### Sawbones 40: Epilepsy

Published April 22, 2014 Listen here at themcelroy.family

#### Clint:

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[theme music plays]

### Justin:

Oh, uh, hey everybody. Welcome to Sawbones, A Marital Tour of Misguided Medicine, you know. I'm, uh, Justin McElroy.

### Sydnee:

And I'm Sydnee McElroy. Um, what, what are you... What you doing there, Justin?

### Justin:

Oh, I'm, I'm looking through a, a list of saints. I'm-

### Sydnee:

Are, are you just surfing the web?

### Justin:

No.

### Sydnee:

Are you just like checking out your sites?

### Justin:

Um, I'm trying to find-

### Sydnee:

We're trying to do a show here.

No, I'm, uh, I'm trying to find a patron saint that I can identify with, but so far I haven't found any for video games. There's none for, like, people who write on the internet. There's not patron saint of podcasting. Um—

### Sydnee:

Did you Google saint video games?

### Justin:

Saint video games of a Assisi. No.

### Sydnee:

Did you really think that would work?

### Justin:

I thought I could check. Um, but there was, uh, I'm not having any luck.

### Sydnee:

Well, um, I can speak to this with a little bit of authority.

### Justin:

Oh yes. You're of, of the Catholic persuasion.

## Sydnee:

That's right. And, uh, now I'm, I don't know all the saints because there are a lot.

### Justin:

Name all the saints.

### Sydnee:

[laughs] No. Uh, I never, I never had to do that because I don't know if you've ever checked it out, but there are a lot of saints.

### Justin:

So, certainly c-

### Sydnee:

Like a whole lot. Like there was, remember we, I had, I had that giant book of saints.

Mm hmm. There was a big book.

### Sydnee:

'Cause there was like a saint for every day, but then there's extra saints for some days because there's too many saints that you, they can't each have their own day.

### Justin:

Um—

### Sydnee:

There's a lot of saints.

### Justin:

Syd, considering that—

### Sydnee:

But I don't, I don't think there is a saint video game, or a saint podcast or like a saint—

### Justin:

Well, I mean, I don't think he would change his name to saint podcast.

## Sydnee:

Saint comedy genius [laughs]

### Justin:

Uh, thank you for s— oh gosh, gosh, I'm so flattered. I don't think he would be named saint podcast. That would be a nice confluence, but—

## Sydnee:

[laughs].

## Justin:

I think you would probably— this patron saint of podcasting, right? Like St., s— St. Mary—

## Sydnee:

St. Justin.

St. Justin. St. Justin would be fine.

## Sydnee:

Patron saint of pod— Hey.

## Justin:

Hey.

## Sydnee:

Maybe that should be your goal in life now.

### Justin:

I guess I'm wondering with so many different, um, you know, so many different saints. There are certainly gotta be some to spare, right? There's gotta be some area I can dip into to maybe file an appeal with the big guy.

### Sydnee:

And see if you can get a saint of something that you do.

### Justin:

Exactly.

## Sydnee:

Something that—

## Justin:

A saint transfer from one department to another.

## Sydnee:

Something that you can ask for help when you need to, I don't know, beat a level?

### Justin:

Yes.

### Sydnee:

Or write about beating a level, I guess.

## Justin:

[laughing] Exa— exactly.

Is that—

## Justin:

That, you have just-

## Sydnee:

Is that what you do?

## Justin:

... described the full scope of my, of my job. Yes.

# Sydnee:

You write about beating levels in a funny way.

## Justin:

Beat a level, beat a level, or write about beating a level. That's my whole gig.

## Sydnee:

Well, there is, there is one area where, uh, we probably have more saints than we need. Are you familiar with epilepsy?

## Justin:

Uh, not as familiar as I imagine I will be in about a half hour, but I'm, I'm-

## Sydnee:

You caught on.

## Justin:

 $\ldots$  I'm okay. I know that the Pokemon, uh, f— caused them a lot of problems a few years back, 'cause—

## Sydnee:

Oh.

## Justin:

... the flashing.

## Sydnee:

Tha- that's true.

### Justin:

That was, that was a big issue.

### Sydnee:

That's true. See you do-

### Justin:

I remember that I had a d-

#### Sydnee:

... have a connection there. So, thi— this is a natural fit then.

#### Justin:

Yeah, it's perfect. It's a perfect, natural organic fit for me.

#### Sydnee:

Epilepsy is one. And then there are plenty of other things that have excess saints [laughs] to represent. Uh, but epilepsy is one that has about 40 different saints.

### Justin:

Oh, come on epilepsy. Listen, I know-

### Sydnee:

[laughs].

### Justin:

... it's a hard road. You have to hoe there, but like, whoa, whoa, whoa, whoa, you can't spare one for your buddy the Jay man—

### Sydnee:

There's—

### Justin:

... for games or podcasts?

### Sydnee:

There's one big one, St. Valentine actually-

### Justin:

Oh really?

 $\ldots$  who's the biggest, probably the number one patron saint of epilepsy, but there are a, uh, in total like—

### Justin:

And you know they always throws it around too, you know. They all get togther, well, I mean, if there's, we all do a great job guys, but I think if you had to point to one, it's gotta be me.

