen climbs and climbs during those first two weeks, a couple of days before ovulation, you get more

flirtatious, more sexually. It has a lot of behavioral effects in the brain, the hormone of estrogen going way up, but it also makes the egg pop out of its little sac where it's been developing down into your fallopian tube, and the little sac it leaves behind becomes a hormone producing engine to make progesterone.

Because it needs to keep progesterone, it keeps to keeps that keeps the whole lining of your uterus really plump and just keeps it ready to be there for the egg in case it gets fertilized.

So it really helps the egg implant if it gets fertilized. So that's what the progesterone is needed for. And that doesn't start until the egg pops out on let's say day 14 on average.

So day 14 when the egg pops out is when the progesterone starts to really climb. And what's happening in the brain at that time is quite interesting. So those last two weeks of the menstrual cycle, week three and four are the weeks when the progesterone is is the highest.

What they found is that all of those beautiful sprouting of all the dendrites and synapses in that big forest that estrogen has, like fertilized to grow progesterone actually, about 3 or 4 days after it starts pumping out, it actually acts a little bit like weedkiller or roundup.

And it it all of a sudden it shrinks back all of this overgrowth so it comes in and it prunes everything back a lot. So you can just imagine about all this action that's taken if you lift up the hood, look under the hood into your brain, this is what's going on.

And the on the weeks of your mental cycle. The last two weeks is when all of the those little synapses and branches are being cut back and the weed color is being put on.

So progesterone has that effect in the brain, which doesn't really have that much to do in some ways with our fertility. What's going on in your uterus?

Getting ready for the implantation of the egg. And remember, the last couple days of the menstrual cycle right before bleeding starts is the days we call the PMS days and my clinic.

We always call it the crying over dog food commercials. Days, which is the sensitivity that the the the decrease. It drops quickly. Progesterone drops like a rock.

Like are like taking a tablecloth from a on a table and just yanking it out. It drops very quickly and it can make your brain, more full.

Progesterone, PMS, and Perimenopause

It acts a little bit like, you know, Valium and our brain progesterone does. And so when it drops quickly, it's like you're in withdrawal. You're in progesterone.

Withdrawal makes you more irritable or more easily angered, more tearful, just your emotional increase. And I don't think that there's anything useful that Mother Nature made happen like that.

But anyway, my clinic is certainly full of my my wonderful patients who suffer from things like bad PMS happens at that time. So that's kind of a decent overview of what happens during our fertility years.

And then with menopause, what changes as progesterone drops as our ovaries are less able to produce that adequate progesterone. So of course, what happens as and so we are born with about a million eggs.

And then actually they just they start dying off from right after we're born, when we're little girls, we're losing a whole lot. By the time our period starts, we actually lost half a million eggs before we even start ovulating them.

So that's just kind of the way it works. But we're we're only giving we're alley where our 1 million eggs are issued at

the time of birth. And then by the time of menopause, you've like run out of, of your, of your eggs.

So that's kind of the time that the eggs have stopped. And why that's important is that as the eggs start to become, running out and less less of what we call viable because they have maybe too many mutations.

You know, women in their 40s have babies with more birth defects. You all everybody knows that. So the reason is, is because there's a lot of mutations in those leftover age aging follicle eggs.

And as that happens there, it's producing the little follicle. When the egg jumps out of ulation, the little follicle left behind sometimes doesn't make quite as much progesterone.

And actually what happens more and more during this stage of that, that perimenopause or the transition of those years between like 45 and early 50s, is that many of your cycles don't have any ovulation at all.

It'll start and build up the follicle may make some estrogen, but but the egg doesn't develop enough to be ovulated. So it's just like there's no ovulation.

And we call it an egg lift cycle. The reason that's important is there's no progesterone if there's no ovulation. So that matters because it means that your uterine lining is going to build up more and more and more and not flush out like it needs to at the end of your cycle when progesterone drops because you haven't had any progesterone.

So that's why a lot of women start to have really heavy bleeding at the the, you know, in their mid 40s to to mid 50s during this transition. So that's that's pedestrian's important progesterone.

Starts to get less and less and less as you go through the transition. My clinical experience has been that as people transition, and mood irritability.

And like you mentioned, it's like a drop in progesterone or maybe not even having enough. And you also mentioned that progesterone can be like Valium, right?

It helps us to sleep. And so both mood symptoms where estrogen has kind of more that like the hot flashes and maybe the vaginal dryness, the progesterone shows up as that irritability and the lack of sleep, which then of course makes us more irritable when we're when we're not getting good sleep.

So do you see that as well? Yes. So the symptoms the symptoms I just want this. That's the basic background of what happens in terms of your biology. And you know, progesterone in the brain actually converts into, a compound that actually hits the receptors that are like the valley and receptors in our brain.

