**Podcast:** What the (*&@ Do All Those Numbers Mean? A Crash Course in What "They" Are Measuring and Why During Your Prenatal Care - Taking Back Birth Episode 5
**Date:** June 25, 2013
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**Transcriber**: Katie Moore

**Synopsis:** *In this episode of Taking Back Birth, I explain what information is typically collected during a prenatal and why. This understanding will help you make the right decisions for you! Here are just a few of the things I discuss…*

- *Why you MUST understand what's being 'measured' and why.*
- *What numbers during your prenatal visit don't mean anything, and which ones might.*
- *What is the POINT of listening to your baby's heartbeat?*
- *The real truth on blood pressure and what it can tell you in pregnancy.*

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**INTRODUCTORY MUSIC**…

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**MARYN:** Welcome to the latest installement of IndieBirth *Taking Birth Back* series of podcasts on iTunes. I'm Maryn, and today we're going to continue our lengthy podcast discussion about prenatal care. We've done three podcasts prior to this one, *all* on prenatal care. So, catch up by listening to those, if you haven't already.

[1:13] Today we're going to get pretty specific, and, for lack of a better title, this one is somewhere along the lines of: "Why all the measurements? What's being assessed at a prenatal visit and why?" I think this is vital information that many of us do not have. What is being assessed when you go to your doctor or your midwife, or even if you're doing your own care? What does it mean? What do these numbers mean? What information is being collected and why?

[1:51] So, my line of thought at this point is, there are good reasons and not-so-great reasons for most things. And in pregnancy, if you're going to have something done to you; something as benign as having your blood pressure taken, perhaps, then understand what it's about. What's your reason for wanting it done in the first place. What do *you* want to know? And, conversely, if you're seeing somebody for your care, what do *they* want to know? Why on earth are they interested in some of these calculations and measurements?

[2:37] So, why should you care? Well, I think the biggest reason that *I* care, and I'd like to inspire *you* to care, is that this is *your* information. When you go to a prenatal visit, with a midwife or a doctor, this is *your* health information. So, nothing bothers me more than, on the few occasions I've been to the doctor in the last couple years, and they routinely weigh me - this is what they do, right? weigh you, take your blood pressure - and they don't tell me what my results are. And when I ask them, "Excuse me, what was my blood pressure today?" They look at me like I have ten heads.  They can't possibly understand why I'd want to know that. And sometimes I don't even think they're aware of why they want to know that, other than filling out the form that requests vital signs. So, I encourage you to think about that when you go to your

appointment, and depending on your care provider, what's being *explained* to you? Are you even being *asked* if you consent to having your blood pressure taken, or having a doppler put on your baby? Are you being *asked* permission and are your results being explained to you? So I think this is vital that we all understand what's going on with our bodies. And this is not privileged information; this is not rocket science. This is not just for doctors or midwives. We are all entitled to know what's going on with our bodies, *especially* during pregnancy, if we're going to consent to very basic testing. You should not be the *last* to know and understand your own information. So don't give this away. Please, participate in your care, if you choose to receive care from somebody else. This is *your* health.

[4:38] And keep your own records. It doesn't matter - doctor or midwife - again, you can keep your own records. And, you know, after you have all your vital signs taken by somebody else, jot them down on an index card that you keep, or a piece of paper. And keep your own running tally of each visit so that you don't need to ask for this information at any point from anybody. And that would probably help you understand it, as well, to have a copy at home. And, if you can follow along with a copy of your own records, as you're listening to this, it might make some sense of them for you.

[5:19] So today we're going to talk about *why* you might do some of these things, or why you might consent to some of these things. And they're all considered what I would say is *clinical care* in pregnancy. So today we're not talking about counseling and support and working out emotional issues with women. We're talking about *clinical* care, you know, things done to the body to access its well-being. So let me just say that there's nothing wrong, *at all*, with consenting to, you know, my example of the day, I guess, is having your blood pressure taken or having your baby's heartbeat listened to with the fetoscope. There's nothing wrong with it. I just simply want to offer you information as to *why* this would be done, so that maybe you'll feel more confident in understanding. *Especially* if something comes up; there becomes some kind of issue with your blood pressure. If you dont' understand what blood pressure is, or what your last reading is, or what's normal for you, then, you're kind of behind the curve, there, with your own information. And then, what happens is, you end up really, *heavily*, looking towards an expert to advise you about your own health. It's really hard to catch up, sometimes, especially when something comes up. So, it can be perfectly reasonable to do any of these things. It's not a bad or a good thing. And everybody's different. Some women will chose certain things for their very own reasons; reasons that I may not understand. Some women, it's just their comfort level; where they're at. So, you just have to choose where you're at but if you understand what you're looking for, it might help you figure out where you're at.

