Pregnancy Over 35 with Dr. Emiliano Chavira

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IN THIS EPISODE

Is pregnancy after 35 really as risky as the label suggests? OB/GYN and perinatologist Dr. Emiliano Chavira joins Dr. Elliot Berlin, DC to separate fact from fear about conceiving, carrying, and delivering in your late 30s, 40s, and beyond.

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DR. ELLIOT BERLIN, DC: Welcome to the Informed Pregnancy and Parenting podcast. I am your host, Dr. Elliott Berlin, and joining me today is veteran co-host, mother, wife, doula carpenter, and so much more, Dr. Kristin Polisi. Welcome back.

DR. EMILIANO CHAVIRA: Thanks for having me.

DR. ELLIOT BERLIN, DC: Pleasure. You know, many of our patients are pregnant with their first babies, and they're in their mid to late 30s, and often go on to have multiple kids. However, some of them are really nervous about having babies over the age of 35 because they're labeled as either being of advanced maternal age or having a geriatric pregnancy. Sometimes, their doctors are nervous, too, and consult with perinatologists to determine if additional testing or interventions are suggested. Today, our guest is both a practicing OB-GYN and perinatologist, and he's over 35, and he's come to share his expertise and thoughts on female fertility and age. Dr. Emiliano Shibira, welcome back to the podcast.

DR. EMILIANO CHAVIRA: And I'm very anxious about the notion of getting pregnant. Over 35? Yeah. Is it just because you're over 35? That's mainly the issue. Yeah, I thought so. It bothers me, yeah.

DR. ELLIOT BERLIN, DC: In your mid-20s, it would have been totally okay.

DR. EMILIANO CHAVIRA: Right, right. But now he resonates.

DR. ELLIOT BERLIN, DC: Ah, I really wanna help our listeners understand how age may or may not affect fertility, pregnancy, childbirth, and postnatal health, and kind of what sort of things to take into consideration when planning the right time to have a baby, and what to do if you're having baby at different ages. So the biological clock, the proverbial biological clock, in my view, all things that are alive have a life cycle, and a life cycle has four parts to it. We are born, we grow, we reproduce, and we die. And you know, there's a little timeline in which that happens for different living things. And along the timeline, there are some predictable things that take place. When it comes to fertility, that's true too, both in men and women,

DR. ELLIOT BERLIN, DC: although it's different for men and women, and more dramatic, I think, for women. So the relationship between the age and female fertility is sometimes called a woman's biological clock. If we can explore that a little further, where does the clock start, I would say, with menarche? What is menarche?

DR. EMILIANO CHAVIRA: Menarche is when a woman starts having periods. However, I would say the clock starts even before that.

DR. ELLIOT BERLIN, DC: Oh, good, let's find it out.

DR. EMILIANO CHAVIRA: You're bigger than I am. Well, I'm the referee on the tiny ones. Okay. So actually, I would say the clock starts even in utero because a woman is born with all the eggs that she will have during her whole entire life, and those are present when that woman is actually a fetus in her mother's womb. So I would say the clock starts in utero.

DR. ELLIOT BERLIN, DC: That should make people less anxious. At your second birthday party, the clock is ticking.

DR. EMILIANO CHAVIRA: But if you meant to say, I guess, when you can start reproducing, then I think, yeah, menopause, menarche.

DR. ELLIOT BERLIN, DC: Which is roughly around 12, 13 years old, plus or minus a little from person to person. And then after puberty, biologically, female fertility increases from that point and peaks somewhere. Do you have a rough idea on where the peak is?

DR. EMILIANO CHAVIRA: You're quizzing me, I don't know.

DR. ELLIOT BERLIN, DC: I don't know either, I don't know if anybody knows. I think it's thought to be in the mid-20s, mid to late 20s, but I think some of that information actually comes from the early 1900s or earlier, and that things may have changed along the way. And then there is some thought that in the 30s that both fertility and maternal health would start to take a decline. And somewhere around the age of 45, there's a big decline in terms of trying to get pregnant and succeeding to a live birth, and then also menopause happens, and then the fertility cycle sort of closes, the natural fertility cycle sort of closes. So within that little rough sketch of female fertility, when is the best time to have a baby?

DR. EMILIANO CHAVIRA: I would not give a biological answer to that question. I think having a child, there's tremendous emotional and psychological and financial and spiritual ramifications to that. So that answer is gonna vary wildly depending on the life that that woman is leading.

DR. ELLIOT BERLIN, DC: Sure, I agree with you. The biological is a factor. And even when the peak biological time is, may not coincide with when the right sociological time is. And they all have to be taken into account. Biologically though, in the late 20s or very early 30s, just all of us are less likely to have chronic health problems. The rates of miscarriage are lower, atopic pregnancy are lower, the rates of stillbirth are lower. Am I making that up, or is that?

DR. EMILIANO CHAVIRA: No, that's all true. Those things are all true. There are also generalizations, which in the work that I do, it's something that I violently resist, is putting people into categories and treating them all the same. For example, you could have a woman who's in her mid-20s who is maybe not at the peak of her health and is overweight and maybe has a touch of diabetes and hypertension and decides she doesn't like the way her life is going and sets about to changing her lifestyle, eating healthy, starts exercising, loses weight, and maybe in her 30s, she's actually in much better condition than she was in her 20s. So I think it always comes down to the specifics of that particular woman and her particular life.

DR. EMILIANO CHAVIRA: Certainly what you said is generally true, that as you get older, fertility starts to decline, it gets harder and harder to get pregnant in the first place. If you successfully conceive, the chances that you're gonna have a miscarriage is rising. The older you are, the higher the percentage chance of miscarriage. So from that point of view, as a general rule, I might agree with you that in some very vague general sense, maybe the 20s is the best time to have a baby, but I certainly would never want to discourage women who are thinking of having a child in their 30s, dissuade them from doing that.

DR. ELLIOT BERLIN, DC: Sure, and what you said earlier is very important too. I wouldn't either want someone to feel like they need to have the baby in their 20s, just because they're still in their 20s, to need to have the baby now or they can't have a healthy baby later, because as you mentioned, if you trample all over not being mature enough, not being financially settled, not finding if you want to do the right partner to have a baby with having your career advanced to the point where you want, those things can be devastating on the other side. And so just having a slight increase or even a significant increase in biological health naturally because you're younger may be very much outweighed by not being right in the right mind frame or sociological position

DR. ELLIOT BERLIN, DC: to have a baby at that moment. So there's a lot to juggle.

