## **Sawbones 48: C-Sections**

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**Clint:** Sawbones is a show about medical history, and nothing the hosts say should be taken as medical advice or opinion. It's for fun. Can't you just have fun for an hour and not try to diagnose your mystery boil? We think you've earned it. Just sit back, relax, and enjoy a moment of distraction from that weird growth. You're worth it.

[theme music plays]

### Justin:

Hello everybody, and welcome to Sawbones, a marital tour of misguided medicine. I'm your cohost, Justin McElroy.

## Sydnee:

And I'm Sydnee McElroy. Hey, Justin.

#### Justin:

Sydster.

# Sydnee:

I meant to tell you that something really disturbing happened to me the other week when you were out of town.

#### Justin:

Oh, no.

## Sydnee:

You know when you abandoned me? Right in—

#### Justin:

Right.

## **Sydnee:**

... the midst of my pregnancy?

## Justin:

For the electronic three.

My third trimester?

## Justin:

Right.

## **Sydnee:**

Yeah.

## Justin:

To, for the electronics convention for work.

## Sydnee:

Do you remember that, when you left me here?

## Justin:

Yeah, that was very recent.

# Sydnee:

Very alone. Very sad.

### Justin:

I'm sure the wounds are still very fresh.

# Sydnee:

Well, I was staying with my parents, as you know, and my little sister Rileigh, who is 13 for everyone listening, um—

#### Justin:

And for people who aren't listening, she's still 13.

# Sydnee:

That's true. She is 13. Her, her uh, existence as a 13-year-old continues regardless—

#### Justin:

Mm-hmm.

# Sydnee:

... of you, the listener.

Think about it.

# Sydnee:

That's interesting. But, she asked me a question and the question was do I have a uterus even though I haven't been pregnant?

#### Justin:

Well. Great.

# Sydnee:

[laughs] I was a little worried.

## Justin:

About our public school system.

# Sydnee:

Yeah. I mean ... she's had, she says she's had sex ed.

## Justin:

Uh oh.

# Sydnee:

She knows what a period is. But she was a little unsure if in fact she did have a uterus yet or not, and did you grow that when you got pregnant, or was that already there? And this really got me worried.

## Justin:

Yeah.

# Sydnee:

I mean, is this, is this like, normal? Is this—

## Justin:

Well, if it makes you feel a-, if-

# Sydnee:

... I mean, do, do most 13-year-olds not know?

#### Justin:

... if it makes you feel any better, I had an extended period of time where, I think your awareness of how these things work sort of comes gradually. I had an extended period of time for a couple years, uh, in my youth where I thought babies came from the stomach. I knew they lived in the stomach. I thought they emerged from the stomach, through some sort of uh, you know that stretchmark you sometimes see in a pregnant woman? I guess it's not a stretchmark—

## Sydnee:

Are you talking about the linea nigra?

### Justin:

Yeah, the linea nigra, I guess.

# Sydnee:

Mm-hmm.

#### Justin:

I thought that was a seam of some sort that opened to allow the baby to exit. Was it unclear—

# Sydnee:

Like with a, like with a zipper? Or with Velcro—

#### Justin:

Some sort of Velcro, zipper—

## Sydnee:

... or—

#### Justin:

... flesh zipper, uh, arrangement. I was unclear of the specifics, but yes. For, there was a period of time where I thought that was the way it worked.

# Sydnee:

Well, I mean I guess in a sense sometimes that is the way it works.

#### Justin:

I basically invented C-sections, I guess is what I'm saying.

# Sydnee:

Well-

I, I incepted C-sections.

## Sydnee:

Is that, is that because you were born by C-section?

### Justin:

Yeah. I guess. Maybe. I don't know.

## Sydnee:

I don't know. Why, I don't know.

## Justin:

It was deeply ingrained somewhere in my, in my, preadolescent psyche.

# Sydnee:

Well, I hope you know now that you were wrong.

### Justin:

Uh, yes. I have gathered.

# Sydnee:

Yes. That there is no seam there.

#### Justin:

No seam that I can detect.

# Sydnee:

I'm certain that if there were Velcro on the front of my stomach at this point it probably would've burst open.

#### Justin:

Hopefully, yes.

## Sydnee:

Well, hopefully not. But-

## Justin:

Well, hopefully yes, we can get our baby out.

# Sydnee:

# [laughs] Uh-

### Justin:

I want that baby.

# Sydnee:

... do you, do you know much about C-section in general?

## Justin:

No, absolutely not. Is that a—

## Sydnee:

Oh.

### Justin:

... is that a trick question? Like you know that I'm certainly—

# **Sydnee:**

[laughs]

## Justin:

... don't know anything about C-sections.

# Sydnee:

Well, you know there's no Velcro there now.

## Justin:

I just figured out, there's no Velcro there. How could I know about C-sections?

# Sydnee:

Okay.

#### Justin:

T—, Sydnee, tell me about C-sections.

# Sydnee:

You know I have a uterus though, right?

## Justin:

Oh yeah.

Okay.

### Justin:

No question about that. Maybe a couple, you have at least one utera—, uterus.

## **Sydnee:**

All right. Well, I'll teach you about C-sections. I will endeavor to better educate my 13-year-old sister as well.

#### Justin:

Yes. 'Cause I think—

## Sydnee:

'Cause I have a responsibility—

#### Justin:

... it reflects badly on you.

# Sydnee:

It really does. It [laughs]—I mean that's, that's fair, it really does.

Well, C-sections, I guess, are near and dear to my heart because without safe C-sections, I wouldn't be here, Justin, either.

#### Justin:

Neither one of us.

## Sydnee:

Neither one of us.

#### Justin:

This would be a boring podcast.

## Sydnee:

It would. [laughs] I don't—it would just be dead air for 30 minutes.

[long pause]

#### Justin:

Like that. That's what it would be like. Can you imagine 30 mi-

# Sydnee:

[laughs]

#### Justin:

... minutes of that?

## Sydnee:

I'm so glad that's what you were doing. I thought you were having a, like an Absence seizure or something. [laughs]

## Justin:

Yeah, no. No dice. I was just giving—

## Sydnee:

You were—

#### Justin:

... people a sample—

# Sydnee:

... staring.

#### Justin:

... of what [laughs] uh—

# Sydnee:

[laughs]

## Justin:

... Sawbones without us would be like.

# Sydnee:

Uh, so I think the most important thing I can tell you to start off with about C-section is what do you think Caesarean section, C-section, Caesarean section... and that is by the way, C dash section.

## Justin:

Mm-hmm.

## Sydnee:

As I was doing research, I realized that a lot of people research sea, S-E-A sections. [laughs]

#### Justin:

Oh no.

# Sydnee:

No, that is not—

### Justin:

No, no, no.

## **Sydnee:**

... that has nothing to do with the ocean, it is not a nautical term. It is a, it is short of Caesarean section. Where do you think that name comes from, Justin?

#### Justin:

Well, I know that comes from Julius Caesar.

## Sydnee:

Do you know that you are wrong?

