Enhancing Fertility Naturally: Insights Into Epigenetics, Sleep, And Nutrition Transcript

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Introduction to Fertility Trends

Welcome back to ADHD, Autism and Chronic Disease Parenting Summit. I'm here with the amazing Cleopatra campervan, who is the founder of the Fertility and Pregnancy Institute and just a wonderful practitioner.

And I absolutely love talking to you. Had a great conversation recently on your event, and I'm excited to chat with you again about fertility. Thanks for being. Thank you.

Thank you. It's so good to be here with you again, Doctor Gator. Well, let's just, you know, jump right in and talk about fertility. I know that it's kind of a big issue these days.

I mean, we're seeing it's all over the news that sperm count is going down, worried about having kids. People are not having as many kids. Maybe nobody's going to be having kids in 20 years.

You know what's going on? What? What what are you what are you seeing? All of that. And I have goosebumps just listening to that summary, because that really is the state of fertility.

I was recently asked to give a state of fertility address, and the state doesn't look very good. But I also want to say that thankfully, there's a lot that we can do to improve the state of our own individual fertility.

And so I think let's let's let me give you a little summary of what the norm is looking like right now and then what's possible for us, because when it comes to fertility, just like when it comes to childhood health, and I know that you and I share this perspective in common, Doctor Gator, we don't want to be doing what the norm is, because what the norm is, is really getting people into a hard situation.

So I'll tell you the norm, and then I'll tell you what we can do about it. So the norm is that fertility today and the average twentysomething woman is poorer than her grandmothers fertility was at the age of 35.

This is despite the fact that her grandmother's generation only lived, on average, to the age of 59 years old. So at that time, women were staying fertile for a much larger percentage of their lifespan.

And when they were younger, their fertility was working a lot better than the fertility it is working today of young people.

Declining Fertility and Childhood Health

And this isn't just a female issue, because we've also seen male fertility declining significantly. So in the past four decades, sperm count has dropped by more than 50%.

And it it's still within the normal range on average. But if that rate of decline continues, it will soon fall out of the normal range for the average male.

We're not even talking about men in a clinical setting who are known to have fertility challenges. We're talking about the average man. So the average man and the average woman and the average person.

And I don't mean to only use binary, division of sex or gender, but I'm simply talking about people with ovaries who release eggs and people with testes who release sperm because those are the people who for whom we have data.

And what we see is that there's a tremendous decline in fertility across the board. And it coincides with this other really alarming trend, which you talk about a lot, Doctor Gaiter, which is that childhood health is also rapidly declining, such that almost one out of every two children has a chronic mental or physical health condition.

And the majority of adults have a chronic, at least one chronic mental or physical health condition. And these. It's not a coincidence that we're seeing these two trends at the same time.

They share the same root causes and so while somebody might be very focused on figuring out how to overcome infertility so that they can have a baby, or we want to be doing all the things that we do in service of our healthiest fertility, so that also we can program our healthy pregnancies and we can program our healthiest children.

That's what we call super babies at the Fertility and Pregnancy Institute. And when I say the term super baby first, it makes me really happy. It's hard not to smile when you say the term super baby, but I also think it's really important to note that it's not a comparison of one person's baby being better than another person's baby.

It is simply saying that we get to have the healthiest baby that we can possibly have. So the healthiest, happiest, and brightest, most neuro cognitively strong and resilient to the stresses of the modern world, baby that we can possibly have given our genome, which we can't change, our control and our epigenome, which we do have the ability to shape and control and that of the other person providing DNA for our super babies.

So that's what I mean by super babies. And when we engage in the activities, the Prime minister activities, as we call them, that allow us to have our super babies, it also allows us to have the best fertility that we can possibly have.

And I think it's really important to say that just because something has become the norm or is normal, doesn't mean that it's the way that things should be.

Or let me say that differently. Just because something has become the norm doesn't mean it is normal. It is not normal for children to be born unhealthy.

Children are born perfect. Unfortunately, as organisms with the wear and tear of day to day living and day to day stressors and the just normal cellular processes we become, we experience wear and tear.