DR. EMILIANO CHAVIRA: Yeah.

DR. ELLIOT BERLIN, DC: What do you think, Doc?

DR. EMILIANO CHAVIRA: I think it'd be interesting because I don't think that there's as many studies currently for the age groups that are younger, like in their 20s, in how much, like the rise of autoimmune diseases, like our general population has changed drastically over the last five years also. So I don't know if there's as much research. It'd be interesting to see to me what the rates are of miscarriage in 20s now and 30s and 40s, because I think it's changed. I don't think there's a secure

grasp on, now in your 20s, sometimes like he's saying, there's a lot more going on in your 20s now than there used to be just from environmental, like environmental exposure to certain things, like what's in our food, what we're eating.

DR. EMILIANO CHAVIRA: A lot of those have significantly changed. So I think it would be very nice to have a better influx of new research to see what those statistics are. Yeah, that'd be great.

DR. ELLIOT BERLIN, DC: Are you busy?

DR. EMILIANO CHAVIRA: Yeah, could you do that? Apparently, I'm working in your office now, so.

DR. ELLIOT BERLIN, DC: Just on Sunday.

DR. EMILIANO CHAVIRA: We'll just start that, you know? That's what I think.

DR. ELLIOT BERLIN, DC: I also do think that that's the stress alone, because stress has a major effect on health, that if you do have the baby at a time that you're not ready, and it creates that kind of stress for you, then you're not doing anything, even biologically, to help yourself, versus waiting a little bit longer. I also do see, as you mentioned earlier, first of all, I love the concept of a touch of diabetes. I'm just saying, because usually when people hear, you know, you have diabetes, whether it's gestational or otherwise, it hits them like a ton of bricks. So it's nice to know you can just have a little touch of diabetes. Just a taste of it.

DR. EMILIANO CHAVIRA: Well, actually, I mean, actually, as it turns out, any variable that you look at, any condition you look at, things always fall on a spectrum. Mm-hmm. So while I really wasn't putting any serious thought into that choice of words, actually, I do take care of a lot of diabetic women, and for some, it's really just a touch. It's really a very mild condition, and they're not that much different than women without diabetes. And there are other women that have very serious, tremendous, hard-to-control, really difficult diabetes, and you could probably say the same thing about maternal age and the impact it has on pregnancy. So age 35 is one thing where you, for the first time, begin to fall into this category, and 38 is something else.

DR. EMILIANO CHAVIRA: Is there a? 41 is something else. 45 is something else.

DR. ELLIOT BERLIN, DC: Are those textbook benchmarks?

DR. EMILIANO CHAVIRA: Well, 35 has always been, at least from the time I was trained moving forward, 35 was always the age that marked advanced maternal age. Mm-hmm. And so that distinguished that group of women.

DR. ELLIOT BERLIN, DC: Is it at midnight on that day? Is it exactly the date, the time that you were born?

DR. EMILIANO CHAVIRA: It is. Okay. Absolutely.

DR. ELLIOT BERLIN, DC: I was at a home birth, actually, as a doula with a woman who was 34 and went into labor on her birthday, and she went past midnight, and I was like, oh my God, your advanced maternal age. But you gave birth three hours later, so.

DR. EMILIANO CHAVIRA: It's not actually defined by when you give birth. It's defined by when the due date is.

DR. ELLIOT BERLIN, DC: The advanced maternal age?

DR. EMILIANO CHAVIRA: Yeah.

DR. ELLIOT BERLIN, DC: Oh, so if you're gonna be 35

DR. EMILIANO CHAVIRA: at the due date. When you're due. Yep, then you're in the club.

DR. ELLIOT BERLIN, DC: But that means if you give birth two weeks early, you lived your whole pregnancy as advanced maternal age, but for not. Yeah, okay. I like to think things through sometimes. Really, so that's how it is. It's not how old you are when you get pregnant.

DR. EMILIANO CHAVIRA: Right. That's interesting.

DR. ELLIOT BERLIN, DC: And the due dates are so accurate that that makes sense.

DR. EMILIANO CHAVIRA: And I think it's only really because you have to make a definition.

DR. ELLIOT BERLIN, DC: Right, because due dates are not that accurate.

DR. EMILIANO CHAVIRA: And so that's how the definition is made. You're age on the day of the due date. And is that because their hormones change at that point? Like what, I guess, are parts of the criteria that created the name advanced maternal age? I think primarily the most salient observation is that as the age of the mother climbs, we see a higher and higher incidence of certain genetic conditions in the baby, the most common one being Down syndrome.

DR. ELLIOT BERLIN, DC: Is that because of the eggs? Meaning if you were to freeze eggs at an earlier age, would you avoid that?

DR. EMILIANO CHAVIRA: Yeah, I think it's primarily related to that. So the cells of reproduction that we make, so the female, her ovaries make the eggs, as I mentioned earlier, they're actually present at the time of birth. So if you get pregnant at age 25, you ovulated a 25-year-old egg. Well, 25 in some months. If you get pregnant at the age 40, you ovulated a 40-year-old egg. So you can just imagine that affects the health or the overall quality of those eggs or the likelihood that there'll be some kind of error during the process of fertilization.

DR. ELLIOT BERLIN, DC: You know where my mind goes with this is like, should everybody just freeze eggs at 25?

DR. EMILIANO CHAVIRA: Well, it would be something you could think about if in vitro fertilization was not as expensive it is. So that would certainly be cost prohibitive. And it would also be something you might think about if in vitro fertilization had zero risks, which it doesn't have zero risks.

DR. ELLIOT BERLIN, DC: Right, you forget about that.

DR. EMILIANO CHAVIRA: Yeah, so based on those couple of limiting factors, we're probably stuck with most of us trying to reproduce naturally. Some people, some women though, this actually is a

very serious consideration in some circumstances. For example, if you're not certain that you're gonna be reproducing anytime soon, and that could be for various reasons, and you're concerned about, let's say I think I am maybe gonna try to have a baby at age 40, but I don't know if I wanna use my 40-year-old egg, so maybe I'll freeze some at age 34 with the thought that I'll use them later. Now, the current status of that science, I have to say I'm not totally up on, because it's a little bit outside my area.

DR. ELLIOT BERLIN, DC: Well, we have good news for you. We have a whole episode with Dr. Shaheen Gadir, reproductive endocrinologist.

DR. EMILIANO CHAVIRA: That would be the perfect person to talk about.