[7:10] So, personally, when I was practicing more as a *typical* midwife, I conducted one-on-one prenatal visits, which were a lot of fun. And, at these visits, of course, most of the time was spent connecting with the women; the woman and her family. Seeing how her life's going; hanging out in her house. But then there was always, you know, maybe the last 15-20 minutes where all the clinical vital signs were assessed. So: her blood pressure, pulse, if she wanted to have a stick for a urine sample, and then moving to the baby, and getting to see how the baby is in the uterus, and listening to the baby. So that's pretty standard. But once I *really* began educating women on *why* and *how* these things worked - even within their prenatals - so, at the very first visit, explaining all of what I'm going to explain to you today, to a new client. You know, this is *why* we measure your fundus. "What *is* a fundus?" and I would have to explain that. And, I really wanted *them* to start to take responsibility in this way. Because I feel like, the more we

*understand*, then the more we're wanting to participate because we don't feel like it's something above us, or something we don't have experience with. And you can get pretty good experience on your own pregnant body during pregnancy.

[8:45] So, these things began to change for me as I began to educate these women. And that's currently where I am at. Which is, when I visit somebody for some kind of prenatal visit, *they really call the shots*. They understand what all the assessment is about and when I walk into one woman's house, she might say, we might just *talk*. There might not be any assessment of clinical care at that point, at that visit. And the next woman might say, "Hey, would you mind just feeling my baby today and telling me what you think; where the baby's at?" And the next woman might say, "Hey, I'm feeling a little funny. Do you have any urine sticks in the bag? I think I might be getting an infection." So, I think we really *can* trust the women. I trust women entirely, that when the power is given back to them, that they are *well capable*. ***You*** are well capable of deciding what you need or want at any given time. And ideally, you know, you have a relationship with somebody as well, that you can be really open about what you need and want. And you can be really open about when you *do* want more information or more help or assistance. So, it's not a completely black and white issue, *at all.*

[10:18] So, this information that we're going to get on with here, in a minute, is for *lots* of women; really, *anybody*. Mamas who want to do their own clinical care, you know. Women planning unassisted birth may have unassisted pregnancy care. For some women that means no clinical care. That means just taking care of themselves; be watching, you know, that they have stellar nutrition and that kind of thing. But for other women, even planning unassisted births, they *will* do their own clinical care, and basically act as their own midwife. And there's no right or wrong with that either, it's just, what the woman decides. So, that's for these kind of women. It's also for anybody. Anybody that's pregnant and receiving care from anybody else. So, you wanna know what this is all about; what they're looking for, instead of, just, you know, lying on the table. Then this is for you. And then, this is also for the rest of us that serve women: maybe as childbirth educators or doulas. Or maybe this will inspire some midwives, as well, to really be talking to women and explaining what's going on rather than, you know, just putting a blood-pressure cuff on, or whatever. I hope that this inspires *lots* of us to look into what's going on with ourselves and explain it to other women. Because this can be done in groups as well, as we've talked about on previous podcasts. At group prenatal appointments, women can perform these skills on each other. So, it would really be helpful, if that's happening, for these pregnant women - even though they're not doctors or midwives - to know what they're accessing on another women, woman. (Jeez, having trouble today! My plurals!)

[12:06] Okay, so we're going to talk about assessing vital signs, essentially, in mom and baby. *How* these are done? I think that's going to have to be another podcast or video. So, I can't explain to you *how* to take a blood pressure. It's really probably pretty boring for a podcast anyway. So we're not going to talk so much about *how*. We're going to talk about *why* and *when*, and just sort of, *basic* interpretation. Because when a measurement is taken on you, like your blood pressure, it's *rarely* about one measurement. It's *usually* about about a comparison. Sometimes it's about one, but really, if you're understanding how things work, you're looking at the bigger picture. So, some basic vocabulary:

[12:53] **A baseline**, what's a baseline? Blood pressure for example: A baseline is where you start out. So, it's great to get a baseline blood pressure on somebody - if they want that - prior to pregnancy or very early pregnancy. And then we know how their body's functioning in that

regard, before pregnancy really gets underway, if that makes sense. And sometimes baselines are really *helpful.* And blood pressure's a good example of that. Because if we don't have a baseline, we kind-of don't know what to compare it to later. So, that's one good reason for assessing some of these things early on, is just so you have something to *compare* it to. So, a baseline, by nature, is sort-of, you know, the measurement taken *before*. And in this case, we're talking about pregnancy: they're the signs that are taken, you know, early pregnancy usually. And they're *vital signs*. That's what we're going to be talking about, so just *basics*. And if you *weren't* pregnant, a lot of them would be taken at a doctor's appointment *anyway*. Of course, not the baby stuff, but the maternal vital signs.

[14:16] So, let's start with **blood pressure.** Kind of a big topic, to be honest. I'm going to try to make this as efficient as possible, because truly this could be it's own podcast. And perhaps it will be at some point. There's a lot to say about blood pressure in pregnancy. But I just want to give you the basics. Because, I can't tell you how many women that I meet, that when I meet them for the first time, and ask them if they'd like their blood pressure taken, and I ask them if they *know* what their baseline is - what their normal blood pressure is - they have *absolutely no idea.* I mean, I could say, I could give them any kind of number, and they wouldn't know, a lot of them, you know, what that meant or if that even made sense as a blood pressure. So, it's kind of a big one. People don't seem to understand, generally, and it's not complicated.

[15:03] Um, let's see, the best place to start with this. Well, first of all, taking your blood pressure can vary, for sure, with lots of different influences. So it's good to know *that.* The time of day matters: it's generally lower in the morning, when you first wake up. If you have a full bladder, it's generally higher. So that's a good tip if, you're, you know, really needing to use the bathroom and waiting at the doctor's office and then, they take your blood pressure and it's higher than normal. Your feet should really be flat on the floor, like so sitting in a chair: feet flat on the floor, back kind-of straight against the chair. That influences the reading. The cuff size: so, sometimes, you know, maybe a kid-sized cuff would be left out by mistake and if the cuff is too small, then you're going to get an elevated reading. Stress level is another thing. I think most people know that. We've all heard, hopefully, of white-coat hypertension. So, just being plain-old stressed out, for whatever reason, or even just *nervous* about taking your blood pressure or having it taken and having the reading be elevated. So, I could go on, but there's lots that go into an accurate measurement. And that's important to know, again, because, if no one's telling you these things and you get an elevated reading, you might flip out, and there might be very good reason for it.

[16:30] So, what *is* the blood pressure measuring? *Why* does anybody put that cuff on your arm? What is it doing? The blood pressure is telling us two things, and there's two numbers involved in the reading. It's the number *over* a number. So you'll hear blood pressure reported as "100 over 60" or "120/72". Made up of *two* numbers. And the first number, the number on the top, is the systolic. That's what it's called. And this is calculated by the heart beating as it pumps blood through the body. So the heart has two actions: pumping and then the release. So the systolic is the pump through the body, the blood's, you know, *moving*, and then the diastolic is the release, so it's the pressure between the beats. Hopefully that makes sense. It's kind of hard to explain. So it's assessing, you know, how hard your heart is working, essentially, to pump blood through your body. And the higher the number, especially the one on the bottom, then the harder your body's working to do that. Now the top number, so, if somebody says "120 over 72", the 120 *may* have more leeway. So, it may really, you may really be closer to 100 on some days but you go into the doctor and you're nervous and it's 120 or 125. And that would be *acceptable*,

whereas the bottom number has *less* leeway. Hopefully *that* makes sense. So that number, the bottom number, is sort-of more indicative of just, your, the constant of your heart. So it's less influenced by stress and anxiety. So if your bottom number is usually 60, you know, at 70, ah, its getting, it's getting a high for you, even though the reading itself isn't high. Hope that makes sense.

[18:46] So why does this matter? Why do people want to know what their blood pressure is? Well, the effort the heart is making in pregnancy is important because our body is also pumping blood, you know, to the placenta. And this is getting blood to the baby. So the circulatory system is working a little bit harder, for sure. And excessively high blood pressure, you know, can be linked to potential *problems* in pregnancy. Placental issues is definitely one of them. And, you know, sort of worse-case scenerio: super-high blood pressure could precipitate a stroke or something like that. So, everybody's concerned with blood pressure.

