

## Sawbones 155: Laughter

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### **Intro (Clint McElroy):**

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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.

[Intro, 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.

### **Justin:**

Sydster, it's been a long few weeks...

### **Sydnee:**

That is the truth.

### **Justin:**

... here at the McElroy hacienda.

### **Sydnee:**

Yes. We have been... full time, full bore, all on—

### **Justin:**

Full bore.

**Sydnee:**

... twenty-four sev- seven...

**Justin:**

Uh—

**Sydnee:**

Wait, 24 sev...

**Justin:**

Twenty-four...

**Sydnee:**

... seven.

**Justin:**

... three...

**Sydnee:**

Four? Seven...

**Justin:**

Seven... four...

**Sydnee:**

Twenty-eight.

**Justin:**

Fifty-two? I don't- It's hard to...

**Sydnee:**

I don't know.

**Justin:**

We've been busy.

**Sydnee:**

[laughs]

**Justin:**

I'm shooting a TV show and it's... Today is the last day of shooting. So, the finish line is in sight.

**Sydnee:**

I had to take a little... Staycation? Is that the popular term that everyone uses?

**Justin:**

Staycation. But luckily—

**Sydnee:**

A little staycation from doctoring this week to just focus on, well, really our two-year old. I mean, really that.

**Justin:**

But if you think about it, because I've been so busy trying to come up with jokes for people, that really I've been doctoring as well.

Because as we all know, Sydnee, laughter is the best medicine.

**Sydnee:**

So, you think that's probably the same? Do you think it's...?

**Justin:**

It's probably the same thing to—

**Sydnee:**

Right.

**Justin:**

... do medicine, like with pills.

**Sydnee:**

Uh-huh .

**Justin:**

But also do it with—

**Sydnee:**

Well, that's what I do. I do medicine with pills. That's—

**Justin:**

You do medicine with pills but I do it with like—

**Sydnee:**

That's the advertisement next to my name like, "Come see Family Practice Doctor Sydnee McElroy. She does medicine with pills."

**Justin:**

I do it with like pratfalls—

**Sydnee:**

Check it out.

**Justin:**

... and stunts and stuff.

**Sydnee:**

Do you do a lot of stunts and pratfalls?

**Justin:**

There's not many stunts and pratfalls in—

**Sydnee:**

Do you pratfall?

**Justin:**

Not many on the show. But I do like, fart noises and stuff. Hilarious gags.

**Sydnee:**

It... There's at least one banana peel, right?

**Justin:**

Oh, yeah.

**Sydnee:**

That's the epitome of humor.

**Justin:**

And that's like... That kind of makes me a doctor because it's the best medicine.

**Sydnee:**

Do you... Do you know what that would make you a doctor of?

**Justin:**

Laughterology.

**Sydnee:**

No.

**Justin:**

No?

**Sydnee:**

Gelotology.

**Justin:**

Gelotology?

**Sydnee:**

Yes.

**Justin:**

What does that mean?

**Sydnee:**

That's the study of laughter's effect on the human body.

**Justin:**

Whoa.

**Sydnee:**

That is a real thing.

**Justin:**

So, I'm—

**Sydnee:**

Gelotology.

**Justin:**

I'm kind of an amateur gelotologist.

**Sydnee:**

I... I guess? I don't know.

**Justin:**

Does that track?

**Sydnee:**

Do you know... Do you know...? Okay, I understand that you know the phrase, "laughter is the best medicine."

**Justin:**

Mm.

**Sydnee:**

But do you know the history of laughter as medicine?

**Justin:**

No, Sydnee, but I'm betting that you'll be willing to teach me.

**Sydnee:**

That's right, Justin. Let me tell you all about it. Thank you to Sam, and Matthew, and Victor for suggesting this topic.

Laughter is interesting, because it's... it's obviously an innate thing. You can certainly choose to laugh. I think certainly there are times where maybe you aren't inspired to laugh but you—

**Justin:**

Yeah, you can force it.

**Sydnee:**

... can force laughter.

**Justin:**

Yeah.

**Sydnee:**

But laughter just happens. And we know this because we see infants laughing, right?

**Justin:**

Mm-hmm.

**Sydnee:**

I mean, we remember.

**Justin:**

So, it can't be a learned behavior?

**Sydnee:**

No, it's not a learned behavior. That turning up the corners of your mouth and making some sort of noise, repetitive noise, that is an innate way we have of communicating with each other.

It creates some social bonds, you know, in ways. It can be used to tell somebody that you like them, or you're interested or to bring people together.

People are more likely to laugh when they're together.