#### Sydnee:

Which isn't, doesn't seem very fair 'cause he's kind of already got a whole thing.

#### Justin:

He's got like a whole thing. Why is he gotta be so stingy?

#### Sydnee:

I don't know. But the, but there are 39 other guys.

#### Justin:

I bet you people with epilepsy you're tired of hearing about Pokemon. When you think—

### Sydnee:

I bet they are too. Let's, let's try not to bring up Pokemon the rest of this episode.

### Justin:

Yeah. Okay. Sydnee, I'll just go a half hour with talking, without talking about Pokemon. I doubt it, but let's give it—

### Sydnee:

[laughs].

### Justin:

... the old college try.

### Sydnee:

It would be, it'd be a great present for me anyway.

Di- did somebody suggest epilepsy?

### Sydnee:

Uh, actually yes, two people suggested epilepsy.

## Justin:

Oh wonderful.

### Sydnee:

Both Lisa and Amanda.

### Justin:

Thank you both so much. If you wanna, uh, suggest topic for our show, you can write, uh, sawbones@maximumfun.org. That's the best way to suggest if you want credit, because we got a lot of tweets and sometimes we'll steal ideas from there, but, like, it's hard to keep track of all those [laughs].

### Sydnee:

Yeah. We try to keep a running list.

### Justin:

Yeah. But, uh, you can email us there. Anyway, epilepsy. I'm assuming this is a very old...

## Sydnee:

So, epilepsy is, it's, it's extremely old. Uh, as long as we've been writing about illness, we've been rep— writing about epilepsy more or less. From the earliest written history you, you find mentions of epilepsy. Uh, it comes from the Greek word that means to seize, possess or afflict.

### Justin:

I'm assuming the reasoning for that will become clear.

## Sydnee:

Well, yes. And it's interesting because this, uh, perception of epilepsy, 'cause there are so many different names. This is actually, if it has a lot of, uh, saints, it has even more names, epilepsy.

### Justin:

Yeah.

Uh, things that it has been called throughout history. And a lot of them come from the, the root of, um, possessing or, uh, s— being seized by some sort of madness or evil forces. A lot of the words that even today are used for epilepsy, especially in a lot of Asian cultures, come from that sort of root. And that just simply ref— reflects the fact that through most of his history, epilepsy was seen as more of a spiritual disorder than a physical disorder.

## Justin:

I'm gonna guess that's not accurate.

### Sydnee:

No, not accurate at all. So, there, if you ever wanna look, you could find... I actually found that it was, at one point, the disease of a thousand names.

### Justin:

Whoa

### Sydnee:

Which is great because no, now technically at this point it's a thousand and one names [laughs] 'cause you just gave it another one. But, uh, there are 50 recognized eponyms. There was actually a study. I'd, I would've had to buy it. Like a real deal research paper that somebody wrote on PubMed that I would've had to purchase in order to get the 50 different names. So, I'm sorry. But I found some examples. St. Valentine's Malady.

### Justin:

Okay.

### Sydnee:

Uh, Morbus Comitialis which means disease-

### Justin:

Disease.

## Sydnee:

... of the assembly hall.

### Justin:

That's a spell you cast in Harry Potter to give someone an epilepsy.

[laughs] Morbus Comitialis. No. It's disease of the assembly hall. I don't know why. I don't know why it's d—

## Justin:

I don't know-

## Sydnee:

I don't know why it's-

## Justin:

I don't know either.

## Sydnee:

It's also known as the falling sickness, which you may have heard before.

## Justin:

Yeah. I'm actually familiar with that one.

## Sydnee:

And there are lots of others. Uh, it was first written about in Mesopotamia around 2000 BC. And it was when a, they were actually describing a witnessed seizure. Now, they didn't call it a seizure. They didn't know that's what it was. It was... Usually you would hear it referred to as a fit.

## Justin:

Mm-hmm.

# Sydnee:

You hear that a lot. So, they described the person falling and shaking, and at the end of it, and it was a very well written, uh, you know, account of a seizure. But at the end they said so clearly this person is under the possession of the moon God.

## Justin:

Um...

# Sydnee:

Also known as the hand of sin.

[laughing] I wanted to clarify something for myself. Um, and maybe we'll talk about this, uh, later. But not everybody who has seizures or everyone having a seizure is epileptic, right? Or has epilepsy, sorry.

### Sydnee:

Not necessarily. There are a lot of different reasons why you can have a seizure. Epilepsy, we're really using for people who have, um, a seizure disorder I think is what you'll, you'll hear it kind of commonly referred to as, but epilepsy is the same idea. You have a condition in which you have seizures periodically. But if you have a seizure for instance, because, uh, maybe you're an alcoholic and you're withdrawing from alcohol, that doesn't make you an epileptic. You just had a seizure.

### Justin:

Mm-hmm. Okay. That makes sense.

### Sydnee:

And seizures, uh, we, we say sometimes in medicine, like, everybody gets one. Just because you've had one doesn't necessarily mean you have epilepsy. It could, but it doesn't necessarily. Um...

