Introduction and Dr. Tureku2019s Background

Welcome back to The Super Fertility Summit. I'm your host, Dr. Cleopatra, and I'm joined today by Dr. Paul Turek. He's Husband, father, and longboard surfer., as well as Board-Certified Urologist and Micro-Surgeon,.

Internationally recognized as the authority on Male Fertility and Sexual Health. Dr. Turek, you're the founder and director of the Beverly Hills and San Francisco based Turek Clinic, and you're a former endowed chair professor at the University of California, San Francisco and inventor of sperm mapping for the treatment of severe male infertility while a professor at UCSF.

You published over 200 papers, many of which described surgical and other clinical innovations in male fertility. A master clinician for three decades.

Your signature care involves a practical hi tech approach suffused with wisdom and knowledge. Your remarkable track record of pregnancy success has granted countless couples the gift of parenthood.

I am so excited to have you here today. Thank you so much for joining us. Who are you talking about, doctor? I know, I feel the same way when people read my bio.

It's kind of like, wow, when you're in it doing the work, you forget it and then you hear it all listed out. And of course, that was a very modest summary of your accomplishments.

We share some some institute genes in common. So it's really, exciting to have you here today. And, I would love for you to start out today. We're going to talk about male infertility, infertility challenges and how underserved men are in the fertility space.

And I'm so excited to have this conversation. I would love for you to start from the end and think about if there were one thing you hope that the people listening to us today would take away from this conversation, what would that one thing be?

Dr. Turek. If you're talking about infertility in humans, I would say my after 30 years of work and research, I would say that it's very clear that sperm matter and a correlate to that is fertility is a team sport.

So don't ignore the male. That's right. I love that so much. Don't ignore the male.

Why Men Are Overlooked in Fertility

It's a team sport and I think I think that this is very much related to the first question I want to dive into into with you, which is why men are so overlooked in the fertility space.

But I think that the cultural discourse just by default moves in the direction of the woman. So when, couple is starting to think about getting pregnant, the focus typically is on the woman when a couple is trying for a baby and it's not happening.

I think the first person who gets looked at as is the woman. So talk to us about how men became so overlooked in this area, and what are some things that we can do about it to really spread this message that fertility is a team sport and sperm really matter.

You know, the big question I would have to say that the one fact in America that emphasizes your point is that the richest man in America lived six, six years less long than the poorest woman.

Yes. So that that's the big problem. And the problem with fertility is, you know, it's a species issue, the provider mentality of men versus the caring and nurturing mentality of things.

So most male care so most male care comes from partnerships. And the other stunning fact is that the that longevity difference between women and men in America is, is erased.

If men are coupled. That's that's a. Coupled man. It can be a male couple or, you know, can be same sex or not or cis or whatever. But if you're coupled that, that, that longevity difference goes away.

So, so that's the problem. And we can have a million cultural socioeconomic reasons for it. But you know, I take care of young men for a living who are infertile.

And, you know, you know, a 65 and and they really are like wild animals. You get one shot at them and then and then they're gone. And if they're not in pain or the life is threatened, they rarely come in for care.

that's not generally true. I mean, California, I'm very impressed with the way men take care of themselves and other cultures in the other urban places.

But, it's it's definitely a problem. And I think there's a lack of awareness of of that issue. That's exactly right. So their research is very clear, like you said, that there is an incredible benefit to men for being married, including health and wealth and numerous other things.

We it's called the marriage benefit imbalance. Right. And sometimes we talk about the fact that it is there, at least stereotypically, culturally, it may be, more of a female desire to think about getting married, but then that the males are the ones who are, benefiting the most from marriage and and the place that that shows up the most is in the area of health.

And so when people are coming to you for help, is it is it usually that let, let's say it's a heterosexual relationship and I, I don't say that to exclude anyone from the conversation, but mainly because the data are often focused on, a person who can provide sperm and a person who can provide an egg.

So when, when a couple or a man comes to you is it typically the the female partner who has done the research, found you and set the appointment for them to come there?

It can be. Yeah. I've noticed a lot of sort of sexual independence and, sexual health being taken care of by men lately, which is good. Maybe Covid, turn the tide.

maybe it's generational. maybe it's because we're trying to get the word out. men's sexual health is a canary in the coal mine for overall health. And so I'm really excited that I spent a couple, maybe a decade in academics, trying to prove or understand the concept of the biomarker concept that a man's fertility potential is a reflection of his health.

