



## Medicine Stories Podcast

Episode 51 with Dr. Sarah Buckley

Maternal Mammalian Ecstasy: The Ancient Hormonal Blueprint for Optimal Birth and Bonding

July 8, 2019

[0:00:00]

*(Excerpt from Today's show by Sarah Buckley)*

*"Mammals have been giving birth as far as we know for about 63 million years so that's how long human birth is evolved for. And for 99.999% of that time, as my anthropology lecturer emphasized, we've lived in the wild. It's only the last 10,000 years of that huge time that we've lived in settled villages and farmed and things like that. Birth is designed to work in the context of the wild."*

[0:00:26]

*(Intro Music: acoustic guitar folk song "Wild Eyes" by Mariee Sioux)*

**Amber:** Hello friends! And welcome to the Medicine Stories podcast, where we are remembering what it is to be human upon the earth.

This is Episode 51, and I'm your host, Amber Magnolia Hill. Today sharing my interview with Sarah Buckley. I'm really excited to talk about birth again! The reaction to my interview with Emilee Saldaya, number 48, was THROUGH the roof. Truly, truly, truly. And, as I spoke about in that interview, birth is so so close to my heart and I always envisioned it being part of this podcast. And as I tell Sarah, her work made a HUGE impact on me when I was pregnant with my first 13 years ago. And it's just an honor to be able to bring her work to my audience now. So thank you so much for listening.

Let's do a little listener spotlight first. This is an iTunes review from Botany of Being:

*A wealth of wisdom. I've been listening to the Medicine Stories Podcast from the first episode. Please pardon that it's taken this long to review. The wisdom shared in this space arrays a vast amount of subjects and yet all woven together by a common thread. Each episode gets to the heart of the true human experience. I am so grateful, Amber, for all that you have gathered together in this space. Especially for your episode on immunity with Cilla Whatcott. This episode was deeply healing for past challenging conversations about immunity. I feel an inner power with which to move forward. Thank you.*

**Amber:** So that's [Episode 30](#). It's relevant for parents and anyone on the parenting path, so mention that here. I chose that review to talk about because I think birth, sleep -- which I'm going to talk about after this interview. I recorded a special outro -- immunity, vaccines, tons of grey space, not a lot of black and white thinking. So many different experiences. So I really just like to hold that space, as you probably know on this podcast, especially when it comes to these very important parenting experiences.

So, yes, at the end of the interview I recorded an extra recording of myself. An outro where I talk about my sleep journey, especially with Nixie, my little one. A number of you have followed my sleep journey with her and sleep, and co-sleeping comes up at the end of this interview with Sarah today. So I realized when I was relistening to it, like, Oh I should update people and anyone who's interested in what's going with our sleep situation now. But not put it in the intro because not everyone's going to be interested. So at the end of the interview if you want to hear about where we're at for sleep and just kind of what my overall sleep philosophy with children is, yeah, a couple of resources, then check out that there at the end of this.

[0:03:57]

**Amber:** I am just so excited to be talking about the primal, ancestral, hormonal physiology of childbirth today. Definitely touched on it in that Episode 48 with Emilee. So some of the things that Dr. Sarah Buckley and I talk about today are:

- The exquisitely designed ancestral/mammalian hormonal blueprint of labor. And, you know, she breaks it down. We definitely get some depth into the science there.
- Creating optimal conditions for birthing and for bonding. I love that this conversation and Sarah's work focuses not just on birthing but on bonding afterward and on raising a child and what happens after the birth.
- How feeling unsafe (at a subconscious, limbic system level) can disrupt the flow of birth and the cascade of hormones that are meant to unfold in a certain way
- The irony of how we treat animals in labor versus how we treat human women in labor
- The ecstatic, altered state of mind we enter into during labor and how we really don't prepare women for the fact they are just going to be, as I say in this interview, a different creature when they are laboring and how beautiful and wonderful that is
- The role of vocalization in labor
- For after the birth we talk about cord clamping
- This idea of "No hatting, no patting, and no chatting"
- And then sleep and co-sleeping.

**Amber:** And a lot more. I didn't just read off everything we talk about. Those are just some of the things. So I really super highly recommend Sarah's book [Gentle Birth, Gentle Mothering](#). And so I'm just so grateful to her for offering ten copies of the e-book version of the full book for the Patreon supporters of this podcast. I thought maybe it was like a little mini version of her book, her wonderful book, [Gentle Birth, Gentle Mothering](#), but it is 341 pages, I believe. It's the **full** book.

So if you're a patron of the show at the two dollar a month level, first of all, I love you, second of all you will be able to enter a giveaway. And ten people will win which is super exciting. I love that ten people will be getting something instead of just one. So that's going to be at

[patreon.com/medicinstories](https://patreon.com/medicinstories). I usually leave these giveaways open for about a month after the podcast comes out so listening stragglers have a chance to enter and I'll put the exact date in the post up there.

I will also, of course, have a link to the physical copy of the book in the show notes. I read it twice when I was pregnant the last time and just appreciated it so much, just appreciate her perspective so, so much. In the show notes there I'm also going to be linking to her online -- it's a guide. It's like a little e-book, too -- report PDF on the [Hormonal Physiology of Childbearing](#). So this goes, like, really, really deep into what we just touch on here, and the primal hormonal unfolding that is meant to happen in human beings when we give birth. I just think this is so important. And, as I tell her at the beginning of the interview when I found this essay, this piece, this work when I was pregnant with my first, it changed my life. It completely changed my life. It changed how I was approaching my upcoming birth and just instilled in me such a trust in the process. I so deeply trust birth and women's bodies and the intelligence of these little creatures who are coming through as well; the innate, biological, physical intelligence of birth.

**[0:08:19]**

**Amber:** SO I think we're done. I hope you enjoy this interview. It's very meaningful for me. Please share it with the pregnant people you know in your life and go ahead and stick with it until the very end if you would like a little bit on infant sleep.

Okay, so, Sarah Buckley is a New Zealand-trained GP with training in GP Obstetrics. She was the author of the international, best-selling book *Gentle Birth, Gentle Mothering*, and the scientific report "Hormonal Physiology of Childbearing" published with *Childbirth Connection* in 2015. Sarah is also mother to four children, all gently born and raised, now happy and healthy in their teens and twenties. Sarah's work supports parents to be well-informed and to listen to their hearts and instincts and to take their place as the real experts in their bodies, babies, and families.

Amen.

Sarah is currently combining mothering with her work as writer and lecturer on pregnancy, birth, and parenting, and is also a Ph.D. candidate at the University of Queensland in Brisbane, Australia. Her website is [sarahbuckley.com](http://sarahbuckley.com)

Hell yeah. I'm here to empower individuals and especially to empower parents and families, and I'm so grateful to people like Dr. Sarah Buckley for leading the way.

*(Transitional Music: acoustic guitar folk song "Wild Eyes" by Mariee Sioux)*

**[0:09:59]**

**Amber:** Hi Sarah! Welcome to Medicine Stories!

**Sarah:** Thank you, Amber. It's a pleasure to be here from Down Under in Australia.

**Amber:** *(Amber laughs)* So far away in time and space.

**Sarah:** Yes. (*both laugh*)

**Amber:** So I've been so deeply impacted by your work ever since I was pregnant with my first in 2005, and I would love to hear the story of what called you to birth. I love asking people was there anything in your childhood that hinted at what you would do as an adult?

**Sarah:** Yeah, it's interesting, isn't it to ponder those things?

I actually was born into a kind of medical birth-y family. My grandfather, my father's father, was actually a country GP. We call it a Family Physician in this small town in New Zealand. And he... there's a famous story in my family about him riding out on horseback to tend a woman giving birth in the bush and not coming back for two days. Then he was very actually famed with these skills with these particular forceps called Kielland Rotation Forceps -- and this was before the cesarean days -- and, you know, he would've saved a lot of people's lives with that. And the forceps that he actually had were still in the hospital when I worked there, like, 30 years later or 50 years later, actually. So yeah, that was my grandfather who actually died before I was born.

And then my father trained as an obstetrician. He went to England from New Zealand in the Fifties and did his obstetric training and then came back and worked like his father as a GP, as a family physician, but also attended women in birth. For a while there he was the only obstetrician covering a very large area. So he... yeah. He had it really good.

My dad, he was old school. He actually trained in the UK in the Fifties when there was a lot of home birth over there. So he had a very low intervention, kind of relaxed attitude toward birth. And he was their one-on-one carer, you could say, when a patient obviously went into hospital. But you know, he had a great philosophy about birth as well.

**Amber:** Wow, and so. How did you get pulled into the birth world?

**Sarah:** I think I was kind of always interested even before I had children myself, as to go along to hear people speak: Elizabeth Noble, I heard, Michelle Kissinger, Michelle O'Daunt, people who were visiting Australia, which was where I was living at that time. And when I was working as a family physician.

And then, actually, I was fortunate to choose a wonderful man, Nicholas, whose sister actually is homebirth midwife in New Zealand, recently retired actually. She worked for decades. So when we had our first baby -- and we also had the good fortune to support a couple of friends having babies at home and by that time we'd both done hospital, GP obstetrics which is caring for healthy, low-risk women. And kind of we looked at that and we looked at the experiences our friends had at home. And we thought, well, the homebirth looks better to us. And then it was, of course, Sue saying, yes, it's a great choice.