### Justin:

I haven't used mine yet, which is quite a relief. Something to look forward to, I guess.

### Sydnee:

No. Yeah. I should clarify. That doesn't mean everybody has a [laughs] seizure.

### Justin:

Okay. Got it [laughs].

### Sydnee:

It just means that one seizure does not necessar— necessarily mean you have epilepsy. Now, you could and that could be the first one of many to come, which is why if you have a seizure and I, I guess this probably goes without saying, you should go see a doctor.

### Justin:

Especially if you're having one right now, like, what do you do? Uh, listen, we'll still—

Don't listen to this podcast.

**Justin:** We'll still be here.

## Sydnee:

Go get checked out [laughs].

## Justin:

Get your priorities [laughs] straight.

## Sydnee:

Yeah. Actually, call somebody else to take you to get checked out. Don't-

## Justin:

Yeah. Don't drive.

### Sydnee:

Don't drive. Don't drive.

### Justin:

Don't drive right now.

## Sydnee:

No. Uh, so our first written account of seizure in Mesopotamia, we thought it was the moon God and we promptly exorcised him. My guess is that it didn't work.

### Justin:

Sorry.

## Sydnee:

It's also mentioned in Hammurabi's code.

### Justin:

Oh really?

## Sydnee:

Mm-hmm. So, shortly there a- after about 1790 BC, it's listed as a reason that you may be owed a full refund for a slave.

#### Justin:

[laughs] Wait, if the slave has a seizure, you can, as long as you kept a receipt, you can go get a new slave?

#### Sydnee:

Well, as long as they have a seizure within three months of purchasing that slave.

#### Justin:

Okay. Um, fair enough.

#### Sydnee:

There's a time limit. There's a warranty. Basically, you've got a three month warranty—

#### Justin:

On your slave.

#### Sydnee:

... on your slave in which you can say, oh, I'm taking him back, he had a seizure.

#### Justin:

Just—

### Sydnee:

Well, except you, again, you don't know seizure. So, a fit.

#### Justin:

A fit.

### Sydnee:

Yeah. An attack.

#### Justin:

Right.

### Sydnee:

The evil spirits got him.

But nobody keeps the packaging, you know.

## Sydnee:

[laughs] No.

# Justin:

You cut it up.

# Sydnee:

No. Nobody keeps the warranty.

## Justin:

Nobody keeps the warranty. Nobody keeps the packaging.

## Sydnee:

Do you have that in writing?

### Justin:

No, of course not. We didn't invent paper yet.

## Sydnee:

Do you have your receipt? No.

## Justin:

They probably did invent paper.

## Sydnee:

No.

# Justin:

I'm sorry.

# Sydnee:

Maybe they're like-

## Justin:

Was it chiseled into stone like, you know, Flintstones, maybe?

# Sydnee:

I'm sure, well, the code of Hammurabi was, right?

### Justin:

Yeah. Right. Or is it the Rosetta Stone? Who can keep it straight. Listen-

#### Sydnee:

Well, I mean, the, the Rosetta Stone's definitely a stone. I think we can... We can [laughs] definitely say that.

### Justin:

All right. Listen, listen, Sassy.

#### Sydnee:

It's also a, uh, I think a language program.

#### Justin:

Yeah. All right. Let's move on. I'm getting frustrated now.

#### Sydnee:

So, in addition to a full refund, uh, on a slave policy, it also states that you can't marry if you have epilepsy and you cannot testify in court if you have seizures. Epilepsy seizures detailed in Babylonian texts, Ayurvedic texts. A lot of it at that time is specified as a loss of consciousness. So, there was a lot of confusion that anytime anybody ever lost consciousness, maybe they're having a seizure.

#### Justin:

Hmm.

### Sydnee:

'Cause the two used to be used simultaneously for a while.

### Justin:

Okay.

#### Sydnee:

But either way, uh, the idea was that it was all always spiritual in origin. Something—

### Justin:

There wa— not physical. Uh, we knew, we, we were certain it was something with your, with your, your state of your soul.

Exactly. It was something either a, uh, God is mad at you. A God of some sort is mad at you.

### Justin:

Mm-hmm.

#### Sydnee:

You are possessed by a demon of some sort. Uh, you have moral problems, something to that effect. And the stories from the gospel, 'cause a lot of people would, probably already know that epilepsy is mentioned in the gospels, uh, let a lot of credence to this because there were epileptics who were healed by a spiritual leader. So, therefore, perhaps it was a spiritual disease.

#### Justin:

That's specious though, because they, they, spiritual leaders cured nonspiritual diseases too, right?

#### Sydnee:

Well, I think-

### Justin:

Jesus was curing everything.

#### Sydnee:

Yes.

Justin:

Welcome back by the way, Jesus.

#### Sydnee:

[laughs]

#### Justin:

Um, he was curing everything left and right.

#### Sydnee:

That's true. I think that they look for, uh, they find a lot of support for it when there's one specific mention in the Gospel of Mark, when, uh, a tonic-

clonic seizure is described very well. It's actually a really good depiction of what a tonic-clonic seizure looks like. But then it is—

## Justin:

What's a tonic—clonic seizure? Sidebar.