DR. ELLIOT BERLIN, DC: On fertility preservation.

DR. EMILIANO CHAVIRA: Yeah.

DR. ELLIOT BERLIN, DC: It's actually a very, it's a very informative episode. You are an OB-GYN and a perinatologist. What is the difference?

DR. EMILIANO CHAVIRA: Well, an OB-GYN has completed an OB-GYN residency, and sometimes we use the term generalist, and they can do a lot of different things. They can do prenatal care, deliver babies, and they're usually limited to pregnancies without real major complications, and they also do-

DR. ELLIOT BERLIN, DC: Which is most pregnancies.

DR. EMILIANO CHAVIRA: Which is most pregnancies, and they also do gynecology, and so that can entail a lot of things. It can entail contraception. It can entail dealing with abnormal pap smears. It can entail taking care of issues related to incontinence. GYN surgeries related to the female genital tract. So any time you need surgery relating to some problem in the ovaries or the uterus or cervix or vagina, it's a gynecologist that does all that kind of surgery. They can, in some settings, will deal with straightforward, simple infertility cases, and they can-

DR. ELLIOT BERLIN, DC: So is it also the version of urologist for women?

DR. EMILIANO CHAVIRA: There is a specialty within OB-GYN that's called a urogynecologist, and that's a specialist beyond a generalist OB-GYN, but gynecologists can do some urogynecology, and OB-GYNs vary a lot. Some of them are weighted a little heavier to the OB side.

DR. ELLIOT BERLIN, DC: Doing more birth and pregnancy.

DR. EMILIANO CHAVIRA: Doing more birth and pregnancy, and some of them are more heavily weighted to the GYN side and do more surgery.

DR. ELLIOT BERLIN, DC: Not waking up at night time.

DR. EMILIANO CHAVIRA: Yeah, so there's sort of a lot of different manifestations of the OB-GYN, but they have the ability to sort of cross all of these different areas and take care of all of these issues.

DR. ELLIOT BERLIN, DC: Almost like an undifferentiated stem cell.

DR. EMILIANO CHAVIRA: Yeah, exactly, so then when you go, you do your OB-GYN residency and you finish, you can then function as a generalist, or you can do some further training in a subspecialty area where you really focus on that. So perinatology, or maternal fetal medicine, is one of those specialty areas. Infertility is another one. Reproductive endocrinology and infertility. So you referred to that. You're having an upcoming guest.

DR. ELLIOT BERLIN, DC: Oh, we had him already.

DR. EMILIANO CHAVIRA: Oh, you had him already? Yeah, he was delicious. GYN oncology is another specialty. GYN oncology. So cancer of the general tract. And then there's sort of a growing specialty of minimally invasive surgery where gynecologists who focus on these minimally invasive surgical techniques. Family planning is another area. There's another growing specialty, which is pediatric gynecology. What does that mean?

DR. ELLIOT BERLIN, DC: Oh, pediatric gynecology. So for kids.

DR. EMILIANO CHAVIRA: Right, and it's an interesting. Gynecological issues in kids. It's an interesting gap because you have.

DR. ELLIOT BERLIN, DC: What kind of things do kids come in for that would require specialty? I'm just out of ignorance, don't know.

DR. EMILIANO CHAVIRA: Probably like UTI. Well, they can have a lot of things ranging from congenital problems with, you know, birth defects in the general tract. There can be infections. There can be tumors, all kinds of things. And it's, the idea of a specialty pediatric gynecologist is interesting because it's sort of a little bit of a gap because a lot of gynecologists don't do a lot of pediatrics and you're not.

DR. ELLIOT BERLIN, DC: Pediatricians don't do gynecology.

DR. EMILIANO CHAVIRA: And vice versa, yeah. So actually I think there is room for that specialty. But anyway, that's the difference between a general OB-GYN and a perinatologist. So what I do is focus more on pregnancies that are more complicated either by some kind of maternal condition or the baby has some kind of birth defect or other problem that needs some kind of specialized care.

DR. ELLIOT BERLIN, DC: And my experience is most perinatologists really just don't really do obstetrics anymore. They mostly consult with obstetricians on their more challenging cases.

DR. EMILIANO CHAVIRA: Yeah, so it's a very common structure that perinatologist just does ultrasounds and consultations and the obstetrician will do sort of basic prenatal care and then manage the delivery.

DR. ELLIOT BERLIN, DC: But you do both.

DR. EMILIANO CHAVIRA: Just cause I love it.

DR. ELLIOT BERLIN, DC: Cause you, is that really why?

DR. EMILIANO CHAVIRA: Yeah, that is really why.

DR. ELLIOT BERLIN, DC: So you consult with other obstetricians?

DR. EMILIANO CHAVIRA: As a maternal fetal medicine I do. So they have their own patients, they refer them to me, do the consultation, they still are taken care of by their primary OB-GYN.

DR. ELLIOT BERLIN, DC: And at the same time you do obstetrics, you work with women who are pregnant and deliver babies.

DR. EMILIANO CHAVIRA: Right.

DR. ELLIOT BERLIN, DC: And it's not just a higher risk quote unquote more complicated, your general OB as well.

DR. EMILIANO CHAVIRA: Yeah. Maybe if I get pregnant.

DR. ELLIOT BERLIN, DC: How old are you?

DR. EMILIANO CHAVIRA: I am in my, I'm 44 so I still have a window.

DR. ELLIOT BERLIN, DC: It's closing.

DR. EMILIANO CHAVIRA: I can see the crack is thin. But there's still a little space. I still got some years.

DR. ELLIOT BERLIN, DC: You got plenty of years. You're gonna have to represent. All right, I think what I wanna do is take a little break and then when we come back I really wanna find out, so from your perinatology hat, I mean I assume that the older someone is during pregnancy the more their OB is going to wanna consult with a perinatologist. So you must be very well versed with pregnancy over 35. And you're also kind of one of the more laid back of the obstetrician perinatologist combinations that I know. So what happens is, really is on a regular basis in my office I see very strong, very healthy, both mind and body women coming in who are 35, 38, 41. And they are terrified. The doctors put a lot of fear into them that because they're over 35

DR. ELLIOT BERLIN, DC: they just expect things to go wrong left and right. And I'm like, wait a second. That's one piece of your clinical profile. Look at the rest of your profile. So I wanna find out from you and all your experience what someone can actually expect and how things might go. They might take into consideration some differences. Don't go away.

DR. EMILIANO CHAVIRA: We're gonna be right back with Dr. Emiliano Shavira.