But it can also be used to ostracize. It can be used to tell people, "We don't like you" or "You are different" or "You are weird."

So laughter communicates.

And it's also been observed in humans pretty much as far back as we go. Part of that is probably because, in some ways, laughter is the fight or flight response.

You know, we've talked about that before, that discharge of the sympathetic nervous system when you're startled by something or you perceive something as a threat.

**Justin:**

Mm-hmm.

**Sydnee:**

And everything kind of goes on red alert.

If you then realize that it is unfounded, that the threat was imaginary, that it was... Like you thought you saw a shadow, you thought there was something scary there. And then you look and it was like, a hat rack.

**Justin:**

Right.

**Sydnee:**

Laughter is a way to dissipate all that energy that you built up all at once and then—

**Justin:**

Oh, okay.

**Sydnee:**

... realize- Which is why, I think you see that with little kids a lot. I've noticed that with Charlie. She'll almost... She'll see something on TV that's almost kind of scary or startled—



**Justin:**

Mm-hmm.

**Sydnee:**

... startles her a little bit, and she'll start laughing really quickly.

**Justin:**

Yeah.

**Sydnee:**

And it's because she realizes, "Oh, I was scared, but oh, okay. It's okay."

**Justin:**

Okay, yeah, to try to shake it off basically.

**Sydnee:**

We've known for a really long time that there is a- some sort of positive effect- on humans from laughter.

And part of that, it's like, you know, because it makes you feel good.

**Justin:**

Mm-hmm.

**Sydnee:**

But, King Solomon gave us one of the earliest accounts of the healing power of laughter from Proverbs.

**Justin:**

And what was that?

**Sydnee:**

"A merry heart doeth good like a medicine but a broken spirit drieth the bones."

**Justin:**

I think that there's probably something to that, if I had to guess. I'm not sure.

You're probably going to let me know, I would assume, but that makes sense to me. That jives.

**Sydnee:**

You like that?

**Justin:**

Yeah, I like that Syd.

**Sydnee:**

Yeah?

**Justin:**

I do.

**Sydnee:**

The ancient Greeks agreed. They actually used to prescribe to their patients, physicians from Ancient Greece, that if you are sick, just go to the hall of comedians.

**Justin:**

Well, I mean, not exclusively. I think it's probably better as a preventative than it is a curative—

**Sydnee:**

[laughs]

**Justin:**

... if I had to guess. But...

**Sydnee:**

I don't know. Do you think that you would tell people, "If you're not feeling so great, maybe you should listen to my podcast?"

**Justin:**

Um, I don't think that you should tell people that. That seems—

**Sydnee:**

[laughs]

**Justin:**

That seems like sticky, sticky ground, right?

**Sydnee:**

I do not tell my patients to listen to my podcast because that seems unprofessional.

**Justin:**

Well, that's... That's true. You shouldn't use the operating theater as your promotional grounds for your podcast, that's bad form.

**Sydnee:**

[laughs] And I can't tell them to listen to your other podcasts because you use bad words.

**Justin:**

That's true.

**Sydnee:**

[laughs]

**Justin:**

And your patients have never heard those, so.

**Sydnee:**

[sarcastic] No, none of my patients have ever heard bad words.

They would... They would send their patients to the theater to be entertained as part of the healing process.

Let me clarify that. Like, you wouldn't just, "Hey, I don't know. Go laugh. Let's hope it gets better." But as part of it, you know, also laugh.

Hippocrates specifically valued its medicinal use, and he would tell physicians, not patients, but actually tell other doctors, "Use wit in your

dealings with patients because dourness is repulsive, both to the healthy and the sick."

**Justin:**

Yeah.

**Sydnee:**

So, and there is this... There's this long history of doctors who teach other doctors encouraging them to use a little humor at the bedside. To use a little bit of your natural creativity and wit, which is such like a...

And I can say this because I am one, like a nerdy scientist way—

**Justin:**

Yeah.

**Sydnee:**

... of talking about social interaction.

**Justin:**

Could—

**Sydnee:**

[Calming, robotic voice] "It's okay to use a little humor and wit when speaking with your patient."

**Justin:**

[Calming, robotic voice] "Here are some suggested jokes."

**Sydnee:**

[laughs] Exactly.

**Justin:**

[Calming, robotic voice] "That are statistically proven to alleviate our mood."

**Sydnee:**

It's funny because there's also usually a little kind of note at the end that if it doesn't come naturally to you, faking it is not really advisable.

**Justin:**

Faking having a sense of humor?

**Sydnee:**

[laughs] Yes.

**Justin:**

Yeah.