[0:13:12]

**Sarah:** So, when I got pregnant with my first baby, it was kind of, of course, we're going to have a homebirth. We had already chosen our midwife by then, so it kind of came naturally.

And then I had such good experiences with each of my babies and because, you know, we've done our training in obstetrics in hospital I could see, well, this is what happened at home, and this is

probably what would've happened in hospital. And I ended up with a much better experience, better quality of care. I mean, my midwifery care was WAY ahead of anything I'd seen an obstetrician give or women get in hospitals, so we were kind of sold on it after that.

And then so, obviously, we had our other three children, four children, altogether born at home.

**[0:13:45]**

**Amber:** So, the foundation of your work is uncovering the mammalian, deeply human, hormonal blueprint of birth. I'm curious what interested you in that aspect of it.

**Sarah:** Well, yeah, what first interested me -- going back to that first experience of having our first baby at home -- so we were living in kind of central, small cottage in a working-class suburb in Melbourne (or previously working class), and our neighbor had three children. When I got pregnant with Emma, she said, "Well I'll lend you the bassinet" (the crib kind of thing). And so, we set up this room with the crib in it and thought yes, that's where we'll put the baby when the baby comes. But, you know, I had this incredible experience, beautiful, sweet oceanic birth, as I call it, with Emma -- you can read about in my book, *Gentle Birth, Gentle Mothering* -- who, she's 28 now. But it was such a beautiful experience.

Once she was born I didn't want further than an arm's length away from me. Like, my instincts really kicked in. And it was very obvious to me that something had shifted in my brain from what I thought about parenting before, the birth, and what I thought about parenting after the birth. And you know, that was what I was sort of curious about: What was it that had caused my brain to shift so much? And that's kind of what got me interested.

But also, especially after my fourth baby was born, such an ecstatic experience, I remember after she was born I felt like I had won the lotto, this huge lottery twice 'cause I had this incredible experience and I had the baby and it was almost too much for me to believe that I could have these two incredible things happen at the same time.

When I look now from the knowledge that I had, I would say my reward and pleasure centers were maximally activated through that experience. So that fit into it too, and that's really why I started writing about ecstatic birth. And also I want to honor the people who supported me and mentored me in that like Michelle Odent is one of them. But a beautiful American midwife who died in 2005 called Jeanine Parvati Baker, and that was the first heard the term "ecstatic birth" and she talked about that. And I thought, "Wow, that's really true." And that's what I experienced.

That was kind of the origins of my kind of umm... most famous bit of writing called "Ecstatic Birth: Nature's Hormonal Blueprint for Labor." If anyone is interested to hear all the detail, go to my website and subscribe to my newsletter list and you'll get a free copy of that.

**[0:16:10]**

**Amber:** Well that, I believe, is what I found online back then and just completely... it just made so much sense, you know? Of course. Of COURSE, there's this primal ancient blueprint of how birth is meant to unfold in people. And of course, I don't want to do anything to disturb that.

So go ahead, please, and break that hormonal blueprint down for us. Don't be afraid to go too deep. I love going deep.

**Sarah:** Thank you. Yeah.

Well, as we say it's mammalian. Mammals have been giving birth, as far as we know, for about 63 million years so that's how long human birth has evolved for. And for 99.999% of that time, as my anthropology lecturer emphasized, we've lived in the wild. It's only the last 10,000 years of that huge time that we've lived in settled villages and farmed and things like that. So birth is designed to work in the context of the wild where it's not, you know, it's a bit different.

A laboring female of a different species is very vulnerable. And so, you could say that birth has evolved to be as efficient as possible, to be as safe as possible, and, actually, to be as pleasurable as possible, which is what I was talking about with the activation of the pleasure and reward centers.

The most critical thing for any female giving birth in the wild (and this is our hardwiring still) is that she feels private and safe, and, as I say, unobserved in her birthing. If you've given birth yourself you'll recognize (or supported a woman giving birth) women in labor, in a physiological and natural labor, kind of enter this altered state of consciousness which is kind of oxytocin, the hormone kind of endorphins. And so women can seem to be in this kind of "otherworld." Some people call it "going to labor land", "going to another planet." Apparently one of the Native American tribes says that "The laboring woman goes out to the stars to collect the soul of her baby and bring it back."

Now that's kind of what's happening. (*Sarah laughs*)

**[0:18:18]**

**Sarah:** So women look to be in this altered state, but they're also very sharp, you know. Something happens. Someone says something, a noise happens, a smell, and they're right onto it. And of course, this is what has to happen in the wild because you **have** to be alert to danger or strange smells. Something out of the corner of your eye rustle in the bushes could mean your death and your baby's death because it's a predator. So we are in this kind of unique state in labor and birth, as I describe it, where we're in this kind of altered state, but we're also very alert.

So as I said, the altered state is partly endorphins, which are the body's natural painkillers. We get high levels of them in our brain in labor and birth and help us to put us in this altered state. But also, oxytocin, and that's really what I've been doing the most research about in the last few years as part of Ph.D. -- and you know, oxytocin is the most famous birth hormone. AND it's also very famous outside of labor and birth because it's a hormone of well-being, it's a "tend and befriend" hormone, it's a calm and connection hormone. It switches on the relaxation and growth process, which is the parasympathetic nervous system. And sometimes it switches off the fight or flight system.

So what's happening in labor is we're getting high, increasing as labor progresses, higher and higher levels of this hormone of love, because of its powerful connection effects, as well. And that drives the contractions of labor. It releases impulses from the brain from the pituitary gland, goes to the uterus, causes the rhythmic contractions of labor that then accelerate and accelerate. And I'll talk a little bit about why they accelerate in a minute. But the important thing here is also at the same time it's released from the brain, into the brain.

So we get these really high levels of oxytocin in the brain and it kind of spreads. It's a very, umm, neuromodulating hormone. It has connections right through the brain. And it also, as we understand, it probably spreads locally as well through neurons, through brain connections as well. But also, so much of it is produced. It kind of filters through the brain and it has these kind of powerful calming effects, pain-relieving effects, but also switches on in all mammals the kind of instinctive mothering behavior so that as soon as the mother meets her baby for the first time, she goes, "Oh, this is my baby. I know what to do with it." But also, "This is my baby, and my baby's a source of pleasure and reward."

[0:20:48]

**Sarah:** As I mentioned, part of this hormonal blueprint is a massive activation of the pleasure and reward center which is what I experienced. Many women are going to say (*Sarah laughs*), you know, when you come out of it, "Oh my God that was so fantastic. I could do it again." Or that you could move heaven and earth. You feel invincible, and, of course, you need to be invincible to take care of your baby. So that's part of what I call "Mother Nature's Superb Design" as well. Is oxytocin not just the physical things of labor but the psychoemotional, the mental, the switch in all of these maternal behaviors.

And the way that labor accelerates. It's like, I say, it's like a snowball. It gets bigger and bigger because of all of these accelerating mechanisms, physiologically positive feedback loops. So, oxytocin within the brain actually in labor and birth feeds back on itself to produce more oxytocin. Then we get the high central levels that do all the things I just described.

But also, there's a positive feedback loop that happens in the body. So as these strong contractions push the baby lower, there's a feedback loop where the sensations from that, from the contracting uterus, feedback to the brain by specific nerve pathway, and they increase oxytocin. So you get more oxytocin, stronger contractions, more sensations, more feedback to the brain, more oxytocin.

It's actually-- if you go to my blog, I've got a blog about epidurals because they impact this. But it's got a picture of the positive feedback loop. So that means that the levels of oxytocin in the brain increase, the levels of oxytocin in the body increase, labor gets bigger and bigger you could say, the snowball gets bigger and bigger. And in the end, it becomes unstoppable.

So that's kind of the end of labor.

Just going back to that evolutionary perspective: so if we do have that sense of danger, if we're not feeling private, safe, and unobserved -- and by we, I'm talking all mammals here -- then we release different hormones. We release stress hormones. We release adrenaline and noradrenaline. And that switches, turns off labor in many ways. It probably reduces oxytocin as it does in other circumstances. It also can, might directly reduce the contractility of the uterus. And basically, it's designed that if there's danger in labor, that labor stops because we don't want to be laboring in the face of danger. Like it's kind difficult to respond to labor in danger. You can't run anywhere. You can't really fight. So basically, that survival strategy is to slow or stop labor. Giving the laboring female space to run away, fight or flight, find a safe place for stress hormones, adrenaline and noradrenaline, to go down, and then labor can start again.

So stress -- and we've seen this in laboring women, actually -- when their adrenaline levels are high in early labor, they actually have a slower labor and they have more signs of adverse fetal heart rate patterns, which is a sign of less blood and oxygen to the baby because as these fight or flight hormones kick in, not only do they slow or stop labor, but they also shift blood to the parts of the body that we need for fight or flight, which is not our uterus, which is our muscle groups, everything like that, our heart, our lungs, etc. And in doing that, they take blood away from the uterus and baby. So there's a, you know, there will be to some extent a loss of blood and oxygen to the baby at that time of the fight or flight response. But then, as I said, it's designed as a sort of acute, a short term reaction. Then the mother finds a safe place. The hormones go down, and labor resumes.

So that's how it's designed to happen in labor.

**[0:24:16]**

**Sarah:** But there is another aspect of that which is later in labor. When we're talking about the snowball being so big it's unstoppable, it doesn't really help to slow labor down once it's got to that stage. So there's another kind of reaction if the mother experiences danger and fight or flight in late labor. It can actually trigger a fast labor and birth at that stage through various hormonal mechanisms I won't go into.

