

## Webinar: Stress and Infertility - Understanding the Connection

Relationship of our mental state and fertility is a very complex one. "Can stress cause infertility? Does stress impact ovulation? Can treating stress improve pregnancy rates? How does stress affect fertility in men and women? For answers, we are turning to Parijat Deshpande who specializes in lifestyle medicine and guide women to lower stress and improve their overall wellness to have a safer pregnancy.

### Full Transcript:

**Shweta Mishra:** Good evening and welcome to Cure Talks. I'm Shweta Mishra your host joining you from India. Cure talks is our social initiative with a mission to heal the world through discussion and sharing of knowledge we organize online talk shows by inviting guests who are a diverse group of doctors, researchers, patients and other health professionals from around the world to discuss a wide range of medical, health and wellness issues. We've been conducting online radio talk shows since 2012. Today we are very excited to launch a webinar series on Cure Talks and today's talk with Parijat Deshpande being the first in this series where we are discussing the connection between stress and infertility. Feeling depressed when going through infertility is a completely normal phenomenon since procreation or desire to have a baby is the strongest instinct in humans. However the relationship of our mental state and fertility is a very complex one to understand and the jury is still out on whether stress can cause infertility. So does stress impact ovulation? Can treating stress improve pregnancy rates? How does stress impact fertility in men and women?

So for answers to these questions and more, we are turning to our eminent expert Parijat Deshpande who specializes in lifestyle medicine and guides women to lower stress and improve their overall wellness to have a safer pregnancy. Parijat Deshpande is a leading high risk pregnancy expert who guides women to optimize the mind-body connection to help them stay pregnant as long as possible so that they can give a strong start to their baby. Parijat is a clinically trained therapist, a women's wellness expert and an experienced speaker on the impact of stress on health and wellness. She has over 4 years of experience as a psychology lecturer at UC Berkeley and is the founder of My Sahana, a South Asian mental health nonprofit. Parijat is a member of the American College of Lifestyle Medicine and is also a certified wellness coach, a stress management coach and a certified marriage educator, I welcome you to CureTalks webinar Parijat Deshpande.

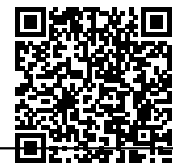
**Parijat Deshpande:** Thank you so much. Thank you for having me

**Shweta Mishra:** Yeah so I want to start this webinar with a very basic question and that is about how is stress defined in terms of our body chemistry and particularly in relation to the chemistry which is responsible for procreation or in simpler terms us being fertile or infertile?

**Parijat Deshpande:** Yeah absolutely and I think that's a fantastic segue into this talk because it's such an important topic that I don't think enough of us talk about. So if you're ready I can certainly jump in and get started.

**Shweta Mishra:** Sure yeah let's start

**Parijat Deshpande:** Wonderful so today we're talking about stress and fertility and we're under talking about the connection between the two and like I said earlier you know we don't talk about it enough sometimes it's because we don't have a ton of research about it, sometimes it's because a lot of doctors don't know and it's a very up-and-coming new area of fertility and infertility that we're finally starting to understand the connection for. So I'm really really honoured to be here today. So the plan for our talk for today is to talk about what is stress; when we talk about stress what do we mean by that, and then we're I'm gonna break down for you how stress affects women and fertility and then we're going to talk about how

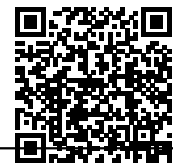


stress affects men and fertility also because that there is a connection there as well and then I'll give you some tips on how to reduce stress effectively and then we'll have some time for Q&A; so before I jump in just to do a quick introduction and thank you for introducing me so well. My name is Parijat Deshpande. I am a high-risk pregnancy expert. I do work with women who are pregnant after fertility treatment and who have experienced or are experiencing a high-risk pregnancy to help them stay pregnant as long as possible even if they have complications. I'm a lifestyle medicine practitioner, a podcast host at delivering miracles where we talk about all aspects of fertility, infertility, high-risk pregnancy, bed rest, prematurity and then healing from all of that once it's all over. As mentioned I'm a clinically trained therapist, a certified wellness coach, certified stress management coach as well. So let's jump in and talk about stress. I enjoy talking about stress actually because I think it's such an important part of our life and it happens to all of us.