DR. ELLIOT BERLIN, DC: Welcome back to the Informed Pregnancy Podcast. I'm your host, Dr. Elliot Berlin, here with co-host Dr. Kristen Polacy and continuing our discussion of advanced maternal age with Dr. Emiliano Shavira. All right, we're talking about having babies in your 30s and 40s. So tell me, practically speaking, are there differences, are there things that you do differently when you manage a pregnancy for someone who's over 35?

DR. EMILIANO CHAVIRA: Differences are subtle. There's not tremendous differences in caring for a mom over age 35 versus under. I would start off addressing the comment that you made at the end of the last segment that there's so much anxiety surrounding the notion of an advanced maternal age pregnancy. And you use the term high risk. And very often my specialty that I practice is referred to as high risk pregnancies. And it's a term that I absolutely despise. And it really just makes me wanna go jump off a cliff. Actually, sometimes I kinda wanna do that anyway. It just seems fun. Have you ever done it? Not yet, but cliff diving sounds kinda cool to me. Anyway, the-

DR. ELLIOT BERLIN, DC: It sounds cool to me for you to go cliff diving.

DR. EMILIANO CHAVIRA: Oh, okay. It's kinda one of the little squirrel suits. Yeah. Okay. I just, I don't think I fit into my speedos anymore, but otherwise I would.

DR. ELLIOT BERLIN, DC: I'll get you a bigger speedo.

DR. EMILIANO CHAVIRA: Okay, problem solved. So the thing about this term high risk pregnancy is that it's undefined. And when I hear that term, honestly, I don't know what it's talking about. So what actually, how high does a risk have to get before it's high? Is it 1% higher compared to the population average? 3% higher, 10%? At what point does it get called a high risk pregnancy? And then the other question is risk of what exactly? What is the risk that we're worried about? So because this term is so ill-defined and it's also thrown around left and right, if you sneeze once in mid-pregnancy, all of a sudden you're labeled high risk pregnancy. It just, this term is used so liberally. I think it, and on the face of it, it just sounds very scary, right?

DR. EMILIANO CHAVIRA: High risk, ooh, something's gonna go wrong. When in fact, the reality is, by far the most likely outcome of any pregnancy is that it's gonna be a successful pregnancy. And if you fall into one of these categories that is a quote unquote high risk pregnancy, it means however many percentage points, statistically, you can see that you're more likely to have one of these adverse outcomes. But even though that's the case, it's still much more likely that you're gonna have a normal healthy outcome. And that's the most likely way that the pregnancy's gonna end. Oh, that's boring. It is, and I think these statistics should usually be reassuring rather than scary. But in general, during prenatal care, we don't give people actual numbers

DR. EMILIANO CHAVIRA: and we don't tell them what their absolute risk of things are. We just use term like, well, you're a high risk pregnancy. It's just, it almost makes it sound like. That's a crappy term. There's more likely something gonna go wrong than it is to go well.

DR. ELLIOT BERLIN, DC: Right, so it's really maybe more accurate term would be the difference between an incredibly low risk pregnancy to an ultra low risk pregnancy.

DR. EMILIANO CHAVIRA: Right.

DR. ELLIOT BERLIN, DC: Both of those sound fine.

DR. EMILIANO CHAVIRA: Right. So in terms of the actual risks of having a pregnancy over age 35, we mentioned one previously. There is a higher chance that you might have a baby with some genetic condition, for example, Down syndrome. Okay, so if we, let's say we talk about a 20 year old.

It might be something in the neighborhood of one in a thousand. One in a thousand pregnancies will turn out to have Down syndrome. By age 35, that number's gone up to about one in 250. Okay, so it's four times higher. Okay. And you can say that and make it sound really scary. It's four times higher. But if you say your odds are one in 250, I don't know, to me that just seems, you know, the vast majority of babies to moms 35 years old are not gonna have Down syndrome.

DR. EMILIANO CHAVIRA: It's just that one out of 250. And is that including genetic predispositions like medical history of a person or is that just a general?

DR. ELLIOT BERLIN, DC: Just because of age.

DR. EMILIANO CHAVIRA: Just because, yeah. For these types of conditions, it's really mostly related to age and it's influenced sort of minimally by family history. So we do have a lot of women come in that, you know, I have a cousin with Down syndrome and it doesn't change your risk profile that much. It's really more or less driven by age. But there are tables that give what the actual risks are depending on your age. And then the other thing is over the years, genetic testing has improved so we can actually make these diagnoses earlier in pregnancy. Oh, really? The first, the earliest testing can be done is a blood test that's called NIPT, non-invasive prenatal test. And that can be done as early as 10 weeks.

DR. ELLIOT BERLIN, DC: Non-invasive because it's a blood test

DR. EMILIANO CHAVIRA: as opposed to poking a baby? Correct, it's just a blood test off of the mom's arm. At how many weeks? 10 weeks.

DR. ELLIOT BERLIN, DC: Wow, and how accurate is it?

DR. EMILIANO CHAVIRA: So for Down syndrome, it'll pick up as much as 98% of cases which is an improvement over the prenatal screen that we've had for many, many years which in a 35 year old, we may get up to somewhere between 85 and 90% pickup rate.

DR. ELLIOT BERLIN, DC: Are there a significant number of false positives?

DR. EMILIANO CHAVIRA: There are false positives. So that's why the NIPT is considered a screening test and it's not a diagnostic test. You would never want to make any decisions based on an NIPT test. If it were to come out positive that we don't know at that point in time if the baby has Down syndrome or not. The younger you are, the more likely it is to be a false positive. The older you are, the less likely. The more likely it is, that's accurate.

DR. ELLIOT BERLIN, DC: Are there false negatives?

DR. EMILIANO CHAVIRA: There are false negatives. Oh, so there's both.

DR. ELLIOT BERLIN, DC: So just because you passed the screening test doesn't mean 100% that there's no Down syndrome.

DR. EMILIANO CHAVIRA: Right, right, but it does have a 98% pickup rate so that means if the baby does have Down syndrome, 98% of the time this blood test is gonna find it.

DR. ELLIOT BERLIN, DC: So there's a low false negative. And perhaps a medium false positive, depending on age range. Now, should we follow up with a more invasive test if you get the positive, non-invasive?