So, as someone who may have experienced this as well, sometimes moving to hospital and that kind of unfamiliarity and some kind of anxiety can actually make labor happen faster so she gives birth just the minute she steps into the lift or something. So there's that kind of double effect of the fight or flight system in labor.

But, you know, it's really all designed that labor is as **safe** as possible for mother and baby. The mother is in the safest possible circumstance. It's as efficient as possible so that the oxytocin feedback loops that happen in labor happens as fast as possible, as efficiently as possible. It's kind of a compromise with that because we don't want too strong or too close together contractions because that can compromise blood and oxygen to the baby. So it's got to go at a nice pace for the mother and the baby.

And then the pleasure, that full-on activation of the mother's pleasure and reward system so that when she meets her baby for the first time, these things are fully activated. I say it's like the best first date ever. (*Sarah laughs*) It's designed that we kind of fall in love with our babies, or any mammal, that the mother sees the baby as a source of pleasure. And that gets on to rewarding and motivating those maternal behaviors.

**[0:25:50]**

**Amber:** So if I understand correctly if birth isn't allowed to unfold according to this mammalian blueprint, it can affect bonding right at the beginning?

**Sarah:** Well there's a few things that can get in the way of it. So, as I said, stress in labor or the mother not feeling private, safe, and unobserved can slow labor down and make it difficult to kind of get that snowball going. And it seems, especially, as I said early in labor, the mother is more vulnerable.



But, you know, for the first time mothers as well these positive feedback loops haven't ever had a run before so it can take longer. We know it tends to be slow and more easily derailed for a first-time mama. One of the ways to counter that is to stay at home and be in a private, safe, and unobserved space until labor becomes that big unstoppable snowball kind of thing.

So that's one thing.

In terms of there's interventions. There's things that can impact these hormonal systems and one of the ones that I'll mention, and going back again to that blog about epidurals, that positive feedback loop that I was talking about where the sensations of labor trigger the release of oxytocin in the brain.

So if we don't have any sensations then we abolish that positive feedback loop. So we know from studies that when a mother has an epidural, those oxytocin levels go down and down and down, and she doesn't have that fueling of labor. And then we've created what I call a "hormonal gap" - something's not there that should be there. And then the mother's usually offered, or almost certainly requires synthetic oxytocin to fill that hormonal gap and get labor going again.

But the problem is that the synthetic oxytocin, umm does certainly make a uterus contract, but for kind of biochemical reasons, the synthetic oxytocin doesn't cross back into the brain. Oxytocin naturally is released from the brain and within the brain at the same time. But when we give synthetic oxytocin, it only goes to the body. It doesn't pass back into the brain because of the blood-brain barrier.

So the women get these stronger contractions, and sure that can overcome the effect of the epidural, but it doesn't give her that brain oxytocin that helps with calm and connection, helps with natural pain relief, switches on instinctive mothering, activates the pleasure and reward centers. So there's a brain-hormonal gap there as well with an epidural.

And, of course, with cesarean, depending on when it is, and pre-labor cesarean, that's going to be massively impactful on all of these hormonal systems for the mother and actually for the baby as well.

[0:28:28]

**Amber:** So that's when someone, like, has their cesarean scheduled and they haven't -- their body and their baby's body, haven't had the chance to start the hormonal cascade of labor going yet.

**Sarah:** Yes. Exactly. And the thing is, what's interesting is that we actually don't know what causes the physiological onset of labor in humans. Like, we know in some other animals, but every animal has sort of subtle differences in the system. So it's kind of ironic that we're doing all these things to bypass the physiological onset of labor without actually knowing what causes it. And you can imagine how much research is invested in that prevent, pre-term birth. For start, we don't know that.

And I think part of that we don't really understand all the full, as I call, the pre-labor physiologic changes that happen in the lead up to labor, you know.

One thing we do know is that the laboring mother gets increases in her oxytocin receptors inside the uterus. This is kind of like -- I describe the hormone oxytocin like a key and the receptor like the

lock. So the oxytocin is released from the brain, goes down to the uterus, finds these little key locks and joins onto these receptors on the outside of the cell wall, turns the key and send a chemical message into the cell. What that means is that if a woman's having an induction or pre-labor cesarean then she doesn't have that maximal sensitivity, that maximal number of oxytocin receptors. And it might not matter in a pre-labor cesarean because she's not actually going through labor and birth, but it could impact her risk of bleeding after the birth. And also, she hasn't had those full readiness for labor and birth, which we don't know for sure in women because we haven't sampled women's brains in the lead up to labor. But, you know, all these brain stuff gets switched on in animals as well and we'd have to presume that that's the case for women as well.

[0:30:21]

**Amber:** So it totally makes sense how these interventions, Pitocin, epidural, c-sections can get in the way of this hormonal cascade. But it seems to me even if a woman is laboring in the hospital and has none of those interventions, just the act of being in a brightly lit room, naked in front of strangers coming in and out could also impact that.

**Sarah:** Yes, exactly. If she's not feeling private, safe, and unobserved, then it's hard for her to have the full unimpeded flow of her labor hormones. If she has some anxiety, if she doesn't feel safe -- and by safe I don't just mean intellectually safe, like, thinking that the hospital is a safe place to give birth, we're talking about the deeper layers of the brain, the limbic system, the animal brain, if you like. When you go into hospital there's these strange smells and strange noises, and strange people as you say, when we're not designed to have strangers present at birth. We might kind of intellectually even call it "I'm safe in hospital" but the limbic system might have a different idea (*Sarah laughs*). The limbic system is going "Red alert! Red alert! This is not a safe place!" from an animal brain perspective. And that's the thing, you know, we're bringing this ancient mammalian hormonal blueprint into an environment that's not really designed to cater for our ancient mammalian hormonal blueprint.

If any of the listeners have been animal breeders or have grown up on farms or horses or those kind of things, you know that you don't do that to animals, if you want them to give birth successfully. You stand back. You let the laboring mother have her privacy and safety. You don't interfere unless absolutely necessary. So it's kind of ironic that we do that in women, supposedly to help -- it is well-intentioned. That we wouldn't do that to animals, but we basically have the same hormonal blueprint that's evolved over these 63 million years.

**Amber:** Right, I'm just thinking of that word "unobserved." There's no way to feel unobserved while giving birth in the hospital.

**Sarah:** Yeah, and what women's instinctive -- especially first-time mamas -- they'll find the smallest room, the toilet or the shower. You know that's one of the beauties of water birth: the mother can have her own space in there and then can go deeply within. And, of course, if you are going to hospital, have a baby, as you say, it's part of the system, but you can protect yourself from that to some extent. Taking your own doula, having your own midwife to help you feel safe at that primal level. That's what we've done for millions of years: have a familiar supportive birth companion. That's what most other animals do.

But also, you can go inside yourself. You can cut out the kind of visual thing. You can have an eye mask, or bury your head in the pillow with familiar smells or wear earplugs or, you know, do hypnobirthing that will put you into that internal state to help those hormones go into and to cut out the external environment as much as you can; all those things that are akin to the limbic system.

**Amber:** I think that this is just so important. I don't think that first-time pregnant mothers get the message that they are going to be in a completely different state of mind when they are in labor.

I just don't think we think about that or that it's taught in childbirth classes, that it's written about so much in books and on blogs. Being... expecting that could be very helpful in just knowing and welcoming.

[0:33:58]

**Amber:** So let's go back to that word "ecstasy" as you write, is it Greek in origin?

**Sarah:** Yes, and "ec" means outside and "stasis" means "point" or "static things." So you take something that takes you outside your usual state. And classically, it's been used in a negative way and a positive way. You can be in an "ecstasy of pain." So it's a powerful psychoemotional state that has you in this ecstatic state. I think in labor it's designed to take us out of our usual space. It's designed to put us in this altered state of consciousness. And I think it's difficult when you're a first-time mama because you assume the system is generally going to look after you. Because generally healthcare systems do that. But I think the thing to realize is that you're going into an institution and institutions have their own way of running and you've got to fit into the institution.

So institutions aren't designed to cater to individual needs. So if you want your own individual needs catered to, you need a system that's going to help you do that. Like taking your own caregiver, taking a midwife, taking a doula, and definitely take your partner, but you can't expect your partner to advocate to the institution because they're probably not going to understand how the institution runs. I don't think it's really a good role for the partner. If you're taking a partner, an even better reason to have a doula or midwife, someone to kind of liaise with the system and kind of know how to make the most out of the system.

My friend was an insulin-dependent diabetic and went to hospital and took a doula with her. And the doula walks in and just opens the windows in the room. Like, you probably wouldn't do that as a laboring mom. But the doula, she knew the system, she knew what you could do to make it the mama's own space. So that's really important. So the kind of trust in the system, the institution.

But also, as you say, labor is an unknown. It's a mystery. We don't know what's going to happen. No matter how many babies, we don't know what's going to happen. And I think it's kind of a little scary. In every culture, there's rituals that help women through that initial fear and we don't know what's going to happen in labor and birth and that's part of the mystery and magic, to be honest. But that altered state of consciousness is probably something we haven't experienced before. Maybe in the ecstasies of sex and sexual pleasure, we can get into that space, but that kind of prolonged many hours of labor and birth, that altered state of consciousness is new. And I think it's really, as you say, it's education. It's having a space that can cater to that. And also having a partner that can know that and know you're not gonna be the same person that you usually are. It's important, you know. You can be direct and say what you want. As women, we are kind of

socialized, and we have this hormone, oxytocin, that makes us kind of social. Socializing, social and wanting to please people socially and you know in labor that doesn't really work. We've got to be internally focused on what's happening for our body, what's happening for our baby. We've got to be in touch with our instincts. We're going to go into this altered state so that we can have this hormonal group unfold optimally.

