



Healthy
Pregnancy
SUMMIT



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Fertility Evaluations And Treatments

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Welcome to our session on fertility evaluation and treatment. I'm Professor James Adams and with me is Dr. Rebecca Pearson. Welcome, Rebecca.

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Hi, thank you for having me. It's good to be here.

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No, thank you very much. Can you please tell us a little bit about your background and your experience with fertility evaluations and treatments?

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Sure. I grew up in southeastern Ohio actually done my obgyn training in Indianapolis, Indiana, did my residency there and then practice for a few years as an obstetrician before I went back to training for reproductive endocrinology and infertility or Rei, and that's the infertility world. I'm partway through my training in that and really enjoying it.

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That's great. It's wonderful that you have that background and have the experience working with these areas. If you give us a little bit of general information first, what's the typical chance of a



couple conceiving Each month Do you think and what are some factors like age or other things that might affect the chance of conceiving successfully?

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Sure, you know, for a healthy 30 year old say, woman, it's about 20% a month. So a lot lower than maybe some people think if you're just thinking about it. And 30 is kind of the breakpoint after 30. This the person gradually declines and that's just based on age. So 30 is kind of a high point and then goes goes down until fertility is ceases for most women in about their mid 40s. Even though the average age of menopause in the US is about 51. Spontaneous conception is, is pretty much zero. I mean, nothing in medicine is ever absolute right? But it's about 45 or 46 for most women, okay. There are a lot of other factors that affect that Though ages is in our world ages is the biggest. The biggest thing but probably smoking, there's some information that that says that smoking will affect that. And then of course, if there are any other problems like pcls is a big one obvious ation problems, then of course that person is going to be much less per month.

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Okay, thanks. And then um, how common are fertility problems in the US?

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They are really common. This is one of those things that I think women and couples often feel like they are alone. It's very isolating. But really, we think it's probably about 10% of reproductive age women have some kind of fertility issue. And that's not necessarily that never get pregnant, but some kind of trouble getting pregnant. And so that's almost 6 million women in the US, which is really a lot. It's definitely more common than I think a lot of people think and couples with infertility. We usually say it's about a third on the female side, a third on the male side and then a third, both actually, so very common.

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Okay. And then what are some of the common causes of these fertility problems?

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You know, the, the really, really common thing that we see in our offices pcls are polycystic ovary syndrome. And I think a lot of women have heard of this. It is so so common and it's it's a hormone imbalance. And one of the side effects of that is ovulation problems. And so women with pcls often don't ovulate regularly and the the irregular periods that are part of pcls are very obvious to women, and especially couples trying to get pregnant but what that means is they're not ovulating regularly, and not as a major, major problem of fertility issues, but there are a lot of



other things damage any damage to the fallopian tubes, which is the tube that connects them. uterus out toward the ovary, that the egg travels through anything that damages that can cause trouble getting pregnant, and that could be endometriosis, previous surgeries, all kinds of things can cause that problem. And there are some less common issues too, but pcls really is the biggest one.

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And how many women roughly have pcls? How common is that?

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It is really common. And actually, we really don't know. Because it is so common, but some estimates go up to even a quarter to a third of reproductive age women. Wow, that's huge is really common.

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I'm guessing it varies in severity to some woman may have a more severe case of it and some may not even be aware of it

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very much. So some women don't ever have a period at all because they're not ovulating ever and some women actually have normal cycles. So yes, this is a very variable.

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Okay. And then what recommendations Would you have we'll start with men. What recommendations would you have for men to try to improve improve their sperm quality to improve the chance of successfully conceiving?

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This is one of those things Unfortunately, there's not a whole lot to do about it. What we do say is focused on a healthy lifestyle which is important for men and women also, of course, but but there are no particular treatments or anything that we know for sure will boost sperm quality. But, but what we say usually is okay, no smoking and I'll probably say no smoking five or six times over the course of this because it's a really big thing in our world. We know that that does affect time to conception as affected by smoking, so no smoking, no marijuana or other drugs, healthy weight and limit alcohol and then actually, what we do know is any testosterone or anabolic, which are the bodybuilding steroids. Those will affect sperm Production and sperm quality. But But an absence of something identifiable like that. It's the really the only thing we have, there's some low level evidence that says that antioxidants with vitamin C can help boost



sperm quality. That's one of those things that we say it might help. There's some data that says it does, it probably won't hurt. So try, but unfortunately, that's where you got to have some limits on that.