[19:26] A *normal* reading. What's normal? Well, everybody's different. If you look it up, even Google it, most *normal* readings are about 120/80. Most normal, healthy young women that I work with? Usually *lower* that that. Maybe 100/60, sometimes, you know, 98/58. It mean, can be pretty low for healthy people. And occasionlly, you'll see *higher* than 120/80 in somebody that's completely healthy and normal. So, again, it might depend on the baseline. You *must* compare to that. You know, it's not just one number is too high. If 120/80 is normal, normal for *who*? You know, if my blood pressure is normally 98/58, then 120/80 is pretty darn high, for me. So, there really isn't *one* number that is across-the-board *bad* for everybody. Although other sources will say that 140/90 is high, and anything above that is *definitely* high. So, some differing opinions on that, but if you have a baseline to compare it to, then you really can assess it better. So again, if you have a low one to start, and you get up to something like 120/80 that really isn't that high for some people, it's still a pretty big jump for *you*. So, it's really the *change* that would be concerning, especially in pregnancy. And that's one good reason to monitor blood pressure during pregnancy. And that's one of the *few* reasons for prenatal care. We've already talked about traditional prenatal care not *being* terribly effective. But, the ruling out of pre-eclampsia - a pregnancy pathological condition - is one reason to monitor somebody''s blood pressure. And women that have had pre-eclampsia before, or eclampsia before, or have issues with hypertension or whatever, then perhaps those women, you know, should monitor the blood pressure more than others.

[21:47] So, the *newer* teaching about pre-eclampsia, thanks to Gail Hart - who I learned this jrecently from - is that it really *is* about the blood pressure. It's a sudden, sharp rise. And again, you have to have a baseline to compare it to, to *know* if you *had* a sudden and sharp rise. So it used to be with pre-eclampsia, that people were talking about swelling, and protein in the urine, and if you had two of those, or two out of three, including the high blood pressure, then you may have pre-eclampsia. So it's not that way anymore, but the sudden sharp rise in blood pressure can defintely *indicate* pre-eclampsia. And you would need to rule out pre-eclampsia by lab work. Um, my guess is, and based on what I know, that someone that is *truly* pre-eclampic, (and usually the only way to know, for sure, would be lab work, or, in hindsight, because the person becomes eclampic) that these women don't feel too great. That's my understanding. So, the sudden sharp rise in blood pressure, and just feeling crappy: you know, nauseus, vomiting, 28-32 weeks of pregnancy; not really wanting that or expecting that at that point. So, it's something to have in the back of your brain, as far as taking vitals go, that that's one important thing that people may be looking for. And if you have any risk factors, or whatever, then you can monitor your blood pressure yourself. And you can go to Walgreens or Walmart and get your

own blood pressure taken. So it's not something that only a professional can do. You can also have your own cup at home and have an automatic reader. Because it's pretty hard to take your own blood pressure manually. You just don't have enough hands. But you can get an automatic reader. So this isn't something, again, that anybody else needs to do *for* you, if you understand how to take it, and what it means, at least at a basic level.

[23:44] Other issues of blood pressure: you know, it can be really *low*. In some women it's *extremely* low, and pregnancy might bring on an even *lower* blood pressure. Other reasons for low, you know, can be severe; such as shock. And that's generally *not* the case in a normal pregnancy. Hydration can definitely affect blood pressure. So, if somebody's dehydrated, then their blood pressure can be low, and lower than normal for them. The other really cool thing to know about blood pressure is that you start at your baseline, whatever that is. And then, if you expand your blood volume properly, through nutrition, as we talk about on the nutrition podcast, then your blood pressure at about midpoint of pregnancy, 28-32 weeks, should drop a little bit. And then kind-of it rises back to your baseline at term. So, you know, having an elevated blood pressure mid-pregnancy would definitely be *less* normal, for sure, and may indicate some kind of problem.