You Gabba Gabba receptors, it hits all the Gabba receptors, and, it metabolizes into a drug, which we kind of for shorthand, we call it aloe. Aloe. So if you have progesterone in your brain, it'll start making this, this metabolite called aloe, that's the one that goes in, attaches to all of the receptors that we call the your endogenous or your own Valium receptors in your brain.

And of course that makes things more calm and makes you much, much, much less irritable in the middle of the last 3 or 4 weeks of your cycle. And then, of course, when that starts to drop quickly, the aloe starts to drop because the progesterone is gone.

That's when you get the irritability from having a drop in your progesterone. So a lot of women do a little bit better on a little bit of progesterone replacement during these transition studies for two reasons.

One is that you get much more, you get it modifies your uterine lining and doesn't let it build up so much from just having too much estrogen. And it also can can make you calmer.

But there's a caveat to that. There's certain women, lot of women who come to my clinic are almost they almost have what we call progesterone. It's almost like psychiatric poison.

They get quite at the suggestion. It's really hard for them to take for some reasons, and it can make them more depressed. So it's, you know, that's about maybe, maybe a fifth of women, 20% of women have a big sensitivity to progesterone.

So you have to be fair, this this is a very individual, custom made, one woman at a time, you know, helping each woman through their own transition. Yeah.

I think the, the theme becomes balance, right. And individualization. What's best for you and I, I almost imagine, it menopause or this transition is like you're on a magic carpet, right?

Like the. But the second you figure it out, everything gets ripped out from under you. And you have to just, like, hang on for the ride and be working with a really good clinician who can help you to troubleshoot these symptoms as they keep coming up, whether it's heavy bleeding or hot flashes or whatever comes next.

Absolutely. So I think that, it's important for each woman to have permission. I really encourage women. And like in my new book, I give in the appendix, I give a lot of like little tips on how to track certain things and how to track things and specific things to bring into your doctor so you can work together.

You really need a what I call a medical partner. During this time of your life. You need a medical partner. You don't do this. Not just any other, any doctor or anybody that does hormones that will do.

It has to be someone you trust as to be your medical partner and to listen as things change. Because, you know, things can change every couple of months during this time.

Just because that's what the biology is, is it's not that you're nuts. It's, you know, and it's and, you know, medical profession doesn't just usually deal well with things that change so fast as the perimenopause menopause transition.

So let's jump into hormone replacement. What effect does replacing hormones have on our brain. We kind of understand what's happening biologically and symptomatically as the hormones are dropping.

Now what if we support them? What happens. Well the the support. So if we are able to give women, estrogen replacement, I'll just I'll just focus for the minute on estrogen just because we know the most about it.

And of course, it, if you do have a uterus, you have to take progesterone as well during the transition. But let's let's focus on estrogen replacement.

So, finding a good balance in your estrogen replacement can be really helpful to your to your bones, your heart, your brain, your blood vessel. You know, lots of the cells in your body.

And the cool thing about brain health is the that I love. Is it that if you've got all these other organs functioning well, it always adds to to brain health and even even estrogen helps your microbiome in your gut.

Be at its healthiest with the best, best flora in your gut. That is really important also for brain health and keeping your inflammation and your total body down.

Because the brain does not like inflammation. And if there's inflammation in any part of the body, it will feed back to the brain, especially if there's inflammation in your gut.

So estrogen will help with like all of those things. So it's important to remember that that's the good news. And if you're thinking about brain health and cognition and dementia issues, studies have shown that, you know, estrogen does not treat dementia.

Estrogen does not treat Alzheimer's. And that it over the age of 60, if you start taking hormones that may actually make your dementia and cognitive symptoms worse, according to the study.

So if you're going to take it, it's really important to start taking it during what we call the transition years between the between the 40 and 50. Remember, 7% of women will go through menopause before age 45.

So there's a whole group that goes through early. So if you're one of those it's like important to just, you know, it is what it is and just get help.

Earlier than that. And the majority of women will go through between like 45 and 55. And then, then a tail end of women and 5 or 6% will go through after 55.

So that's kind of the, the spectrum of when women are going through this. And that's the time it's it's not necessary.

Hormone Replacement Therapy and the WHI Debate

As a matter of fact, it's probably if you're going to take estrogen, it's not advantageous to wait until you've stopped your periods to start taking it is probably best to start taking it in the late transition.

Or you can just kind of think of the bracket of your age group between somewhere between 45 and 50. If you're going to take estrogen, that's the best time to really take it in terms of your cognitive and overall health.

And, you know, that's that's a that's a tough one because we'll talk about the doctors not wanting to go that direction for various reasons. Right now.

It's not not, hasn't become as, understood and robust an area as we hope that it will become. Right, right. Well, let's go there, because there are a lot of women, certainly who I interact with clinically, who have a lot of fear of estrogen replacement.