This is something that connects all of us together it's something we can all relate to but I feel like we have this idea of stress and what we think it is that's completely different than what it actually is and how it presents in our body and so very simply put stress is when the demand on you or your body exceeds your capacity and I like to explain it like this imagine that you have a container of say gold coins right and everything that you do during the day is taking away gold coins from your container and some things that you do are bringing those gold coins back for Example, when you get very hungry you're losing some gold coins, when you eat and you eat well you bring some of those gold coins back. Now imagine everything that you go through throughout the day, you get up, maybe you have some pain maybe you get into a fight with your partner, then you get some blood test results that are not what you were expecting, you aren't feeling well. Maybe you're getting sick, you hadn't slept the night before.

All of these things are we taking out gold coins from your container. Your container is the capacity, that's how much you have and whatever is happening in your life is taking it out, just like a bank account and at some point you are at a level where you're taking out more than you have; you're basically over drawing and that is when we are experience stress in our bodies that is what stress means and there are a variety of sources of stress. I think when we talk about stress there's often this assumption that stress is anxiety and that it's the same thing as anxiety or worry or fear, when in fact anxiety and fear is just one source of stress, overwhelm is another source of stress. But there's so many more than that – depression or low mood, physical pain, lack of sleep, dehydration, poor nutrition, not listed here is also arguments with your partner or feeling socially isolated, not having enough physical exercise, all of these things are basically withdrawing more and more coins from that container that you have. And so there's multiple sources of stress that we deal with on a day-to-day basis. So when we're dealing with a particular time of our life when we're trying to get pregnant and we want to have a baby and grow our family then how does stress impact our ability to do so? The truth is that it's a controversial connection. It's not a linear connection at all, there isn't you know a cause-and-effect relationship. So we get to this question of distress cause fertility problems the answer to that is no because we don't know actually what causes fertility problems in general. We have ideas of certain diagnoses like endometriosis, PCOS, low sperm count, all of these things impact fertility but we really don't have know enough about fertility to know what causes fertility problems.

Stress is the same thing, it doesn't cause the fertility problems but does stress affect your chances of conceiving – absolutely yes and that's what we're gonna get into right now. So let's start with women because that's what we know the most about when it comes to fertility. So here's what the research has to say about how stress impacts fertility in women. It can be the reason why you experience missed or late periods because stress can actually delay ovulation – so ovulation is when every month you your ovary releases one egg and that egg is what you need to to be able to conceive a baby and so delaying that ovulation can mean you don't know when you're ovulating and so suddenly there's a lack of predictability in your cycle. Or it can go so far as to you having a cycle meaning you go through a month or two or three months where maybe you have a period or you don't even have a period and you also don't ovulate and obviously if you don't ovulate then you can't get pregnant. So stress messes with the cycles in that way. What research has found and this is really striking and this is really new research that's coming out and being integrated into the world of fertility which is, women who have high levels of a particular stress biomarker in their blood have double the risk of infertility. Now again this is not a cause and effect relationship where we say if you've got it then for sure you'll have fertility challenges. But there is certainly a



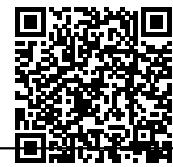
connection between the two, that if you have a high level of this particular biomarker, there is significantly higher chance of you having fertility challenges.

Similarly and if we go a little bit deeper into that, women who are stressed and by stressed I mean highly stressed chronic stress, high levels of stress that are impacting your ability to live a healthy life and it's impacting your ability to sleep for example, eat well things like that. Research shows that they're 40 % less likely to get pregnant during that cycle and that, that level of stress can actually translate to three months delay in conception. So really to break that down, what that means is if you have high levels of stress in a particular cycle, your chances of conceiving that month are much lower and that can translate to actually getting pregnant up to even three months later than you would have otherwise and it makes sense because your body is looking for the optimal condition on in which to carry a healthy pregnancy and if your body recognizes hey you're under a tremendous amount of stress right now and again remember what we talked about stress being all kinds of different sources of stress; we're not just talking about anxiety and I mentioned that here because I have a lot of women who come and talk to me and say I don't feel anxious, I don't feel stressed. But that stress that they're referring to is in their head and they may not be anxious, but there may be stress in their body that's impacting their fertility. And so what we're seeing here is if there's any kind of stress and it's impacting the way your body works, the way you feel, the way you get through your day, there is a pretty significant impact on your ability to get pregnant.