I gave a lecture at Google at the metroplex, probably 2011, so maybe 13 years ago. You can watch it on YouTube at Google lecture.

Fertility as a Marker of Overall Health

And I talked about the fact that sexual health for men is being thought of as a planet or a moon orbiting the Earth of health. And I was trying to introduce the concept that it is actually not a moon orbiting anything.

It is intimate part and parcel of overall health. And that was based on research in which we showed that infertile men, severely infertile men, have molecular mechanisms that are faulty that lead to cancer later in life.

So that was published in major medical journals and since then, a lot of others have supported. And now there's going to grant money to understand the biomarker concept that fertility may be the first sign of a larger issue.

And it makes sense to me in a very ontological way, which is why would we, if we're put on this earth to eat, sleep, and reproduce and we're having trouble reproducing?

That's kind of important. so what's going on? And some of it we realize is genetic and some of it is environmental, but it matters. And so it started out with that cancer and ended up now being leading to infertile men.

Severely infertile men can have, genetic issues. They can also they're also more likely to have more diseases at the time of diagnosis. We call it co-morbidity burden.

So there's sicker not not sicker illness, you know, death bed. But they have more illnesses and conditions, when they're infertile and they get more conditions and illnesses when they get older, including cancers.

It's, you know, it's still a lot of epidemiology and it still needs a lot of factual research and reaffirmation. So when does theory become fact? You know, you really say something. When is it become true?

That's always a rolling question. But, it it looks like it's becoming true. And it's becoming widely accepted. Now, I like that because when I see someone in their 20s, whoever brings them in the door, because of a fertility problem, I have a golden opportunity.

For the first time ever, I have my foot in the door, and I can say to them, you know, we got to look at some things here. And I had this global planetary view of what can affect their fertility.

There's a cardiovascular health corner. There's a stress and sleep corner. There's a metabolic corner, there's a hormonal, aspect of it. And they look at it and they get this, oh, my, this is this is there's a lot going on here.

And that's my point. A lot going on here. So you can actually take better care of men. It's our first opportunity in history to take care of men because they are underserved.

I love this, and it very much parallels what we see in women. Women who have stronger fertility have tend to live longer. Women who stay fertile longer tend to live longer.

Women who have healthier cycles have a lower risk of premature death and dying before the age of 70. So I think this is becoming much more widely accepted that our fertility is a marker for our overall health potential and longevity potential as females.

And it sounds like you're seeing the exact same thing in males, which is really, really exciting to me. And so in that a little differently and say that most of the data on women's fertility and longevity and comorbidity comes from this finding, because that's when the NIH started going after it and having study sections and saying, what's going on with this?

But it actually by PCOS, polycystic ovarian syndrome is one of the things that people started looking at more carefully as a health issue. We knew, you know, and what was the classic marker?

it's the classic marker for women, as you know. It's a it's a system, a system, a system disease, right. It's not just a fertility problem. But yeah, that most of that research got it.

urging from the male from biomarker data. Men, thank you very much for that. and I, I would say that fertility challenges in general are a systems problem and that the fertility and pregnancy system is a complex network that isn't just made up of what we typically think of as the reproductive organs.

And you already alluded to this. We're looking at cardiometabolic health and so many other aspects of our health to understand what are the root causes of the fertility challenges that people are facing.

And this comes down to the basic evaluation when a man is sitting in front of me and he has a low sperm count. And my first question to myself is why?

Because if you leave it alone and he's healthy, it should run hard. Thousand sperm, a heartbeat. It should run hard. Why is it running hard? So I you know, I'm trying to get the feel to look at it this way, which is don't just say, oh, I, you know, it's too bad or look for a reason and you'll probably find it.

What do you see? I was actually just going to ask you about sperm count, so I love that you in there. What do you see as being the primary reasons for low sperm count or other issues with with sperm quality specifically, and maybe also with DNA fragmentation and sperm?

Can you talk a little bit about that? Yeah, I wrote a blog called Reading Your Cards. If you don't work on men's health.com and reading your cards, and I looked at the same analysis as a poker hand, and each card has a value and its own inherent value.

If it's account, motility, morphology, shape, and then they have a look like if you put them together, is it a royal flush or is a, you know, is a triple, you know, whatever.

They have different looks. and different values and different looks and it's like the same interpretation. So I would say when I see, you know, depends on the look.