And a lot of this, I think, was far from the Women's Health Initiative trial that was ended early. There are a lot of variables there and a lot of, I think looking back, as people have looked at the data again, there are some clarifying, assessments that have been made or adjustments to the interpretation.

So will you dig into that? So let's talk about the five just for a minute, because I think that's where since it's 20 it's actually it's 20th birthday just happened.

It's been 20 years. And I go in my book, I go into a little discussion, a short discussion of this, just to help people get a snapshot of what it was, what it is, and where we are now, because things have changed a great deal.

So the thing to me, remember is that the women that were given the hormone replacement were an average age when they started giving it to them, average age of 60, 64.

And remember what I just said about if you start giving women over 60, hormone replacement, you can actually make their cognition worse. So there's, there's that piece.

But also the women in the study, the, the divisions of women that got the hormones, actually, they were slightly more smokers in that group. There were more women who had already had a heart attack or a stroke in that group.

So the data was really messy. And also, very importantly, there were they did not weed out women that had genetic family history of breast cancer. So they didn't take the women out with the bracket.

1 or 2 genes that we now know are the one category where we still do not recommend women take hormones. If you have the bracket gene mutation, which means you'll have a 7,880% chance of getting breast cancer.

So you need to there's all kinds of great things to do for that. And there's other things we can help you with if you're in that category. So don't worry that there's nothing to do but other than that, so they didn't take those women out in the study.

So you can see there's all kinds of big troubles with it. And then when they released it, they had a small amount in the women taking estrogen plus progesterone group.

There was a small increase in breast cancer. And the media took it and really ran with it, and it exploded. And within, you know, within a few months, doctors were all, you know, alarmed and the immediate alarmed.

All the doctors and things just shut down, went on very quickly. I still remember hearing an interview from the person, the woman that was the editor at that time of the New England Journal of Medicine, you know, was on a radio show basically saying, oh, you know, we just have to stop giving all women this.

And I stopped taking it myself. And, you know, so it really went down. And by, by the year, by the year 2008, there only 5% of women taking hormone replacement therapy.

Where it might have extended as well was that that was not bioidentical hormone replacement. So that's one of the other variables. I'm curious your take on that.

And then also a lot of it was oral estrogen, which it feels pretty clear. My understanding of the literature is that we shouldn't be taking estrogen orally.

It should be topical, or through other routes of administration. Is that accurate? So let's do a deeper dive into the the other aspects of that. So the selection of the women, you know, was not not a very pristine study was a mess.

And if you went to what they gave them. So there's an old fashioned synthetic progesterone called Maddox's progesterone. And actually it hasn't been given for over 30 years in Europe.

They stopped giving it to women for all kinds of having all kinds of problems. So that's the progesterone that was given in this combination. So, this thought that that may have had a big factor when giving it also with what's called C, which is conjugated estrogen.

There was remember the also remember the horse. The pregnant horses have a lot of estrogen. And that's the major compound before they knew how to synthesize it.

That's where we got hormone replacement is from pregnant pregnant horses pregnant mares, urine. We basically the companies put it in a little pill called and and which still exist today.

And it's not a bad thing is is it. That's that was combined with this other thing called the drugs progesterone. That combination seems to, have had, it probably had a lot of nefarious effects in that women that, that ended up taking it.

And some of the results, particularly for heart disease and for the breast cancer, seems to have caused a slight bit more. Now the women only on the estrogen, only on estrogen, even though it was primarily male, the conjugated estrogen, even though it was that estrogen actually had a less amount of breast cancer in the big study.

So, you can see that it was it was fairly messy study. So it's it's pretty much, I guess, all the things that have been debunked. But we know much more about it and we really so the the bottom line about the breast cancer now is that if you take the hormones, if you take HRT for the 5.6 years, is how they've measured it so far, they measure up to their you only have a 0.1% chance of having breast cancer.

And that is that's considered almost an insignificant difference from the other group. So basically 5 or 6 years of taking it during the transition for your hot flushes, your sleep, your bones, whatever it is.

And even for cognition, it's been shown that even if you take it for that 5 or 6 years, you will have long term better effects for your cognition. Now, we don't entirely understand why.

So women they've it's kind of been expanded to being a 9 or 10 year block of time that, that most doctors are

feeling comfortable prescribing, HRT to women right now.

Tell me, like we missed anything. Did I do to drop a stitch there that we needed to talk about the oral, the oral estrogen versus topical? I'm curious your thoughts there.

So important, so important. So like me, I take the patch, I'm on the estrogen patch and I've had a hysterectomy. So I do not need to take progesterone, which I'm very grateful for.

So we'll talk about that for just a minute. The patches or the non oral. So to take an oral pill of of estrogen basically it stimulates your liver. And it's not a bad thing necessarily but it causes it to make all of these what's called these very sticky big binding proteins that can decrease or change a lot of other either drugs or hormones in your body.