# Sydnee:

So, like the, like the shaking. Like stiffening and shaking.

# Justin:

Tonic-clonic is the stiffening and shaking, clonic-tonic is the worst mixed drink you can get.

# Sydnee:

[laughs]

# Justin:

Don't even order it. You're wasting your time.

# Sydnee:

But then they say that they've been, uh, struck by the spirit of dumbness.

# Justin:

Oh, like, hmm, du— probably like the non-speaking dumbness.

# Sydnee:

Right. Right. Because the, uh, I'm assuming, and I haven't read the, uh, complete description myself, but I'm assuming that the patient couldn't speak at the time, which is very typical of a seizure. You can't speak.

# Justin:

Mm-hmm.

# Sydnee:

That, that would be very common. So, somebody laying on the ground, shaking and stiffening, and then not able to speak, they were struck by the spirit of dumbness, and then they were healed, which further connected it. Especially as the gospels were interpreted years and years later, further connected it as a spiritual disorder.

So, what did everybody else think about it?

### Sydnee:

Well, the Greeks took a, a slightly different view of epilepsy. They thought it was definitely something spiritual. They still were not on board with any sort of physical cause. Uh, specifically they thought it was what happened when the goddess of the moon, either Artemis or Selene got mad at you. So, there's definitely a spiritual connection there. The goddess of the moon gets mad at you and she punishes you by giving you epilepsy.

### Justin:

I feel like every time I hear Celine, there's a spiritual connection. When she hits the bridge, uh, in My Heart Will Go On, it's like, yes, I'm there. We could be 1,000 miles apart and it's like, yes, I feel it. I'm there with you.

### Sydnee:

I didn't know you were such a Celine Dion fan.

### Justin:

Maybe you should pay closer attention [laughing] to me.

### Sydnee:

Well, I'm sorry. I didn't, I also didn't know-

### Justin:

You should.

### Sydnee:

.... you were looking for a patron saint, so...

### Justin:

Yeah, exactly. What do you about me?

## Sydnee:

Clearly not much. They, however, although the Greeks did think it was the result of making a goddess angry, they did think it was also a divine melody and they associated it with genius. So, if you are an epileptic, ooh, you made Selene mad, but you're probably very brilliant. So, therefore it was called the sacred disease, another eponym right there.

So rare you find a disease that people actually are, are lining up to get. They want, they want that disease.

## Sydnee:

This was probably bolstered by the fact that Julius Caesar had epilepsy.

### Justin:

Very hot, very trendy.

### Sydnee:

Yeah, exactly. So, Caesar's got it. For some reason, as part of the mythology of Hercules, he was said to have epilepsy.

### Justin:

So, then Caesar and Hercules both have it. It's like who were it best? I don't know. [laughing] You have to decide for yourself.

### Sydnee:

[laughs] Whose seizures are the hottest?

### Justin:

Whose seizures? Caesar's seizures?

## Sydnee:

[laughs].

## Justin:

That's harder to say. Maybe that's worth it. I don't know.

### Sydnee:

You could, uh, because this was the conception of where seizures came from, you could cure them if you were willing to spend a night in the temple of Selene and wait for her to come to you—

### Justin:

Which is in Vegas, [laughing] of course, but you gotta pay \$130 for the floor seats. It's like not even worth it. Just kidding, totally worth it. Been there three times. Me and all the girls, uh, uh, we try to make it up every year. Uh, highly, highly recommended at the—

Right. Still talking about the moon goddess, not the Canadian songstress.

### Justin:

That is my mistake. You would think I would remember from earlier, but that is not correct.

#### Sydnee:

So, if you decide to spend the night in the temple of Selene, which sounds like a really cool, like dare for somebody.

#### Justin:

Yeah. [laughs] Right.

### Sydnee:

I dare you to spend the night.

#### Justin:

It's like the beginning of a, of a, uh, Scooby Doo episode [laughing].

#### Sydnee:

She'll come to you in a dream and tell you how to be cured. How to be free of the, the seizures.

### Justin:

But it's different for everybody else. You really have to put the work in. [laughing] Don't try to copy off your buddies. Yeah.

#### Sydnee:

No.

### Justin:

Your buddies what Celine told them.

#### Sydnee:

Yeah. Everybody's cure is different. Uh, they, and because of this idea that it was a spiritual disorder, in addition to spending the night in a temple, you could also put up offerings to the gods. Obviously, prayer was a big component of, of your treatment, so to speak. Uh, you could also, one cure that was not spiritual in nature was to try using drinking, eating, and by being in some way, castor from the scent glands of a beaver.

So, what's castor.

## Sydnee:

So, it's, I, it's a substance that is secreted by the scent gland. Like, that is the— in the glands of the beaver.

## Justin:

Where do people come up with this crap?

### Sydnee:

I don't know. I don't, and I don't know how you get like, do you s— do you milk the... [laughs]

### Justin:

Milk the beavers?

## Sydnee:

The beaver glands?