[26:45] So, of all the vital signs, I've probably have spent the longest time talking about that one. And, you know, that's *by far* not all of the information; just a little to get you started. So you understand what it's looking for. And why that one can potentially be important in pregnancy. You know, when to seek help for blood pressure, that's really individual. But if it's much higher for you, *much higher for* ***you***, again, the whole baseline thing, even if the reading itself is not high. Again, the 140/90 is often used as a *standard* but it just *depends* what your baseline is. So, 140/90 is *generally* on the high side for most people, but, you know, it may or may not be for you. And you know, just not feeling good; having a blood pressure that suddenly rises and not feeling good are not great signs, so. Although there are natural treatments for reducing blood pressure in pregnancy and otherwise. You know, it's one of those things that, I think, probably should be taken more seriously if you have a history and, you know, you're looking at that measurement  But, generally speaking, most normal healthy women in pregnancy *don't* have an issue, especially if they're taking care of themselves and eating well. And, you know, there are women who will opt to not take the measurement at all.  So, that's a very valid option.

[26:08] So, **pulse**, this is, uh, I can do this one really quick. That's when you feel your veins pulsing; your arteries pulsing. And the easiest one to feel is probably on your wrist, so towards the outside of the wrist. Turn your hand palmward side up. And outside of the wrist, you can palpate there with your fingers and feel the pulse. And you count it for a minute and come up with some kind of calculation.  And it's usually faster in pregnancy than it is normally, for a woman. And, I'd say, you know, it can get above 90, just if somebody needs some more fluids. Or maybe has been running around all day or is tired.  Generally, it's not higher than 100, unless somebody's *really* worked up or is *super* dehydrated or possibly sick. Because with illness or fever the pulse will go up. So, pulse isn't something everybody looks at.  But, you can, you know, you can take your own pulse quite easily.  And just monitor that. I've had it go up, you know, personally, just even depending on what I eat. If there are things that don't agree with me, or if something has a lot of sugar in it, my pulse will be faster.  And that's something I generally *feel*. So if my pulse does get fast, I feel it. I just feel sort-of unstable. And, you know, need to kind-of ground myself to get it back.

[27:36] An interesting thing about that is Chinese medicine. So, people that are specialists - Chinese medicine doctors, acupuncturists - *read* pulses. And I find that super-fascinating and I don't know a whole lot about it. But they're assessing the pulse for different organ systems. So weaknesses, maybe in the kidneys or the lungs. Even if you don't know a lot about Chinese medicine, you can certainly go around taking people's pulses and feel the difference. Some people have really strong pulses. Some people have sort-of weak pulses. Everybody's feel different. So, that's a whole education in itself.

[28:11] **Weight.** While we talked about weight in the nutrition podcast, so go back and listen to that. But I personally don't focus on the number, I focus on the quality of the food and how someone's eating and how they feel. I feel like weight in pregnancy is really individual. And some women will gain *a lot*, and some women *won't.* And it's just one of those things. The only thing to say about weight gain that's *clinically* interesting, I think, is that when you do have the blood volume expansion happen, which is 28-32 weeks, often there will *be* an increased weight gain at that point. And that's obvious. It's because the blood volume *weighs*; it weighs *weight* ! More blood equals more weight. So, if you see that in yourself or somebody else, where they've gained an extra pound or two or three, at that point, than they normally do, that's a *good* sign; a very good sign.

[29:10] So, **urine.** People are into urine samples and urine sticks. Especially at the doctor's office. And I marvel that, in my time, seeing an OB, way back when, how many urine samples did I give and never once was anything said! And you know, I know from helping women that that *doesn't* mean that everything is *fine*. I don't know why. Sometimes it's not discussed. I don't know if they *look* at it. The thing about urine sticks is, they're not shown to improve outcomes. So, many midwives have given them up, and I don't think that's a bad idea. I do have some. And, it's the kind of thing where, when I explain it to women, I say, "Hey, this is a tool we have. It's not a definitive test. It may mean absolutely nothing." But I teach them how to read the stick, if they'd like to do one. And then, they can do one if they want. Especially if they feel they need to, for whatever reason. They *can* help, *possibly*, focus in on, again, a urinary tract infection. I find that, on the sticks I have, which are the 10-Squared ones (they're kind of an overkill), most women like to see how hydrated they are. So again, the way I do it, is if someone wants one they can pee on it, or pee in a cup and read the stick themselves and just ask questions and see if there's anything to see But there's definitely other ways of assessing urine as well, and a stick, you know, is only *one* way. There's cultures. And even just *observing* the urine. So, you know, that's one of the things that, yeah, there's not too much more to say about. And if you're doing your *own* care, you may or may not choose not to go there *at all*. If you did, you can buy the sticks pretty easily, just on Amazon. So, you know, all of these things are things that we can all do, *ourselves*, should we choose to