**Amber:** It's just so primal and yeah, that's sort of the point I was trying to make: we don't have practice for these altered states, and it's not something we uphold as a culture. We're not doing group ritual and ceremony from a young age like our ancestors did. So just preparing women for the fact that they are going to be a different creature while they are in labor is just so important to me. And I'm so glad you do this work.

[0:37:38]

**Amber:** So this is shedding some light for me on my two births. They were both at home. The first was a free birth, it was just me and my partner, and then my mother and grandmother came at the end, too, which was amazing. But it was 17 hours long and I did not feel physical pain once.

And then with my second 10 years later, midwives, and my partner and my best friend and my sister, and I felt very safe and unobserved and free in both of the environments. But the second one was just 4 hours long, and the pushing, my midwife said, was about 10 minutes. And it was just **so much more** painful. I mean, I couldn't believe the pain. (*Amber laughs*) I was like, "Oh. THIS is what people talk about with childbirth!"

So I'm wondering if it was because the first one was so much longer and those hormones had time to build and build and cascade and cascade and block the pain?

**Sarah:** Umm... I cannot comment on that. To be honest, women do have painless births and some women, most women don't, and I really don't know the mechanisms for that. I mean, obviously, something's happening in the brain, chemicals in the brain, but you could have a short painless birth, you could have a long painless birth. I don't really think -- but I think the point that I want to make about that. I think painless birth is a blessing, but I don't think we can expect it. And I think if we start to talk too much about -- and I'm not saying you in particular -- but you know, some of the... one of the beginnings of the childbirth movement was around a man called Grantley Dick Reed, who was a medical doctor. And he attended a woman giving birth at home. And she said to him., "It wasn't meant to hurt, Doctor, was it?"

And so she obviously had a pain-free birth. So I think the important thing is pain, the stress and pain of labor, is part of it. And if it's not, that's fantastic. But we shouldn't think anything's wrong, and I don't think the aim should be to have a pain free birth. I think the aim is to accept whatever the process is for yourself at that time. So I can't really comment on why one birth was pain-free and one birth was not. I really don't know and I've never seen any research on that.

**Amber:** I guess I just have this idea that endorphins are pain-blocking.

**Sarah:** Endorphins are powerfully pain-blocking. In fact, they're powerfully pain-blocking and they have a very long duration of effect in the brain.

I came across a study of a man who had intractable cancer pain, and he happened to have a shunt going into his brain and they gave him endorphins that gave him 21 hours of pain relief from that. So, very, very powerful pain relief, but it doesn't mean that everybody is going to get a pain-free labor from it.

And by the way, oxytocin feeds into that probably by the same opiate mechanism that contributes to pain relief in labor as well. So there is this natural pain relief, but I think the thing is, every woman, every labor is going to be different as you describe (*Sarah laughs*). Every woman's going to be different, and I think that the thing is to be in an environment that's going to support you and you know better what your situation is. And, as you describe it, even if labor is painful, if you're in your own environment, you've got people that you know and trust, you can get through it. Your body's designed to transcend the stress and pain of labor.

The stress and pain of labor, it provokes not only endorphins but, as part of that chemical release in the brain, you also get high levels of cortisol, the stress hormone.

Some people say people are kind of busy trying to make labor stress-free, but it's designed to be stressful. And in fact, one study I found, the more cortisol the mother has had at the moment of birth, the more attracted the mother is to their baby's smell. And it takes me back to when I was 13 or 14 (*Sarah laughs*) -- I used to read those romantic novels, "Mills and Burn," they were or even Jane Austen -- when the couple... there's often some stressful event that happens when the couple fall in love with each other. And people -- sometimes being in a stressful event can make people fall in love.

So cortisol is a part of that bonding experience, like, neurochemically. So labor is designed to have a certain amount of stress and pain for the mother to switch on those bonding and the cortisol and the attraction to the baby's scent and probably a whole lot of other things we don't know. But labor's also designed to be a stressful even for the baby, and the stress of being born, as it's been called, is critical to the baby's transition. So the stress of labor is part of the stress, I should say, is part of the process.

**[0:42:28]**

**Sarah:** In my hormonal physiology report we call it "eustress" which is normal, healthy, physiologic stress which is designed to switch on all these things. But excessive stress, like, feeling not private, safe, and unobserved. If you had that kind of labor and been in hospital, I'm sure it would've been much more difficult, too. So there's healthy stress and not healthy stress. And we want to reduce not healthy stress, but there's a certain level of stress that's just part of it.

I would say in that, even in that pain-free labor that you had, there was still stress, physiological stress, you know, your baby coming down that contraction so you still would have high levels of cortisol as well. It's a good thing. It's a good thing.

**Amber:** Yeah, in agreement with you that pain-free is not the goal. And I was going to say, too, even though it wasn't pain, persay, it was still **incredibly** intense. (*both laugh*)

**Sarah:** Exactly! Yeah, it's an intense experience no matter how it is, you know?

I think the thing is to have the circumstances that are going to help you with it, the people that aren't trying to take your pain away, like, not trying to push painkillers on you because of **their** discomfort with it. So you want people who are familiar with the intensity of the circumstances, like a doula, like an experienced midwife. And yeah, you want the freedom of expression, I mean, most women through historically and animals, we intrinsically we use breath, we use sound, we use movement. So you want to be in a situation where you can use those tools that you naturally have. You can move around to find the most comfortable position. You can use your breath. You can use sound if that helps you because sometimes that can be helpful, too.

**Amber:** Oh I can't imagine going through labor without making the sounds I made. It was such an energy moving mechanism that came from so deep within. There was no stopping it.

**Sarah:** Yeah. Beautiful. Exactly.

[0:44:28]

**Amber:** I feel like I must mention, too, since you mentioned this, but during that first labor, during one contraction I had a really strong vision of my soul, of my spirit being projected out into the cosmos and, like, gathering my baby in and then, you know, bringing her back down onto earth. And I remember I read that thing you talked about a few years later and was like, "That's what happened!"

**Sarah:** Yeah! So beautiful.

**Amber:** So you've done all this incredible work around birth, but you also write and share a lot about what comes next. And supporting the baby after birth and through young childhood. So let's talk about cord clamping, if you would.

**Sarah:** Yeah, well the exciting thing about this, Amber, you know, when I started talking about, writing about cord-clamping back in the 1990s actually, the standard was baby comes out, cord clamp straight away. The thinking was the baby gets too much blood. If that's not the case, a whole lot of misconceptions about the physiology of it. And what's really exciting now when I do this same kind of talk is almost all the guidelines now are saying, "Don't clamp straight away. Delay cord clamping." At least it's an option if not the standard guidelines.

So I think things have really changed. And again, we gotta go back to what is our mammalian blueprint like? How do other mammals do it, you know, or, as my friend, Sarah Wickham, says, "If we were designed to clamp the cord we'd be born with a cord clamp on our thigh."

*(both laugh)*

So we're not designed to clamp the cord! There's this incredible process that happens that they call a "placental transfusion" where after the baby's born, the baby's out, but the placenta's still in the mother's uterus. The mother's uterus starts to contract again, just like it did in labor, and everytime it contracts it squeezes the placenta and sends blood to the baby. And in between contractions some of the blood can come back from the baby to the placenta. There's kind of to and fro that ends up sending, you could say, about 100 mL of the baby's own blood into the baby from the placenta. So the baby ends up, like, 100 g heavier with this "extra" 100mL of blood that the baby actually needs as a newborn.

Because in the womb, if you think about it, the baby's not having to do that much for itself. Like, all the nutrients are coming through the placenta. The wastes are being taken away. The baby's lungs aren't working. The baby's kidneys are not working that much. The baby's liver's not working to detoxify. The baby's not having to do any heat exchange. The mother's doing it for the baby. You might have noticed when you're pregnant you're offloading heat for the baby. But as soon as the baby's born they have to start doing those things for themselves. So the skin has to work as an organ of heat exchange. The baby has to make their own heat. The kidneys, the liver, the skin, and the lungs, all those organs have to work.

So in the womb, those non-functional organs don't have a lot of blood going to them. Once the baby's born and those organ systems start being functional, the vascular beds, as we call it, the little blood vessels in all those organ systems open up and they need blood to work. So the baby needs this "extra" 100mL of blood to fully profuse, to fully supply blood to all those organ systems. So this is really important that the baby gets that placental transfusion.

And, you know, some of the studies that have been done in those intervening years, the last 20 years really, shows that babies that get that -- and some of these studies have done, actually, delayed cord clamping even just 30 seconds because there's kind of a bullet that comes through in the first few seconds, or up to 30 seconds after birth, especially if the baby takes a breath -- so that, even delaying clamping by 30 seconds, one of the long term follow up studies showed that those children, the boys, in particular, had better development, intellectual development, at age four because they've got that extra blood which is not just profusing those newly functioning organ systems, as I say, but that 100 mL of blood has also got iron. It's got the equivalent of iron of 100 liters of breast milk. It's got these stem cells that everyone wants to get their hands on, but they're designed to migrate to the baby's bone and start forming blood-making cells. It's got albumen. It's got extra proteins. It helps the baby's lungs to clear. I mean, it's basically very precious, that 100 mLs. It's designed for the baby to get to optimize their long term functioning. So, the idea of clamping the cord early, so no one gets the blood, or doing cord blood banking with a cord blood so this 100mLs of blood goes somewhere else with a remote chance that the baby might need it later, those things are not useful in terms of, you know, mammalian physiology or in terms of your baby, basically.