So something about the oral gives, more chance of clots and strokes. At least that and it will also, because of those big sticky proteins that makes it'll make your own body's testosterone and other hormones go down very low, even your thyroid hormone.

So if you're a woman that's taking thyroid hormone, if you're taking if you start to take oral estrogen. So the pill that was the amount of your, your, thyroid hormone may need to be adjusted upwards because you've got all these extra binding globulins, that the estrogen is making.

So the cleanest way to do it is to give either topical or patch, type or, or vaginally. There's a few other ways to take it. And even the, even the implants are, you know, anything that's not going through your stomach is considered the, the safer way to take it at this point in time.

And you talked a bit about who should not take estrogen. And this is like a Barack, a positive somebody who's clearly at risk for breast cancer. Probably also, people who have a personal history of breast cancer.

So if you've already had it, then you want to avoid taking estrogens. Yeah. And then who else can kind of firmly be in the camp of like, it's just not worth the risk.

So, you know, if you have a clotting disorder of some kind that runs in your family, where you're going to end up throwing clots in your lungs, your brain having stroke, that kind of thing if you have a clotting disorder or which would, you know, doctors don't want I mean, it's very, very important to not take it if you have a family history or you, you yourself are affected by a clotting disorder.

Is is one of the other, reasons not to take it. And so if you have, also if you have different types of cardiovascular disease, it's good to check with your cardiologist about whether it would be helpful to use.

Sometimes estrogen is very helpful. And cardiologists do recommend that their women patients take it for, actually being more helpful for cardiac disease.

So it's something that you have to really discuss with your doctor, depending on what other underlying diseases you have to do, like osteoporosis. So osteoporosis is like it's, miracle.

It's an estrogen. Is estrogen builds strong bones. And it's what it's what keeps your bones strong.

Who Should Avoid Estrogen and Risk Testing

And there was in the 1980s and 90s actually, the protocol for giving women with, thin bones or with that was age 78, they recommended was the ideal time for women to start taking estrogen to help them, have prevention for having their bones considered to deteriorate.

So at 78 is if if is like the magical, like time where you would have the fewest side effects for the most benefit, which was of course, we don't do that anymore, but it just kind of gives you a little snapshot, of course, how medicine changes, but that the the age at which your bones really start to deteriorate cause you problems can be in your mid

70s.

But if you've been taking estrogen all along, which I plan to continue doing, you know your bones, will stay the healthiest they can stay. And so I feel very badly for all the women.

And in the last 20 years that didn't have access to estrogen, that got ripped off there and now, in their 70s, have osteoporosis. I think it's I think it's I think it's criminal.

I feel very badly that it could have been prevented. It's so challenging as a clinician, right, to see like the ramifications of, yeah. When, when things get misconstrued.

So what, tests exist. So, like, how can we again, you and I are both clinicians, so like, what? What test can we run? What labs can we run to understand and help our patients understand where that risk benefit analysis lies for that individual?

So, let's see where we could go with that. You might have something particular in mind, like the apple wafers or the, you know, I mean, just thinking about like, like if you wanted to do a risk profile for yourself, for, let's say, cognition and maintaining cognition and preventing Alzheimer's is your goal, particularly if you have a family history of it.

So if you're in the category where your mother, your grandmother, your aunts or uncles, have Alzheimer's, one thing you might consider doing to help yourself is to get a test for whether you have the Apple E4 variant or not.

Now, I don't recommend that for everybody, and I describe that in my book about who should and who shouldn't because, if you don't have a lot of Alzheimer's in your family and you're not at risk getting that test and finding something out that you don't want to know might not be the best for your brain.

But if you're in the category where you have a family history of it and you find out that you are Apple E4 variant positive, either you have one, or particularly the up to about 2 or 3% of the population has has the two, which means you're at in the highest risk group for getting Alzheimer's.

On the basis of your Alpha E4 variant, if that is you and you don't have any other contraindications to taking HRT, taking estrogen, that I would get yourself to a doctor and get yourself on HRT because it's one of the things including, remember, you know, 3 or 4 times a week getting getting moderate cardiovascular exercise to having the the Mediterranean diet with very healthy, healthy fats in that as well as feeding the low carbs.

Now there's a lot of dietary and exercise getting the best sleep you can get. Remember, sleep is is critical to brain function. So all of the other things that you have in your control to do, and this is one of them, even though you get the test and you find out your Apple E4 positive, then you have action that you can do.

And one of those actions is to be taking estrogen replacement. And then I hear you're a bit cautious about progesterone. And yet progesterone really helps a lot of women get better sleep, which like you mentioned is so critical for brain health.