#### Justin:

Sydnee, are you having a contraction?

# Sydnee:

I am having [laughs] a contraction.

#### Justin:

Okay. Well let's just, we'll just hold for a second. See, I wish I had done the silence bit here, this would be a good place to hold, as you have a contraction.

# Sydnee:

[laughs]

## Justin:

Now, keep in mind folks, this is a Braxton Hicks contraction, it's nothing to worry about. But I'm s—there's gonna be a few of these in the next few weeks. I'm not gonna edit every one out. So we're, I'll just vamp when Sydnee's having—

[laughs]

#### Justin:

[laughs] ... a Braxton Hicks contraction, and then once she's ready to continue, uh, the podcast, we'll just hop right back into it. Just remember, I correctly identified Caesarean sections as being derived from Julius Caesar. That is where we left off. Sydster, how we doing?

## Sydnee:

Okay.

#### Justin:

All right.

## Sydnee:

It's going away.

### Justin:

She's back.

# Sydnee:

She's going away. Um, you're wrong though. [laughs]

#### Justin:

[laughs] Okay.

# Sydnee:

I mean—

## Justin:

Boy, that must've been—

## **Sydnee:**

... I'm gonna start talking to send a-

#### Justin:

... that must've been, uh, to add to the pain of a contraction, knowing that not only were you having to wait for your contraction, but you had to wait to tell me I was wrong about something.

[laughs]

### Justin:

That must've been excruciating.

# Sydnee:

That is a commonly, um, commonly held misbelief, a common mis—I don't know. It's wrong, is the important thing. It's even defined—

### Justin:

Is that what you thought? Is that—

# Sydnee:

I thought that, too.

#### Justin:

... you told me before there was, that that was a, a fact.

# Sydnee:

Uh-huh. I have said that before. I thought that that was true. It was not. It's even, I believe in Webster's, it's even defined that way. That that's where the word s—that that's where the term Caesarean section comes from.

#### Justin:

Wow.

## Sydnee:

And that's wrong. Um, the reason that we think that this is wrong, well is one, the, the, practice predates Julius Caesar, and two, it's referenced later that his mother, Aurelia, survived.

#### Justin:

Mm-hmm.

# Sydnee:

Um, there's actually some evidence she may have outlived Caesar. Now, I don't know that for sure. But, the fact that she survived and was noted to, you know, be alive later in his life makes it almost impossible that he would've been born by C-section, because at the time, of course, you couldn't perform a Caesarean section and preserve the life of the mother.

Mm-hmm.

## Sydnee:

So that is absolutely not where it came from. So then the question is, where does this word come from if not from Caesar?

## Justin:

I don't know.

## Sydnee:

So, there's several different theories, and we're not 100% sure—

## Justin:

Okay.

# Sydnee:

... which I think is fascinating.

## Justin:

Give me the top contenders.

# Sydnee:

So, it may be related to what was called the Lex Caesarea, or Imperial Law, is what that comes for. Uh, comes from. And it, this was passed during the rule of Numa Pompilius around 700 BCE.

## Justin:

Mm-hmm.

## Sydnee:

And basically, it was a law that said that if a woman died while she was pregnant, you would, you would remove the fetus from her and then bury them separately. And it was just a religious kind of thing, that it was not appropriate to bury them together. And so, so that is where, so it was a law passed by the Caesar.

#### Justin:

Mm-hmm.

## Sydnee:

So, that's where the Caesar part comes in, you know, because Caesar was a term for the ruler, not just Julius Caesar. Um, and, and it involved removing the child from the abdomen. So, they thought well, maybe that's where it comes from.

Um, this actually evolved in, by Roman times so that not just when the woman died in childbirth, but if the woman was, you thought she was about to die—

## Justin:

Mm-hmm.

## Sydnee:

... during a delivery, you could go ahead and have the procedure done. This was actually the first attempts to save the baby.

#### Justin:

Hm.

# Sydnee:

Initially, it was just a religious thing. It's too late, we can't do anything unfortunately, but this is a religious belief. We need to, you know, do this procedure. By Roman times, they were really interested in increasing the population.

#### Justin:

So they ...

## Sydnee:

So they started, you know, as a last resort like, look, this delivery's going wrong. We've seen this before. We know mom's not gonna make it. Let's go ahead and get the baby out and try to save a Roman citizen.

#### Justin:

Little baby Roman.

#### Sydnee:

A little baby Roman.

#### Justin:

An adorable... we have all these tiny togas.

[laughs] That's how they come out.

## Justin:

Right.

## Sydnee:

With a little—

## Justin:

With a little toga.

## Sydnee:

... with a little uh, what am I trying to say? The leaf?

## Justin:

Olive?

## Sydnee:

The, the leaf, are they olive? They're laurel wreaths, aren't they?

## Justin:

Ol—I guess it depends on where, what season—

# Sydnee:

[laughs]

#### Justin:

... what's in fashion.

Here's the thing, here's the facts, folks. It's a tiny toga and some sort of plant life on its baby head. Okay?

# Sydnee:

We don't know about trees.

#### Justin:

We're not, this isn't a tree podcast. Go listen to Saw Wood if you want that.

# Sydnee:

[laughs]

Uh, the term also may be related to the word cadere, the verb which means to cut.

### Justin:

Mm-hmm.

## Sydnee:

Um, and a child that was born via the cut was called a, uh, Caesones.

## Justin:

Oh, okay.

## Sydnee:

So that may be where it comes from. Uh, our old buddy Pliny—

## Justin:

Pliny.

# Sydnee:

... the Elder.

# Justin:

Pliny the Elder, he's back.

# Sydnee:

Um, he wrote about this. He was, for some reason, really interested in this whole topic. Just, like, the where the word came from, not particularly—

#### Justin:

Into it.

# Sydnee:

... the procedure.

#### Justin:

Just into it.

## Sydnee:

Just really into it. And he thought that the original Caesar was probably born this way.

### Justin:

Mm-hmm.

## Sydnee:

Like the, not Julius, but the first Caesar. And that the word Caesar comes from the procedure. So the first Caesar was born, and we, they used that word that means to cut, and then, you know. And so they gave him that as his given name, as his last name, and so all of his descendants were also named Caesar.

#### Justin:

So it could be the other way around, you're saying.

## Sydnee:

Exactly. Julius—

#### Justin:

Wow.

# Sydnee:

... Caesar was named for the procedure as opposed to the procedure being—

### Justin:

Now listen.

## Sydnee:

... named for Julius Caesar.

### Justin:

It should be noted if you're not that familiar with Pliny, he could get a little silly sometimes. He may have just been making that up.

# Sydnee:

He did, 'cause he made up this whole myth about all of the Roman infants that were born who were given the last name, which was a common last name, uh, Caeso, were all born by C-section, which is absolutely not true. But he just said that [laughs]—

### Justin:

Okay.

# Sydnee:

... I don't even know why you make that up. [laughs]

Yeah, I, whenever you hear somebody's inventing myths, that's when you need to get worried about their, uh, veracity as like a historical—

# Sydnee:

[laughs]

## Justin:

... uh, source.