[0:49:01]

**Amber:** Is this something where the longer we wait to cut the cord the more benefit there is for the baby? Or is it pretty clear after this point it's okay?

**Sarah:** Well, yeah, this... There's basically the 100 mLs of blood comes in quite quickly, within the first three minutes, and after that not much. But if the cord isn't clamped, there's still this to and fro that's possible, even after the cord stops pulsating.

So, you know, I say, well what's our mammalian blueprint? Our mammalian blueprint is we don't do anything until the placenta comes out, until the mother births a baby's placenta, then we can do something. Other mammals chew through the cord (*Sarah laughs*) but at that time, the cord physiologically closes. There's a cord closure. After you cut the cord after that you're not going to get much bleeding at all.

Apparently, the cord clamp was invented when women started giving birth on the bed to spare the bed linens from getting drops of blood on it. (*both laugh*) and then we're taking it to these

extremes of early cord clamp. I mean, that's really not necessary. So, I say, full physiology is we don't do anything until the placenta comes out, yeah. IN which case the baby and the placenta will have sort of figured out how much blood the baby needs because, you know, we all have a different blood volume. And when I'm doing a workshop, I say, "Look around. Everybody's got a different blood volume." And it depends on our body size. It depends on organs. It depends on our vascular system. So I think this to-ing and fro-ing that happens between the baby and the placenta is probably controlled in some way we don't understand so the baby optimizes, the baby chooses, regulates their final blood volume. And what they don't need gets left in the placenta, and what they do need gets given to the baby. Because, in some of these studies, some babies took 50 mLs. Some babies took 150 mLs. So, I think if we really want the baby to have the ability to regulate their own blood volume as we're designed to do, then I don't think -- the full physiology is that we don't do anything until the placenta comes out. But, you know, if you want to do it beforehand, I'd say, three minutes, the baby's got the maximum of it, if that's really necessary.

If it's really down to the wire, at least let the baby take a first breath. And, as I've said, some of these studies were done, you know, benefits to the baby from just 30 seconds of delayed cord clamping, or -- I don't like that term (*Sarah laughs*) because it's presuming that cord-clamping is the norm -- but 30 seconds after birth the cord gets clamped.

[0:51:22]

**Amber:** You recently on Facebook reposted an incredible story from a woman named Dr. Sharon Robinson. And she posted a photo of her and a maybe 18-20-year-old boy and told this story of when she attended his homebirth decades before and he came out not breathing. And for twenty minutes she was resuscitating and he was fine because he had the cord attached to the placenta in the mother's uterus the whole time and was getting all the oxygen he needed while she got his lungs working.

**Sarah:** Yes! And I think that's coming into, I think, the American guidelines say you can resuscitate with a cord intact. But, of course, the issue with that is that when I was in hospitals the resuscitation equipment is over on the walls. You've got to cut the cord of the baby just for practical reasons to take it over to the resuscitation equipment.

So nowadays people are figuring out how to bring the resuscitation equipment to the baby if needed so the baby can be resuscitated with the cord intact. I actually tell a similar story about a baby who didn't breathe for seven recorded minutes. The baby actually had thick meconium. And that baby, again, turned out to be totally healthy through to the teenage years because the very smart attending physician didn't cut the cord, you know, that that 100 mLs of blood is rich in oxygen. It's a back up for the baby because, you know, in nature, we don't do that. We don't have suddenly one system stops and the other system starts. We have a handover. So there's this period of handover through oxygenating through the placenta to oxygenation through the lungs. So that's, I mean, that's a beautiful story and it totally illustrates the magic of this thing.

And midwives talk about if you don't clamp the cord and the baby's slow to breathe, the baby can actually self-resuscitate because -- there's all this horror things I could say -- but one of the things that that 100 mLs do is it's just not about what's in the blood it's the fact that it's extra blood volume because the baby's total blood volume is 250-300 mLs or so. So that extra volume for the baby not only perfuses those organ systems but it actually helps the lungs to clear the fluid as well. So the extra proteins, the extra fluid helps to clear the lung fluid that helps the baby to breathe.



So, you know, order resuscitation. I'm not saying don't resuscitate babies at all. But you can know that you have a good back up system.

For example, with people in low resource settings will not only not clamp the cord, but sometimes they'll milk the cord and take that extra 15 mLs or so that's actually in the cord to help the baby to recover.

[0:53:53]

**Amber:** This is also why babies who are born underwater can hang out under water for a few minutes before being brought to the surface. I remember being so shocked when I first realized that you didn't have to immediately **yank** that baby up to the surface.

**Sarah:** Yeah, there is a long ongoing -- I'm not saying that I'd necessarily recommend that -- but there certainly is an ongoing oxygen exchange that happens. And some people say, we don't know for sure because these haven't been studied, but some people say that the placenta usually starts to separate just as the baby comes out. So the oxygen exchange through the placental membranes kind of stops. But some people say, well, maybe just the placenta sitting in the uterus, there could be some kind of oxygen exchange happening. We don't really know. But we do know that there's this backup system that operates in this very effective way that lasts for awhile. I used to say seven minutes, but I'm probably say 20 minutes now. (*Sarah laughs*) And it's really reassuring isn't it when you're a maternity care provider that there's this kind of handover and that there's more time than we've classically thought that we've had? Yeah.

**Amber:** You've also recently posted -- and I'm just going to recommend people follow you on Facebook if they like what we've talked about because you post interesting things...

**Sarah:** -- Yeah, Dr. Sarah Buckley, you've got to go to my professional page, yeah.

**Amber:** ... Okay. The name of this article was "No Hatting, Patting or Chatting for the First Hour After Birth" and this was **ALL** totally new to me. So can you break that down a little bit, please?

**Sarah:** Yeah, so that phrase: "No Hatting, No Patting, No Chatting" comes from, umm, a beautiful woman called Carla Hartley and she ran a midwifery school called Ancient Art Midwifery Institute. And I think it's a beautiful easy thing to remember because often we do stick hats on the baby straight away 'cause we're worried about the heat loss. But, in fact, the babies, we were talking about the cortisol that makes the mom attracted to her baby's odors and the baby's head emits a lot of scents. So it's designed that the mother imprints and learns her baby's odor and it's very closely associated with the oxytocin system, too.

So you know when we smell our newborns and go "Ahhh! That's so pleasurable!" It's because we've got the activation of the pleasure and reward center. We've got the oxytocin. And then we've got this beautiful smelling baby's head that's just at the right position for our nose (*Sarah laughs*). So hatting is NOT required for the baby.

And the other side of that is that we've learned more and more about the magic of skin to skin and the way that the mother keeps the baby warm. And, again, going back to our hormonal blueprint throughout evolution is that there were no hats. There was nothing to put on the baby, you know? The baby on the mother's body, skin-to-skin is a most effective warming system possible. The mother, these peaks of oxytocin that the mother has at the moment she pushes her baby out

which actually increase even more in the first hour after birth, these peaks of oxytocin activate a flushing mechanism. You might recognize this with sexual arousal. We get this kind of flush that kind of goes up from the chest up even to the neck.

And, after birth this natural flushing mechanism is actually a “vasodilation.” The vessels on the chest wall are opening up, and it literally pumps heat to the baby to keep the newborn baby warm. And we know that that’s a **much** more effective way of newborn warming than anything else; than putting clothes on the baby; than putting the baby under a heat source. The mother’s skin-to-skin temperature to the baby is a bit warm. The mother’s heat exchange reduces if the baby’s a bit cold. The mother’s heat exchange heats up. So the baby doesn’t need a hat to reduce heat loss because the mother’s body is going to be the most effective warming mechanism. So that’s no hatting.

No patting, you know, the place or the baby to be is the on the mother’s chest. We don’t pick up the baby. We don’t pat the baby. The baby is coming into this, umm, well, you might call it from an anthropological point of view, the environment of evolutionary adaptation. It’s what the baby’s designed... the baby’s designed to be there through these years of evolution. And when it’s in that environment, being skin-to-skin on the mother’s chest, all these newborn reflexes unfold such as the baby can step. The baby can wriggle. The baby can locate the mother’s nipple by the sense of smell. The baby can find the nipple and latch on. And, it’s quite extraordinary that it’s taken us to recent times to know that because, of course, every other mammalian baby can do that.

So, and just taking the baby away for even, you know, a short period of time to weigh the baby, or measure the baby, or, what do you say, examine the baby (as I was taught to do), that interferes with what the baby needs to do, what the baby knows how to do which is to come onto the mother’s body, find the breast and self-attach. And that’s the best initiation of breastfeeding that possible.

I’ll just share a story:

I was -- when I first -- I remember, the first homebirth I attended, and I’d been attending births in hospital, and, of course, we’d take the baby away, and we’d make sure they’ve haven’t gotten this congenital... it’s just all **VERY** unlikely things, but we’d have to take the baby, and the mothers said, “What are you doing with my baby?!” (*Sarah laughs*) “Oh, that’s right! The baby belongs to the mother!” (*Sarah laughs*) So it was very funny, of course. So that’s kind of what you learn in hospital. Like, you’re responsible for the baby. But, yeah. So, no patting.