So where's the risk benefit analysis from your perspective? There. Well so the progesterone you know if you. So by the way a lot of women get their their will get a compounded formula for their cream for their estrogen replacement.

And the compounding pharmacy will put everything in one. They'll put the estrogen in at the for the for just run it. And if you're going to be on either testosterone or DHEA, they'll put that in it.

And those are those are hormones that will help your DHEA and testosterone, your your muscle power and also your libido. But they may put it all in there together once, and you may be slapping it on first thing in the morning.

And the progesterone is in that, which may make you a little more sedated, but you would rather have them separated, because taking progesterone before bed and oral progesterone doesn't seem to have much of a

problem.

I mean, a lot of women would rather take it, on a cream, but it's great to take it at night before before sleep, because it will help you get better sleep.

It relaxes you and helps you get sleep. So if you're going to be if you have a uterus, you have to take progesterone, you might as well just take your progesterone as a sleeping pill so you get a two for one there.

It works amazingly well for so many postmenopausal women, but it sounds like I mean, you mentioned that you were glad that you didn't need to take it.

So, I, you know, I'm as a clinician and I'm learning from you and I don't have the same concerns, but maybe I should. Where is the the risk? There? Okay.

So in the, in the, in the big studies the estrogen plus progesterone together those those two taking estrogen alone seems to have more beneficial effects.

And all the longer term studies if you don't have to take progesterone. So that's just I think I don't know where it is in the country at this point. But it's about it's kind of roughly in a lot of areas, about 25%, 20 to 25% of women that have had hysterectomy because I had mine, because a big fibroids that were pressing on my bladder and, it was like, you know, it was either get them out soon or had them get too big.

And I got to have them taken out vaginally, like, like if you don't have to have the the abdominal surgery, that's that's also good. So, no, I don't think that it's, it's, it's just that, I think a little bit of progesterone.

For at bedtime and that kind of stuff, even for women sometimes who've had hysterectomy. So it can help them. They feel better. Yeah. And that's and because what we understood about that increased risk, that was with the mid track C progesterone. Right.

So do we know if the same risk would be there if we're using by like an oral micro production I read in the natural progesterone, the natural progesterone that that we have now available either you know by compounding pharmacy or, you know, by prescription are fine.

And they, they really they don't. There's probably a small bump and some correlations with, with things, but it's very small. So we really don't we we're not worrying for women who take the I remember the word.

The word bioidentical is an important word to know about. It basically means that the molecule is the same as the molecule that's made by your ovary, but it's also synthetically made in a factory.

So it's that molecule is synthetically made in a factor three. And it's called bioidentical because it's the same exact shape. And as the ones that are made by your ovaries.

So that's what bioidentical means. And of course when your ovaries making it, you're not taking it by mouth, you're not putting on a patch or cream and that kind of stuff.

So the bioidentical it's important to remember that it's not it's not somehow magically made from somebodies ovaries. It's it's made in a factory, just like the synthetic ones are.

But that synthetic progesterone, the synthetic hormones have a different have a different shape than the ones in your body. So we we really try if we can possibly.

And you know, each woman needs to test drive these. I've had some of my patients do a little bit better on certain synthetic ones, because they're not doing well on the bioidentical ones.

So you can switch back and forth and find out what works best for you. But I think as a kind of a basic approach, I

like to start with the bioidentical ones, and use it either as a cream or a patch form.

I think that's, much safer way to go in the natural progesterone. Of course, the way I explain it to patients, it's it's like if you have a cell that has a receptor for those estrogens or progesterone, then if you have the exact same thing sitting down on that receptor site, then we have some way we can approximate the natural system and we can anticipate what the cascade of biochemical events in that cell will be, versus when we use something with a different molecular structure.

It sits down in that same receptor site, but it's less predictable in terms of how the cell is going to respond or what cascade or flood potentially, of estrogenic events or progestin genic events are going to happen next.

And is that sort of how you think of it as well? Yeah. The receptors in our bodies, and of course, you think about all kinds of other things that we use, like antibiotics, all kinds of other drugs.

They're all made to fit certain receptors that we already have. So even the synthetic ones, you know, will fit certain receptors, but in a slightly different way.

So but the, the way to keep balance and harmony in the system is best is to use what's already like. It's already used to, it's already got the receptors for and you're not going to jiggle other things.

There's three there's seven different types of estrogen in the in premiere. And for example, and the one that comes from the horses and there's three in that that we that humans don't even make.

So by taking that you've got and but coincidentally, some of the doctors who do cognition research found that those three are more powerful for cognition in the brain than our own natural ones.

So who knows what the future will hold with that? But yes, it's that you're absolutely right that the receptors that we already have that are made for those, why not just start there and see how you do with with the ones that are going to keep you in the most harmony, the most the best balance.