# Sydnee:

And not even exciting myths.

### Justin:

No. He's just making up like—

# Sydnee:

Like, what a stupid myth to invent.

## Justin:

... how bored were you, Pliny?

# Sydnee:

Um, the Saint, Nonnatus, from non-natus, not born, uh, and that was named, he was named so because he was, uh, born via Caesarian section.

## Justin:

Wow.

# Sydnee:

And it was not considered true, true birth.

#### Justin:

Hm.

## Sydnee:

Now, my mom would argue—

## Justin:

Yeah. Right.

... that point. But at the time, it was not—

### Justin:

My mom and her 42 hours would certainly submit that it was a birth—

# Sydnee:

That it was a birth.

#### Justin:

... of a fashion. [laughs]

# Sydnee:

Absolutely. [laughs] I think many women would. Um, Bindusara, who was the second emperor of India, was born by C-section, uh, because his mother accidentally drank poison when she was close to delivering.

## Justin:

Okay.

# Sydnee:

I don't know how that ... how you're in labor, and then you accidentally drink poison. It's a weird series of events.

#### Justin:

You think you would be a little more careful.

# Sydnee:

I'd [laughs] stay away from poison, at least at that point.

## Justin:

[laughs]

## Sydnee:

You've made it that far.

### Justin:

You know what? I shouldn't.

# Sydnee:

[laughs]

The baby is so cl—I would love some poison.

# Sydnee:

[laughs]

#### Justin:

The baby's so close. I'll just hold out for a few more weeks. Oh, what the heck.

# **Sydnee:**

[laughs]

### Justin:

Let's be bad.

# Sydnee:

Let's just have some poison.

## Justin:

It's whatever Fourth of July was back then.

# Sydnee:

Now-

#### Justin:

Let's do it.

# Sydnee:

[laughs] ... to be fair, um, if you look back at some Ancient Chinese records, they, they may have been doing this procedure like, 700 years prior to these—

## Justin:

Almost certainly.

# Sydnee:

... accounts.

#### Justin:

Almost certainly they would.

So almost certainly they were, we just don't have good records to say for sure that they were. Um, but it wouldn't surprise me at all.

Uh, now again, everything I'm talking about were procedures, and, and I don't think I've defined, by the way, C-section. But I didn't know if that was necessary.

### Justin:

Oh, let me. You do a cut, uh, at the bottom of the abdomen, just above the pubis. You do a cut about, hm, let's call it six inches, lateral. And you fold back the skin, you fold back the muscle that's there. You remove the baby, uh, via that method, and then you stitch the mom back up.

## Sydnee:

That's pretty good, honey.

#### Justin:

Well, we did have that childbirth class.

# Sydnee:

That's true.

#### Justin:

I definitely remember that from the class.

# Sydnee:

That's true. Don't, don't forget you also gotta cut a hole in the uterus there.

#### Justin:

Ugh.

## Sydnee:

I know.

#### Justin:

Fine.

## **Sydnee:**

The, the baby's not actually in the abdominal cavity.

Right. Fine. Okay, yes.

# Sydnee:

Yeah. But that was really good.

## Justin:

Thanks. Well, I do my best.

# Sydnee:

So there you go. So yes, that is what a C-section is, um, to this day. [laughs]

## Justin:

Yeah. It hasn't changed.

# **Sydnee:**

It's not, it's not a very complicated procedure—

## Justin:

No, I could do it.

# Sydnee:

... in explanation.

## Justin:

I could, I will do it. I will—

# Sydnee:

No.

## Justin:

... I could do it.

# Sydnee:

No.

## Justin:

If you need it done.

# Sydnee:

No.

### Justin:

I'll take a shot.

# Sydnee:

Now, up to this point—

## Justin:

For once?

## Sydnee:

... the [laughs] the procedure was really only done for the baby. It was done in cases where the mom either had just died or was not expected to survive, so there wasn't any effort made to—

#### Justin:

I mean you—

## **Sydnee:**

... to save the life of the mom.

#### Justin:

... you hate the id—now, what, Caesar's not an elected position, right? It was, it was passed down by birthright. Right? Were you elected to Cae—

# Sydnee:

Uh, yes. No, I think, I don't think you were elected to Caesar, I think you were—

#### Justin:

Birthright. Right?

# Sydnee:

Yeah.

#### Justin:

So, it, it, I would be interested, and, you know, maybe it was vote, I don't know. But, uh, I would be interested to know if like the predetermination that this child would be Caesar would factor into, there might be a connection there. But, but like, we definitely need to save this baby because they're Caesar. I mean they're, they—

I—

#### Justin:

... could be the next Caesar.

# Sydnee:

... I think you're right.

## Justin:

Oh, God, I don't know if I'm making that—

# Sydnee:

Well, no.

## Justin:

... somebody's gonna tell us. So—

## Sydnee:

Well, I would say that the, you're probably r—, I don't know. But I would say you're probably right, because when I mentioned the, the emperor of India, Bindusara, that was very much why that procedure was done was because he was going to be the emperor.

#### Justin:

That we know—that was still a 50/50 shot on their part, right? Because they—

# Sydnee:

Well, that's true.

## Justin:

... they wouldn't have technically been able to tell, but they c—[laughs]

# Sydnee:

That, that's true.

#### Justin:

... they just couldn't, they just couldn't [laughs] take the risk of a baby boy, uh, dying over his mother.

And I, and I think there was some divine, like, if you read about it, it's like, well, and they just knew that they had to save this baby, and like—

#### Justin:

Right.

## **Sydnee:**

... there's like a, you know, divine intervention—

#### Justin:

Right, right, right, right.

# Sydnee:

... kind of aspect.

Um, there, some of the women may have survived during Roman times. This has been attested many times, but I don't, there's no good evidence of this.

## Justin:

Okay.

# Sydnee:

The first recorded evidence that a mother survived a C-section is actually from the 1580s. Um, and it was performed by a Swiss pig gelder. Do you know what a pig gelder is?

## Justin:

I do not know what a pig gelder is.

## Sydnee:

[laughs] I didn't either. It is a, one who castrates pigs.

## Justin:

Okay. That's a full-time job, huh?

# Sydnee:

I guess. [laughs]

### Justin:

Good living there?

So he, he, Jakob Nufer, is his name.

### Justin:

Make a good living doing that?

# Sydnee:

[laughs] I think Jakob did well. And he had uh, a lot of knowledge of animal anatomy—

#### Justin:

Mm-hmm.

## Sydnee:

... I think. Um, his wife was in labor for several days.

#### Justin:

Mm-hmm.

# Sydnee:

And not doing well. They had, uh, gotten 13 midwives involved.

#### Justin:

Mm-hmm.

# Sydnee:

Which, I'd love to see like, after you're at the eighth and you're like, I don't know, call another one? Maybe another one? [laughs]

#### Justin:

Eh.

## Sydnee:

I don't... [laughs] And they just kept calling midwives, and she kept laboring, and she was not doing well. So he actually petitioned the government and said, I wanna do, I want somebody to come do a C-section. I mean, he didn't call it that. He knew that this was a possibility.