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Okay, yeah, certainly more research is needed on prenatal supplements for men to help them but just being have a good diet and perhaps a basic nutritional supplement might be helpful for them. Yes. And is age, also a factor for men that as they get older, they're less likely to be able to conceive.

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That is a factor but really not until the extremes of age getting up to like 80/75 80s 90s. And even then it's not absolute for all men there. There's some evidence that sperm quality does decrease. There's not a lot of evidence on whether it actually means that that conception won't occur. But the evidence that we do have says it's for men it's at the very extreme of age.

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Well, it's surprising. And then what about for women? What recommendations would you have for them to increase egg quality to increase chances of conception?

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For egg quality we men and women are unfortunately in the very same boat. For egg and sperm quality on this there's there's not anything right now that we know that will boost egg quality. It's very similar to men a multivitamin a good multivitamin and women should be on a prenatal anyway. A good multivitamin and antioxidants as well as CoQ10. There's a little bit of evidence that says that may help in some women. But again, there's really not a whole lot that we know yet unfortunately.

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Okay, and Then what can couples do to try to increase their chance of a successful conception? Can you talk a little bit about the importance of timing?

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This is the million dollar question, right? What can people do at home to make the chances better? Yes, for sure. I'm going to just put my plug in there. Again, stop smoking, if you smoke, that's one of the most important things you can do to get pregnant faster and have a healthier pregnancy. So stop smoking both both partners if you do. Like we talked about before normal weight. overweight, increases time to conception, but so does underweight. So a normal healthy



weight is really key here. We talked about prenatal vitamins already. Of course, this doesn't help with consumption or time to consumption but is a really important component of a healthy pregnancy. Men a multivitamin like we talked about, and limitations there's a little bit of data on limiting alcohol and caffeine. We have more data for As you know, during pregnancy, but there's a little bit of data that says to for consumption that if you limit caffeine and alcohol that that decreases the time to conception also. So, so really like you said, a healthy lifestyle is really key. And then the second thing is exactly what you said, which is timing. And and sometimes you and on websites, folks trying to get pregnant might read, or might hear timed intercourse, which sounds fancy, but really, it's not all it means is that you should have sex during the fertile window. But the million dollar question and the key is, of course, right? When is the fertile window? When is the best time? When am I going to get pregnant? Right? There are a lot of ways to do this. You can do everything from an old fashioned calendar to a million smartphone apps that will help you track cycles. And the key is the first day of your cycle is the is the first day of bleeding and you sort of go from there. So if you haven't 28 or 29 day cycles, you probably are going to ovulate about day 14 or so right in the middle. And that's the time. The best thing is every other day sex three to four days before that day and the day or two days after, because the sperm can wait around for a couple three days, but the egg cannot. And so it's more important that you have sperm waiting when the egg ovulates. And so you want to be right in that window. The tricky thing is women who don't have regular cycles, or like women who have pcls, it becomes nearly impossible. And so that's when sometimes we help ladies get their cycle a little bit regulated so that we know when ovulation is going to happen. And one of the best things that you can do is use something called an ovulation predictor kit or an APK is what you'll hear them you'll read them and hear them op Ks. What that is is an over the counter kit that works just like urine pregnancy test, except instead of the pregnancy hormone, it tests the hormone that's released when you're going to be late. And so and it goes positive about 24 hours before the egg is going to come out. So it's fantastic, you know exactly when it's going to happen. That's the time for intercourse. And so we usually do suggest that ladies use these kits because you can buy them over the counter without a prescription, and they really work well for the vast majority of people. So that's, that's a great thing to do. It lets you know that you actually are ovulating, and if you are, when it is and when to have sex.