**Sydnee:**

If you are just not a funny person, don't try really hard because it will come across as you know, as unnatural and uncomfortable.

**Justin:**

That... Yeah. I agree with that as well.

**Sydnee:**

Some Native American cultures actually used to have clowns who worked with witch doctors.

**Justin:**

Well, in case you needed some new things to have nightmares about, there you go.

**Sydnee:**

[laughs]

**Justin:**

Clowns that are working for witch doctors.

**Sydnee:**

They realized that, you know, along with all of the things that witch doctors would do, whether or not they work, we're not getting into that.

But, that having a clown there to make you laugh and entertain you would also be helpful and—

**Justin:**

Distracting.

**Sydnee:**

... in that, [laughs] in that light, clowns are actually really highly regarded within like, the hierarchy of the tribal structure.

**Justin:**

Or in modern medicine, hello, Patch Adams.

**Sydnee:**

[laughs]

**Justin:**

It's like we never got off the clown thing.

**Sydnee:**

We're going to get to Patch Adams.

**Justin:**

Oh.

**Sydnee:**

Don't you worry.

**Justin:**

Oh, heck yeah we are.

**Sydnee:**

Of course we're going to get to Patch Adams.

In the 1300s, a surgeon, Henri de Mondeville, used to tell jokes to his patients in the recovery room because he thought that, specifically as one was recovering from a surgery and all the stress on the body that a surgery did, telling them jokes would...

**Justin:**

Presumably not a tummy surgery, right? That seems like, terribly inadvisable.

**Sydnee:**

Yeah.

**Justin:**

They've got stitches, man.

**Sydnee:**

That is very true. Having had a tummy surgery, you do not want to laugh after a tummy surgery.

**Justin:**

No, absolutely not.

**Sydnee:**

No. But he also wrote about this, "Let the surgeon take care to regulate the whole regimen of the patient's life for joy and happiness, allowing his relatives and special friends to cheer him.

"And by having someone tell him jokes."

**Justin:**

Great.

**Sydnee:**

So, specifically, get all the friends and family around and tell him some good jokes.

**Justin:**

Tell him some good, clean gags.

**Sydnee:**

Throughout the centuries, we also know that court jesters were there. Not just, not for medical use.

I don't think you could make the argument that a, you know, a royal court would have had a court jester there to heal the king or queen.

**Justin:**

Right.

**Sydnee:**

But certainly to help relieve stress and tension. I mean, that was kind of necessary. Like you have to do all these really tough, whatever, king things.

**Justin:**

Mm-hmm.

**Sydnee:**

Make a lot of hard decisions. Whatever kings do. And at the end of the day, you might be really tense and stressed out, and so it could be good for you to have a court jester.

**Justin:**

Yeah, yeah. That makes sense.

**Sydnee:**

And as we move through the ages, humor and laughter, of course, we know that they bring joy to people and they're good for counseling people.

We recognize the link pretty quickly between if someone has depression, or what we all probably used to call melancholy, melancholia.

**Justin:**

Mm-hmm, right.

**Sydnee:**

We used to think their humors were out of order. And so, they were sad and down, before we—

**Justin:**

And in that case, it was actually true.



**Sydnee:**

That their humors...?

**Justin:**

Get it? That's pretty good, right?

**Sydnee:**

[laughs] That was a good one.

**Justin:**

There, I'm healing you.

**Sydnee:**

There you go. I'm better already.

**Justin:**

Enjoy this gift of healing.

**Sydnee:**

My seasonal allergies are recovering as we speak. [laughs]

**Justin:**

Well, good.

**Sydnee:**

And before we understood depression as a clinical entity, just thinking someone was sad, was, you know, melancholy, was as close as we would have gotten.

That making them laugh could be helpful, relieving stress, tension.

And Robert Burton, who was an English scholar from the 16th century, used to specifically write about using it as a cure for, again for melancholy.

Martin Luther also used humor therapy during pastoral counseling.

**Justin:**

Oh!

**Sydnee:**

So, again, mainly for people who were depressed or grieving, that kind of thing.

**Justin:**

Did we make a distinction between people who were just like sort of naturally jovial and people who were like, intentionally using, as you said, humor therapy?

**Sydnee:**

Well, these are instances where people are specifically saying, "I use this technique," like, "I advise this technique."

A lot of this was physicians or therapists or counselors, or anyone whose job it is to make people... to help heal people—

**Justin:**

Mm-hmm.

**Sydnee:**

... you know, spiritually, physically, mentally, emotionally, telling other caregivers, "Hey, this tool is really helpful. This is something that I have found makes people better."

**Justin:**

"Here are some jokes that I wrote down that you can say."