We become often on average, less healthy over time. There are a lot of things that we can do to slow that process as much as possible, but that is essentially what the aging process is.

That buildup of wear and tear. However, what's happening is that our children, children, that children in general are being born with and accumulate lation of wear and tear that is so far beyond their months or years.

And this should not be happening. And, you know, in 2013, I was the first scientist to publish the concept that our aging begins before we're born and even before we're conceived.

Epigenetics, Age, and Biological Fertility

At that time, I was a very new, young professor, the first woman of color to ever be on the tenure track in history at the USC Davis School. And you can imagine I was only 31 years old, or when I started, not 31 when I published that, that was a couple of years later.

But I was so ridiculed for this idea. And actually, now we know that it is absolutely accurate. And yes, exactly. And isn't that that's what happens to people who are very forward thinking and connecting dots that haven't yet been connected.

You're at first you're you know, it's a little crazy. And especially in medicine, especially in science. And that that too, especially lately you're is becoming more and more of an issue.

And then you add on top of it, being a young woman, add on top of it being a woman of color. Women of color scientists make up less than 0.00 1% of the world's population.

So you're not fighting an easy battle there. But it was my responsibility seeing these connections to say we have to be paying attention to this. We have to be doing something about this, and we have to know what is within our power as individuals to change this trajectory.

Otherwise, the future that we're looking at is really, really rough and, so I want to say fertility is a huge topic. And when someone wants a baby and they can't have a baby, it is one of the most devastating experiences a human being can have.

And fertility and the trends that we're seeing in for massive fertility declines across biological sex is a symptom of this bigger problem that we face as a society and as a world that is also contributing to the outcomes that we're seeing in children to declines in life expectancy for the first time.

So we want to be addressing these root causes so that we can get pregnant, stay pregnant, have our super babies, but also so that they can have a long, healthy life and we can have a long, healthy life because all of these things are intertwined, for sure.

And in your experience, you know, you work with a lot of, individuals who are trying to get pregnant and working on pregnancy. What are some of the things that you have found that are more easily modifiable for, for, for people that are now mindful of this, so that they're mindful that there are things that you can do?

What are some of the, you know, low hanging fruit things that people should be mindful of, that maybe they can start making some changes. And I don't know. Again, everything is everything is individual.

Everything is specific to that person. But there's still some common trends that I'm sure you've seen. So what are some of those things that that jump out to you as like, okay, well we should be thinking about diet or, or stress or whatever it is that you found most, most helpful for people when they're looking to kind of navigate that, that road to begin with.

Absolutely. That's a great question. Let me first speak into the bio individuality part. So I want to bring up this image of a cell phone. And let's say let's say we have an iPhone and we all need our iPhone to have certain functions.

We need it to be able to receive calls for us to dial out and make calls, receive text messages, send text messages, get online. Right. So we all share those things in common, and then we each have a particular set of apps that reflect our interests, our commitments, our lifestyle, our personality, etc.

and your apps, your. We said we share the foundations. They're the same for my phone and your phone. But your apps probably look different from my apps.

And the same thing is true when it comes to our fertility. So we have some foundations that apply across the board, and then we have a few apps that are unique to each of us that we need to be focusing on, or levers that are unique to each of us that we need to be focusing on.

So one of the things that most people don't know about is the role of epigenetics in their fertility and pregnancy outcomes, and in the intergenerational transmission of health, which means the health that they're passing down to their children, grandchildren and great grandchildren and probably beyond.

So that's one thing, and that's across the board. And that there there is that's an umbrella for many different things that modify the way our genes express themselves.

So I'm going to come back to that in just a second. But I want to highlight one other thing that's related to epigenetics, but is very much on the minds of people when they're worried about their fertility, which is age.

A lot of people are worried about age because they feel like they've delayed. They've waited longer to have children, and there are all these messages when you're 35, when you're 35, plus you're it's a geriatric pregnancy, advanced maternal age, you're over the hill, etc.

then when you're 40 plus, you're like totally out of luck. You know, when you're when you're 41 or 42 plus, well, good luck. And then when you're 44 or 45 plus the demographic studies don't even include you in the reproductive age category anymore.