So we talked a little bit about sleep and exercise. But I'm curious from your perspective, what other preventive or brain healthy measures should women be taking as they approach the menopausal transition?

Or even maybe after the menopausal transition?

Sleep, Sleep Apnea, and Cognitive Protection

So I think, let's just this pause, this just to pause for one beat on the sleep issue, because I think we can't emphasize that enough. And one of the things to know about that is that we have these really, you know, the brain, we used to think that the brain was like mostly made up of neurons, and there were more neurons in the brain than anything else, but actually there's a competing type of cell that's actually as many or more than neurons in the brain that are in the category called glia cells.

So they're called astrocytes and micro glia. And that's those are the technical names for them. But they're really important to make you make friends with these guys, because they are the ones that keep the blood brain barrier intact and the other ones that go around at night time.

So at nighttime when you sleep, and this is the issue about sleep. So the cells during the day are all puffed up. They're communicating with each other and the synapses.

And as they're firing, they're making all these sort of gunky protein, you know, proteins and making a lot of trash, a lot of trash do proteins. And that's the garbage that needs to get taken out at night when you sleep.

So those cells that the astrocytes and microglia help to garden and clean out those and take out the trash at night, the cells actually kind of shrink back a little bit from each other at night.

And there's this big river of lymphatic tissue and the, the, the, the cerebrovascular fluid that flushes all that trash out when you sleep. So if you're not sleeping, you're not taking out the trash in your brain to have it refreshed the next day.

So I just wanted to really do a deep dive on why sleep is critical to your cognition and to your healthy brain. And then are you also aggressively referring to sleep medicine and getting people to treat sleep apnea?

So, so many people end up with sleep apnea. And the combination of the combination of drinking alcohol at night and sleep apnea is a very bad combination because I know, I know for myself, I don't I don't do well anymore.

And since since the menopause with alcohol or at night, because it will actually maybe put you to sleep, but then it wakes you up in the middle of the night.

If you're drinking alcohol, like say, after 6 p.m.. So if you're going to have a glass of wine, it didn't do it really early. Before you got way before four hours or so, before you got to sleep.

Yes. So, I'm think that was the question you asked. What was it again? I was thinking, oh, that is. And and treating aggressively, treating sleep apnea so important because what happens, of course, is you don't want to starve your brain at night of oxygen.

And that's what happens if you have sleep apnea. So that's why your throat basically kind of it gets it closes up and is if you're like choking, coughing or your partner says you're really snoring a lot at night, if you're a snorer and you really need to get yourself your sleep looked at and assessed by, sleep medicine or sleep clinic because it will, end up depriving your brain of oxygen at night, which you really need to, to have it rejuvenate.

So, yeah, sleep apnea is a very common diagnosis. I don't know how often you find your patients with it, but the the snoring is the number one, like a little bit, you know, you don't usually know.

It's your partner knows or maybe your partner's snoring too, and they don't know, but, there's all kinds of little apps that you can wear now or things that you can figure out whether you're snoring or not.

And so get it treated, because it's such an easy thing to have better cognition if you've got sleep apnea and to get it treated, and then your little all those little cells and the rivers can flush out all the trash from your brain while you're sleeping, so you can wake up with a refresh oxygenated brain.

We screened essentially everyone in my clinic if they're having any sort of cognitive decline, because I think we think of the classic sleep apnea patient as overweight and male.

And and that's part of why they have sleep apnea is because, you know, they they were punched in the nose when they were 16. And so they've got a deviated septum and they're overweight now and they can't breathe at night.

But it's so many of my thin women also have sleep apnea and they don't realize that they snore. And so just getting that assessment either through a watch or there's we use watch Pat.

Right now, which is an at home sleep study. It's relatively good getting them into sleep medicine, doing what we need to do to really understand if that's part of the equation, because as you said, it's just so I mean, all of these pieces are critical, but it it sleep is really critical to getting that good cognitive function back.

And what we see is that great quick change as well. Just feeling rested during the day. I mean, you and I certainly can relate to being sleep deprived.

I have a I have a child and like those years of sleep deprivation, when she was a newborn, my brain, I had like half capacity and then getting sleep back like you turned back on.

And so I think no matter what stage of life, we can all relate to that lack of really sharp cognitive function in the

morning if we haven't gotten good sleep.

And so figuring out why and then treating it is so, so crucial. My best girlfriend and I went to the store that we went to. We went to a spa together and we we shared a room.

We did a double room, whatever, you know, and I'd known her for, you know, forever. We did our training and stuff together and, and, and she was from Albuquerque and I'm from the Bay area, and we flew together and like, the first night just snoring like crazy.

And I thought, oh, my God, I can't do this for a week. I'm, you know, whatever. And I didn't have my earplugs with me. I thought, oh my God. And I said, I said, I said, Adrian, do you know that you snore?