### Justin:

"I'm gonna milk you."

## Sydnee:

This is gonna get dicey. Be careful.

### Justin:

"I'm gonna milk you to cure my epilepsy, beaver. Come here."

### Sydnee:

I don't know. You had to capture a beaver, milk its scent glands.

### Justin:

Milk its scent grands. Right.

### Sydnee:

Get that caster. And that was a treatment that, that persisted for years and years and years. Like through the middle ages, people were still trying out this whole—

### Justin:

Until eventually beavers were like, enough.

[laughs]

## Justin:

Enough.

# Sydnee:

Until we-

# Justin:

It's not doing anything. Stop it.

# Sydnee:

Until we ran out of beavers. And that, children, is why the beaver is extinct today.

## Justin:

That's why there's no beavers.

## Sydnee:

That's not true. There are beavers.

## Justin:

There are still beavers.

## Sydnee:

Yeah.

## Justin:

I'm glad you cleared that up though. Sydnee, I got really worried for a second.

## Sydnee:

[laughs] I'm sorry. I didn't mean to distress you. Do you also love the animal—

## Justin:

I love beavers.

## Sydnee:

... the beaver?

### Justin:

Uh, well, I need its castor fro- from-

### Sydnee:

[laughs].

### Justin:

... its glands. I love it. Not for my epilepsy. My-

### Sydnee:

No, you don't epilepsy just-

### Justin:

Don't be silly. I know that doesn't work.

## Sydnee:

[laughs].

### Justin:

I just love the stuff. Aftershave, brighten up a margarita.

### Sydnee:

I think I found that it's used in vanilla scents and flavorings.

## Justin:

Really?

## Sydnee:

Uh huh.

### Justin:

So, beavers smell great?

### Sydnee:

Now, I don't, don't, you know what, double check me on that. But, but I think  $\rm I-$ 

### Justin:

I will be double checking.

I was not looking for information on vanilla scents and flavoring, so-

## Justin:

[laughs]

## Sydnee:

... I may have skimmed that section [laughing]. Uh, I Google that from—

### Justin:

This is such an authoritative program.

### Sydnee:

[laughs]

### Justin:

This is why we say not to do anything, because sometimes my wife barely reads the internet and she thinks beavers smell like vanilla.

### Sydnee:

[laughs] No, it's a sidenote.

## Justin:

This is why we don't-

## Sydnee:

It has nothing to do with the medical-

### Justin:

That's why we don't skim, Syd. We've talked about this.

### Sydnee:

[laughs] So, there was one Greek who didn't agree with this, Hippocrates. He's pretty smart one.

### Justin:

What was his game?

### Sydnee:

Hippocrates said, "You know what, I don't think this has anything to do with Gods or spirits or anything like that. I think this is a physical disease that comes from the brain."

### Justin:

Wow. Good guess.

#### Sydnee:

Yeah. That was like right on.

### Justin:

Yeah [laughs].

#### Sydnee:

He thought that it was inhe— that it was heritable. That you could pass it on through family lines.

#### Justin:

Mm-hmm.

#### Sydnee:

Uh, and that it was probably treatable. Although he wasn't entirely certain how, he did think it was treatable by something other than spending the night in goddess temples. So, he proposed same kind of stuff you would use for anything back then. So, uh, healthy diet, um, exercise, balance your humors.

### Justin:

Sure.

### Sydnee:

So, so various methods of excreting substances, whether it be peeing a lot with a diuretic, or puking, or bleeding, and then there were some herbal things. So, he—

### Justin:

All the classics.

#### Sydnee:

You're right. So, he didn't really have any novel treatment ideas, but he definitely was right on with his, you know, theory of, of what caused it.

### Justin:

Mm-hmm.

He also, uh, wrote, he wrote an entire book about the sacred disease and then changed it. Changed the name.

#### Justin:

What did he, uh, what'd he go with?

#### Sydnee:

He changed it to the great disease.

#### Justin:

Hmm. Okay.

### Sydnee:

Which is where grand mal comes from. When we talk about grand mal seizures or generalized seizures.

#### Justin:

Oh great disease, grand mal.

#### Sydnee:

Great disease. Mm-hmm.

### Justin:

Makes sense to me.

#### Sydnee:

The crazy thing was that Hippocrates, who a lot of people put a lot of stock in, you know, back then, and, and to this day were pretty impressed by Hippocrates and his ideas. Uh, a lot of, uh— nobody listened to him.

#### Justin:

Oh good.

#### Sydnee:

No.

#### Justin:

He gets one right.

Yeah. He was totally right and everybody was like, no, you know, I, I know what you're saying.

## Justin:

We love the, listen, don't get me-

## Sydnee:

You're so cra— but I'm gonna go— [laughs]

## Justin:

Don't get me the... Don't get us wrong Hippocrates. We love the earth. Crazy about it.

## Sydnee:

But I think I'm gonna stick with that whole beaver scent gland thing.

## Justin:

We're really into that right now. And it's being spiritual and everything. Like, we're very much feeling that.