[31:09] Okay, so the last bit of time I want to spend talking about baby stuff. I think we covered the Mom stuff. And the baby stuff is definitely my favorite. I always think it's super fun to get to feel someone else's baby, if they let me. And I've practiced hours and hours on myself, when pregnant, feeling my own baby and listening. It's truly an education. So, **fetal heart tones**. It's the fancy way of saying "baby's heart beat". What are we looking for? Did you ever wonder what that's all about? I remember way back when, when I started midwifery training, not really understanding what it was all about and thinking it was just about *hearing* it. And I think that's kind of where it stops for a lot of people, especially when I've been to the doctor's office way back when. That it was just simply a matter of *hearing* it, just *identifying* it. And I've thought about that. What is that about?

[48:15] So early on in pregnancy, you know, 9 weeks, 10 weeks. *Is* there a heartbeat, right? That's why we would listen *that* early. *Is* there one? Is this pregnancy okay? And some women, you know, may have more question about that than others. The thing is, at this gestation, there's *only* one way to hear. Or two, maybe. One would be ultrasound, where you can actually visualize it and then the second would be doppler, which is ultrasound technology to hear the heartbeat. You can't hear this early with the fetoscope, which is, you know, gentle and benign. You can only hear with the doppler which is *not* gentle or benign. So, if someone's at risk for miscarriage, or is concerned about their baby, it's not necessarily the smartest thing to put a doppler on them and cause increased risk. It also can be *really* stressful if you can't find the heart beat at 9 or 10 weeks. Because it doesn't mean anything 's wrong, necessarily. It can just mean, it's, you know, small and hard to find or maybe the dates are a little bit off, and you just need to wait. So there's nothing to do when you can't find it, except *more* intervention, or *waiting*. So we'll do a podcast on doppler, but that's, that's enough for today, about that.

[33:30] Once someone gets to be at least 15 or 16 weeks, this is about the time that *real* baby movement can be felt, like from the outside. When you start to feel consistant baby movement from the outside, this is a great time to buy a fetoscope. And you can buy them really cheap on Amazon: *economy* fetoscopes with *long* tubing, so you can hear in your own belly. And this is *no* risk to the baby. It's just like a stethoscope. And there's many people that just use a stethoscope, so you can do that, too. It's just the fetoscope focuses in a little better, especially early on. So when you can hear with the fetoscope, you're feeling movement. So at this point, it's not about, "Does this baby has a heartbeat?" Because if the baby's moving and kicking you, the baby has a heartbeat. What it is about at this point? Why would anyone listen? What are they listening for? Well, one thing is location. Where's the heart beat? It doesn't matter, really, where it is on the belly at that point, because the baby has tons of room. It doesn't matter if the baby's head down or sideways. It's more just for interest's sake. Where's the heart beat? Because if you're listening with the fetoscope, you're *really* hearing the heartbeat. You're hearing it right over the heart. A doppler amplifies it. You can hear a heartbeat with a doppler from across the room, really. But a fetoscope will focus it in. At this point, so we're talking 16, 17, 18, 19, whatever, weeks of pregnancy, the heartbeat is still pretty fast, and not very deep. So it's kind of metronomic. Just like a little tic-tic-tic-tic-tic. And it's really fun to find it and listen, on your own belly. It's a *feeling*, sometimes, and it can be hard to find, at first, until you know what you're listening for. And it can be kind of tricky, depending on the baby and where the baby's at, and where the placenta is. But it's really *fun,* and you just get to *know your baby* that way. And even as a midwife, that's my favorite part. It's because I'm not listening to see if the heart's beating. I know it is. Mom knows it is. But getting to listen is like getting to know the baby; getting clues about who this baby is, if you just close your eyes and *listen* for a good minute, or longer.

[35:48] So when we're listening *later* in pregnancy, so let's say, like 28, 30 weeks, til the end of pregnancy. Again, it's just not to see if the baby is *alive*. Now, certainly, that happens, where, you know, the heartbeat *is* being listened to, for that one vital reason: to make sure that the baby's heart is beating, if there is doubt. And, you know, that's not a fun situation, by any stretch. But, in a more typical situation, you know, the baby is moving and kicking all the time. So again, it's not *proof* that the baby is alive. And again, I always, I look back and chuckle about that, when I used to see a doctor. That, you know, the ten minutes I had, in the room with the doctor, he'd just place the doppler down. And I didn't know any better at the time. I just thought, that's what they *do*. But now I think, what was he listening for? I mean, what was he doing? He only listened for a couple seconds. I guess, just to count it. You know, he wasn't listening to get

to know my baby. He wasn't confirming position because he was doing this all with the doppler. So, you know, there *are* valid reasons for listening, and some of them are really insightful; some of them are not.