Right? So this is really, really important because we are so programed with these messages and they live inside of us and they have a profound impact on what we believe to be possible for us in our bodies.

So I want to let me speak into age because it's a little bit more straightforward. And then I'll go into the bigger topic of epigenetics. Although as I said, they're very much intertwined with one another.

And I'll make those connections for you. So age is the number one predictor of fertility. So I'm not saying that age is not important, but what is more important is understanding the distinction between chronological age and biological epigenetic reproductive age.

So chronological age, just like our genes we have no control over. We were born with the genes we're always going to have. We were born the day that we we were always going to have been born right.

For the rest of this lifetime. I will always have been born on July 16th in the year 1978. I'm turning 46 this year. Okay. I have no control over that.

What I do have control over is my biological age. So how old I am as an organism and this has a profound impact on our fertility and our fertility possibilities.

And so it's it shouldn't surprise us, right? We see every day people who we look at and at face value, they look very young for their age, or maybe they look very old for their age, or maybe they look about their age.

That's a reflection. It's not a perfect reflection, but is a reflection to some degree of what's happening on the inside. So it's not a 1 to 1 correlation, because there are some people who may look great on the on the outside who aren't particularly healthy on the inside, but that's that doesn't often happen, right.

Doesn't have great. Genes that they're the ones that we don't like. You know. Yeah, exactly. They they won the genetic lottery. Right. So I'm not that person I mean people I'm not that person.

I have, beta cells. See me a trait. I have recessive trait for a familial Mediterranean fever. I have all kinds of weird recessive traits and risks because my parents were related.

Which I know is going to sound really strange to our Western sensibilities, but in our our country of origin is not unusual at all. So I have all of these genetic risks, but I have the ability to dial down those genetic risks.

And the expression of those risks. And I have the ability to dial up my genetic strengths and the expression of those strengths and privileges. So that's what epigenetics is about, and that's what biological age is about.

So while we can't control our chronological age, we want to be focusing on all the levers that allow us to slow and reverse our biological reproductive aging so that we can have our fertility working for us for as long as possible.

And what's really critical to know about that. So maybe somebody is listening right now and they're finished having their children. And so they think that this session isn't as relevant to them.

But actually fertility means longevity. Fertility equals life.

Infertility, Diagnosis, and Mental Stress

It wasn't that long ago that women didn't even live past childbearing years, because nature is such that we were mainly useful in order to reproduce, and that when women could no longer reproduce, they didn't stay around for very long after that, meaning lifespan ended around the time that menopause began.

So it's only very recently that women live beyond the menopausal transition and well beyond the menopausal transition. But we want to push out that menopausal transition as far as we can, because that is associated with greater vitality and greater longevity.

In fact, there was a study that showed that women who had their last child after the age of 33 were twice as long, twice as likely to live to the age of 95 as women who finished having children before the age of 30.

Because the women who could have children longer are more likely to have greater longevity because they're so intimately tied to one another. So even if you're finished having your children, it's a great idea to focus on extending your fertility and caring for it for the sake of extending your lifespan as well.

So I want to just tie that up in a bow and say, if you're worried about your age because you're 30 plus 35 plus 40 plus 45 plus, I want you to know that there's nothing we can do about your chronological age.

That's not the place to focus. Even though every IVF clinic and every ob gyn office will. We'll first highlight how old you are chronologically. And so you've got a you've got to work on the mental and emotional, parts that come with that for sure.

And we do that in the semester protocol. But I want you to take back your power, your fertile power and self authority and say, I don't I can't change the day I was born, but I can focus on how youthful I am biologically.

And I have a lot of control there to be able to still get pregnant, even at ages when people said it would be impossible. And we we've had some really incredible success, with women who haven't cycled for six, ten, 15 years, reinstating their cycles and being able to go on and conceive and have their super babies now, I'm not saying that will happen for everybody, but even the reason why I bring this up is even if you've already experienced the menopausal transition, it may be possible still to reinstate your menses, to begin cycling again, and to be able to have a child.