DR. EMILIANO CHAVIRA: So we have a discussion about that and more invasive testing is offered. A mom may make the decision that, well, even though we're not 100% certain about the diagnosis, she doesn't want to risk the diagnostic testing and she accepts the fact that the baby may have Down syndrome. That's what it looks like based on the testing and she may decide not to do it. Somebody else may really want to have this question answered definitively and we'll move on to do the diagnostic test which very early in pregnancy could be CVS, chorionic villus sampling and you can sort of think of that as a biopsy of the placenta because the placenta and the baby share the same genetics. So you can tell. Yeah, the placenta is basically a fetal organ.

DR. ELLIOT BERLIN, DC: That does not have false positives.

DR. EMILIANO CHAVIRA: It does actually.

DR. ELLIOT BERLIN, DC: That also has false positives.

DR. EMILIANO CHAVIRA: Yeah, the CVS has one unusual thing that can happen which is there can be one little tiny chunk of the placenta that mutates and then has different genetics than the rest of the placenta and the baby and that's called a confined placental mosaicism. So that's one of the pitfalls of the CVS.

DR. ELLIOT BERLIN, DC: Versus the amnio?

DR. EMILIANO CHAVIRA: The amnio, which is usually done after 15 weeks and typically in the neighborhood maybe of around 17 weeks, it does not have that problem.

DR. ELLIOT BERLIN, DC: You're getting amniotic fluid?

DR. EMILIANO CHAVIRA: Right, and so there's cells from the baby's skin floating around in the fluid and that's what you collect and you grow them and you examine them under the microscope. But that's considered, that's a diagnostic test and for all intents and purposes, you would think of that as 100% reliable.

DR. ELLIOT BERLIN, DC: All right, I have one more question on this topic and I wanna talk more about maternal age. If you know that positively the baby will have Down syndrome and someone wants to keep that baby, do you treat the pregnancy differently?

DR. EMILIANO CHAVIRA: Basically, no.

DR. ELLIOT BERLIN, DC: So for someone who's gonna keep the baby either way, it may not be so advantageous to do

DR. EMILIANO CHAVIRA: more invasive testing. Yeah, but it doesn't make a tremendous difference. We might do some additional ultrasound testing because a Down syndrome baby, they're known to have a higher likelihood of heart defects. I see. So you might do a detailed ultrasound of the heart which is called an echocardiogram. Some Down syndrome babies can develop problems in the

third trimester. One of the common ones is a type of intestinal obstruction which you might actually be able to see an ultrasound. So we would usually do an ultrasound in the third trimester to look for that whereas in a routine pregnancy, there's not automatically a reason for an ultrasound in the third trimester. So there are little subtle differences

DR. EMILIANO CHAVIRA: but by and large, the prenatal care is the same, the delivery is the same, the birth is the same.

DR. ELLIOT BERLIN, DC: But those are ultrasounds so that means even if you weren't sure, if you got a positive non-invasive test, you could do those extra ultrasounds without having to do a more invasive test. You talked about risk. The risk going up a little bit of things like this and it's interesting because risk is perceived differently by different people. Somebody will hear one in 1,000 and think it's very high. Someone in here 1,000 think it's very low. Someone will hear one in 250 and think it's very high or 4% and think it's high and someone else will hear them think it's very low which I think is all the more reason why as providers, we just have to provide the data and let them decide how do you feel about this.

DR. EMILIANO CHAVIRA: Absolutely.

DR. ELLIOT BERLIN, DC: What other things are we looking at both in terms of what elevated risk of what and managing a pregnancy differently just because somebody's over 35 or a birth differently because someone's over 35.

DR. EMILIANO CHAVIRA: I wanna make one last point about the genetic issues just before we move on which is that once you complete the evaluation and you've answered that question, that question is now off the table. So let's say you're 40 years old and you're very concerned about having a baby with Down syndrome and you do the testing and you discover that your baby does not have Down syndrome, that issue is now gone. It's irrelevant.

DR. ELLIOT BERLIN, DC: That risk is no longer elevated for you.

DR. EMILIANO CHAVIRA: Is no more. Is zero. Or conversely, you discover it is Down syndrome then now you know and you're gonna decide what to do with that. So this tends to be one of the most common concerns among women over age 35 but the vast majority of them are not going to have a baby with one of these genetic conditions and once you do the testing and figure out that it doesn't apply to you, that issue disappears. It's in there. It's not there anymore.

DR. ELLIOT BERLIN, DC: So pretty much by the second trimester that's no longer a discussion.

DR. EMILIANO CHAVIRA: Yeah, and potentially even as early as the first trimester. So now moving on to your question about what things can actually happen to you. What I would say is there are certain common complications of pregnancy that can happen to anybody whether you're 20 years old, 30 years old, 38 years old and these are things like developing gestational diabetes somewhere along mid-pregnancy. That can happen to anybody. It's just a little more common among older women. A touch. Just a touch. Yeah. It may be related to the fact that most of us are progressively gaining weight as we get older. So you're more likely to be heavier at age 35 than you were when you were 25. It's definitely true in my case.

DR. ELLIOT BERLIN, DC: But as you said, some people are getting healthier as they get older.

DR. EMILIANO CHAVIRA: Some people may be healthier at an older age than they were at a younger age. Another common condition that happens in pregnancy is a condition known as preeclampsia where you can think of it as it's like you're having a reaction to the pregnancy and you're getting sick from the pregnancy. And one of the ways we know that this is happening is all of a sudden your blood pressure starts to elevate. It's something we very commonly see usually at the end of pregnancy. So maybe 35 weeks, 37 weeks, 39 weeks. And it's usually a mild condition that's not particularly dangerous to either mom or baby. However, it is well known that preeclampsia if you don't do anything about it and you let the pregnancy continue over time can worsen

DR. EMILIANO CHAVIRA: and turn into a very serious condition that becomes dangerous for mom and baby. So that's a minority of cases.

DR. ELLIOT BERLIN, DC: Is that eclampsia?

DR. EMILIANO CHAVIRA: Well, eclampsia is one of the worst manifestations and that refers to where you've gotten to the point where you're having seizures. So preeclampsia is sort of the syndrome before you have a seizure. But there can be dangerous things that happen to a mom with preeclampsia. So preeclampsia by itself can be a dangerous condition even without the seizures. Once you've had a seizure, then we call it eclampsia.

DR. ELLIOT BERLIN, DC: Is eclampsia fairly uncommon now that we are constantly monitoring for preeclampsia and then, I mean, are there treatments you can do other than getting the baby out?