## Sydnee:

So, [laughs] despite the fact that all, you know, in ancient Greece, Hippocrates had this great idea that was totally true, for years and years after we continue to see epilepsy as primarily a spiritual disease. The, uh, there was one interesting idea that came out of, uh, the Greeks, uh, diagnostic idea—

# Justin:

Mm-hmm.

## Sydnee:

Which was, if you thought somebody had epilepsy, you could wash their head and then burn a ram horn under their nose. If after inhaling the ram horn fumes, you fall down, you've got epilepsy.

# Justin:

I get so tired—

# Sydnee:

[laughs].

... of these people and they're crazy, crazy diagnostics and cures. It doesn't make any sense and you were just guessing. These guys make me sick.

### Sydnee:

The Romans had a different idea. They would, um, just hold a piece of jet, which is a kind of stone, under your nose and wait and see if you had a seizure [laughs].

### Justin:

Or got annoyed and was like, stop it. You're killing me.

### Sydnee:

That was, that was actually a pretty common thing that you would, uh, do before you purchased a slave in the Roman— in the time of the Romans. Just check them.

### Justin:

Oh, kicking the tires sort of.

## Sydnee:

Kicking the tires, or checking a horse's teeth. You would hold a piece of jet under their nose and see if they had a seizure.

## Justin:

Huh?

### Sydnee:

Uh, 'cause you didn't, you know, you didn't wanna have to bother to keep the receipt and get that refund.

### Justin:

Yeah.

## Sydnee:

Uh, they, the Romans also had a, a strange idea for treatment, which we, I think may have mentioned slightly in a previous episode. Um, the blood of a gladiator.

## Justin:

Yeah. When did we talk about that?

In the cannibalism episode.

### Justin:

Oh right. Of course.

### Sydnee:

So, the, the liver of a gladiator would do as well. Uh, and, and as we mentioned in that episode, that idea, now not of gladiators necessarily, but drinking blood or eating liver from a person, uh, that treatment plan didn't completely go away until about 1908. [laughs]

### Justin:

Okay. I can sort of get it. I sort of get that one. Like that's not as crazy as the—

### Sydnee:

Wait, wait. You sort of understand the-

### Justin:

Uh, no.

### Sydnee:

... cannibalism one?

### Justin:

No, don't, um, don't, don't misunderstand me. I, I would not personally ingest the liver of a gladiator or nay, even Russell Crowe.

### Sydnee:

Well, wow about any human? I mean, are we just-

### Justin:

No.

### Sydnee:

... you're just not gonna eat a gladiator?

## Justin:

You know what, I draw the line there. I'm not gonna eat a gladiator. I guess what I'm saying right now is that I get why you would see a gladiator, like fighting people, crushing it, uh, doing a great job and thinking like, oh, I'm

gonna eat something of his. I'm gonna eat his liver or drink his blood. And maybe I'll get strong too. That makes sense to me. That, I can see the line the old-time people are drawing. That's all I'm saying. That's it.

### Sydnee:

I'm still gonna keep one eye open tonight, I think.

### Justin:

That's fine. I would not eat your liver. That's, that was in our vows.

### Sydnee:

The, uh, uh, Galen also had an idea. We talked about him a lot. But that it was due to thick humors in the brain.

### Justin:

Mm-hmm.

## Sydnee:

Um, he also was one of the first to associate it with, because it was associated with the moon. The moon was often associated with madness. And so you see this theme arise again and again, that, for some reason, if you epilepsy, you also have some sort of psychiatric disease.

## Justin:

But there's no psychiatric effects?

## Sydnee:

No.

### Justin:

No.

## Sydnee:

No. It doesn't. There, there, if you, now, I, I will say this. If you read about it, there is some, um, slightly higher likelihood that you may suffer from some other sort of psychiatric, like maybe depression because of epilepsy. But they're not the same thing. They're not connected.

## Justin:

It's not causation.

No, it's not causation. No. Um-

### Justin:

Look at me.

### Sydnee:

Yes. Good job.

#### Justin:

Look me.

#### Sydnee:

There may be a correlation, but it is not a causation. It's not a psychiatric disease. It is a neurological disease.

#### Justin:

Got it.

### Sydnee:

In the middle ages when we were crazy and didn't understand anything.

### Justin:

We got worse, notably-

### Sydnee:

Right. When we-

#### Justin:

... in the middle ages.

#### Sydnee:

We forgot everything that we ever knew about anything. Uh, we definitely thought it was a sign of evil or witchcraft. So, any, even our ideas about drinking blood didn't seem so good. We just went right back to prayer, fasting, sacrificed things, performed exorcisms. That's when those, all those 40 saints really came into play, 'cause what else can you do, just pray to somebody?

### Justin:

Just keep picking new saints, I guess.

Um, it, it's weird 'cause in the same time period witchcraft was seen as a big cause of epilepsy. And there were actually some, uh, people were burned at the stake because of epilepsy.

#### Justin:

Oh geez.

#### Sydnee:

Some people were accused of witchcraft were actually just epileptics.

#### Justin:

Gosh.