Better yet, let's not wait until we've gotten that far because we have a lot more power when before the minute positive transition has happened and unfortunately, the rate of premature ovarian failure where women are running out of eggs much earlier in life, is becoming more and more common, and the rate is increasing by 1% every single year.

Miscarriage rates are increasing every single year. And so we really have a lot of work to do. But for anyone who's been told that they have a low AMH, low anti-malarial hormone level, which is used as an indicator of how many eggs you have left.

It's not exactly accurate to say that, but that's how doctors often present it. Or they've been they've seen on a trans vaginal ultrasound that they only have a couple of follicles left in their ovaries, and it is possible they will tell you it is not possible to improve your AMH level, but it absolutely is possible.

And it's possible be possible because what you're seeing with the trans vaginal ultrasound in the follicle count, as well as what the am h level is measuring, is the functional ovarian reserve, which is the follicles that are on deck as candidates to release an egg in upcoming ovulation.

So more of those can be recruited just because there are only a couple there right now. Does it mean that you don't have eggs left? And by the way, if you want 1 or 2 children, we don't need thousands of eggs.

We just need a couple of eggs, and we need them to be really good eggs so that they result in a viable pregnancy and a super baby. And that's our work to do in the semester, the period of time leading up to conception.

Once egg and sperm are egg and sperm are released and meet, we have a much harder path to make a difference because the the things, the raw material that's already been passed down, it's already determined.

Where we have the ability to make a difference is when they are still in the maturation process before they're released to to reach each other and to make a baby.

So that's a it's uplifting too, because I feel like, you know, mostly what we hear is kind of doom and gloom with fertility. It's so nice to kind of have a discussion and just hear you go through what, what you're seeing.

How much, how much, industry we do have over this, how how big a difference we can make, how we we do have some control. There are some things that we can do and nothing is for sure.

You know, you could be the health of the world and still not be able to get pregnant. But. Right. Just because you've been told that you can't doesn't mean that that's a for sure.

That's absolutely right, Doctor Gator, let me say something specific about that. So we hear a lot of statistics. One out of every six globally is considered infertile.

There are 186 million people globally with a diagnosis of infertility. And there are at least 23 million miscarriages every single year. And that's a gross underestimate.

So we hear all of these things and it it does feel really like doom and gloom. But there is one piece of data that very few people know about which I want to teach, and everyone who's listening about because it changes the game.

For your understanding, for what's possible for you. There is a statistic called non voluntary childlessness, and this is a measure of the people worldwide in different countries, different populations who don't have children.

And it's not by choice that they don't have children, so they don't have children. But they didn't choose to not have children. And this number is approximately 3%.

And we believe that it's this number that more accurately represents human biological sterility. So the reason why I'm sharing that with you is because there are a lot of people walking this planet carrying the burden.

The stigma, the weight, the psychological distress of an infertility or infertile diagnosis, who are not truly infertile. They are not truly sterile. The overwhelming odds are that if you're listening to my voice right now, the overwhelming odds are that you are not truly infertile.

You are not truly sterile because it's a very small percentage of the world population. In fact, when it comes to primary infertility, which is not being able to get pregnant with your first child, it's it's even lower than that.

There's there's a much higher rate of secondary infertility than primary infertility. And even in the case of secondary infertility, when someone's having trouble having a second or third subsequent baby, we already know they're not sterile because they've already had a child. Right.

So I think it's really important to understand that diagnoses, medical diagnoses, are they they are there to serve a purpose. They're there to put a code on somebody that allows doctors and the medical care system to mobilize.

Testing, treatment and other resources because that's what allows health insurance to kick in and cover, to acknowledge there's a problem that needs to be addressed here.

It's it's a it's diagnoses are a necessary evil of our medical system in the way that it's set up currently. We need them in order to mobilize resources and have those resources be covered by insurance.

And yet there are such profound psychological, social, physiological consequences of these diagnoses that sometimes they do tremendous harm. And really become number one in embedded in our in people's biology,

because they affect the epigenome too, but also become people, become identified with them.