DR. EMILIANO CHAVIRA: At this point, we have not developed a therapy that makes it go away. So what we do is we look for it, we screen for it and that's a big component of the medical side of prenatal care. Once we identify it, we get, we observe moms very carefully more so than what you do during routine prenatal care. And hopefully we can allow the pregnancy to go as far as 37 weeks, get to term. And then usually the routine at that time is to proceed with delivery because we know that some of these cases will progress and develop into something dangerous. So you kind of want to deliver the baby before you get there. How common is it for preeclampsic women to then develop help? So help is another version of preeclampsia which you identify on blood tests

DR. EMILIANO CHAVIRA: and help stands for hemolytic anemia. So your red blood cells are kind of getting broken up within your blood vessels and elevated liver enzymes. So there's an impact on the liver and low platelets. So platelets is that little particle in your blood that forms blood clots and it helps control bleeding in your body.

DR. ELLIOT BERLIN, DC: It's a terrible combination.

DR. EMILIANO CHAVIRA: Yeah, it's just a particularly nasty version of help syndrome. And it's part of the reason why when we, the preeclampsia syndrome, it's just part of the reason why when we see moms with preeclampsia, blood work is involved. It's one of the things you're looking for is help syndrome.

DR. ELLIOT BERLIN, DC: And again, no treatment other than getting baby out.

DR. EMILIANO CHAVIRA: I mean, that's the definitive therapy that cures the problem. There's other stuff we may do along the way. We may give blood pressure medication to keep it out of a dangerous range. If it looks like the baby's gonna be born prematurely, there may be stuff that we do to help the baby like giving steroid treatments which are very clearly shown to be helpful to a baby that's born preemie.

DR. ELLIOT BERLIN, DC: For breathing, to help them breathe?

DR. EMILIANO CHAVIRA: It reduces breathing complications. It reduces some other complications that preemie babies can have like bleeding in the brain, bleeding in the intestines. So it reduces the frequency of some pretty serious complications that preemies can have. We also give magnesium in the IV to moms to reduce their chances of having a seizure. And it turns out if you deliver a preemie baby, the magnesium helps the baby as well at reducing the likelihood that the baby will develop a condition known as cerebral palsy which is a neurologic condition where they're not able to coordinate their movements normally. So that can affect walking and control of hand and arm movements. So there are things we do besides delivery but the therapy that is going to make

DR. EMILIANO CHAVIRA: the preeclampsia go away is delivering the baby.

DR. ELLIOT BERLIN, DC: So zooming back a little bit, you're saying that in pregnancy over 35, there is an increased chance of preeclampsia?

DR. EMILIANO CHAVIRA: Right, so preeclampsia by itself is a very common, let's say complication of pregnancy and we may see it somewhere in the neighborhood of five to 10% of pregnancies. And again, any mom can get it. But there's this interesting paradox where we see it a little more commonly at extremes of age. So it's more common in teenagers. You've got a 16-year-old giving birth. And then it's more common in women over age 35. And so it's gonna be more than five to 10% if let's say you're 43 years old, it's gonna be more likely that you're gonna see preeclampsia in that pregnancy.

DR. ELLIOT BERLIN, DC: But you monitor for preeclampsia anyway in anybody. So is there a difference in the way you monitor when somebody's either teenage or over 35? We are gonna take a quick commercial break.

DR. EMILIANO CHAVIRA: Don't go anywhere, we'll be right back. So I have never seen, my guess is if you survey obstetrician gynecologists around the country, you're gonna get a lot of different responses. Variation, yeah. I have never seen a formal published guideline that describes changing the way you do prenatal care according to maternal age. Okay. As far as I know, there's no such published guideline. However, I guarantee you for a fact, you start talking to OBs and you're gonna see all kinds of different things. You're gonna see some people will increase the frequency of their visits. Some people will start them on what's called antenatal testing where you bring the mom in, you do an ultrasound and check the fluid around the baby

DR. EMILIANO CHAVIRA: and listen to the heart rate for about 20 minutes. That's called an NST non-stress test.

DR. ELLIOT BERLIN, DC: Doesn't sound all that non-stressful.

DR. EMILIANO CHAVIRA: Some doctors may do that once a week, some doctors may do it twice a week. Starting at what point? Commonly, NSTs will start at 34 weeks, but because there's not a specific guideline, once practitioners start doing their own little algorithm, you really can kind of see. Everything on the map. Everything on the map.

DR. ELLIOT BERLIN, DC: Do you treat the birth any differently? Because I do see patients who are told, I really want your baby by the OB, I really want your baby out by 39 or 40 weeks. Versus where, let's say somebody who's not over 35, they're more comfortable going to 41 or 42 weeks.

DR. EMILIANO CHAVIRA: Mm-hmm. You know, what I like to do is have a conversation about this and get into the numbers and really individualize the birth plan for each individual mother. So the concept of delivering a mother a little bit earlier, if you look at the current American College of OB-GYN guidelines, what they say is if a pregnancy hits 42 weeks, you've gone two weeks past your due date, they recommend inducing labor. Or proceeding with delivery. In some cases, that might be a C-section for whatever reason. And the reason for that is, in the last weeks of pregnancy, there is a small risk of stillbirth or sudden fetal death. Everything's fine, and then all of a sudden, the baby's heartbeat stops and baby's gone.

DR. EMILIANO CHAVIRA: So at about 40 weeks, the risk of that happening is about 0.5 out of 1,000. So like one out of 2,000 births, this'll happen. At any age? That's just a general statistic, not incorporating age. And by 42 weeks of gestation, this has gone up to a couple out of 1,000. So again, it's a four-fold increase in risk. It's still an overall pretty low risk, you know, a couple out of 1,000. But based on these statistics, what has been calculated is if there's a policy of inducing labor, you're gonna save about two out of 1,000 fetal deaths. Now, from the point of view of the healthcare provider in the hospital who takes care of hundreds and hundreds and hundreds and hundreds of women, that's gonna make a difference to you over time

DR. EMILIANO CHAVIRA: because you're gonna prevent some fetal deaths, which is an incredible thing to do. For the families that experience a fetal death, I gotta tell you, this is one of the most horrific experiences to go through, to lose a baby at term. And so preventing that is a very, it's a wonderful thing. And that's the rationale for ending pregnancies before they go too far along. From the point of view of the individual though, if your risk is a couple out of 1,000, you might feel that that risk is acceptable.

DR. ELLIOT BERLIN, DC: It goes back to how different people perceive risk.