And to take this even one step further if you're already going through fertility treatment IVF being really really challenging to get through emotionally and physically, financially, research has shown that women who are highly stressed and going through IVF ovulate 20% less eggs than women who are going through the same protocol and are not feeling as nearly as stressed; which if you're going through IVF you know you're putting in so much, you're investing so much money and time and energy and blood, sweat and tears to know that you could be potentially ovulating less eggs can be really nerve-wracking. But there is good news. Because research has also shown that mind-body programs significantly decrease stress levels if they work beautifully and there are a lot of fertility clinics in the United States that have started integrating this because the research is so powerful and showing how well it works and it works so well that a research that was published just two years ago said that women who engaged and enrolled in a mind-body programs are two times as likely to get pregnant than women who do not engage in a program like this. So I mean that's huge that's huge and that that really does say a lot about the ability to channel and kind of influence your own body even if you're going through fertility treatment because you do have some control and what your body goes through and what you can and what you can experience when it comes to getting pregnant.

Now here's the thing though it's not just on women to keep their stress low, male fertility is also affected by stress and this is something that we talk even less about but there is plenty of research that shows us – the research shows that stress in men lowers their testosterone levels and it lowers their sperm production as well which means specifically that semen quality is impacted meaning sperm concentration, their appearance, their ability to fertilize an egg, motility I mean really just the the function of the sperm really does get impacted quite significantly. And this is something that you can see because the sperm's life cycle is about two months so if you're repeatedly doing semen analysis you may see a change quite quickly and how your stress is impacting your health and fertility. But there is good news here too – which is that when men join a mind-body program or something related to that whether it's a mind-body program for fertility specifically or it's going to therapy or counseling, whenever their stress is managed effectively sperm quality improves and this is something that you can see when you do semen analyses when you do these tests you can actually see the difference. So I'm hoping that your understanding now that stress plays a really big role, but it can be managed.

And again I'm gonna remind you one more time anxiety and worry are only one source of stress, so you may not be worried about anything you may be feeling really happy and you may be feeling quite calm but stress comes from a variety of factors which is anything that is putting an extra demand on your body more than you can handle. And there's no judgment there and what that means about what you can handle it's really all of us are very different right. So you may need more water for example then the person next to you, you need to stay hydrated more that's a source of stress on your body, you may need more sleep than the



average person, I know I need a full eight hours for me to be fully functional the next day whereas somebody else in my family may need only six. So you've got to understand that there's many many sources of this stress. Okay so then what can you do about it? What can you do about it, the most important thing is to take inventory of your life. Where can you make improvements and just like we were talking about the sources of stress – sleep, diet, anxiety, pain or inflammation, marital tension, low mood, isolation and social relationships – all of these things impact your stress so take an inventory.

Be really honest with yourself – where can I make some small changes that can make a profound difference in the quality of my life. So for example maybe you stay up until 10 o'clock to watch a TV show and I say 10 because 10 seems very late to be but for some people maybe that's 11 or 12 maybe you stay up that late because you just want to watch a TV show. Ask yourself if that's really necessary or is there another way that you can find some relaxation at the end of the day to help yourself get extra sleep. Look at your diet and and this is for men and women. What are you eating, are you it's okay to splurge once in a while, it's okay to have a cookie or some brownies or chips or whatever once in a while there's nothing wrong with that. But be really honest how much of your diet really is that kind of food and how much of it is really good quality nutritious food, is there some kind of pain in your body that you've been neglecting – your back is aching or your shoulders hurting but I'll deal with that later I'll deal with it later. You're trying to get pregnant, now might be the right time to do it, take a look at what's going on in your relationship, how well are you feeling with each other or is there something you want to address now because it's better now than when a baby comes because it's just all the problems in a marriage actually become magnified once the baby comes so best to handle it before baby's there. And the really good thing to do here is to make a pact together with your partner choose one area of your life and start improving it together so you've got built in accountability you're both working towards the same thing and you're both doing it for the same reason to help yourselves get pregnant and have baby and that sense of connection and intimacy can be really wonderful for strengthening that bond between the two of you even if you have a great relationship, so that as you go through your fertility journey whatever that may be that you're going to do it together with a strong foundation between the two of you.