But I can basically diagnose the adductor obstruction from a seam analysis. I can it's not usually considered a diagnosis is usually considered a sign or a symptom.

And you look at the whole picture. But there's some that are very characteristic.

Causes of Low Sperm Count and Poor Sperm Quality

So for example low sperm, low sperm volume is always something you're going to figure out. So the volumes low in the semen, either he's missing a tube or he's got a blockage or he's got a low testosterone, or there's a there's about five things that cause it.

It'll be one of those five, and some of them are treatable, and some of them are. If the count's low, I look at, you know, that's a production issue. Why isn't the engine running hard?

The most common reason? There's a ferric ACL, which are dilated veins in the scrotal, and they occur in athletic kids at puberty. And you may not know you have one.

It feels like a bag of worms. and it's very subtle. It doesn't really hurt or cause other symptoms, but it's a disease of standing up as a species. We're the only ones who get it.

So we used to be on all fours, blood drained cider is now where I'm standing up. It drains uphill against gravity, and it goes back down from the body into the testicle, heats up the testicle.

I take number three recreational lifestyle lifestyle choices. So recreational drugs, hot beverages, things like that. They test those very sensitive to heat.

I published a hot tub paper. We just took men out of hot pants, and those sperm counts went up 600%. very sensitive to fevers, etc.. so, I think, and then lifestyle choices, you know, how will you take care of yourself?

Obesity is a risk factor. Diabetes is a risk factor, metabolic syndrome, etc. things aren't running efficiently. And that comes out in a very finely tuned process called sperm production.

So general health is number one. And then there's medications and there's recreational drugs and things like that I can kick in. Infections are sort of rare. Less than 5%.

so that's you know, that's it rounds out that usually if it's a low count issue, probably 90 some of it's genetic. Right. So if it's about a below a certain level, it can be genetic.

You may say. Well every one of my family's fertile. It's not really all Mendelian inherited genetics, which it's could be de novo genetics, meaning you're the first one to see it on the Y chromosome is a classic example.

there's 50 mutations a year coming into the species, and they occur they occur developmentally and they occur with the Y chromosome. And so you're the first one in the family to ever have the problem.

And it's that's just the way evolution works. Motility if it's motility is movement if the motility is loud I tend to based on the blog. And when I talk about I tend to look at a sort of light toxin, something maybe temporary, like a fever for a couple days or a hot bath or, you know, smoking pot, tobacco are not good.

They not only affect the motility and shape, but they I expect sperm, DNA fragmentation. So the DNA quality and also pot is exceptionally bad because, you know, you take it however you do.

And as an aside, that goes away, you feel and then it sits in your fat because it's the water solids, fat soluble. And then it circulates for another month or so.

so it's a much more persistent effect than what you feel. I didn't I did not know that it's fat soluble. That's really interesting. When you find someone who has low testosterone and they want to have a baby, what do you do?

Because you don't want to give them testosterone. Do you use HCG? What? What's your. So you're men are symptomatic. say, you know, a lot of men who are trying to conceive may have issues with low libido, erections, things like that.

Situational issues. That's not usually indicative of that's a stress issue normally. And so for that we can give them pills to help out or stress reduction is great.

But that's also hard stress reduction for men. It's also cause of secondary hypogonadism or low testosterone. And that's the most common cause. And for all age men because stress of any kind financial, travel, physical, emotional is your nervous system saying, let's get out of here.

We're being chased by a wooly mammoth who wants an erection when you're dreaming, chased by a wooly mammoth, you want cortisol and you want fight or flight.

In our systems, people don't realize this, but our nervous systems are just like a cat or a dog. We react to everything even though we don't feel it. Our system is reacting to everything.

Every email we get, every notification we get. It's maybe a little alarming to the body. The body is very primitive. It doesn't really know whether it's an email or if it's a wooly mammoth and ends up reacting a lot, and that's a cortisol based drive.

And so fertility is not spared. So you do that chronically, and you're going to have a lot to start from because you don't want to stop and wonder what mobile you want.

Cortisol and quick energy, what happens when you when you end up behind a rock eating berries and falling asleep? And when you're safe, then you're to start from ride was to build the muscle so you can do it again.

So we're very primitively built. So stress is the most common cause of low testosterone. Doesn't cause low sperm counts to get up to soft or low enough to drop is pregnant.