And then no chatting, you know? And when I talk about this third stage of labor (until the placenta’s birthed) I say, the mother’s, from a hormonal state, the mother’s more in labor than she ever has been. And very important not to disturb that time. Because if she gets cold, if she gets scared, if she feels disturbed, and these adrenaline levels go up and they push her oxytocin down, that puts her at risk of bleeding. So, really important that this is a private, safe, and unobserved time for the mother and the baby.

And, of course, when I say “unobserved,” I don’t mean unmonitored in any way. Like, an experienced birth attendant will be keeping an eye on the mother and baby because, you know, we make sure the baby’s breathing, make sure the mother isn’t bleeding, but we don’t want to disturb her time at this critical, magical hour after birth, when all these incredible things happen.

[0:59:46]

**Sarah:** And I think, as I say, when I talk about this in my workshops, after the baby's been born, there's all this drama of labor and the contractions and pushing the baby out, and then that hour after birth it can look like not much was happening, but it's actually the most critical time, when these incredible changes are happening inside the baby. For those reasons that we described, the baby's not using the placenta for all those body functions and oxygenation. The baby has to take over those things itself, which involves a complex reorganization of the baby's circulatory system, and it's a time the baby's most likely to be compromised. And then, for the mother, she's had these nine months of getting used to being fully pregnant, and then, within a few minutes, she's not pregnant anymore. So, again, incredible complex changes happening for the mother. They're going to reduce the chance of postpartum hemorrhage.

So, that golden hour after birth, as we say, really important, just as with the rest of labor; that the mother feels private, safe, and unobserved. And also warm, actually, that she's kept warm at that time.

And, just recalling my own home birth, this is when the doctor and the midwife that I had attending would retire to the next room and fill in the paperwork. They were there if needed, but I felt totally safe and private with my partner and my baby. Sometimes my other children as well! Maybe not so private and safe, but you know? I felt very comfortable. My oxytocin levels weren't impacted by the environment. So really important.

[1:01:05]

**Amber:** Wow! This is, for the first time since my youngest was born almost three years ago, this is **almost** making me want to have another baby! (*Amber laughs*)

**Sarah:** (*Sarah laughs*) That's the thing: maximum activation of the pleasure and reward centers, Amber! Isn't it all, well, as Janine Parvati Baker said, "Women stop having babies just when they start getting good at it." She had six, so... (*Sarah laughs*)

**Amber:** Mmmm. I love Janine!

**Sarah:** Yeah. Thank you, Janine. Yeah.

**Amber:** So, if we birth in this mammalian way, we do the skin-to-skin and the breastfeeding and all this, and then, we put our baby in a separate sleeping space from us, that just seems like a little bit of some cognitive dissonance there, you know? Especially when we're talking about being mammals. Bears don't put their babies in little cages at the back of the den, you know? (*Amber laughs*) Elephants, and whales, and dogs, they all keep their babies right next to them when they're sleeping.

How did we get co-sleeping so wrong in our culture?

**Sarah:** Yeah, so I think it's a few reasons. I think one of them, looking historically, I mean, looking even 200 years ago, the baby might not have slept with the parents, but the baby slept with someone, like, the witness or the nanny or something like that. The babies generally didn't sleep alone.

**Amber:** Or siblings or other family members.

**Sarah:** Or siblings. Yeah, yeah, yeah, yeah. In other cultures, it's very uncommon for babies to sleep alone.

I think some of it was the germ theory. The idea that you shouldn't breathe the germs of someone else. We kind of overapplied that to babies, who were kind of designed to have our germs. But I think, you know, I think the way that... the reason we have to have our babies with us, it's like, as I described, when these hormones kick in through physiological labor, birth, activation of the pleasure and reward centers, we're hormonally-driven to keep our babies next to us. And, of course, we are, because that's critical for survival.

Imagine one of our ancestors in the wild put the baby somewhere else to sleep, the baby wouldn't be there in the morning. Or, even, putting the baby down and turning around, the baby might not be there. So we've got this hardwiring to pick up our babies, to hold our babies, to, especially, if they cry, we don't want to attract wild animals. It's very much our mammalian instinct and our hormonal blueprint: once those pleasure and reward centers are turned on, the maternal instinct to keep our babies close. And that's exactly what I experienced.

And, when we do have our babies close, when we sleep with our babies, we have this whole process of what we call "mutual regulation." It's a bit like what I described with the skin-to-skin: if the baby's cold, the mother warms it up. If the baby's warm, the mother cools it down, yeah?

So we have that happening between the mother and the baby. They're sleeping together. We have the mother's steady breathing that regulates the baby's steady breathing. The mother's heart rate, actually, the mother's heartbeat regulates the heart pattern. The baby's breastfeeding regulates the mother's fertility. Umm, you know, and then, of course, the baby's breastfeeding also regulates the mother's milk supply so that breastfeeding in the night, as a cosleeping baby will do, helps the mother to make more prolactin, which produces more milk.

So, really, you know, as the beautiful anthropologist, James McKenna, who's done a lot of research on cosleeping, he calls it "breast sleeping." We're designed to breastfeed and sleep together. It's part of one system, really. And if we start separating that out then we can have difficulties with breastfeeding. We could have -- and, the other irony is women are saying put the baby in the other room so you sleep better, but actually, sleeping with your baby gives you more sleep. They've measured it, and it's true. It gives you more sleep. And also, the other brilliant thing about it is your baby just needs to stir and you wake and you feed your baby and then you both go back to sleep. Whereas when the baby's in another room, the baby has to work itself up to such a loud state of upset and crying that it's going to be much harder for both of you to settle. So, it's kind of not anthropological. It's not physiological. I'm not saying you shouldn't do it. But the other irony is people are told cosleeping is so dangerous, which I completely disagree with. I refer to my book and my website. BUT also putting the baby in a separate room increases the baby's risks for SIDS for the reasons I've described.

So even if you're not going to cosleep with your baby, put the baby in the same room as you because your breathing sounds will help to regulate the baby. And then, also, you won't have that whole the baby has to work itself up into a state to get your attention, and you can bring the baby into bed with you to feed as well.

And, all babies are different. Do what works for your family. I'm not saying EVERYBODY 100% should cosleep. Some babies don't really mind that much. My first baby was a very heavy sleeper, and she didn't really notice that much. I mean, I loved sleeping with her, but you know, she was kind of flexible. And some babies, our youngest one, not only did she cosleep, but I had to be facing her until she was three or four. (*Amber laughs*) Like, I couldn't even turn over! She'd wake up if she'd turn the other way. So there's some very oxytocin, skin-to-skin facing, heart facing, natural body... so she needed all that stuff. So, you know, all babies are different.

[1:06:07]

**Amber:** Yeah, I remember learning, I think from Dr. James McKenna, about this possibility of babies dying and often it's called SIDS when they're not sleeping next to their mother. And what happens when they are sleeping next to their mother, it's like you said, that "entrainment," and he explained that often. And maybe you talk about this in your book, too. It's been a few years since I've read it. Babies, because breathing is so new to them, when they get to the bottom of a breath they forget to inhale for a moment. And usually, they pick it right back up again. But if they're laying right next to a parent or a caregiver, then they parent's breathing reminds them to pick it back up again every time. So it eliminates those chances for the baby's body to maybe forget how to breathe again.

**Sarah:** Yes, exactly. Exactly. Entrainment, mutual regulation, and that's why the SIDS recommendation is to have your baby in the room with you so that your breathing can entrain the baby as well.

I think that's the thing about cosleeping is it's really beautiful. It's really pleasurable. You get all that oxytocin, skin-to-skin, even if not the skin-to-skin, I mean, it's so beautiful to wake up to your baby.

I remember when in my younger babies, number three and number four, when daytimes are really busy with the kids and everything, and I just have these really sweet moments, like, in the middle of the night waking up, just being with my baby. So beautiful. Such a pleasure. And then, you know, and then the partner as well can be involved in that - to wake up with a happy, smiling baby. It's very... it's pleasurable and wonderful because it's designed to be. Mother Nature wants us to do that, because that enhances survival of the baby, enhances survival of the species.

So it's that same hormonal blueprint that really ensures that the species survives. If we hadn't coslept back in evolutionary times, we wouldn't be here because all the babies would be taken by predators in the night.

**Amber:** Mhmm. Yeah, I experience that so much with my little one right now. And I think, you know, we're all **super** busy in these modern times, and when I wake up next to her in the morning and just sleeping next to her all night, I'm like, we're just reconnecting, even though I see her all day for most of the days.

I do have long periods of work, and it's just... I love that reconnection time.

**Sarah:** Yeah, beautiful.

My friend who was working full time as an obstetrician actually, she slept with her baby and she called it “reverse cycle parenting” (*Sarah laughs*) where she slept with her baby, feeding her baby and then working during the days. That intimate connection fostering intimacy.

**Amber:** Yes, like, and re-regulating. Reconnecting on that really basic level.

**Sarah:** Yeah.

[1:08:37]

**Amber:** So, okay, Sarah. You have a lot of stuff out there. You’ve got your book, websites. I believe you have resources for pregnant parents and resources for birth workers, as well. So can you just tell people where to find all your stuff?