#### Justin:

Uh, ye olde baby slice.

Yeah.

### Justin:

Whatever they called it.

## Sydnee:

Whatever they called it. Uh, nobody would do it, so he did it himself.

## Justin:

I wonder if this is the first... there's probably an older one that I'm just not thinking of, but like, is this the first effective surgical treatment that we deliv—uh, like, is this the oldest surgical treatment that's like, still performed, do you think?

## Sydnee:

You know, I don't know. I know it is one of the oldest—

### Justin:

Save for like, circumcision, but that's not really a medical treatment as much as a religious practice, so. I, I don't know. But like—

# Sydnee:

I would say this is probably—

## Justin:

... oldest, consistently practiced?

# Sydnee:

... if not the oldest, absolutely one of the oldest. And it, and it is said that many times that C-sections are one of the oldest—

#### Justin:

Mm-hmm.

# Sydnee:

... regularly done surgical procedures.

#### Justin:

I mean, there's amputations, but we probably weren't doing those for the right reasons.

No.

#### Justin:

Maybe with infection. You know what, we may have been able to figure that out, but anyway.

## **Sydnee:**

No, this was something we recognized the need for pretty early, we just didn't know how to do it well.

#### Justin:

I'm distracting us, let's keep moving.

## Sydnee:

Except for Jakob, who did know how to do it. He based what he did like, sewing up, you know, everything for his wife on how he s— [laughs] had sewn up animals.

### Justin:

Awesome.

## Sydnee:

And the record is that she lived. Uh, the child lived to the age, ripe old age of 77.

#### Justin:

Which in the 1580s is like, the oldest dude ever.

## Sydnee:

Like, super old. And it also says that she had several other children, including twins that she delivered vaginally.

#### Justin:

That's crazy, because that means he would have to keep C-sectioning them.

# Sydnee:

No, she had vaginal deliveries after that.

### Justin:

Okay. Whoa.

You don't have to have a second C-section after your first C-section.

## Justin:

It's more rare, right?

## Sydnee:

Nowadays.

## Justin:

Okay.

## Sydnee:

Yes. That's a whole other thing though. We'll get there.

#### Justin:

We'll open that kettle of fish.

## Sydnee:

Um, there's also some weird case from the 1600s that's cited of a woman who was nine months pregnant and was gored by a bull in the abdomen.

#### Justin:

Okay.

# Sydnee:

And like, the bull accidentally C-sectioned her, and the baby survived.

#### Justin:

Okay. Is that the oldest evidence of a bull performing a surgical procedure? [laughs]

## Sydnee:

[laughs] That is, that probably is.

#### Justin:

Except for like, presumably like, many, many thousands of buttholedectomies that they—

# Sydnee:

[laughs]

... performed on unsuspecting farmers throughout the years.

## Sydnee:

I mean I, I don't know how, like how the, what kind of goring has to occur before the surgical procedure. [laughs]

## Justin:

[laughs] Right. It's, that's, yeah, that's very human of us. Like, if you gore a man's butthole, then that's just a b—you're a bad bull, bad.

# Sydnee:

That's a-

#### Justin:

If you gore a baby, it's a C-section. [laughs]

## Sydnee:

It's a-

## Justin:

You're a surgeon.

# Sydnee:

We called it a C-section.

# Justin:

You're a bull surgeon. It's a miracle.

# Sydnee:

I don't think I'd cite that—

#### Justin:

[laughs]

## Sydnee:

... as a C-section myself. [laughs] Um—

## Justin:

It's incl—it's very inclusionist. [laughing]

Yeah. As you can imagine from all these examples, mortality was very high for a long time, even as we got a little more rigorous about how we went about that. Um, as of like, 1865 in the UK when they were actually keeping rates of C-sections—

## Justin:

Mm-hmm.

## Sydnee:

... and mortality, and all that kinda thing, uh, the rate of mortality from a C-section was 85%.

### Justin:

I mean it's insane, right? There's so little we understood about uh, the circulatory system and, and all that stuff—

# Sydnee:

Exactly.

#### Justin:

... infection, and—

## **Sydnee:**

Bleeding and infection. It was—

#### Justin:

Yeah.

## Sydnee:

... we just, we didn't know what we were doing. Um, but we were doing, um, but we were doing ... I mean a— and again, we get into the heroic era of medicine, which we've talked about a lot, where do anything. Anything is better than nothing.

## Justin:

Right.

## Sydnee:

Um, it's interesting, we actually learned some from a lot of our European travelers who went to Africa in the 1800s.

Mm-hmm.

## Sydnee:

Especially in Rwanda and Uganda. They were doing C-sections there, um, and using, uh, herbs and different like, kinda native plants and alcohol—based things to anesthetize women and then disinfect the area, and certain herbal pastes to try to improve—

## Justin:

Wow.

## Sydnee:

... wound healing. And they actually were having some success. I'm n—, I'm not suggesting it was 100%, but we learned a lot from those techniques.

## Justin:

Huh.

## Sydnee:

Yeah.

## Justin:

Huh.

## Sydnee:

Um, the first, I think this is really cool. The first C-section in the British Empire wasn't ... the first like, actually performed, we're not just, you know, randomly, I don't know, grab a knife, save the baby.

#### Justin:

[laughs]

## Sydnee:

The first actual, you know, rigorously performed C-section was in South Africa. It was sometime between 1815 and 1821, it's sketchy. And it was performed by Dr. James Barry, who was a surgeon. And one other really interesting thing about James Barry.

#### Justin:

Tell me.

Was a woman.

### Justin:

A doctor?

## **Sydnee:**

He lived his entire life as a man. From a young age. This is true, Dr.—

## Justin:

Whoa.

# Sydnee:

... James Barry decided it was easier [laughs] in this world of 1800s to live as a man. He lived his entire life, and records indicate he was born a woman. And his autopsy showed that he was a woman. But he lived his entire life as a man. Which afforded him the ability to do a lot of things that women weren't allowed to do at the time.

## Justin:

Wow.

# Sydnee:

I know. I th—I sense that that's a whole other episode, by the way.

## Justin:

Yeah, here's to you, James Barry.

# Sydnee:

The first C-section in the US, do you know where it took place?

## Justin:

Well I have the sheet in front of me, so just keep rolling.