And here's the last thing that I'll share here, which is reach out for support early, because the longer you wait, the longer you keep trying the more things that you can think of, the longer you just keep hoping for the best you're gonna keep trying and trying and trying to get pregnant and it's not gonna work and it's heartbreaking. And it's a hard journey so if you're going through some difficulties to get pregnant, if you going through fertility treatment it really means more money down the drain no no it means more heartbreak it means more difficulties So if you are struggling to get pregnant reach out for support early because there really is a very high success rate for getting pregnant if you're able to find a mind-body program or some kind of resources to help you keep your stress low. So that's what I've got for you on stress for today, I would love to take questions and and just chat about what we what we discussed.

**Shweta Mishra:** Thank you so much Parijat, this was a wonderful and very comprehensive overview of the connection between stress and infertility. So listening to all this it seems like all just all the people who told us all our elders who told us just to relax and take a vacation and everything will fall in line they were at least partly correct right at least?

**Parijat Deshpande:** Right, yeah I'll agree with you that it's partly right it's not as simple as that that's partly true yeah.

**Shweta Mishra:** It doesn't work for everyone but it does work for some of them right. So now most of the people who are in a depressed state due to infertility are in a state of denial too which may be their way of coping with it. So they may not show in front of their doctors that they are psychologically disturbed about what they're going through and that may be because they just want to be bold about their situation. Now that we know the science behind how stress affects our fertility, has it become a very regular practice in medicine that in regular fertility checkups or before say, egg retrieval or before inseminating embryos in an IVF cycle, do doctors check for stress hormones and try to fix the problems before even going further with infertility treatments like IVF so as to increase the chances of conception? What has been the advances in this



direction?

**Parijat Deshpande:** Oh my gosh I wish that this would be normal practice and it's absolutely not. Most doctors I would say, I mean I have no scientific basis for this number, but based on my experience I'd say 99% of doctors do not order any kind of blood work or any kind of tests for stress hormones. And the ones that do I typically find within the naturopathic fields who do maybe some cortisol swabs or are testing for some of these things. Very very very few of them are doing it; which is why what I teach in my mind-body program is so much about it doesn't really matter what the test results say, you have to understand your body and you have to understand the signals that your body is giving, because regardless of what the blood work says or any test results say you're gonna know about what's happening in your body before anybody else and the sooner you know it, the sooner you can do something about it.

**Shweta Mishra:** That's true that's absolutely true. So could you talk a little bit about what are the tests that need to be done to indicate that a person is under high stress, some blood tests or psychological tests or behavioral tests for that matter?

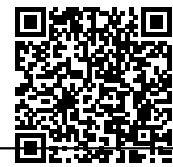
**Parijat Deshpande:** Well I'm not too familiar with the naturopathic approach. I do know that there is what's called a cortisol swab that some doctors do, where they send you a kit and you just swab the inside of your cheek or you do a spit test where you spit some saliva into a little vial and they test that for your cortisol levels which is a stress hormone. Beyond that there aren't really, there are no blood tests that you can do for this at this point at least. In terms of behavioral tests I mean there are certain questionnaires that a therapist or licensed therapist or licensed counselor can walk you through to identify how much stress you have in your body but again I really encourage those of you that are listening that even before you try any of these tests the sooner you can understand your body, the more that's going to make a difference because even with these tests the reference ranges, the normal ranges are all based on averages and sometimes we don't fall in those averages and I would not want you to be told Oh everything's fine when you're clearly having symptoms that everything is not fine.