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Well, that's great. That's very detailed recommendations with two levels of guidance, you know, you can aim for this certain period of 14 days, or you can also if that's not working, then go in and get that kit and try to be even more precise.

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Yeah, and we have lots of times time ladies who say I have really regular cycles and we say



that's great. You don't need anything else because you know, and that's great. If and If the kits are really helpful for ladies who just are a little bit on either side or have a little bit different cycle timing, and so then that's really helpful.

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Great, great. And so, um, if conception is unsuccessful, what evaluations would you consider? What would you recommend that the couple do?

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So this is also kind of like you what you said sort of two levels, there are some baseline things that we can do for everyone, usually, and then there are some more advanced things that sort of depend on the situation. I won't say the first thing that as hard as it is, sometimes we say to wait, and remember that 20% per month, right? It's only 20% per month. So it it it really is hard but but it takes the average couple a few months to conceive. So we usually say about six months is reasonable, unless you have some reason that you know if you know your Not ovulating, then don't wait six months, right? That doesn't make any sense. But six months is is a reasonable amount to try. And then after that we say okay, something is something's probably going on, we should figure out what it is. Women almost always get some baseline lab work. We check hormone levels, sometimes we check with hormones to see whether ovulation is occurring. Ladies usually get a pelvic ultrasound just we check the uterus, we check the ovaries, make sure that we can see that their eggs over the uterus is normal and appearance, make sure there's not anything we think is interfering. And we can also check and see whether the tubes are open. You might see or read. It's called a it's called a history cell. pinga gram but sometimes it's called a dye test or a tubal test. And there are a few ways to do that. But what but all of the ways, put something like a fluid inside the uterus that we can follow out the tubes and make sure they're open. So that's something that we do because if the tubes are blocked, the sperm and the egg are never going to meet Of course, then the conception won't happen. So that's kind of the baseline for women for men. Sometimes hormone levels but usually not right at the beginning. It's helpful for them to have a an exam, a physical exam, to look for any abnormalities, especially dilated veins in the scrotum that can cause an issue and then of course the semen analysis most people have heard of that which tells us whether the sperm or nor look normal move normally and normal and number and for men, that's really the beginning.

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Okay, great. And then you also check for other issues like endometriosis or other potential problems.

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We do check for other potential problems depending on what we it would take a very thorough



history. We ask you all your whole life story about your periods and your your family and your medical history. Of course, we Always ask quite quite a detailed amount of information and depending on what that seems like, then yes, we would check for other things. If you told me that you had no problems getting pregnant, but you had trouble keeping a pregnancy. That's a whole kind of nother set of evaluations. If you told me that you had very painful periods, your whole life, they're getting worse and you have pain with your Menzies, I might think you have endometriosis. And that's kind of a whole different. Again, ball of wax and a whole different set of evaluation. So there are several other things besides what we've talked about that can cause fertility issues, but it's, it's really should be individualized and not everybody doesn't necessarily need all of those tests

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should really just take beginning with a good medical history and then guiding the testing, using that to guide what testing you do and what treatments to consider. should be. Yes. And there's some of those problems more common than others, like how common is a blocked fallopian tube, or some of these other problems?

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You know, it really depends on the history. So if someone has had an ectopic pregnancy, which is a pregnancy in the tube and not in the uterus, I would be very suspicious that maybe that tube is blocked. And that would be a woman that I would really say, I really think we should check and see if your tubes are open. I think that could be an issue but in someone who has no history of any surgeries before, never had any abnormal pregnancies doesn't have any pain, I would say, well, your tubes probably are okay. That that's not a very common finding. And in that group of ladies, things like endometriosis, we really don't have good estimates. Unfortunately, it's probably about eight to 10% of the general population of women that have endo which is pretty significant. And so that is Something that we are always, always aware of and especially with endometriosis, as anyone who has it or takes care of ladies who have it is super complicated and not very well understood. It's also a wide spectrum of disease. And and we think we know that it affects fertility. We don't know exactly why it could be everything from a blocked tube. It could be that the egg doesn't get as well to the uterus as it would in someone without endometriosis. It may be that the eggs aren't as good quality, we really don't know. But we do know that that impairs fertility. And so that's always something high in our mind.