[37:04] So okay, a woman, baby at 30 weeks. And, wanna listen to your own baby. And you can hear *really well* with a fetoscope at this point, especially if you've been practicing. And you may choose to count the heartbeat, you know, for a whole minute or maybe fifteen seconds and multiply it. There's lots of ways to count. Or you may just choose to listen to your baby's heartbeat, and just hear what it sounds like. And that's really wonderful, too. But if you choose to count it, you'll hear variation at this point. So, one time you lay down and listen, and the heartbeat's in the 120's. Baby's kind of resting; kind of quiet. And then the next hour you listen, and it's 160 and the baby's kicking and squirming and moving. And at this gestation, that's just really great and really normal. Because we're hearing that the baby *is* reacting to it's environment. So when its' moving and kicking, the heart rate goes up and when it's sleeping, it's lower. Earlier babies in pregnancy *don't* do that because their nervous systems aren't developed enough. So, that's what I meant by metronomic, when I said that earlier. That a baby at 16 weeks doesn't have that change in heartbeat. It's just sort of the same all the time. But it definitely changes as the baby matures, you know, and is getting ready to come to the outside world, because all those systems have to be, you know, *working*, just like ours do. You know, if we're listening to a baby all the time, we could also catch any kind of irregularity, possilby, if we listen long enough. That would be another reason to listen. The final one is what we've kind-of already said, which is what's the position of the baby? If we're listening with the fetoscope, then, we are able to focus right in on where the heartbeat's the *loudest*, and that can really help. It's not *definitive.* Sometimes it's still tricky to figure out position. But that's another *clue* when you're figuring out position. So, say there was some *big* question, about "Oh, is the baby head up or head down?" Where the heartbeat is isn't going to be *definitive*, but it may be one clue that helps you answer that question. So it can help you figure out where your *own* baby is. And sometimes it's *hard* to figure out where your own baby is. I know that from experience. It can be a lot easier in somebody else.

[39:24] So, just to sum that up, we listen to the baby's heartbeat, you know, so we *get to know* the baby. And we get to hear what different activity levels sound like in our own babies, or in other people's babies. And we get to, just, I don't know, we get a glimpse into their world and their personality. You know, some babies start kicking like crazy when you listen and they communicate. And others sort of shy away and they get real still or they move away, especially with doppler. They'll move away, a lot of them, because it's *hot*; it's uncomfortable. So, again, really interesting! And this is, I think, information I think women are entitled to have, because, to develop a relationship with your own baby in this way can be really fun and really great! And again, it's not *necessary.* You don't *have to* listen to your baby if you don't want to. You don't have to count the heartbeat, if that sort of means nothing to you. But it *can*, it can be really fun. And so the next time someone asks to listen to your baby, you might have a clue as to why they're listening. And again, it's not just to see if the heartbeat's there. There's lots of intricacies to listening to a baby. And that's kind-of only the beginning, but it's enough for today.

[40:42] So the baby's position kind of goes along with where the heartbeat is. And I find it *really* fun to teach women where their babies are. It's not hard at all. Gail Tully, who is a wonderful midwife, here in Minnesota, has a book and a website, even, called spinningbabies.com And she teaches baby position . And she just explains it really great and she has some really simple illustrations. So, you can check that out and it's something that when your baby becomes

bigger, 28-30 weeks, it becomes relevant. Pretty hard, you know, with a 16 week baby, or a 20 week baby, it's hard to tell, for some people at least, like, what part is what. And I would say it's near impossible at an early gestation. So, it's only later that it becomes, I think, easy, easier, because you learn to feel for certain of the major parts. I mean, there's a head and there's a butt and there's little parts. So she explains it really well and I like to show moms her information and explain it to them personally. And then, when I, you know, get to go to somebody's house and feel their baby, before I put my hands anywhere near her belly, I will say, "What is your baby doing? Where is he today?" And once they have this information, they even feel *confident*, to be like, "Oh, well today he's on the right, and he's kicking here" Or, "Oh, he moved since last time you were here!" Very rarely, anymore, do I sit down with a woman that has no idea. So even if she can't explain it, you can often ask questions: "Where are you feeling kicks?" You know, "Do you feel a round solid part?" You can show her how to feel where the head's at. And if you dont have anybody to show you these things, you just figure it out! You just experiment on your own belly and, you know, you feel the way different things feel, and you listen to heartbeats and you sort of put together the puzzle. It's not hard. It just takes practice.