**Shweta Mishra:** Okay so probably you just answered this question but during your presentation but as a very recent research has shown that sperm counts in men from America, Europe, New Zealand, Australia it has dropped like more than 50% in less than 40 years. And stress cited as one of them one of the important reasons among other reasons so this in itself is a wake-up call for all the doctors and researchers to find a solution to this. So in this are there any specific routine tests for men to check their stress level or check how it's affecting their fertility?

**Parijat Deshpande:** Yeah it's the same thing as unfortunately; for stress in particular there aren't a lot of tests that you can do for that in particular same thing as the swab test or the spit test those work for men or women they work for teens I believe as well. But really the impact that you'll see that there's an impact because you'll notice that your semen analysis is coming back a little bit different or a little wonky or something's off about it and that's a really good indicator that you need to look at not just physical causes for it but where are you carrying stress in your body where is it coming from and addressing it as quickly as possible because you're absolutely right. The number of couples that are using fertility treatment has gone up, the rate of infertility and the number of couples that are going through infertility has gone up. Our bodies don't change that much in such a short amount of time but what has changed is our stress levels and I think this is a huge red flag for us that this needs to be taken extremely seriously.

**Shweta Mishra:** Right. So in case of women who are stressed or severely depressed, how is it decided whether to use a medication to treat them or to use a cognitive behavioral therapies like yoga, yoganidra relaxation, acupuncture etc to treat them before even starting the fertility treatment like in your mind/body program, are you are you doing any of these?

**Parijat Deshpande:** Great question. So I don't prescribe medication but I do recommend medication when I see it necessary and here's what I tell my clients – if the way that you're feeling whether it's because of your depression or your anxiety or your stress, if it's affecting your life meaning you're sleeping differently



more or less than usual, you're eating differently which means more or less than usual, your relationships are being affected by it, something just feels different and you don't seem like yourself then it's definitely worth considering medication. But if you do go that route please make sure that you see a licensed mental health professional at the same time because medication will help you feel better but it's just a band-aid. Learning how to cope is what you'll learn in therapy which is going to last you a lifetime. If it's not so bad where it's impacting your life that much but you're noticing that hey I feel different and I don't like it then that's where you have several more options you can certainly join a mind-body program or you could go seek the help of a licensed mental health professional, that's where other alternative therapies like yoga or acupuncture, acupressure these things can be tried. If you try them and they're not working then again it's a great idea to consider medication just to give yourself some relief because, we didn't talk about this today and specifically but depression also has a significant impact on your ability to get pregnant too. So it's not just about feeling better it's really about doing everything you can to get pregnant which is your ultimate goal.

**Shweta Mishra:** Exactly yeah so having gone through this myself I know that infertility treatments themselves can cause stress. So for example in the medications that are used to stimulate egg production, those that are used to normalize the prolactin levels and those prepare the uterus for implantation can affect mood and contribute to stress. So all these times preceding egg retrieval before and after embryo transfer and the wait time of 10 to 14 days before the pregnancy test, these are all very stressful so yes I would just like you to advice to our audience the people who are going through these phases, what would what would your advice be?

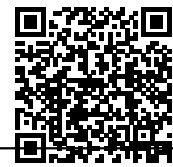
**Parijat Deshpande:** My number one advice is to remove the stress from your body because a lot of these therapies that we just talked about, they address your stress from a mental perspective which is great and helpful but it's not enough. Because as you've seen the sources of stress are many and many of them reside in your body and are not necessarily emotional or mental in nature. So any kind of body relaxation that you can do is going to be extremely helpful for you. I have asked clients sometimes to go into a swimming pool and just float – how much more relaxed can you be than actually floating in a swimming pool, things like restorative yoga are beautiful examples of this of just really relaxing the body as much as possible and doing it often enough that it becomes a habit throughout your day. Other things that you can try include watching your thoughts and making sure that your thoughts are primarily supportive empowering and not negative and I know personally too how hard it is to do that but you you know the way you think impacts your mood and your mood impacts your stress levels so it's just another way to address that. And then just making sure that you are taking really really good care of yourself, you're sleeping enough, you are resting when you need to you're eating as healthy as you possibly can, that you're staying well hydrated, you're getting exercise as much as your doctor is allowing you to, you're surrounded by supportive relationships – all of these things really make a huge difference on the level of stress that you feel and ultimately your ability to get pregnant.