She goes, really, I do. Bob's never said we should've been married for, you know, for whatever number of years. This mom never said anything about me snoring, whatever.

And I had to get a separate room. But she never knew until that point that she snore. And then she got worked up. And, of course, you know, she had the sleep apnea, which is, you know, it's so sometimes you don't know.

And your partner, she says, well, he snores too and whatever, you know. So you, you, Yeah, you may you may not know if you will. And rather than writing off snoring is something that's normal.

That should be I mean, this is something that we ask everyone in my clinic is, are do you snore? Do you know if you started? At least if you do, don't read it off as normal.

Make that the trigger that that makes you get a sleep study, or at least makes you wear a watch that tracks your O2 sats at night so that you have a sense of whether or not this is something contributing.

Absolutely. So that's I mean, that's like that's cognition 101. So there's so if you do have a if you do let's say let's say that you're going to get your ApoE4 variant measured because your family has it.

You're going to figure out your sleep apnea status whether you snore or not. Get you get the watch that measures your your O2 SATs all night long. Just take a look at that.

You know, you're exercising and you're eating a mediterranean diet. You get your microbiome in good shape, meaning that you eat a lot of healthy fibers.

I mean, you don't necessarily need to load up your body with a lot of, you know, fancy, you know, pre and probiotics, unless you've had a lot of antibiotics for some reason, you need to rebuild it again, but rebuild it with your own diet.

And maybe taking a few supplements for the probiotics. And and the fibers may help depending on your individual situation. So get everything from the inside out really buffed up and get your sleep up and over-the-counter medications.

Can we talk about that for a minute? Because that can be a cognitive killer. And people don't realize it because it's not a prescription medication. The doctor, you know, it's like we take them a lot.

You take that, you take antihistamines, you can take over-the-counter sleep medications and, you know, Benadryl. Let's talk about just Benadryl. And I talk a lot about the Benadryl in my book because I have had a few patients come in.

I talk I talk about my patients stories in the book. And one who came in and she was, you know, she was basically having word finding problems. And, you know, she was really not following and tracking stuff at work very well.

And she was, of course, also she was in the transition in the perimenopause. And so everything was happening at

once. But come to find out, she was taking 50mg of Benadryl in and, you know, she was taking Tylenol PM or PM, you know, a couple of those the night before she went to sleep.

And so those what they do. So let's talk about the basics of why those are bad not bad for your cognition. So there's a really important wonderful chemical in our brain called acetylcholine.

It's a long name but acetylcholine you should make your friend because it helps with cognition and memory. And any medicines that are what called anticholinergic.

They they block that and so you can't use your own memory. Chemicals neurochemicals for your brain power. So things like Benadryl and antihistamines, many over-the-counter things look at them if it has diphenhydramine in it, which is the the generic name for Benadryl will read your labels because it may have something in it that's going to be causing you cognitive problems.

I don't know if you find that in your practice or not, but I yeah, absolutely. I'm so glad that you brought this up. A lot of people are familiar with the acetylcholinesterase inhibitors when we're talking about dementia.

These are the medications that are typically used by neurology. They're questionably helpful. But, they are basically what they do is they enhance the amount of a you're calling in those synapses.

So where those neurons connect and when we reduce the amount of acetylcholine in the brain, we have in fact, this is where some of those medications came from.

Is this that they were studying people who had, cognition issues and what they saw is that they had low acetylcholine. And so when we maintain more of this in the synapse, you get symptoms and an improvement in memory, at least temporarily, with those medications.

Now, if we are unintentionally doing the opposite by taking an antihistamine that also has anticholinergic effects, we are reducing cognitive function, especially if it becomes habitual and you're taking it over and over again.

So probably a little bit less risky than like the benzodiazepines and how they affect cognition. But still an important consideration. So if we can you know, if our list of of sleep support is progesterone anti histamines that have anti clinical and cholinergic effects or benzodiazepines, we probably want to reach for the progesterone if that's an option.

Absolutely. And I think isn't it interesting though how we've discovered I mean really Doctor Sanderson we in this area for our clinics find that the sleep issues are the way in which people get stuck on these benzodiazepines like, like Valium or, and even the other ones like the Ambien and the, you know, I know those are over-the-counter sleep medications that that really hurt your cognition over time.

So it's like a double whammy. You're not sleeping, but you're taking these sleeping medications that are making you, you're decreasing your cognition.

So I feel like, you know, the real one of the cornerstones of cognitive medicine has to be the the sleep assessment in the clinic. Yeah. And prioritizing sleep, you know, society is set up to make us overstressed and eating late at night and not getting enough exercise.

Lifestyle Strategies and the Promise of Midlife

And and then the blue lights, of course, it's easy to watch TV or watch something stressful. That news. And then we're not. We're not, protecting the quality of our sleep.