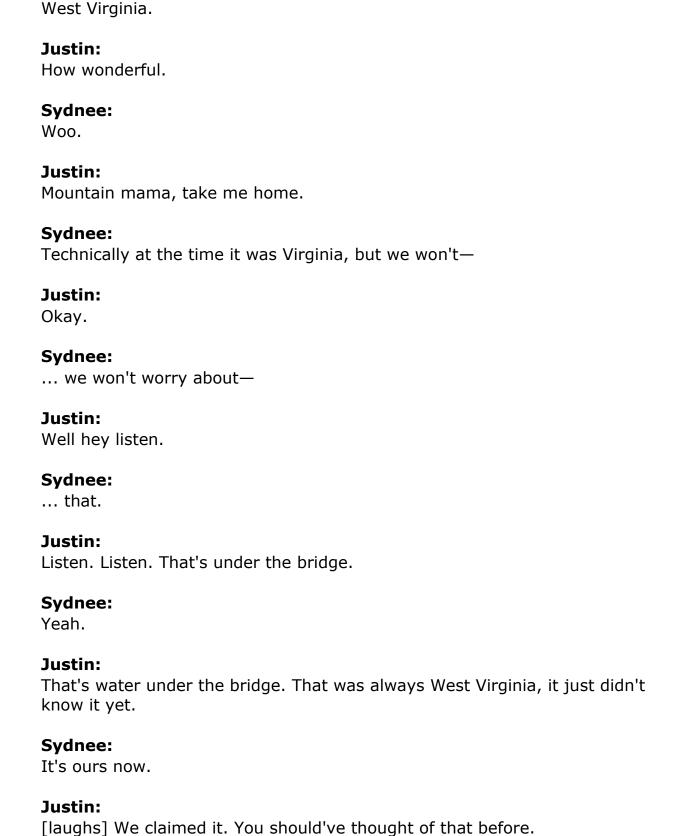
# Sydnee:

Oh, okay. It was in 1794 and it was in Mason County.

## Justin:

Yeah.

## Sydnee:



Eat that, Old Dominion.

### Justin:

You should've annexed it. [laughs]

# Sydnee:

[laughs]

Um, the, the surgeon was Dr. Jesse Bennett, um—

### Justin:

A man?

# Sydnee:

Yes.

## Justin:

Okay.

## **Sydnee:**

A man. Uh, he performed it on his wife, Elizabeth. They were out in, living in their log cabin and she was in labor and she was not progressing well, and so you know, he did what he had to do. He laid out an operating table, uh, pl—, a wooden plank across a couple of barrels.

#### Justin:

Mm-hmm.

# Sydnee:

Gave her a whole bunch of laudanum.

### Justin:

Mm-hmm.

## Sydnee:

That's what you had. And he uh, he saved her life.

## Justin:

Let's circle back around to James Barry for a second, 'cause I'm curious about something, and I wanna clarify terms, 'cause—

Sure.

#### Justin:

... it's important. I—was James Barry living his life as a man like, was this a sexual thing, do you know? Or was it purely a professional sort of cover?

## **Sydnee:**

You know, I don't, from what I read, and I, and I have not done thorough research on him.

#### Justin:

Okay.

## **Sydnee:**

'Cause actually I intentionally didn't 'cause I thought, well this could make a really cool episode in the future.

### Justin:

I wanna use appropriate gender pronouns and what have you.

## **Sydnee:**

Uh-

#### Justin:

I just didn't know if it was a, you know, a ruse, or a choice that James had made.

## Sydnee:

See, from what, from the little bit of reading I did, I think that it's sketchy exactly why the decision was made.

#### Justin:

Mm-hmm.

## Sydnee:

Was it just purely, I am a woman, but I know that if I, if I pass myself off as a man I will get more advantages, I'll get to do the things I wanna do with my life? Or was it truly a case of I, you know, I feel that I was born in the wrong body.

Right.

## **Sydnee:**

I feel I am a man, and so I'm going to live my life as a man. My impression was that it was more the, the former. That it was, I wanna be afforded the opportunities of a man.

#### Justin:

We'll have to look into that. It's interesting.

## Sydnee:

But I think that would be a really cool thing for us to look into.

#### Justin:

Moving on. I'm sorry, I keep derailing us, we have so much to do.

## Sydnee:

Well, I just wanna say, Dr. Bennett, after he saved his wife and his baby's life went ahead and took out her ovaries while he was in there.

### Justin:

Whoa.

## **Sydnee:**

Uh, for the sole reason—

#### Justin:

Not cool, Jesse.

## Sydnee:

Well-

## Justin:

Unless she was like, okay with it.

## Sydnee:

... well there's no record, who knows. We didn't ask women at the time if they were okay with anything, right? We barely do now.

#### Justin:

Justin stands— Sydnee: Just saying. Justin: ... stoically, his face frozen. Sydnee: [laughs] Justin: Knowing that if he waits long enough this moment will pass. Sydnee: He did it, at least as documented, to prevent her from having to go through this again 'cause he was so worried she would die. That is what he said. He was so worried she wouldn't survive, and that if she got pregnant again, this, that she might die. So he did the s-Justin: Let's all— **Sydnee:** ... to prevent that. Justin: ... just hope he had this conversation with her before. Okay? **Sydnee:** Yeah, who knows. Justin: Let's, let's tell ourselves [laughs] that little fairy tale. What do you think? Sydnee: Um-

Oh, just so I can sleep at night. Audience, please. [laughs]

# Sydnee:

Th— [laughs]—

### Justin:

Give me something.

# Sydnee:

... there was a little bit of a shift as we move forward towards, you know, we still don't know how to do this very well to routinely save the life of mom, so maybe we're focusing wrong. Maybe mom is our patient, and we don't need to worry so much about baby.

### Justin:

Right.

# Sydnee:

So there was a brief period of time where we did craniotomies on the fetuses, which basically involves, you know, breaking a hole in the child's skull, and—

#### Justin:

Don't. I don't like it.

# Sydnee:

I know. As a way to remove the baby.

#### Justin:

Ugh. Don't like it.

# Sydnee:

Obviously this caused serious damage to the baby if the baby survived. These procedures—

### Justin:

No. [laughs]

# Sydnee:

Yes. These procedure also caused serious damage to mom. They used to do these high forceps deliveries, and—

### Justin:

Ugh. Ugh, ugh.

... anyway. We won't get into it.

### Justin:

No thank you.

# Sydnee:

But this was not any better of an option than the, you know, no anesthesia, no antibiotic—

### Justin:

Mm-hmm.

# Sydnee:

... uh, C-sections they were doing. Um, there was a brief period where it became very fashionable to, after a C-section, go ahead and remove everything. Do a hysterectomy.

### Justin:

Right.

# Sydnee:

Remove the uterus. Uh, the thought was that, um, you remove where the most likely source of infection.

# Justin:

Mm-hmm.

# Sydnee:

And the most likely source of bleeding afterwards. Um, but again, then the woman could never have children again.

### Justin:

Right.

# Sydnee:

So not a great option, although outcomes were improved by this. Now, as we move through history, multiple things improved outcomes. We, you know, started developing anesthesia. Um, we understood antiseptic technique. We got better surgical techniques, kinda like you talked about, that we do that, you described a low transverse incision—

That's what I—

# Sydnee:

... on the abdomen.

### Justin:

... that's what I thought I was describing.

# Sydnee:

You were. And that was a better way of doing things as opposed to a, a long, classical incision that went straight down the middle of the belly, more like you were thinking as a child.

### Justin:

Right. [laughs]

# Sydnee:

Uh, antibiotics, of course, blood transfusions. Um, as C-sections became safer, they became more common. And you know what really boosted this?