Has to go quite low. another big one is intermittent fasting and rapid weight loss. Rapid weight loss, some whatever mechanism, sort of more than a pound and a half a week is catabolic.

So your body's saying to you maybe lightly, you don't know, you think you're doing great, but it's saying to you, hey, you're starving. We don't need fertility.

We need to we need to figure out why we're starving. You get out of this mode. So it's it's like a, you know, a high lectin mode, you know, know, it's really and, you know, sort of women, female marathon runners don't cycle well because that's too much physical stress.

I have a blog about and you need to fit to be fertile. So yes, you can be too much exercise, too much. Running from wooly mammoths is a stress response and you will have.

So that is by far the most common and you do not need testosterone for that. So that's called treating the young hyper male. And that is done with. So you basically want to the pituitary is being turned off.

Twittering sends the gas to the engine to the testicles which is allergen to make sperm and hormone. And you need normal sperm in our home to make them no normal hormones to make normal sperm production.

So it's all linked to the pituitary. So you have to turn the pituitary on and you can do it very naturally. with the selective estrogen receptor modulators i.e.

Clomid marks off and then come off, etc. and you can do it with LH injections, which just basically tells the testicle to turn on sperm production or turn on hormone.

And that's called HCG human, not human chorionic gonadotropin. So LH options so injections and pills and they're you know, I hand them out like candy. They're really safe.

They're not FDA approved for well, Speight's, you do have FDA approved for men, but, it is an FDA approved drug for women for fertility in America and other countries.

It's approved for men, but it's very safe and it's very natural. And it doesn't turn things off, because if you start on testosterone supplements of any kind, you're going to turn off your native production, which is required for sperm, and you're going to turn off your pituitary signaling.

So it's the wrong way to go. So I do spend a lot of my time in the blog. It's called getting off the juice, getting men from anabolic steroids or testosterone supplements down to fertility.

And I can usually succeed. But there can be instances in which it was so long and so hard that we can't recover the testis. And, well, it's a gland that's turned off too long.

that's really interesting. And I think I think this is becoming more and more common that people feel like they're doing a good thing for their health when they're overtraining.

And maybe men are using testosterone to build up muscle, and they don't realize that this can really be having a negative impact on their fertility. So, it's important that we're talking about these things.

Treating Low Testosterone Without Hurting Fertility

And by the way, women are doing these things more and more as well. And we need to be talking about that, too. Doctor Turek, you are recognized as the inventor of sperm mapping.

Could you walk us through what sperm mapping entails and tell us a little bit about the successes that you've observed in using the sperm mapping, or.

Some sperm mapping is a way to find sperm mapping. I would call the GBS of the testis I maybe 25 years ago I had a lot of patients who are cancer survivors.

Maybe they were children with cancer and they quit being sperm and they were surviving because 80% of them survived childhood cancers, and they're sterile because of the chemotherapy or whatever treatment they receive.

And, that means there's no sperm and there's semen and they're infertile. So I think people now realize the second thing young people think about after being cured of cancer is fertility sense.

Yes. It's not like you're 70 and you have cancer and you just want to stay alive. I mean, they've got a life ahead of them and they didn't see it for a while, and now they do. And so they're very motivated.

So a lot of we used to, we used to do testis biopsies in men and sometimes find areas of the testis with sperm in them. So the other fact is you don't you make more sperm in your testicle than you ejaculate.

So that's a phenomenon that we sort of figured out to is you can have pockets of sperm in the testicle that can be used to have babies. And that only became possible in the 90s.

So I entered the field right when that technology came out, which is IVF test tube baby technology in which you do a single sperm injection, you can actually take a single sperm inject into an egg.

It's called Icsi and just cytoplasmic sperm injection. And you can use any sperm for that. So that led us right to the reproductive tract because you don't need ejaculated sperm for that.

And that was in 92 and entered the field in 93. So so the groundwork was laid for this to happen. And then we sort of published early on that if you if you try to look for a permanent testicle that has nothing in the ejaculate because it's it's been hit hard with something, then you can often miss because it's not everywhere.

So it's islands or pockets, and then you have to figure out ways to find these pockets. So two methods came out. One was called micro dissection, which is to which is kind of a brutal approach.

You go under anesthesia, you open the testicle like a book, and you search the whole testicle for sperm pockets, and then you put the book back together again.