So imagine somebody who's been told you're an infertile. And then the the way they, they come to know themselves is I'm infertile. I mean, it's really hard to overcome that identity and belief and the loop of struggle, all that.

It's very easy to get caught in when your history with your fertility has been, has been one of essentially failure. Or that's the way, you know, people often look at it like my body has failed me in some way.

I failed myself through the choices I've made. I waited too. Long to write. It's like, you know, you start thinking that and then it affects the rest of your body and, you know, then you become you.

You internalize that, that a kind of monologue, and it doesn't make it any easier.

Top Epigenetic Inputs for Fertility

That's that's for sure. No, 100%. And by the way, talking about the mind. So we consider our thoughts to be the number one epigenetic input. Every thought that we have, every emotion that we have has a biochemical underpinning that sends signals to the brain, to the body, to the ovaries about how safe we are and whether we have enough resources available to funnel to reproduction, which is very costly in terms of the resources that it requires.

Right. Pardon me. I'm going to just wipe my nose. So we the mental part of it is so huge. It's it's actually the biggest thing because of the sheer frequency with which we have thoughts and that information is being put into and programed into the system.

So pardon me. So we know that as human beings, we have somewhere between 6500 and 80,000 thoughts a day. Now that's a huge range and there's a lot of disagreement where we actually fall in that range.

But wherever we fall in that range, we have a huge number of thoughts every day. And the vast majority of those thoughts, 80% of them are repetitive and they're often negative, repetitive thoughts about ourselves, our lives, our place in the world, how we do or don't measure up, all the things, the things we're worried about, the, the, the limiting beliefs.

We have all of those things, and they're constantly sending biochemical messages to our body. So one of the things that one of the features of our modern environment that's so unique that contribute to fertility challenges and the intergenerational health problems that we're seeing among children, etc., is the fact that we live in a state of chronic stress, that that many people live in a chronic state of fight or flight, and most of the time that chronic stress is coming from the inside even more than from the outside.

Now, of course, it's influenced by the outside world. You know, traffic deadlines, financial problems, pressures at work. Your boss is screaming at you, whatever it may be.

And it's often the way we're engaging with those external cues in the external environment on the inside that is the most stressful. What's happening here is usually the most stressful part of our days.

That's not the case for everyone. If you're living in abuse, in in poverty, where you can't make your meet your basic needs, I by the way, I have been there.

I grew up so poor and unfortunately was abused. My, my dad was a single father of five children. My mom passed away giving birth to my twin sister and me, which is how I became so obsessed with reproduction.

By the time I was 5 or 6 years old and was already in a pregnancy lab at 18 years and one month old, laying the foundation for what is now known as the Prime Minister.

Protocol. So I know this, I understand this, I know this more intimately than I would like to. I mean, sometimes objectively, circumstances are so bad and so stressful and for most of us, thankfully, that's not the case on the day to day.

At least. You know those of us living in America or elsewhere in the Western, relatively wealthy world, relatively safe world. For most of us, that's not the case.

And what's most stressful is what's happening here. And we can get away from that unless we do something to rewire that, to change that, to intercept that, and that has the most profound effect on our fertility.

So what you said is so very important. Yeah, I think that's a great, good place to kind of finish up because, you know, people don't realize how important our mental health is and how much our mental state plays into fertility.

So maybe you can just kind of finish up, you know, this overall been very positive in terms of fertility. And I think maybe we can leave people on a positive note and just yeah, maybe your your your next, next step for somebody or what you would really want them to think about or, or do next.

If they're thinking about getting pregnant, having trouble getting pregnant, you know, whether that's the right mindset or whatever you would want to leave them with, maybe we can just finish up there.

Absolutely. Doctor gaiter so whether you've been having trouble getting pregnant in the first place, staying pregnant, so you've experienced miscarriage or other type of loss, or you're just thinking that you're getting ready to have a baby soon, maybe soon, or want to make sure you've done everything within your power to have your super baby your healthiest possible baby.