### Justin:

What?

### Sydnee:

Rickets.

### Justin:

Why?

### Sydnee:

Because a lot of women at the turn of the century, 'cause we're going into the 1900s, a lot of people who lived in urban areas no longer had access to fresh dairy. So they were born with Rickets. Well, they weren't born with Rickets, they developed Rickets.

### Justin:

Right.

### Sydnee:

And these women, as they grew older, had deformed pelvises from Rickets.

Which means they couldn't pass the baby vaginally.

# Sydnee:

Exactly, so the C-section rate went way up.

### Justin:

Uh, you know, uh, I wanna hear about some of the, the uh, the, the myths, you know? That we've come up with about C-sections.

# Sydnee:

Well, Justin, I would love to tell you about that. But unfortunately, it's that time of the month again where you gotta pay your bill.

### Justin:

Oh, that time of the month.

# Sydnee:

Yeah. [laughs]

#### Justin:

Got it. I was very confused for a second.

# Sydnee:

No. It hasn't been that time of the month for a while.

#### Justin:

Okay, and we're going to go to the billing department.

[theme music plays]

### Justin:

Sydnee, myths, folklore. You promised.

# Sydnee:

Okay. So first of all, there is ... I don't know that I would consider it a myth necessarily, that babies born by C-section are stronger. I think that's true.

#### Justin:

Yeah.

| Sydnee: Personally.   |
|---|
| Justin:<br>It is, as far as I can tell.                         |
| Sydnee:<br>No, all evidence points to that.                     |
| Justin: I don't know another me that is—                        |
| Sydnee: [laughs]  |
| Justin: stronger than me.                                       |
| Sydnee:<br>Um, Adonis and Bacchus were both born by C-sections. |
| Justin: All right then.   |

So, there we go.

# Justin:

It's fine [laughs] fine company.

# Sydnee:

So, that's you and me, right?

# Justin:

Basically.

# Sydnee:

[laughs]

# Justin:

Strongest people I know.

Uh, Asclepius, the god of medicine, he was delivered this way, uh, by none other than Apollo.

### Justin:

Gods have to be delivered by C-section?

# Sydnee:

I guess. [laughs]

### Justin:

This is, that's, that's weird to me.

# Sydnee:

I thought they like, drifted out of each other. Although—

### Justin:

[laughs]

# Sydnee:

... you know, Athena came out of Zeus's head, so...

### Justin:

Right. Via C-section. [laughs]

# Sydnee:

I don't know if that's a C-sec— [laughs], I don't know that that counts.

#### Justin:

I don't know if that's—does it count as a C-section?

# Sydnee:

Uh, moving into literature, you probably are familiar with this. Um, Shakespeare in Macbeth wrote that uh, this is, a lot of people have asked this question, Macduff makes the point of telling Macbeth that he was born of C-section. He doesn't say, he said he was ripped from his mother's abdomen, something to that effect.

### Justin:

Mm-hmm.

I'm, I'm asking you, 'cause you ...

# Justin:

Yeah, this, uh—

# Sydnee:

You know, your theater degree and all that.

### Justin:

... you know it all—

# **Sydnee:**

All that stuff.

### Justin:

... depends on what folio of—

# Sydnee:

You don't know what you're t—

### Justin:

... the Bard you are—

# Sydnee:

Did you really finish?

### Justin:

[laughs]

# Sydnee:

Do you have a degree? [laughs]

# Justin:

It took me five years, lay off.

# Sydnee:

Um, but this is because it was foretold that Macbeth could not be killed by someone of woman born.

Mm-hmm.

# Sydnee:

And that, and remember, as I said, at the time you weren't considered to be 'born' in the traditional sense—

### Justin:

Mm-hmm.

# Sydnee:

... if you were born by C-section. So, so that's why Macduff could kill Macbeth.

### Justin:

Perfect.

# Sydnee:

So there you go.

In uh, in various religious beliefs throughout time, not currently, um, there was actually a little bit of, uh, discrimination, um, in the Mishnah, in Judaism, Jewish twins were prevented from inheriting property if they were born by C-section.

### Justin:

We don't miss a beat to discriminate against people, do we?

# Sydnee:

Whatever it takes. [laughs]

### Justin:

Whatever you got, we'll discriminate against you.

# Sydnee:

Uh, prior to 1500 in Islam it was believed that you were born of the devil if you were born by this method.

### Justin:

Okay.

# Sydnee:

Um, Catholics were in favor of C-section, but only because one, they were against any of the methods that were available to save mom.

### Justin:

Cool.

# Sydnee:

And two, because then you could at least baptize the infant. We are, we are all about baptizing.

### Justin:

Yeah.

# Sydnee:

In the Catholic Church, Um—

### Justin:

Those seem like both really cool reasons.

### **Sydnee:**

[laughs]

#### Justin:

[laughs] To be, to be in favor of C-section, for sure. Cool church.

# Sydnee:

[laughs] There was also the whole like, science stuff that's cool. Like advancing our medical knowledge. I'm, I'm not saying that that was necessarily part of it.

### Justin:

Yeah, right.

# Sydnee:

[laughs]

#### Justin:

Maybe not a figure in the decision making process.

# Sydnee:

Um, and I think we mentioned this, this is just, this isn't a myth, this is a truth, but it's an interesting fact. I think we talked about it in the self—

surgery episode, that there was a woman in Mexico in 2000, Ines Ramirez, who delivered her own baby via C-section?

### Justin:

Ines Ramirez, you rule.

# Sydnee:

Yeah, it's very cool. That's the only one that we know of in history. I mean, it may have happened, but the only one we have good documentation of. Um, and she survived, and the baby.

### Justin:

Mm-hmm.

# Sydnee:

Which is even cooler.

Um, and I read this last year in December of 2013, um, a woman in Brazil had an emergent C-section performed which is interesting, because when the doctors got in there they figured out she wasn't pregnant.

### Justin:

Whoa.

# **Sydnee:**

[laughs]

### Justin:

What?

### Sydnee:

She had a condition called pseudocyesis, uh, which some people call a hysterical pregnancy. Although I am against the term—

### Justin:

That seem—

### **Sydnee:**

... hysterical.

#### Justin:

... that seems kind of-

Refer to our hysteria episode.

### Justin:

Yeah.

# Sydnee:

Um, but it, but it, it's a psychiatric condition. She thought she was pregnant, she manifested a lot of symptoms of pregnancy. Came rushing into ... she had never gotten any prenatal care, obviously.

### Justin:

Right.

# **Sydnee:**

Rushed into a hospital—

#### Justin:

Not, no ultrasounds or anything.

# Sydnee:

Nope, saying she was 41 weeks, presenting as if she's pregnant. Doctors looked for a heartbeat, couldn't find one. Rushed her to the OR, did a C-section, and lo and behold. No baby.

# Justin:

That is so crazy.

# Sydnee:

Now, today—

#### Justin:

Mm-hmm.