So it's, it's a it's a very invasive procedure. It's not fun. I mean, it's not a good recovery. And you may find sperm or you might not, I, I was with a different group in California and New York approach, the California approach.

I was with a bunch of Swedish people who stick needles and everything. And they said, you know, I see your problem. You should try this and stick needles in because you can get it's very benign.

It doesn't hurt. You need, you know, stage a little bit of local, but you can decide what we do in at UCSF, where I was this, Doctor Brigham Young, who was one of the pioneers of this, said, when a little child comes in with an eye cancer or retinoblastoma, we have to make the diagnosis.

What we do is we put them in a direction, and we stick a needle into the IV and sample the tumor and then leave it in place and treat in situ. So treat it without taking the eye out.

Everyone else is taking the eye out and saying, yeah, that's right, and let's dump. So that taught me how noninvasive this approach was because like, wow, that's a really different approach.

You know, organ preserving approach to things. so we started putting needles in testicles, which sounds awful, but it's actually a lot better than slicing them open and we started doing mapping when enough, we realized we could do a lot of needles and we can find a lot of pockets.

So if you want, I'll show you what one of these looks like. But I would love to see you on. So this is what a map looks like. This is they're not numbered, but this is where the needles go.

And they're all organized. They're done in a templated way on each side. And it's done at a local. Takes about an hour. And then you go home and it's.

Then it gets read for, for sperm. And these are for maps from for men. and there's sperm and the man on the upper

left with, there's three pockets of sperm in his testicle, the man on the right and upper right and one pocket.

And he was a cancer survivor with a bone marrow transplant. And I don't think anyone had ever seen fertility in that situation ever. And I published it in a bone marrow transplant literature because it never happened before.

And in new venue, we got the sperm at a second procedure. So this is a a diagnostic procedure that tells you what's going on. And then you go ahead and do a sperm retrieval afterwards, to find the sperm.

So that's kind of how it works. And now we've done 3000 cases and it's super safe. We don't have complications. And it's it's a fair warning system. It tells you if you have sperm there, then you're on.

And then you can be that bio dad. That's incredible. So what? Hope here. What are you talking about? Yeah. So students who've had scrotal trauma, patients who have chemotherapy, patients who have genetic infertility, and it's, you know, it's not only the mapping, it's the fact that we can use testicular sperm with IVF.

And it works really well. I mean, everyone always we'd say, well, what about the cancer patient?

Sperm Mapping and Testicular Sperm Retrieval

What's that sperm like? I mean, it's been exposed to chemotherapy and chemotherapy gets in the DNA and it messes things up. Is that are those healthy kids?

And actually the editor of that journal said, are these kids okay? And it's amazing. But I learned also a lot about sperm. If you could make us remember the tale, it's been through hell and back, and it's usually pretty good.

And there aren't problems like that. And that confirms our data with cancer survivors that do have natural fertility and have sperm in their jackets. There's no higher rate of birth defects with kids.

That's wonderful. So it's it's gone very well. This is an incredible thing that you have spearheaded and a solution that you've given to people who have otherwise been told that it's not going to be possible for them to be biological. Father.

So thank you so much for what you do, Doctor. Turek, if you said, it doesn't work for everybody. So there are patients who you have to say, you know, there is just no opportunity, naturally.

But I'm not stopping there because in the evenings I think about making sperm from skin. And we have grants for that and money for that. And then some company called Sell Arts Dot bio and interested parties can sign up and hit a secure side if it's in the technology called sell art, stop bio.

And we're trying to inform patients about where we are with it. But we are starting the research and, it's going to be in a lot of others are too. I know everyone in the field working on it, but it's been my passion for about a decade and it's not easy.

But it's possible. And with the concept of the, you know, Crispr technology where you can do a gene that you can change cells, we can make stem cells out of regular cells and mRNA technology, which both got Nobel prizes recently.

Now people are starting to realize it's possible what we've known and all along, it's just that we have done. We have to wait for everyone to realize and.

This is incredible. I'm so excited to see the evolution of this and to follow this work. Thank you. So I am not stopping. I am not. Wait. Tell me how you became so passionate about this topic.

I don't know. I kind of fell into it. I'd say the when I started out, I was going to go into medicine at Stanford when I was in medical school, and I had a lot of mentors who were, you know, great medicine doctors.

And I was also interested in religion, and was almost thinking about going to divinity school. College. And I found medicine to be a nice combination of sort of science and divinity.