#### Sydnee:

It, uh, it was also, some people turned to witchcraft to cure epilepsy. So, there were various like—

#### Justin:

Or hair of the dog, huh?

#### Sydnee:

Yeah. [laughs] Well, I think it was one of those where, yeah, sure. It's fine to point fingers and accuse somebody else of witchcraft until it's you or your kid. And then all of a sudden you're willing to go to the neighborhood witch and say, Hey, you got one of those amulets that you gave the other epile epileptic person?

#### Justin:

Try anything.

### Sydnee:

And at the time trying anything was kind of the name of the game. There were a lot of different herbal remedies, valerian, fox glove, mistletoes, belladonna. Just anything that you thought worked for something, you may as well try for epilepsy. Um, in the renaissance period, we also added a lot of like metals to that and elements, copper, tin, mercury, silver, zinc, whatever.

#### Justin:

Oh, just taking whatever shot in the dark we can.

Anything. Uh, that's when the human skull treatment, we mentioned this before. If you grind up some human skull and ingest the powder, we think, well, that covers the brain. It has something to do with the brain. Maybe if we eat some skull.

#### Justin:

Why not?

### Sydnee:

And, uh, mugwort was a very popular treatment.

#### Justin:

What's, what's mugwort?

### Sydnee:

It's a kind of flower, kind of plant.

#### Justin:

Mm-hmm.

### Sydnee:

It's also part of absinthe.

### Justin:

Oh.

### Sydnee:

Which led to absinthe becoming a very trendy treatment as well.

#### Justin:

Yeah. At least you have some laughs, right?

#### Sydnee:

It'll make you feel good either way.

#### Justin:

Yeah, yeah. Yeah, yeah.

Yeah. I, and, and I should say mugwort was a very popular treatment at the time for everything. It was a real cure-all of the time period.

## Justin:

Yeah. They were real deep into absinthe.

# Sydnee:

[laughs]

# Justin:

They got it.

# Sydnee:

Well, I mean, have you tried it?

# Justin:

Yeah. I mean, I have.

# Sydnee:

It tastes like burning.

# Justin:

It's, right. It's hard. It's like n— if, I know Nyquil's for grownups, but if there was something above grownups, absinthe would be the Nyquil for them.

# Sydnee:

[laughs]

# Justin:

Absinthe is the Nyquil for grownup grownups.

# Sydnee:

And then it's rubbing alcohol.

# Justin:

Right.

## Sydnee:

So, as I, as I mentioned throughout this time period, more and more of the association of, um, epilepsy with mental illness was being made. So, there were a lot of people who suffered from epilepsy who were locked up in

asylums. There was this whole idea of an epileptic personality where even when people weren't having seizures, they were seen as being, um, you know, negative, and angry, and immoral, uh, which of course, none of this was true, but they were diagnosed with all of this. Um, and as I said that they all had spiritual issues, that in some way they weren't right with God, which is why this is happening to them. Um, and there were also some specialized institutions, not just the general psychiatric wards where a lot of people were sent, but, uh, special epilepsy institutions where you could kind of send your family member if maybe you didn't wanna acknowledge them. You'd send them there.

### Justin:

Geez. We really have not done well by epileptic people.

### Sydnee:

No, not at all. Well, we had, we had no idea. And it's, and it's, if you've ever seen a seizure, it, they're scary to watch. And I can see where if you don't understand anything, it would really frighten you—

## Justin:

Hmm.

### Sydnee:

... and you may think, oh my gosh, this has to be a punishment from a higher being, because I've never seen anything like this in my life.

### Justin:

Well, and there is something about it that is weirdly, um, I mean, not to be cruel, but it, it, it is dehumanizing to watch. I mean, you, the person does not seem— they're not in, in acting on any sort of human impulses in the moment. And that can be really disconcerting if you don't know the cause.

## Sydnee:

Right. They, they have no control. And that was very frightening to watch. Um, which is why so many people, uh, confused it with possession, you know, time and time again. That something else was in control of them. Um, and because of this, it has been stigmatized all throughout history. Uh, from the earliest days when we thought it was a spiritual disorder and we thought people had, you know, upset gods to, you know, even as recently as, you know, 30 years ago.

Yikes.

## Sydnee:

Uh, we thought it was contagious for a long time. And so even in the early church, people with epilepsy had to sit segregated from everyone else. They couldn't share the communion cup, they couldn't touch any holy objects because they thought it would, they would desecrate them. Uh, if someone with epilepsy touched you, you were supposed to spit on the ground so that the demons couldn't pass from them to you.

## Justin:

No offense.

# Sydnee:

No, [laughs] no offense, but I've gotta spit real fast as soon as you touch me.

## Justin:

Just let me spit real fast because you did touch me, just one second.

## Sydnee:

This expanded to an idea that came along in Germany in the 13th century that you could even get it by somebody breathing on you. So, if an epileptic were to breathe on you, you had to spit on the ground.

# Justin:

Ugh.

## Sydnee:

So, I guess if they walked down the street, everybody's just like spitting, which is really great as we're moving through all these years where tuberculosis was a big problem.

# Justin:

But that was a long time ago, right? Right?