**Sarah:** Well, at the moment, I’ve sometimes had, or previously, I’ve had membership websites, but I’m kind of reworking that at the moment, and concentrating more on the hormonal physiology. So make sure you go to my website and sign up to my newsletter, and you’ll find out when all that’s available.

I’ve got my -- and get on to my newsletter because I publish that every two to three months. There’s usually a blog that goes with that. I’ve got some really topical blogs. As I’ve said, two on epidurals, one on the inductions of labor. Yeah, lots of good information there.

I’ve got quite a few articles on my website, as well, and, of course, my book *Gentle Birth, Gentle Mothering* is available on all the Amazons plus through my website. And if you just want a quick fix, you can go to my website. I’ve actually got the -- because I’ve done two editions of it -- the 2005 edition which has got quite a few more parenting things in it. So that’s available as an e-book for my website, as well. And, I’ve got some videos of whole day workshops I’ve done. And I do do workshops around the world at different times. I’m actually doing one in North Carolina on the 19th of June 2019. SO yeah, keep an eye out, but make sure you’re on my email list to get all that good information.

And, as you say, I post quite a lot of things on my Facebook, on my professional page, [Dr. Sarah Buckley](#). And I love the discussions that we have. We had a great one, actually, that the “No Hatting, No Patting, No Chatting” debate -- no, not that one -- there was one about the smell of the baby...

**Amber:** -- Yes! Yes!

**Sarah:** ... And that’s an amazing one. You should go back and read that about people, birth attendants smelling the baby before they were born or smelling this particular stage in labor.

**Amber:** I did!

**Sarah:** But that was fascinating.

**Amber:** Yes! No, I have that in my notes here. So, yeah, you posted about, and then I saw all these comments from birth attendants who were saying it. Not all of them, but many of them were

saying, like, “Oh yes, there’s a different smell emitted from the women, and I know, okay, now the babies coming.”

**[1:10:41]**

**Sarah:** Yeah, it’s a different neurochemistry. And just going back to oxytocin (everything goes back to oxytocin), but there was a study, actually, they did in rats. Where they’ve got two rats in a cage, and they injected one into the brain with oxytocin -- ‘cause, you remember, it doesn’t cross the blood-brain barrier -- and this rat had the pain-relieving effects we talked about. But it’s untreated cage mate also had the pain-relieving effects. And they did a few permutations of this experiment and they found out that the oxytocin is transmitted from one individual to another in a pheromone kind of way, through an organ in the nose, the vomeronasal organ.

So, oxytocin at that time of birth reaches these extreme levels in the laboring mama. So everyone around gets this oxytocin surge, you know. And those of you who are listening who are birth attendants know that. It’s incredible pleasure and reward and ecstasy, even, just being present when the mother has those high levels of oxytocin. As I’ve said, it’s a lovefest. Everybody falls in love: the mother with the baby, the baby with the mother, the midwife with the mother, the parents, like, HUGE.

And I wonder if oxytocin is related to the sense of smell as well. And I wonder if that’s like an acceleration of the oxytocin because there’s a big peak that happens at birth, because of these positive feedback loops. So that would be my hunch about it, but I really don’t know. It hasn’t been researched. But really interesting phenomenon.

But I think, also, it really reminds us of all the things that experienced birth attendants, this long history of midwifery lore, what we know from what other people know from our own experiences that hasn’t really been included in the medical stuff, but totally fascinating, and, as they say, the magic and mystery of birth.

**Amber:** Yes. I thought that was **so** cool, and, just like you said, it’s just part of this birth attendant lore that isn’t going to be talked about in your obstetrics textbook. (*Amber laughs*)

**Sarah:** Yeah.

**Amber:** I was just really floored by that.

**Sarah:** Yeah, I really recommend Sarah Wickham’s website. She’s beautiful. That’s where that study came from, or comments to that, so sign up to that. But also, [Midwifery Today](#), a magazine that comes out of Oregon, it’s a beautiful repository of midwifery law. It’s really stunning. So if you’re interested in that side of it, sign up to their e-list as well. I write for them sometimes.

**Amber:** Oh maybe that’s how I found you way back then! (*Amber laughs*) I used to read the magazine, and go to the conferences, and all that.

**Sarah:** Oh beautiful. Yeah.

**Amber:** Well, thank you so, so much. It’s a **TRUE** honor and a pleasure speaking with someone who has made such a profound impact on my life.

**Sarah:** Aww thank you, Amber. It's certainly my honor and privilege to do that. And thank you for passing it on, you know. When we have these good experiences we want every mother, baby, father, and family to get the best possible start.

Yeah, I forgot to mention my report, as well, [Hormonal Physiology of Childbearing](#). It's kind of slightly technical, but a lot of midwives get their clients to read the executive summary. It's got some really nice summaries of everything that I've been saying. And, yeah, you know, the take home message is, you know, the best possible start is respecting and optimizing a hormonal physiology. And if there are inevitable hormonal gaps, filling those in with skin-to-skin and breastfeeding.

**Amber:** Beautiful. Thank you so much.

**Sarah:** Okay, pleasure! Thank you.

*(Interview with Sarah ends. Transition to Amber's solo section on sleep)*

**[1:13:50]**

**Amber:** Alright. Let's talk about sleep: one of the most challenging and confusing aspects of modern parenting to be sure. So much conflicting information and advice, and almost all of us deal with sleep as a problem when we have little kids because it's hard.

Our society, we don't... we're lacking the village, like I talked about in Episode 11 of this podcast (which is still one of the top two most listened to episodes that I still hear from people all the time. So, if you're a parent and haven't listened to that one, you'd probably love it) -- we're lacking village support. We're lacking models of childhood and early childhood. Most of us don't grow up seeing that as we would in a tribal living situation. So we are at a loss as to what to do, and in our modern society, we problematize sleep, which is legit. It's a problem when you're not getting enough sleep, and you don't have community support, then, to watch the kiddo while you can catch up on your sleep. So I don't mean to delegitimize how hard it is 'cause it's been a huge issue in our lives.

So, yeah, just want to talk about it because so many of you have followed the sleep journey that I've been on with Nixie, who's almost now three. So, just to recap, also, for those who haven't: with my oldest daughter, Mycelia, who's almost 13 now, just totally coslept from the beginning. It was fine. I don't remember it being much of a problem. I remember at seventeen months, I think, night weaning. And that was a hard couple of nights, but I was just done, done, done. I think we ALL get to that point where we're like, "I'm dying. I'm done. Something **has** to change." And that's when a lot of people go hardcore sleep training or cry it out, and I am going to talk about our sleep training experience with Nixie in a minute here.

So, and then Mycelia when she was, like, three and a half, we finally moved into a place where she could have her own bedroom, and she was ready. She did fine. She loved sleeping on her own, and so that was that. I guess I would say here, too, in general, my approach to parenting is very ancestral, primal, like, rooted in being a mammal, as we've talked about in this episode with Sarah Buckley. So, natural birth, breastfeeding, just plenty of sunshine, and soil, and being outdoors, and naked time and lots of skin-to-skin and being together as much as possible, especially when



they're super little. So, of course, I coslept with Nixie when she was born three years ago and didn't anticipate that it would be a problem.

And then at about seven months old, I was just, I was at that breaking point. I've never felt like that before. Like, I kept saying, like, "I'm gonna MURDER someone if something doesn't change." I was so out of my mind. I actually, at the peak of it I went into the kitchen drawer and got a knife out -- not to murder someone -- but to cut myself, which is something that I used to do in college and have not done since then. But I was so, like, out of my mind from the lack of sleep, and then the problems it was causing in my relationship, that the only thing I could think to do to sort of let the pain out was to cut myself again. And I didn't do it. I put it back, but that was kind of my moment of like, okay something has to change.

So I had been very anti-sleep-training up to that point. And it's interesting to say that, because intellectually I kind of still, like, I am? I really feel like babies are meant to be with their parents at night. And that, yeah, like I said, sleep is an issue and it's just something we have to deal with. I don't. I don't really know what I'm saying. It's still -- it philosophically bothered me that I was interested in sleep-training but I was just like, I think that's better than, like, hurting myself or maybe hurting others. So we did a really gentle sleep training through [sleepsense.net](https://sleepsense.net). And, man, I got **SO** attacked online when I posted -- okay, this is a little detour here: so, there's actually a really great group called The Beyond Sleep Training Project on Facebook if you want advice on sleep, if you definitely **don't** want to sleep train, yes. So don't even mention sleep training in this group 'cause this is where I made my mistake. Okay. I'm actually going to come back to this because first I have to tell the whole story of Nixie's sleep evolution to get there.

So, we did a gentle sleep training. One of the things people reacted to when I posted in that group was like "There's NO SUCH THING as gentle sleep training." But there is. There's totally cosleeping, and like, sacrificing all yourself and your sleep for that ideal. And then there's "cry it out" on the opposite end of the spectrum, which is just leaving your child alone, not going in as they cry and scream and sometimes vomit on themselves and just total abandonment. And then, in between, there's this whole spectrum. And gentle sleep training lies somewhere in there.

And so, what we did, as I remember over two years ago now, is we stayed with her, either me or my husband took turns, stayed with her. And yeah she cried because she's like (*Amber speaking in baby Nixie voice*) "Nurse me! What's going on?! You always nurse me to sleep! Agh! What's happening?" And just stayed, and stroked her, and soothed her with our words and were present with her, but, like, "I'm not, I'm not nursing you at night anymore. You need to start sleeping on your own."