And then the most sort of ethically challenged area medicines, fertility medicine. And so that drove in. But also when I was a resident, I, I, I'm, I was told that I have a gift and I can operate, I can do I'm very good with my hands and that comes from my father, who was a craftsman who was a black blacksmith in Czechoslovakia.

And he taught me to be a craftsman. So I feel I'm a craftsman, and I feel I'm a bit of a pastor, and I feel I'm a, you know, a bit of a surgeon. And then I then in one field that has all of these is fertility medicine, but also the vasectomy reversals I love.

And there's lots of complex microsurgery that come pretty easily to me. And then I into the field and after fellowship and realized that it's quite a and then I hit these kind of symptoms like, whoa, we don't know much about this.

We don't know much about fertility. We assume this, but that may not be correct. The first thing I did as a faculty member was hire Rene Rayo Para, who invented the Y-chromosome additive deletion, who discovered it at MIT, and she and, you know, she broke open the field of genetic infertility, which is a pretty big field now.

And, you know, we're just. And then I realized ten years into that, then, you know, there are a lot of there are a lot of gene mutations. We're finding it. So something else must be going on.

And now I'm really excited about the epigenetic field. So now we're learning that epigenetics is probably driving a lot of infertility as well as cancers as well as autoimmune and other systemic diseases.

So it's really moving quickly. And what's super exciting about fertility medicine, at least in the male, is when it happens in sperm. It happens in the next generation.

So I'm also interested in maternal age issues. What happens to offspring and for the fathers of older fathers and what is going on. And so that's really important to me.

And then finally I would say having all that under my belt, I realize that the more we know about genetics and epigenetics and transcriptomics and metabolomics and proteomics and infertility, the more I realize that lifestyle and diet matter a ton.

So yeah, it's all about how you take care of yourself. Some circling back of this huge Wagnerian ring from, basically, you know, from from 30,000ft view to down in the ditches and down on the ground back to 30,000.

But you realizing that health and matter a lot health, lifestyle choices matter a lot for fertility. Absolutely. And I think it's really interesting because there are still places where people are told it doesn't really matter what you eat.

It doesn't really matter how you're living. And yet we know it has such a profound impact. I mean, it has a profound impact on longevity. It has a profound impact on reproductive longevity when when we talk so much about the role of age in female fertility and yet the role of age and male fertility is often overlooked.

And you you touched on this a little bit. Can you tell us about the differences in the younger versus the older patients that you're seeing who are coming in, concerned about being able to have children.

Share a father's age and fertility? It's a it's a relatively new topic. And the reason why is because we never lived old enough to be older, paternal age, others.

So I 1950 really even about 60, 65 years on average now in the 70s in terms of average age of death. And so this problem of what's happening with sperm and offspring because of father's age alone is brand new to the species.

For the first time in our existence, we're living long enough to have this problem. And so that's that's a blog I wrote a while ago because I realized, wow.

I mean, no wonder it's also new because we never really live long enough. I mean, there are people who live 90 years, 90, you know, 100 years ago, etc., but but the average Joe isn't living that long.

I think in 1910 we're living about 45, maybe 50. That's right. Yeah. So, it's a new to the species in the last 50 to 75 years. And we also know that things like autism and spectrum disorders are increasing in, in the, in society.

And, you know, the question is that that's representative what we call psychiatric morbidity dyslexia, bipolar disorder, schizoaffective diseases, etc..

And that's representative of developmental, you know, psychiatric developmental issues. And we so we ascribed it to urbanization in big cities have it to baby IVF.

But that's not a lot of that's only 1 or 2% of babies and etc.. Or is it or are the increase in those psychiatric diseases are those ascribed to the better diagnoses?

Right. Oh, so we've got a name for it we know how to call it and we're seeing it. So it's a combination. But what's also clear is that the epigenome, the epigenome are the marks of the DNA, not the DNA.

It's not the DNA sequence, it's the marks on the sequence. And the epigenome of sperm are probably the biggest defined cause of increased, off in the spectrum disorders and psychiatric morbidity that's occurring.

So it's the fingerprint. It's been defined by Mike Skinner and it looks like it's epigenetic.

Future Fertility Technologies and Dr. Tureku2019s Motivation

And it you know, the sperm, the sperm, the genes in the sperm have marks on them that change with paternal age. And they don't change in a random fashion.