**Shweta Mishra:** Alright thank you for that answer and I think my last question that I had you already answered that what are some of the scientifically proven methods to really release stress which is just mentioned that getting into a mind-body program that really helps and that has been shown to alter the levels of hormones.

**Parijat Deshpande:** Yeah absolutely. For men and women so it's extremely powerful.

**Shweta Mishra:** Okay so now I'll just quickly move on to the audience questions, we have couple questions sent in via email to us and put in on our website. So the first one says I noticed that my menstrual cycles are delayed by days when I'm too stressed could you please explain the connection there?

**Parijat Deshpande:** Yeah yeah I'm glad you mentioned that is a great question and something that we touched on in the presentation is stress hormones like cortisol impact your reproductive hormones. So if your cortisol level is high it is going to impact how much estrogen you produce and how much progesterone you produce, and you need both of those to be within a certain level to have a successful and normal healthy



menstrual cycle. When cortisol levels are that high and the estrogen and progesterone levels change that's when you see delayed ovulation or a cycle where you don't ovulate at all and both of those impact your ability to get pregnant.

**Shweta Mishra:** Okay all right the next one says what relaxation methods do you recommend to a person particularly going through the stress of infertility. I guess you answered it already so I'll just move on to the next question which asks what are some proven methods to relieve stress during a high-risk pregnancy itself where the women are advised bed rest or allowed very little movement?

**Parijat Deshpande:** Yes that is a very difficult situation to be and I was in it personally I know that stress very well. And it's not so different from the fertility recommendations a lot of it what I recommend to my clients and this is the work that I do is we've got to get the stress out of your body. You have to get the stress out your body. Now when you're on bed rest one other thing that's really important to do is to keep your mindset in a really positive place and a great way to do that is to make sure that you have a routine every single day otherwise all the days blur together and it just kind of makes you feel like you're stuck in a hamster wheel and that can be really difficult to handle with your mood so set up a schedule every day just like you used to before you were on bed rest, when are you gonna have breakfast or when are you gonna have lunch, when are you gonna do work if you're working from bed rest or what are the activities you're gonna do, who are you gonna make phone calls to, keep a structure around your day and then the other thing recommend is especially for women on bed rest making sure that you are not isolated and that's really hard because the nature of bed rest is you are isolated physically so you'll have to make more efforts than usual to reach out to your partner, to friends, to family to maintain those connections because that social isolation can be a really protective, it can really protect you from developing depression which is a huge risk factor for preterm delivery which is exactly we're trying to avoid by being on bed rest.

**Shweta Mishra:** Right okay well thank you so much Parijat, that was a very informative talk today and the message is loud and clear for our audience who are going through these phases that reaching out for support early is very important and getting into a mind-body program really helps to learn how to cope which stays with you for a lifetime. So with that I guess we have to wind our discussion right now because we have reached the end of our scheduled time I thank you Parijat again it was a pleasure having you with us today and it was a great session today, thank you so much for finding time.

**Parijat Deshpande:** Thank you so much for having me.

**Shweta Mishra:** I hope this discussion will be helpful to many who are dealing with infertility and are looking for authentic information on related issues and I thank the audience for your support and we look forward to having you join us for our next infertility cure talk on changing the conversation about miscarriages and understanding the science behind with Dr. Laura Shaheen on 16th of October 6:00 p.m. Eastern. For more information on this and other upcoming webinars, please visit our website [www.curetalks.com](http://www.curetalks.com) or email us at [shweta@trialx.com](mailto:shweta@trialx.com) or [priya@trialx.com](mailto:priya@trialx.com) and the link for today's show will be sent via email to the participants and will be shared on social media. So until the next show bye-bye everyone and thank you so much bye.