Especially if a previous. If you've had a previous child who hasn't been healthy, especially if you're older. In chronological age, you. All of these people want to be doing the exact same thing, which is addressing their genetic expression, addressing their epigenome, and in doing so, they will be addressing their biological reproductive age, which is exactly what we want to be doing.

So there there are a number, there are a lot of pieces that go into that. But let me give you the top three epigenetic inputs that allow you to slow and reverse your biological, reproductive, epigenetic, genetic aging.

So the first one is our thoughts and broader psychological hygiene and habits. We were just talking about that. It's very hard for the body to prioritize reproduction when we are living in a state of chronic stress or emergency.

So we want to really be intentional and get all the help and support we need for managing our thoughts and our broader psychological habits. Okay, so that's number one.

Second from there is sleep because of the frequency with which we sleep. So the number of years on average that a person sleeps in their lifetime is 26 years.

So you can see why it's so important. The third most powerful epigenetic input and lever that we have is nutrients. Both both in the form of food and supplementation.

So neutral genomics is the nutritional arm of epigenetics. So it's the nutritional impacts on our gene expression. This is so profoundly important. And it's actually a place that's much easier to address than the number one epigenetic input, which is our thoughts and our psychology.

It's much easier to clean up our food than it is to clean up our thoughts. Even though people have a lot of resistance to cleaning up their food, sometimes it's much easier to do that.

So I would say thoughts and broader psychological hygiene and habits. Number one sleep number two, nutrients. Number three, in the form of food and targeted supplementation to make sure that you're really leveraging your epigenome and neutral genomics to have your best fertility, have your healthiest pregnancy, your your most

beautiful, peaceful birth and postpartum period, and healing and bonding, and then setting your children, your super babies up for success, for their own fertility, for their own longevity.

And actually, we know that this crosses at least three generations, and we believe probably even more than three generations from the scientific data.

So the bottom line that I want to leave you with is that we cannot control everything, and we would make ourselves crazy trying to. And there are a reliable there is a reliable set of factors that we do have the ability to impact and shape that can make all the difference in the world for fertility and for the beautiful domino, intergenerational domino that that fertility and pregnancy represent.

So don't be afraid of that responsibility. And don't try to outsource that responsibility, because IVF can't give you healthy, raw material. That's your work to do.

Mama, Dada, parents of all genders. In the semester leading up to conception, at least 120 days. You want to do that, and don't be afraid of that responsibility.

Be glad for that opportunity and go all in because nobody loves your super babies the way you love them. So do everything you can for them. I hear a lot of people saying I would die for my children.

I'm like, no, don't die for them. They don't need you to die for them.

Resources and Closing Remarks

They need you to live for them. Live as long as possible. Live as healthily as possible and as deliberately as possible, including even before you have them, because you're setting up the health and life that they will have.

That's why we call, people mamas and dad, as even before they have their super babies, we want them to really step fully into that identity because they're already taking care of their future children.

They're caring inside of them already. I love I mean, again, so, so positive, actionable, you know, nutrients, sleep and thoughts are all things that we can start with today, which is fantastic.

So again, I really appreciate you sharing your wisdom and your positivity. Maybe you can just tell people where to find you if they want to learn, learn more, work with you.

Absolutely! We'd love to have you as part of our FP village, the Fertility and Pregnancy Institute, so you can come to fertility, pregnancy morgue. We have a lot of amazing free resources there.

We're always doing live workshops with great education information that you've never heard anywhere else in the world. I've been doing this for 28 years now.

Formally, I've published dozens of studies, had millions of dollars in NIH and NSF and other funding. So this really is the place to be if you need help.

Are you just getting pregnant? Staying pregnant? You just want to have your super baby. And if you have been struggling and or you're you're by a lot chronologically older and you want to make sure that you're getting help right away, then you can just bypass all of that and go to fertility pregnancy.org/consult, and you will be able to access a free consultation there from our team.

Awesome. Well again thank you so much. Thanks everyone for tuning in. I really appreciate it and have a wonderful rest of the day. We'll see you in the next session.