They change in this area of psychiatric morbidity. So it's really interesting. And then you I have to ask the question that. So what what what does this mean?

I mean does that mean we're getting worse or evolving the wrong direction? The answers, you know, as a religious man who is an ethicist who, has thought about this a lot, I would say we have to ask the question of whether this is the way we're evolving, whether we're our our systems are getting so old.

Barter with information. We're closing off almost everything and trying to stay focused on one thing. I noticed a lot of that on the spectrum. Kids. They seem to be socially, not as in tune, but if you find their strong point, it's unbelievable what you find, right?

It's so. Dialed. In the rabbit hole and you find the brilliance. It's like it's I've magnified the intensity of it. and it's really interesting how maybe it's an adaptive mechanism in revolution.

So we can, we can shut things off again and not be so bombarded. I don't know. What an interesting theory I it's fascinating, but I, I really think that we have to be having the conversation about age and male fertility more than we are having.

Doctor Turek, if you if you could, only if you had to pick just one thing that you would hope someone would do to take care of their fertility and to take care of the health of their their future baby, their future super baby, as we call them.

What would that one thing be? Have you got a couple? a male, a couple. I would say is all these. You can, So treat your body like a temple. It is your most valuable asset in so many ways.

More than anything else. And for stress and things, it's always around. Realized that we're made for periods of acute stress, but we're not made for chronic stress.

So, like, you go to sleep at night, turn off the lights, turn off electronics, get up, go in the dark room and get sleep. This is what we're. It's really important.

So, you know, lifestyle all the way all throughout you know, state. And if you can stay lean and mean stress reduction for men is really best done with physical activity, exercise, yoga, acupuncture, massage.

When they get on the phone for two hours with moms, they're fine. It's different. We have to get it out. So I think, you know the idea. I remember Covid and then everyone started drinking at 5:00 and gaining weight and like half the men did that and half the men said, I'm going to get a peloton.

I'm going to exercise. Yes, people are scared to go outside, etc.. Right? It's like the whole world's like the Ethereum. It's all infected. And then about six months later, I was so proud of the ones who went to the drinking and said, you know, this isn't working for you gaining weight, and I don't feel very good.

I'm going to start exercising. So, so now if I said I Bravo. Yes. On that one. You have no control over this universe. What's happening to you? Just accept it.

You do have control over your health. That's right. I love that so much. Your body is your temple. It's your most valuable asset. Not just for making your family, but for raising your family and everything else that you want to do in life.

And the other thing I would say is a fertility purposes. Get him. See if you're having trouble conceiving and it's been a year, it's not acceptable to just get a seven ounces, right.

It's he needs to be seen, listened to and looked at by a specialist or urologist or somebody who knows what they're doing. That's kind of really important, because a third of the problem with fertility is male and it's cost effective.

It's one visit with me, it's cheaper. I'm not far cheaper for one third of the problem than doing much with the woman, getting a $5,000 evaluation of hormones and ultrasounds and all that.

And it's often curable. And it's it's the foot in the door to the house. It's it's got so many benefits. This is wonderful. Thank you so much, Dr. Turek. Last question.

When you think of the term super baby, what does what does it mean to you? What does it feel like to you? Super, baby. I'm not sure what it means to me. Super baby.

I've never used the term, okay I don't, I don't I'm not a big fan of premium babies. I'm not a big fan of of because of all the effort, money, time and surgery gone into making a baby to making them premium babies.

Often I'm not. I'm not sure that's healthy. for the baby to be treated like, you know, they're otherworldly. I mean, all babies should be treated that way, but, it can be a little, I know, I'm not sure.

So I don't know if I like the term. Okay, that's fair enough. That sounds great. Will that it's not referring to premium babies, but I understand it can be interpreted that way.

So fair enough. Dr. Turek, it's been so wonderful to have you here today. Thank you for the contributions. your, your scholarship, your clinical contributions, and most of all, what you do every day that helps people bring home the babies that they're dreaming of having.

Thank you so much. Nothing fires me up. It's just so. Yes, every every single one is such a thrill. I feel the same way. I completely understand I've.

Gotten 12 Pulitzer Prizes, which is babies named after me. that's the vast prize ever got nothing? cartoons and everything. Everything's great. Congratulations. So beautiful.

Thank you for being here with us at The Super Fertility Summit. Thank you. Okay.