So kind of having conversations, like you said, with a medical partner who can help you identify the sleep hygiene strategies and get you that higher quality sleep.

I think, again, absolutely crucial. So yeah, I give it, I give I a tip in the in in the book I call it loon sleep program. I tell I give them my own sleep program.

So one of the things I like so basically, you know, you get bright light in the morning when you first get up, and you see if you if you really I mean, if you really want to be clean about it, you basically stop stop using caffeine because that especially in the female brain, will even affect you 12 hours later trying to get to sleep.

So you get some bright light in the morning. You get a certain amount of exercise before 3:00 in the afternoon, where you're feeling enough exercise to make you sort of tired, and you you decrease your alcohol, preferably to zero, because alcohol will increase alcohol with hormones, increases your risk of breast cancer just by itself.

So that's a whole nother issue. So if you can drop it all together that's that's really wonderful. And you don't take the sleep medications because those are really messed up, taking your hormones and, you know, basically not eating too close to dinner time is really also important.

So a time, right, like allowing three hours between that last bite of food and then going to bed. Yeah. So there's this I mean, there's a whole lot of things that you can actually do for yourself that you may not be able to do it all at once.

I mean, it's a big it was like it was a it was a real slog for me to get over to the not taking the not taking the caffeine, but, I had to do it for some.

I was starting to have some stomach problems as well, and so they told me I had to get off the caffeine for that. So I actually, I don't know, green tea or green tea or matcha.

I feel like every time I read any study about green tea, there's another reason it's bone health. Or, you know, the EGCg is good for cognitive function.

Do you have any thoughts about is there some form of caffeine, especially as someone's maybe transitioning to five milligrams of caffeine and or something and green tea and that kind of so, so that's and then a big chunk of, a cup of coffee is about one 50mg.

So it's about half. That's what's in a cup of coffee or something. So, you know, it's so it's not nothing. And, you know, the issue of, like, there's a whole lot of areas in cognitive health where there actually using caffeine, they're actually using nicotine.

Nicotine is one of the best things for cognition that they've used. So, you know, there's some stuff that we kind of think of as being bad, that bad that may turn out in a lot of clinical studies to be better.

So I would say my my message to people right now is do everything that we know now works. But stay tuned because it's a lot coming down the pike. And the issue of taking estrogen for your for dementia prevention in women is, is the jury is still out, but and there's a new big study that just started and probably in the next 4 or 5 years will have some evidence about if estrogen taking it out.

The transition will help prevent onset of of dementia or Alzheimer's. So stay tuned for that. But right now we know that it's good for your bones. It's good for your good for your brain, good for your cardiovascular system.

And in all likelihood, it's really it's good for your cognition. This is so hopeful. And you're right. We're at this. You know, we're at this really exciting time in Alzheimer's research and and in women's health research as well, where I think there's a lot of a lot of reasons to be very hopeful and optimistic about what the future holds.

And with this, that's why I call it that's why I call my my book The Upgrade. Because there's so many cool things that happen in your brain once you get out of that cycling hormone thing and you basically get very consistent and stable, you get more direct.

You can, you know, really embrace your authentic self and really take very good care of yourself. So there's a lot of really good things that come and you start to get more focus because you discover you can't do multitasking or several things at once because your brain won't allow you.

So you get really focused and you can become more direct. Stop being so much of a perfectionist and a people, please. You know, there's lots of really, really good things for that are coming on with your your brain after 50, shall we say.

So take hope, ladies. Take hope. Oh, exciting. Well, thank you so, so much for being here today. I want everybody to know where they can find your latest book.

And you're still working as a clinician. So if someone wants to become a patient of yours, is that an option. Is there an online. No, I'm right now I'm mostly mostly I'm supervising.

So I'm like I've moved up to the to the more of the kind of administrative level. So there's lots of people that are, really working in this area. And, we refer people all the time to all of my more former students.

I've been training students for the last 25 or 30 years in the Bay area. So there are many of my students that are out there wonderfully practicing in the area of psychiatry, and they've learned about, like, the brain and hormones in a way that most doctors are not trained.

So and then your book is called The Upgrade, and it's available by the time this goes live will be available everywhere books are sold. And so, I had online and, and I went to just spell your last name.

So first name is Doctor Luan OÜ and N and last name Bry D and E Doctor Luan Resending. And again the upgrade how the female brain gets stronger and better in midlife and and beyond.

So such a contribution to what we know and breaking it down so that women understand it in the context of of like we've been talking about sleep and exercise and life and making sure that our brains are turned on for those that sunset of our lives.

Yes. The best. The second half is the best half, as far as I'm concerned. It's really definitely an upgrade. So I'm wishing all of your all the listeners to go out there and get ready for your upgrade.

How wonderful. Thank you again. Thanks for having me.