DR. EMILIANO CHAVIRA: Different people perceive risk. And it depends on how you feel about inducing labor versus waiting for a natural labor to ensue. So when I talk to women about this, there are some women that even the tiniest, tiniest risk, they don't want it. They say, let's get the baby out, let's deliver. Other women place a very high value on spontaneous labor and they find this risk to be acceptable. So it's really kind of tailoring approach to the values of that particular woman. Now, so this was all just sort of a general overview. The American College of OBGYN recommends inducing at 42. Out in the community, it's a very common practice to induce at 41. And there, I remember reading a survey of gynecologists in the United States,

DR. EMILIANO CHAVIRA: and I don't remember something like 65, 75% expressed that they have that practice inducing at 41. So it's just a very common practice out in the community. But the concept is the same. You're preventing a couple of fetal deaths that happened in those last weeks of pregnancy.

DR. ELLIOT BERLIN, DC: How does that change over 35?

DR. EMILIANO CHAVIRA: Okay, so if you look at stillbirth rates by age, it appears to be higher in older moms. So now you can take this sort of population baseline average and multiply it by some kind of risk factor. So, and I wouldn't be able to quote these numbers off the top of my head, but let's say your risk is double or triple, you know, compared to the population average. So instead of two out of 1,000, let's say it's four out of 1,000. Okay, so as an individual, you may respond to that very differently. You may feel very uncomfortable that you're in a category of women, that your risk of stillbirth is higher than other women.

DR. ELLIOT BERLIN, DC: First of all, when you say double, that sounds like a lot, but when you say four out of 1,000 versus two out of 1,000 doesn't sound that much different.

DR. EMILIANO CHAVIRA: That's why giving the absolute risk instead of the relative risk makes this whole conversation sound very different.

DR. ELLIOT BERLIN, DC: Right, and it's still gonna be absorbed different by different people.

DR. EMILIANO CHAVIRA: It's still gonna be, so one woman may hear that the risk goes from two out of 1,000 to four out of 1,000, and for her, that's enough. She doesn't wanna take that risk, and she wants the pregnancy. Another woman may hear that and say, I'm comfortable with that, I'm gonna continue waiting for natural labor to start.

DR. ELLIOT BERLIN, DC: That also, by the way, assumes little or no risk to inducing or doing a cesarean.

DR. EMILIANO CHAVIRA: Right.

DR. ELLIOT BERLIN, DC: Because then you would also have to take into account the absolute risk of those interventions.

DR. EMILIANO CHAVIRA: Right. So why isn't the standard of care to individualized care and have it be a conversation between the woman and her doctor? I think that is a fabulous question. You know, it's, my experience with institutional maternity care is that it is incredibly protocol-oriented, and as time passes, it is becoming increasingly protocol-oriented, and there are also policies and procedures within hospitals, and the number of policies and procedures is continuously growing over time. Like if you look at the manual of policies and procedures, you just see this book getting thicker and thicker and thicker and thicker. Now there's a part of that that I think is a value. There's, you know, in some sense,

DR. EMILIANO CHAVIRA: having different practitioners being all over the map, and hospital A functions this way, hospital B functions this way, and there's no standardization anywhere. I don't think that's a good thing, and I think there's a certain degree of standardization that actually improves

the quality of care and improves outcomes, but it also has to be done thoughtfully, and there are certain things that need to be standardized, and there are other things that don't lend themselves well to be standardized. The second layer of that is, when you have protocols and procedures, one of the things that starts happening, and I see this among physicians, and I see it among hospital administrators, and I see it among nurses,

DR. EMILIANO CHAVIRA: is that the thinking part of the brain just turns off, and there's no analysis, there's no individualization, there's no taking into account other things, like, you know, you talked about the risks of, any time there's a risk of doing something, there's also a risk associated with not doing that thing, and you sort of lose the whole, you know, big picture, and the concept of risks and benefits, and you just- Not to control,

DR. ELLIOT BERLIN, DC: but there's also a difference between medical risk and liability risk.

DR. EMILIANO CHAVIRA: Sure.

DR. ELLIOT BERLIN, DC: And sometimes as a doctor, you know, medical risk is the risk to your patient, or in this case, their baby. Absolutely. Whereas liability is the risk to you as the provider, and they don't always go up or down together.

DR. EMILIANO CHAVIRA: Yeah, absolutely.

DR. ELLIOT BERLIN, DC: So a doctor may want to offer only options that have less liability, even if they're more or less risky to the patient.

DR. EMILIANO CHAVIRA: Yeah. But you know, just to complete the point is, people just start following the protocol, and they just kind of stop thinking. Robotic. And they may not know the data that's behind the protocols, and they just kind of get used to functioning a certain way, and any time somebody wants to do something that's off protocol, they become very anxious about it.

DR. ELLIOT BERLIN, DC: Because then you're also picking up more liability. It's very safe to go with the flow.

DR. EMILIANO CHAVIRA: Mm-hmm.

DR. ELLIOT BERLIN, DC: It's a lot more risky for a doctor to individualize care, because if you do something that's not community norm.

DR. EMILIANO CHAVIRA: Well, I think it's easy to think that way, but I don't know if in fact it's true.

DR. ELLIOT BERLIN, DC: It feels that way.

DR. EMILIANO CHAVIRA: Sure. On a certain level, it may feel that way, but maybe your liability is decreased by having a conversation with somebody and listening to them and figuring out what their values are and tailoring a plan of care that is more in line with what they're looking for. That's crazy talk. Oh, sorry. Is that even a skill that's still worked on though? I mean, outside of, I mean, did you learn that in school, or did you learn that through experience and as you've worked with these types of individuals or this, like as you've grown, do you think if you look back at it, it was something that was just inherently part of you and your personality, or do you think it's something that was cultivated

in your diagnosis classes? I think it's more B.

DR. EMILIANO CHAVIRA: I don't think there's a lot in training. You really get trained in procedures and protocols, and then on an institutional level, there are heavy pressures on you as a provider to stick with the frigging protocol.

DR. ELLIOT BERLIN, DC: Go with the flow, go with the flow, go with the flow.

DR. EMILIANO CHAVIRA: So you start off in the medical training, learning procedures and protocols, and then it just gets reinforced and hammered into you on an institutional level. And then there's a lot of time pressures. It's harder to individualize care. It takes more time, it takes more effort, it takes more thought.

DR. ELLIOT BERLIN, DC: For which you don't necessarily get paid.

DR. EMILIANO CHAVIRA: Yeah, you absolutely don't. So you have to be very motivated to practice that way.