# Sydnee:

... you kind of alluded to some of the, some of the things that exist about C-sections today. I mentioned that um, Rickets was a big reason why C-sections rose in the early 1900s and moving into like, the '30s and '40s. Um, even though Rickets is no longer a problem, we have never really returned to the rates of C-sections prior to Rickets.

| Justin:<br>Hm.  |
|---|
| Sydnee:<br>Which is crazy.  |
| Justin: They got normalized, then.  |
| <b>Sydnee:</b> Yes, they became normalized. It, we got really good at it. I mean, the fact is that today, C-sections are very safe.   |
| Justin:<br>Mm-hmm.  |
| <b>Sydnee:</b> You know, for the most part, they're very safe procedures. Um, as long as it's not an emergent C-section, you know, everything is done very routinely, it's planned, and even emergent C-sections are usually very safe. |
| <b>Justin:</b> Right.   |
| <b>Sydnee:</b> Um, but, the World Health Organization, Organization advises that any country's, um, C-section rate should not exceed 15%. Do you know what our rate is in this country?   |
| Justin:<br>No.  |
| Sydnee:<br>It's about 1/3.  |

**Justin:** Ooh.

**Sydnee:** 32.8 or 9%.

Ugh.

### **Sydnee:**

Which is pretty high. It's been st—it had been steadily climbing up until the last couple years, it's been staying the same. So it has not decreased at all. Um, so—

### Justin:

Now, why is it ... Syd, why is it, um, without passing judgment, why is the, the WHO sort of uh, saying that they shouldn't make it more than 15%? Like, what is the, what's the issue?

# **Sydnee:**

It's, it's all evidence based. I mean, their recommendation is based on outcomes. Outcomes are better in general for moms and babies in countries where their C-section rate is less than 15%. Mortality outcomes, and, and morbidity outcomes, and the, you know, not just if the mom and baby make it, but how healthy they are afterwards.

### Justin:

We're not super, uh, you know, we're not super well—informed about this specific moment, but there is some research like, that we were talking about in our, that we actually heard about some in our, our, um, birth class, that says that that's, that moment is sort of an important bonding moment, right? I mean—

# Sydnee:

It is. It is a ... if a vaginal delivery is possible, that, you know, going through that process and that immediate bonding between mom and baby that can occur, with immediate skin to skin contact right after you deliver is very important.

### Justin:

Mm-hmm.

# Sydnee:

And can encourage breastfeeding, which we know is, we talked about in our previous episode, is the best, if you can do it. Um—

That's not, again, not to take away anything from people out there listening who might have had C-sections. As we've said already, both our moms had C-sections, there's no judgment here. But it is part of, and I think we've talked about this a few times, this medicalization of, of birth. It is very convenient, sometimes, for doctors to suggest a C-section when it may not be completely medically necessary.

# Sydnee:

Exactly. It's just like I said, thank God we have safe formula for babies that, you know, when their moms are unable to breastfeed. Thank God we have safe C-sections for women who cannot deliver vaginally.

### Justin:

Right.

# Sydnee:

Um, but, the fact is there are a lot of factors that go into, uh, wh— what I would consider an alarmingly high C-section rate in our country, and especially if you look locally. Um, you know, the C-section rate in our state is very high.

# Justin:

Mm-hmm.

# Sydnee:

In the local area, I looked up some rates at local hospitals, and I won't go into them all—

### Justin:

It, it ain't good.

# Sydnee:

... but it's not good. [laughs]

### Justin:

There was at least one that had a 100%.

# Sydnee:

Yes. Not a lot of deliveries, but 100% of them were C-sections. Not the—

### Justin:

Sorry, let me just reiterate. 100%.

[laughs]

And, and a lot of these factors are that um, some of our interventions, as far as the monitoring we do, inducing labor, uh, some of the procedures we do during labor and delivery, uh, can precipitate C-sections. There's the convenience factor. Um, it's efficient.

### Justin:

Mm-hmm.

# **Sydnee:**

Uh, there's that whole, and, and, you know, this does play a small part in it, the liability. It's safer just to go ahead and do the C-section if there's any question.

### Justin:

Right.

# Sydnee:

Um, they say that patient preference plays a huge role. That's a myth. Women are not asking for elective C-sections by and large. About 1% of women in their first time having a baby are asking for a C-section electively, so that's not part of the problem.

Now, you mentioned second pregnancies having a C-section. You don't have to. You can do something that we call VBAC—ing, vaginal birth after Caesarean.

#### Justin:

Mm-hmm.

# Sydnee:

You can do that. But a lot of doctors don't feel comfortable with it.

### Justin:

Mm-hmm.

# **Sydnee:**

So they'll urge you to have a repeat C-section instead.

I mean, here's the thing, and it, and it's interesting, is, if I can, uh, step out of my role as, uh, doofus. [laughs] I mean, I'm still a doofus.

# Sydnee:

[laughs]

### Justin:

But this is something that we've like, thought, and read, and talked about a lot recently. And it's hard as parents because the message that you get is almost certainly everything will work out fine. But, that is the hardest odds to play. And I, and I think that it's something that doctors, some doctors, some less scrupulous doctors, and not even just individual doctors, but a system constructed around this has institutionalized is like, well, there is a statistical advantage to having a C-section at this point. And it may be very slight. But when you're pregnant and you've been waiting nine months for a baby, like, that statistical advantage is like a big, big deal.

# Sydnee:

Exactly.

### Justin:

And you lose things like that skin to skin contact, or the importance of a vaginal birth if possible. It becomes very hard when you're, you know, there's almost nothing that you put up against the safety of a, of a child that you won't sort of go for. Um, and I think that maybe the system has sort of turned that against parents in some cases.

# Sydnee:

Exactly. And that's why I would say the best thing you can do is be constantly asking questions. There's nothing wrong with that. And, and your healthcare provider should be answering them. And if you're not satisfied with that answer, they should keep talking until they give you the answer that you're looking for. [laughs]

#### Justin:

Mm-hmm.

# Sydnee:

Um, you never, you're never forced to have anything done.

#### Justin:

Mm-hmm.

I think that's an important thing. And I don't think all moms know that.

### Justin:

No, you see a lot of lang—, I, I read a piece about this. You see a lot of language in uh, uh, writing about birth that, that your caregiver might allow you to hold the baby for a certain amount of time, or uh, the doctor may allow you to move around, et cetera, et cetera.

There is no allowing.

# **Sydnee:**

No.

### Justin:

You're the mom, you're giving birth, it's your show. [laughs]

### Sydnee:

No, you have rights and you can ask if things are safe. And I would never encourage a woman to do something that's unsafe, simply because she wants to. Um, but at the end of the day, you ask the questions. Is this safe? Is this necessary? Do I have to be induced right now? Can I wait longer? Um, you know, they have to give you honest answers.

#### Justin:

[laughs] You're gonna fi—, you're gonna find a horse head in your bed tomorrow. Doctors are gonna be [laughs] so mad at you.

# **Sydnee:**

[laughs] Well, I mean, it is questionable if you start considering that a lot of C-sections are done around five or six in the evening.

### Justin:

Somebody wants to go home.