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Okay, great. And so what recommendations would you have then if you do discover some of these fertility challenges? So if men for example, have a low sperm count or low motility, what would they be a next step for the men



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for men, I really feel strongly that

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Men should see someone that specializes in male fertility. There aren't any more very many REIs it is a little bit regional. There's some REIs that will see both partners, many don't anymore. But there are some very good male fertility specialists. And I, in my mind, that's very important for them to get a good exam by someone who knows what's going on and fix what problems can be fixed. So we work very closely with a male fertility specialist and it's really a fantastic,

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okay, great. And then if the women were having some of these problems, what recommendations would you have for them? What are some typical fertility treatments that you might consider?

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Sure, and I'm gonna start to answer listen to a Part A and Part B. Because the as we talked about before, the reasons for having fertility problems or trouble getting pregnant are many and They can be in many different stages. And so something, say if lady has pcls, and it's not oscillating regularly in the absence of any other fertility issues, that's pretty straightforward and is done by a lot of general obgyn. So that's usually an oral medication, you might have heard of Clomid, or clomiphene, or famara. Those are medications that coax the ovaries into ovulating. And so, as I said, women with pcls just don't ovulate regularly often, and so we fix the ovulation, and they do very well and get pregnant. And so that's kind of one end of the spectrum. And then all the way to the other end of the spectrum. Something like endometriosis, like we talked about is super complex. And so kind of depends on what's going on is there a lot of Is there a lot of disease and does it need to be surgically removed? Then you need to see someone who is very comfortable and competent, doing those kinds of surgeries if there's something like recurrent miscarriage, which is so so hard for for patients and for providers, because of course, there's not the pregnant problem getting pregnant. There's the problem keeping and it's so hard. But and that's a whole nother series of testing that women and their partners usually undergo. And so it's important to see somebody that is comfortable interpreting, ordering the right things and interpreting that. So it it really the path that you go really depends on what we think is going on. And as far as treatments. There are some pretty standard, I sort of hesitate to use that word in the fertility world because everybody kind of has a different cookbook, but there are some pretty widely available treatments and some really common things that folks will hear is The the kind of beginning of beginning of the path is the oral medications like we talked about for polycystic



ovary syndrome, and those are the ones to kind of help the ovaries get going. And those are pretty safe, fairly well tolerated. Ladies usually don't have very many problems with them because you only are going to take them for about five days of the month. And so, side effects are pretty few although you do have a slightly increased risk of twins. So something to be aware of. You may hear something called intrauterine insemination or IUI. That's a pretty straightforward office procedure. A sperm sample is washed and concentrated and we use a small plastic tube to introduce it directly into the uterus. In general, that is also fairly like I said, straightforward and pretty well tolerated. Women usually have a little bit of cramping but But really No, no risks much to that procedure. And that's helpful if we, we have a couple that we don't know what's going on. We don't have a reason like unexplained infertility or if we have a low sperm count, it's not helpful for no sperm, of course, because there would be nothing to put back. But for low sperm count that can wash it and concentrate it and increase pregnancy rates for those folks. And then, of course, the big one. The big one in the fertility world is in vitro fertilization or IVF. And there are lots of ways to do IVF. But in general,

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in general, what happens is the woman takes medications that stimulate the ovaries and we want many many, many eggs. Normally you make one per month we want many many. We give you a medication to keep from ovulating because we want the eggs we don't want them to obviously into the tubes and when the follicles or the cysts are big enough We remove the eggs in an office procedure using ultrasound, and it skinny skinny needle and anesthesia. We mix the eggs with the sperm in the lab and let them grow and the ones that grow well and look nice, we put back in the uterus again with a small plastic tube. But that's kind of the bare bones of in vitro fertilization. And there are lots of pros and cons to IVF as you can imagine, and it's fairly low risk as a whole as far as complications and side effects, but there are so many things to think about with IVF. Costs cost is extremely variable. It's emotionally draining for a lot of folks, and even things like what, what are you going to do if you have more embryos than what you need? What are you going to do with them so there are lots of pros and cons to IVF is a great way for a lot of people to get pregnant. The science is in Amazing that we can do it. But it's not perfect. And there are a lot of things, a lot of things to think about. And so that should always be a shared decision between the partners, and the couple and the physician for sure.