[42:52] So, **size of baby** is an interesting thing. I am not the greatest at that. I find it to be difficult on other people, just because everybody's body is so different. But on myself, I'm pretty good and I think most women *are* pretty good, *on themselves*. So if you say to a woman, you know, especially at 38 weeks, "How big do you think your baby is now? How much do you think she weighs?" And, if she doesn't hesitate too much, she'll usually, I've found, give a pretty accurate answer. "Oh, she's 7 pounds." And some of these women may have had babies before and they can make, like, a pretty educated comparison. And some haven't. And I don't know how they know. Just something about having a baby in there, and, you know, sort of having the guts to guess, I guess. And know that you can be wrong. But ,I dont know, I find women are pretty close. The other cool thing about learning where your baby is, and what's what, is that you'll be the first to know if something's different. And you may not know *what*, you know, maybe the baby changed from head down to head up. And that may not be something that, you know, you can put words to, just because, but, you can tell that something feels drastically different. So, most women, I think, will know these things anyway, but when they have the tools to assess themselves better, then, it's even easier.

[44:16] The last thing is **fundal height**. So what is that? What's a fundus? A fundus is the top of the uterus. So, often you'll get your belly measured, maybe with a tape, a measuring tape. Or maybe you have a midwife that just assesses that with her hands, and both are valid, if you're going to do that. And what you're looking for, if you're going to measure yourself, even, is to find the top of your pubic bone. So kind of walk your hands down your belly until you hit that bone at your pubic area. And you're going to measure from the top of that bone all the way up and over your belly to the top of your uterus. And that we probably need a video for. The top of the uterus is *usually* where the baby ends. So, you know, at about 30 weeks or so, if the baby's head down, then it's kind of a butt up there. That's sort of a simplistic version. And when you measure in centimeters from the *top* of the pubic bone to the *top* of the uterus, it's usually, *usually*, about how many weeks pregnant you are.

[45:24] But there are a couple rules. So if you're before 20 weeks, you generally don't measure. And the reason there is, women are so different in their body types that at 16 weeks, you know, if we were to measure a bunch of women, they'd probably all have drastically different measurements. So it doesn't really apply. The best time to measure, and to get your weeks of pregnancy estimation, accurately, would be again, the good old 28 to like, 32 week mark. Before

that and after that, it's *less* accurate. And fundal height depends on *lots* of things. So: baby's position, how full your bladder is, fluid level in the uterus, lots of things. So, it's *not* a definitive measurement, and it's *another* measurement that you might want to compare one to the next. So, you know, at 28 weeks, if you measure 28 and at 32 weeks you measure, I don't know, 36, then that's a pretty big jump. And that, you know, that's possibly something to look into, *or not*. I've seen many women who fall outside of what's considered normal with fundal height, and there's absolutely nothing wrong, and the babies are perfectly fine and healthy. So, it's one of those measurements that, if you feel enough bellies, you know, I think you get a good sense of. If you're *just* measuring your *own*, then you do the best you can. And take it with a grain of salt and, you know, stop measuring altogether if it just starts messing with you, you know. Unless you *think* something's up that needs to be checked out. It's just kind-of a basic tool, in my opinion. And for women that are doing their own care, you know, I don't know. It's hard, it's hard to measure your own belly. So, I think a better judge of how the baby's growing is how you're eating. And if you've had babies before, especially that sort of general comparision about, you know, how this baby is growing compared to maybe your last baby.

[47:27] So, that kind of wraps up basic skills. I hope that wasn't too boring. I hope that you got some information that you can use the next time you go to one of your appointments. And you feel more informed about what these measurements are, and what that chart, prenatal chart in your folder means, and that you're keeping your own copy. So we're going to save lab work choices and that kind of thing in the prenatal period for another podcast. But I hope you enjoyed this one today on prenatal skills and *why* they're important and what all the numbers mean. Thanks so much for listening. Have a great day!

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