# Sydnee:

T—

#### Justin:

That's all we're saying.

# **Sydnee:**

It's just, ask the questions. Sometimes, you know, the, the fact is, your doctor's telling you that you have to have a C-section because you do, and you need to listen to them.

# Justin:

Right.

# Sydnee:

But ask the, all I'm saying is ask the question. That's it.

### Justin:

That's it.

# Sydnee:

That's it.

### Justin:

Just be informed.

# Sydnee:

Yeah. 'Cause you always have a right to ask questions and get answers, and keep asking until you get more answers.

### Justin:

We've kind of chatted about this for a while, huh? [laughs]

# Sydnee:

I know. But it's very important.

### Justin:

We've been thinking about it a lot lately.

# Sydnee:

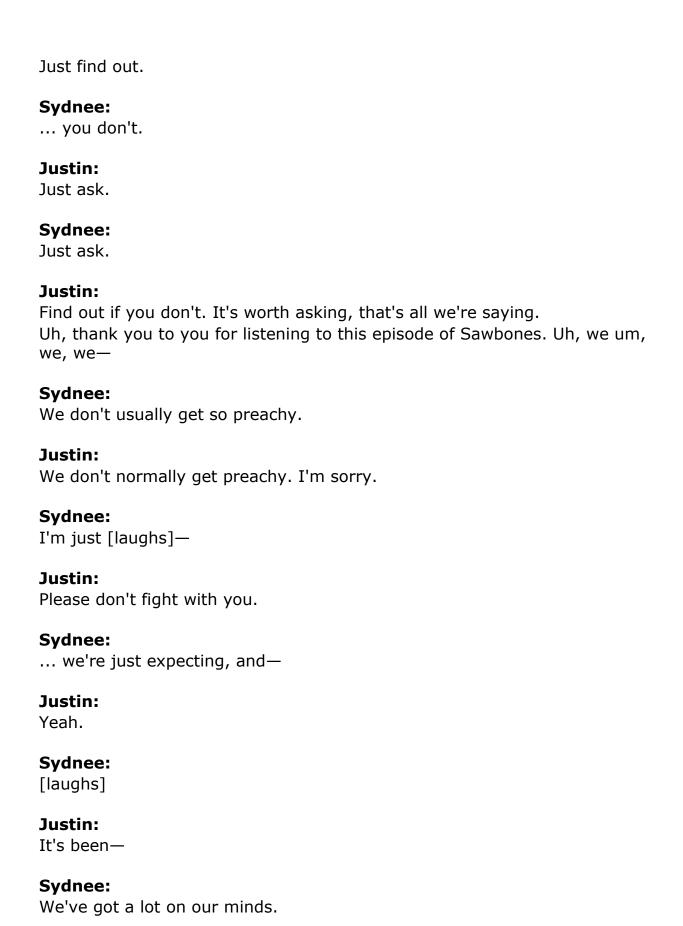
It's very important.

### Justin:

Give us a pass. Um—

# Sydnee:

So, if you need a C-section, thank God we've got them. But if you don't—



... it's been a thing.

Uh, uh, thank you to people tweeting about the show. Uh, Shantea, who is, uh, uh, or maybe Shantea. T—E—A is the end, I don't... she said she's a little sad at Sawbones about breast milk didn't mention the trend to use it as a cure for everything. Uh, of course it's been used, I'm sure, restoratively [laughs] over the years.

# Sydnee:

[laughs]

### Justin:

Many... um, we will actually, we, I, I been trying to be better about this, retweeting people who add sort of like, addendums. 'Cause obviously, we got a half hour. We can't cover everything. Uh, if you know something interesting or, or can uh, uh, share, you know, something additional about a topic, let us know, 'cause we, I love—

### **Sydnee:**

Yeah.

#### Justin:

... retweeting those.

# Sydnee:

Please do. I, I didn't cover amber necklaces at all in the teething episode, and—

### Justin:

Mm-hmm.

# Sydnee:

... I know a lot of people have wanted to share that. So—

### Justin:

They co—

### **Sydnee:**

... please share it.

... they covered it on One Bad Mother, actually.

# Sydnee:

Well there you go.

### Justin:

They did a teething episode right afterwards

# Sydnee:

So check that out.

### Justin:

It's another show on the Max Fun network. I know Spamantha said that uh, uh, her grandma, who had kids in the '50s, told her mom, who had kids in the '80s, that, uh, she was horrified that her mom was going to breastfeed her. It was, it was untoward, I guess.

# Sydnee:

[laughs]

#### Justin:

So, that's super cool. Thank you for, to, uh, Marty, Allie, Jennifer, uh, Miss Ada Vaaaaan, there's like five A's there.

# Sydnee:

[laughs]

### Justin:

[laughs] Um, Mia, Nightmare Femme, John Wine, Ryan Conzell, John Thomas Mason, so many others Tweeting about our program. You can either use the @Sawbones, uh, to Tweet about us. If you're gonna do that, don't put it at the beginning, because then only people who already follow us see it, et cetera, et cetera. So, uh, or you can use #sawbones. It's still the same. Uh, and uh, use the link to our show, www.sawbonesshow.com, is uh, the best link to us. And thanks for, um, spreading the word around.

Also, thanks to KCRW's Press Play for having us on their program. Um, that was a lot of fun.

# Sydnee:

Yeah. So check that out.

### Justin:

Check that out. Yeah.

# Sydnee:

It's more [laughs] us if you haven't gotten your fill yet.

### Justin:

We're on the uh, June 20th? Yeah, June 20th episode of uh, of that program. So you can listen to our interview there. That was a lot of fun. You have another contraction? You looked contraction-y for a second.

# Sydnee:

I was. It's over now.

### Justin:

Oh wow, [laughs] you covered that like a pro. Man.

# Sydnee:

Thanks.

### Justin:

I'm [laughs] super impressed. Uh, I mentioned One Bad Mother on the Maximum Fun network. There's a ton of other great shows, uh, on there. Uh, Jordan, Jesse, Go; Judge John Hodgman; Lady to Lady; Oh No Ross and Carrie; Wham, Bam, Pow—

### Sydnee:

My Brother, My Brother, and Me.

### Justin:

Oh, thank you, my dear. So many others, they're all waiting there for you at maximumfun.org. That's also where you're gonna find our f—, uh, forums so you can discuss the episode you just listened to with other fans of the show. So that's always a lot of fun. And uh, we have an email address, sawbones@maximumfun.org if you wanna suggest a topic. Uh, Twitter's not the best place for that, 'cause they tend to get lost in the shuffle. If they're at the email address, they'll stay in the workflow. Or if you just wanna, you know, say hi. Whatever. Uh, do that.

And I think that's gonna do it for us. Are we done?

I think we're done.

### Justin:

Thanks to Taxpayers. They let us use their uh, uh, music. Folks, that's gonna do it for us until next Tuesday. I'm Justin McElroy.

# Sydnee:

I'm Sydnee McElroy.

### Justin:

And as always, don't drill a hole in your head.

[theme music plays]

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