DR. ELLIOT BERLIN, DC: I wanna put you in my pocket and take you wherever I go, but, and as you know, I want you in my office eight days a week, but I only have a little time left, so I have two final questions for you on this topic. What is the oldest patient you've worked with in pregnancy?

DR. EMILIANO CHAVIRA: Me personally, 50 something. Yeah. So I don't remember 51 or 52, but I've had a handful of 54 plus year olds.

DR. ELLIOT BERLIN, DC: 54, we had a 54.

DR. EMILIANO CHAVIRA: And it was her first pregnancy.

DR. ELLIOT BERLIN, DC: It was her first pregnancy. And man, she felt good the whole time.

DR. EMILIANO CHAVIRA: She was amazing. Yeah, I've had a handful of 50 plus year olds, and more than one.

DR. ELLIOT BERLIN, DC: I felt really bad about myself after working on her. She was in such good shape.

DR. EMILIANO CHAVIRA: She was amazing.

DR. ELLIOT BERLIN, DC: I'm just happy as a clam.

DR. EMILIANO CHAVIRA: Yeah.

DR. ELLIOT BERLIN, DC: Okay, and then that was just a little factoid. But then also, for somebody listening who's over 35, just a take home advice. I mean, we talked about scary things here. And I think one of the things that you said that would be my most important take home point is all of these things that you're talking about are small increases. And that, for the most part, the risk of any of these things is still incredibly low and much lower is the chance that it won't happen than the chance that it will happen. But practically speaking, is there anything that someone would do differently if they're in their late 30s or early 40s for their pregnancy or getting ready for birth?

DR. EMILIANO CHAVIRA: You know, I really am a fan of simplicity. And I think it just gets back to the basics. The things that you're gonna do to prepare for pregnancy are the same things that anybody else is gonna do. You're gonna try to eat healthy. You wanna, you know, do exercise. Just get your general health into a better place. Work on good night's sleep, stress management. Older moms may be more likely to have some kind of medical condition. So if that applies to you, you know, if you have some kind of thyroid condition, diabetes, hypertension, seizures, whatever it is, those should be addressed and optimized prior to pregnancy. You wanna make sure you're on medications that are, you know, acceptable continue during the pregnancy.

DR. EMILIANO CHAVIRA: You wanna get all your conditions are in control. So maybe that applies to you. Maybe, you know, maybe it doesn't. You wanna be on a prenatal vitamin with folic acid in it since prior to the pregnancy. Vitamin D deficiency is a, you know, very common condition among most of us these days since we all live indoors now.

DR. ELLIOT BERLIN, DC: So I don't get it from the glow from my computer? That's not a...

DR. EMILIANO CHAVIRA: You would have to sit pretty close to the computer. Sorta do. Yeah.

DR. ELLIOT BERLIN, DC: Okay. So vitamin D then?

DR. EMILIANO CHAVIRA: So, you know, I mean, pretty basic stuff.

DR. ELLIOT BERLIN, DC: It just doesn't sound like you'd treat it all that differently.

DR. EMILIANO CHAVIRA: Yeah, not really. I mean, there's, you know, you have the conversation about the genetic testing. The overall structure of prenatal care is the same. Some providers will recommend doing the fetal testing at the end of pregnancy. I mean, you may have individual providers who treat it very differently. Right. And, you know, kind of harping on risk all the time and insisting on inductions and just kind of making it into a scary thing. But I think that's more the personality of the provider than, you know, there's no published guideline anywhere that says we're supposed to function that way.

DR. ELLIOT BERLIN, DC: Well, I think if I'm in those shoes, my take-home message would be sort of just, you know, do the research and find out the absolute numbers. And if you feel a certain way and your provider feels a different way, you probably could find a provider who's more in line with yourself.

DR. EMILIANO CHAVIRA: Can I plug an online resource? Please. Okay, so there's a great online resource. If you type into Google evidence-based birth.

DR. ELLIOT BERLIN, DC: That's a good one.

DR. EMILIANO CHAVIRA: It's a great website. She has great stuff. Yeah, so it's put together by a PhD nurse researcher. And what she does is, her name is Rebecca Decker. She picks a topic and basically finds all the world literature related to that topic and basically presents what the data is.

DR. ELLIOT BERLIN, DC: She breaks it down.

DR. EMILIANO CHAVIRA: So she has multiple articles on multiple topics, but one of them is this issue of age over 35. Oh, great. And so that's a great Thank you. read and a good place to get a good authoritative summary of the evidence.

DR. ELLIOT BERLIN, DC: I love reading her stuff. It's so informative and so easy to digest. What about labor and delivery? As somebody gets older, does it become more challenging to go through the physical journey of labor and birth?

DR. EMILIANO CHAVIRA: That is a really interesting question. And it's actually a question that women ask me. So sometimes I'm taking care of these ladies who are over age 35 and we start getting close to the delivery date and they kind of start murmuring about cesarean section. And eventually the concept comes out that they're concerned that their body actually does not have the physical capability of delivering a baby because of their age. And it probably just comes, it's just an extension of all the fearful notions that have been pumped into them about somehow once you're age over 35, that something is incredibly different. And I usually try to be reassuring about that. You know, it's interesting to reflect on the fact

DR. EMILIANO CHAVIRA: that labor is an incredibly physically demanding feat. However, I think about the women that I take care of and I take care of women who don't do any exercise, completely out of shape, have multiple medical conditions, overweight, and they labor and they deliver their babies. So it's something that the body just has the ability to do. And you know, frankly, I just, in my mind, it's not a concern. It's not an issue.

DR. ELLIOT BERLIN, DC: It's interesting that you say that because in my mind, I can very specifically picture two women, one and very in particular, who was 42 and fit as could be doing Pilates regularly, yoga regularly, eating really clean and green, but not just now, but for the past 30 years. She's in great shape and has the feeling that because she's over 40, that she won't be able to endure the physical challenge of labor and delivery. So contrasted to a patient like you just described, I mean, she'd be light years ahead.

DR. EMILIANO CHAVIRA: Right. Yeah, so I think it's just more of a, it's more of a fear than any kind of reality. That makes sense. Yeah.

DR. ELLIOT BERLIN, DC: That's a really great way to end. Thank you so much. Doc, thanks for being here again. We're gonna be back for Million to One Topics. If you at home have a topic you would like to address in general or with Dr. Shabir specifically and Dr. Poliasi, please send us an email to info at informedpregnancy.com.

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