# Sydnee:

[laughs] Well, unfortunately, um, this persisted, the, these different sorts of laws. Uh, for instance, in the UK until 1970 epileptics were not allowed to marry.

Yikes.

## Sydnee:

That's right. Um, and there are still some areas, uh, in India and Ch— and China where it could be grounds for you to refuse to marry somebody if you find out they have epilepsy, although there aren't laws against it. Um, in the United States, it was a state by state law, but the last state actually repealed their ban on, um, people with epilepsy being allowed to marry in 1980.

## Justin:

Oh my God!

## Sydnee:

That's right. And in—

## Justin:

That's horrifying.

## Sydnee:

And in the 1950s, epilepsy in the US could be used as justification for forced sterilization.

## Justin:

Oh my God. Ep- people with epilepsy, I'm sorry.

## Sydnee:

They, they really benefited from, you know, the Americans With Disabilities Act and all of the, um, the ways that we've finally stopped discrimination against people with disabilities. Because until the seventies, you could deny people with epilepsy a job, you could deny them entry into your restaurant. You could deny them entry, uh, into your theater.

## Justin:

People with epilepsy, listen, on behalf of people without epilepsy I wanna say I'm sorry. I owe you an apology. If you have epilepsy and you see me in public, I want you to walk up to me and demand your apology. Because I, on behalf of my ancestors that did not have epilepsy, I am very sorry and I owe you an apology.

I, I would echo that. 'Cause it's, it's really a crime. We knew that it had something to do with brain electrical activity as far back as the 1930s when Hansberger invented the EEG. And it led to a much better understanding of, of the root cause of the disease. We had treatments with medications that worked like Phenytoin in 1938, or Dilantin. An o— you know, an old, old seizure medication. It was approved by the FDA here in the fifties. So, we've known that it was a physical disorder from the brain since way back then. And now we have, you know, tons of different medications, of course, that could treat epilepsy. But even to this day, uh, you will find studies where they see in like classrooms, for instance, teachers have more negative views of children with epilepsy than children with other chronic disorders, like maybe asthma. And I think it's just stigma that's been around since, you know, 2000 BC, unfortunately in some ways persist today.

### Justin:

Ugh.

### Sydnee:

I know, it's a really sad thing.

### Justin:

It's terrible.

## Sydnee:

So, I thought I'd tell you about some famous people with epilepsy to make you feel better.

## Justin:

Okay. Tell me. Ta-

### Sydnee:

So, I already mentioned.

### Justin:

You will have beat the odds.

### Sydnee:

Alexander the Great.

## Justin:

All right.

Handel.

## Justin:

Okay.

# Sydnee:

Joan of Arc.

## Justin:

Cool.

# Sydnee:

Van Gogh.

## Justin:

Wow.

## Sydnee:

Dostoevsky.

# Justin:

Nailed it.

# Sydnee:

Gershwin.

# Justin:

Fantastic. Good job. Everybody.

# Sydnee:

And there are many, many others.

## Justin:

Many others. Uh, so thank you to all of you people with epilepsy that managed to succeed despite society trying to apparently just like, really mess you up all the time constantly.

## Sydnee:

I know. I'm sorry for your raw deal. Don't let them hold you down. And if anybody comes at you with a beaver, just run [laughs].

### Justin:

Yeah. You don't deserve that.

### Sydnee:

No.

## Justin:

Uh, thank you everybody tweeting you about the show. We're @sawbones on Twitter. Uh, thank you to, uh, Lynz Liquor, Corey Dotson, Mommy Chatter, uh, Katie Lorraine, uh, Kaitlin Garringer, Gehringer, sorry. Uh, Kevin Rushing, Andrew Brazer, Devon Bug, Theresa Kern, JD Harper, Libby Knight, Tim Todd, Ciria The Cat, Amy Clark Barnhart, Megan Schuler, Leila. So many others. Uh, thank you so much. Again, if you wanna tweet about our show, you can use the link to our program, uh,

www.sawbonesshow.com. Uh, there's a lot of other programs on the Maximum Fund Network, which is where that link will actually take you, like, uh, Judge John Hodgman, Jordan Jessie Go, Stop Podcasting Yourself, uh, The Goosedown, Lady to Lady, Oh No Ross and Carrie.

### Sydnee:

My Brother, My Brother and Me.

### Justin:

These are all, if you like our program, I guarantee you'll like— I would highly recommend Oh No Ross and Carrie. They go into more like modern stuff than we do, but, uh, similar vibe and I think you, you would enjoy it. Yeah.

## Sydnee:

And Justin's on at least one other show.

### Justin:

Yeah.

## Sydnee:

At least of the ones we've mentioned.

### Justin:

Yeah. So, find it. Good luck.

## Sydnee:

Figure it out. Listen to 'em all and see which one it is.

#### Justin:

It's Justin egg hunt. Um, and, uh, that's gonna it for us, I believe. Thanks to Tax Payers for letting us use their song Medicines in the intro and outro of our program. And, uh, until then, that's gonna do it. Please join us again next Tuesday for another episode of Sawbones. Until then, 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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