And so it took, I think, three nights of that. Each night the amount of time it took to get her to sleep was less and less. I think it maybe took a little longer to stop the middle of the night nursings. I remember being **SO** engorged during that week because I was not nursing as much at night or maybe not at all. I don't remember. It's crazy. But, you know, within a week or two she's going to sleep on her own, and she wasn't nursing through the night so it was a somewhat easy process for us. And I really like that [sleepsense.net](https://sleepsense.net) because it's daily videos for 14 days, so she walks you through, "Okay. This is probably how it's going to go tonight. Usually, the third night is like this. Usually, the fifth night is like this. This is what you do if this happens." And it was really helpful.

So that was amazing. And suddenly we were getting enough sleep, and we were stoked. And at that point I had decided, well, let's try to put her in a crib, you know, which I never thought I would do! In this interview, I compare it to a cage, which it is. But we found one, and we got it, and it just worked so well. She slept **so** good in that crib. And then I was sleeping **so** good in the bed, and it was like a complete 180 for our family.

[1:21:17]

Amber: And so from probably eight months is when we got the crib until two years old, things were great for sleep. I would nurse her at night downstairs. Owen would take her upstairs still awake, put her in the crib, she'd lay down, fall asleep on her own, sleep until the morning time. It was a dream come true.

And then starting exactly two weeks before her second birthday, we went to put her down for a nap one day, and she just fought it! -- And naps were just as easy, too -- Screamed and screamed and it took hours, and I remember that was the first day that we tried to have help with our business. So we had someone here helping us do bottling and stuff, when we were just like, "We're so sorry! This never happens. Oh my God!" You know, we were just kind of out of our minds, and it was just awkward trying to incorporate this new person into the business at the time. And then it happened again at bedtime. And at the end of that day, we were like, "WHOA. What a crazy day! Wow. Weird!" And then it happened the next day at nap and bedtime. The next day at nap and bedtime. And I just remember that dawning realization, like, "Oh my God. This is the new thing. This isn't an aberration. This is what's happening now."

I always say about parenting, it's like two steps forward, one step back. With everything, once you've something figured out (*Amber laughs*), you don't. And we tend to get all, maybe not self-righteous, but pretty confident when we figure something out, and we're talking with other parents, we're like, "Oh yeah. Well, for us, it just worked this way, and, like, it was great. We just did this sleep training thing with sleepsense.net and everything's been awesome." It just always changes.

And so we tried **really hard** to stick to the routine and stick to the crib sleeping for like, two or three weeks? And finally, I just had to give up and welcome her back into bed because that's what she wanted, you know? I don't know what happened. Her brain woke up, or, as I talk about in the intro to Episode 28, two weeks before she started resisting sleep we had watched our dog get killed by a car in front of our house. And that might have had something to do with it, too, I don't know why there would be that two week lag in her, like, reacting to it in that way. But I think that might have had something to do with it. So even though I had thought we had made all this progress, right, by getting her to sleep through the night and sleep in her separate sleeping space, we just worship that idea in this culture, it was not working. It wasn't working, and we were all back to getting no sleep. And I could just tell, like, in her little soul that she needed that closeness with me, and she wanted to be back in bed.

I've shared before that Owen sleeps in a different bed because he snores VERY loudly and I'm a **very** sensitive sleeper and, actually, so is Nixie, which is why the crib was so great because we weren't constantly waking each other up, turning over in the night. So she's been back in bed with

me ever since. It's been almost a year now that she's been in bed with me, and I love it. I love it! Even though I do have to be careful everytime I want to turn over or get up to go to the bathroom, it's just... it's worth it for the sweetness of having her be right there with me. And it just *feels* right. It just feels super natural to have her in bed with me. So, it's been really sweet, and it's been, again, just quite the journey of back and forth and up and down, and letting go of ideals, and letting go of the idea of progress, and getting so much conflicting information and advice, again, like, even right now, we're going through this thing with naps where she's, she will not nap on her own anymore. She will not nap in the bed, even if I'm there rubbing her, telling her stories, singing, she's just like, "BING! YAH! I'M AWAKE!" But the second we get her in the car, she passes out, so we're just like, okay (*Amber laughs*). This is just like such mixed messages.

I've read that like, if they're not falling asleep in the bed anymore they're done. It's time to be done. But clearly, she needs the sleep if she passes out within a minute of the motion happening. But, obviously, we don't want to be driving every day, and some days it's too hot to be in the stroller. So I was doing the thing, again, where I'm just like desperately seeking advice online. And then, which is like... I'm sure I'll just continue to do it. But I was just, like, oh I need to just check in with myself and really observe what's going with her, and figure what I think is best. And actually, what I'm observing and feeling is that she still needs to be taking these naps. So, okay, willing to do a hot stroller ride or willing to drive around even if it's just a dumb thing to do, and we're using up gas. It's always scary having your kids in the car. We have this GIANT church near us with a giant parking lot that we can just loop around in and there's no one there on not-Sundays, so it's actually a really safe place to do it.

But, so the Facebook post. Okay. When we were going through this thing a year ago, where she was just suddenly fighting every nap, every sleep, I posted in there, like, everything we had tried, and I was like, we even, like, we let her cry it out ONCE in that period. Like, didn't go in there, she was crying and crying in the crib. And it was me. I was like, "Maybe she just needs to go through this **once**, and then she'll go back to sleeping on her own. She'll go back to falling asleep when we want her to. Let's just see if this works."

And it was fucking awful. It was the worse thing ever, and it didn't work (*Amber laughs*). Umm, but I mentioned that we had done that in this post. So in the Medicine Stories Facebook group, people are so kind. And moms had left, had posted things like this before, of like, "I'm having such a hard time with my kid, and I even resorted to doing this..." and people hold them so gently and lovingly. And, dude, I posted that in the Beyond Sleep Training Group, went and ran errands and stuff, kind of forgotten I had done it, checked it a few hours later, and I had gotten **torn apart** by the people in this group for admitting that we had "cried it out" once, and for like, you know, considering anything other than whatever their ideal is of "not sleep training." So that was a real eye-opener for me, too, with everyone's varied strong opinions on this subject. Touched on vaccines and immunity very briefly in the intro with that review, but it's so the same for sleep.

So, yeah, I just wanted to since Sarah and I talked about it in this episode, knowing that some of you know some of the things I've shared, and might be wondering, like, "Wait, I know she did sleep training and she slept in a crib, so why did she just call it a cage?" I just want to say that it's a super, like, "vaccine and immunity" complex, nuanced situation. And everyone's situation is different when it comes to sleep and there's no one right answer for everyone, except for, perhaps, deeply listening to your own intuition and instinct, and deeply observing your child, and seeing what it is

you think they need, which can be so hard to do with so much information advice. There's like a thousand sleep expert websites for kids. It's super overwhelming. Yeah. (*Amber laughs*)

I just, again, that Facebook group The Beyond Sleep Training Group is cool if you want that kind of advice for sure. But it's such a blessing to find an online community that can really hold and support our parenting decisions, no matter if people disagree with them or not. So, you know, I advise you to seek that out, too. And the Medicine Stories Facebook group is not in any way focused on parenting, but people do talk about what's been talked about on this podcast before. Since I'm a mother and do talk about parenting sometimes, people do post there about those things.

Umm, yeah. I think that's it. Just wanted to expand on that a little more. I do get people asking me questions about this, and I know it's a hot topic and if I really had to sum up my beliefs about this, I would say **absolutely** sleep with your babies when they're babies. I just can't imagine putting my newborn or even my four-month-old in a separate sleeping space. They're... we are mammals. They're, my little baby bear, is meant to sleep with me in my bed. And then, as they get a little older, just seven months was when I started to lose my mind, so that's when we made the change, and that didn't happen with my oldest, so she stayed in bed with me. And don't be afraid to experiment or "backslide," to undo the "progress" you've made. It's all cyclical and circular. It's not a straight forward arrow, by any means, this parenting journey.

All the sympathy and love for all the parents out there dealing with sleep shit. It is so hard!!

You're doing your best, and you're doing great.

*(Exit Music: acoustic guitar folk song "Wild Eyes" by Mariee Sioux)*

**[1:30:46]**

**Amber:** Thank you for taking these Medicine Stories in. I hope they inspire you to keep walking the mythic path of your own unfolding self. I love sharing information and will always put any relevant links in the show notes. You can find past episodes, my blog, handmade herbal medicines, and a lot more at [MythicMedicine.love](https://www.mythicmedicine.com). We've got reishi, lion's mane, elderberry, mugwort, yarrow, redwood, body oils, an amazing sleep medicine, heart medicine, earth essences, so much more. More than I can list there. [MythicMedicine.love](https://www.mythicmedicine.com).

While you're there, check out my quiz "[Which Healing Herb is your Spirit Medicine?](#)" It's a fun and lighthearted, but the results are really in-depth and designed to bring you into closer alignment with the medicine you are in need of and the medicine that you already carry that you can bring to others.

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And please subscribe in whatever app you use, just click that little subscribe button and review on iTunes. It's so helpful, and if you do that you just might be featured in a listener spotlight in the future.

The music that opens and closes the show is Mariee Sioux. It's from her beautiful song "Wild Eyes."  
Thank you, Mariee.

And thanks to you all. I look forward to next time!