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Right, and how many of the couples you work with end up needing IVF as opposed to being helped by some of these other earlier attempts first.

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I would say maybe roughly half and half, maybe a third and two thirds. I don't have a great



number right off the top of my head, but we do a significant amount of non IVF. Because it's not for everybody. It doesn't. Some some folks are, it's just not for everybody. And that's part of our job is to figure out what sits right in your mind what's the best decision for you. And it's not IVF for a lot of folks, we do a lot of other things. And we still have a lot of PC OS as we talked about. It's really really common and without Big thing that we help with, and that most ladies who have PCs don't end up needing IVF. They just need to ovulate and they can get pregnant, which is really cool. But we do do a decent amount of IVF, too, because there are a lot of folks that we never figure out what exactly as the problem, or we do, and it's something we can fix with IVF. So we do a decent amount of both.

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Great, great, well, that's very exciting, and good to know that there are all these different options, some simple ones to begin with, and then backup plans if needed, if there are more challenges. Um, overall, do you think most families are eventually able to become pregnant through these steps, but there are a few who cannot for different reasons.

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Yes, I feel like the majority of folks do end up getting pregnant which is great. I mean, we, we always unfortunately, do have some couples who never conceive either. Because we can't overcome whatever the issue is the difficulty is that we find or a great many of folks, unfortunately, are the the, the I wish we had a better name for it unexplained infertility, that's such a unsatisfying answer for everyone. And unfortunately, sometimes we just never figure out what the what what to overcome. And so we don't, but there are lots of ways to be a family and there are lots of ways to be parents and we talk about all of those too.

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That's great. That's great. And then in some cases, if it's discovered that the male is infertile, then you can consider sperm donors most cases.

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Yes, definitely. There are sperm donors then there actually are egg donors too. Which is very fantastic. You can you can have a donor from either side and, and for both for both men and women, sperm and eggs. They're generally young, healthy, and they're very, they're very well vetted. I guess is the best way to say so it's very safe. And that is definitely an option that a lot of people use if if there's a sperm issue that we either there's no sperm or we try and it doesn't work, then a lot of times we will go to a sperm donor.

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And those are



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99% of the time anonymous. Same with egg donors. And egg donors, the majority are used by ladies who are a little bit older than what IVF sometimes is able to help. IVF really doesn't do well after 41. Unfortunately, I think the internet and the news would have us believe that anyone can get pregnant anytime and have a baby. And that's just really, unfortunately not the case. And so a lot of our ladies that are 42 or 43 or 45 will use egg donors and they have really great results. So

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good. Well, it's great to know that we have options really from from any of these issues. So I've covered a lot of topics. Are there any other additional comments you want to make? Is there anything that we missed?

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I don't know that there's anything that we missed, I'll just sort of hang on to when I kind of was just saying, I think don't don't wait is a don't wait as a useful piece of advice. I think. I know I said, Wait at least six months before, but I feel like frequently This is a very hard thing. It causes strife and relationships. It causes personal feelings of guilt and anxiety folks feel like they're alone. And they don't want to talk to anybody or they don't know how and I would say, don't wait. If you're committed and it's not happening, then the way that you want it to happen. Then ask somebody start with your general ob gyn even and get some direction because because I think in my mind, it's better to have a plan ahead of time and sort of get help at the beginning even if your decision is we're going to wait a year and we're just going to try totally fine. Totally fine. You make the decision that sets right in your mind. But But I think don't wait, don't wait.

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Great, great. And I can imagine to that, in your experience working with couples, and they struggle for a number of months, and finally they succeed. I'm sure they're very happy. And I'm sure that's very gratifying to you to be able to help all those families.

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It's wonderful. It really is wonderful to help help people achieve that. It's really a wonderful thing.

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Right. Well, thank you so much for your time.

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Thank you so much for having me.