**Sydnee:**

[laughing] "Here's a... " And Martin Luther, most famously, I think, wrote a collection of great "Knock, knock" jokes.

**Justin:**

That he... Nailed to the door of a church?

**Sydnee:**

[laughs]

**Justin:**

And...

**Sydnee:**

[laughing] I don't think that's how that story goes.

**Justin:**

[As Martin Luther] "Here's my list. Everyone, pay heed! Get this one. Knock, knock?"

**Sydnee:**

Who's there?

**Justin:**

[As Martin Luther] "Interrupting parrot."

**Sydnee:**

Interrupting parrot—

**Justin:**

[As Martin Luther] "Cawcaw! Like, that's a great one, you can have that."

**Sydnee:**

We've almost taught Charlie that knock, knock joke, we're very close.

**Justin:**

So close.

**Sydnee:**

She also gets it backwards a lot. Because she'll tell us to say, "Knock, knock."

**Justin:**

Knock, knock.

**Sydnee:**

And she'll say, "Who's there?"

**Justin:**

[laughs] It's like, uh—

**Sydnee:**

Which is really actually like a great joke.

**Justin:**

It is a good joke.

**Sydnee:**

It's a whole elevated level of humor.

But he also advised that instead of, in times of depression, or again what we would have just understood is like sadness, melancholy—

**Justin:**

Mm-hmm.

**Sydnee:**

... that it is not good to isolate yourself, that you shouldn't go off and be by yourself.

That instead being around people who specifically make you happy and make you laugh could be curative.

And part of this is just common sense. You know, when you're sad, you want people cheering you up.

**Justin:**

Yeah.

**Sydnee:**

That, you know, that just makes sense.

But these are people who are advocating for it specifically as, "And this will fix the problem that I see as a medical problem."

**Justin:**

Mm-hmm.

**Sydnee:**

Herbert Spence was a sociologist from the 17th century, who talked about specifically using humor, not just to cheer people up, but if you were really tense.

So, people who were very anxious or stressed out or overwhelmed, that humor could be a way to defuse that tension.

**Justin:**

Mm-hmm.

**Sydnee:**

And Immanuel Kant, the German philosopher, also talked about using it to restore equilibrium to your mental and emotional state.

**Justin:**

Yeah.

**Sydnee:**

Using humor and laughter.

**Justin:**

It seems like this is a very... I don't know, it's one of those things that's interesting, because it is inherent... It seems like it is almost sort of instinctive, that it would make sense that it would be helpful.

But I guess at this point, we didn't really have a lot of ways of measuring efficacy of that, right?

**Sydnee:**

Exactly. At this point we're still just... A lot of this is observational. So physicians and philosophers and all these different people are observing it. They're maybe using it in some sort of practice.

And then they're kind of just writing about how they think that it is useful, how they think that it is helpful.

And there is a lot of literature on laughter, just discussing what it is. The kind of taking a step back- the ancient Greeks actually used to, and the Romans, used to debate a lot, what is laughter? What is humor?

**Justin:**

Mm-hmm.

**Sydnee:**

Why do we laugh? Why does it happen? What is its purpose? What is its usefulness?

**Justin:**

The answer to all those questions is of course, *Borat*.

**Sydnee:**

[laughs]

**Justin:**

That's... that's what that is.

**Sydnee:**

Laughter is for Borat?

**Justin:**

Laughter is by Borat.

**Sydnee:**

Laughter is of Borat?

**Justin:**

And if you want to know what's funny, Borat. Who makes you laugh? Borat. He's always there to crack you up.

**Sydnee:**

Laughter is—

**Justin:**

[Borat impression] "My wife." Did you hear that?

**Sydnee:**

That was... Laughter is of the Borat—

**Justin:**

Yeah, for Borat.

**Sydnee:**

... for the Borat, by the Borat.

**Justin:**

By the Borat. Exactly.

**Sydnee:**

Okay.

**Justin:**

That's exactly right.

**Sydnee:**

So—

**Justin:**

And also, it's worth thinking about, I think that like, at this time period, we did not have... Like pretty much all of our medical treatments were unpleasant.

So, whatever we could sort of cling to that was like noninvasive and maybe would help possibly—

**Sydnee:**

Exactly.

**Justin:**

... would be something really valuable.

**Sydnee:**

Right, which is why it makes sense that it would date all the way back to-

Especially if you think about Hippocrates as sort of like the father of this kind of medicine.

His recommendations often would be, "Good diet, exercise, get plenty of rest. And, you know, be happy."

**Justin:**

Mm-hmm.

**Sydnee:**

"And that'll get you most of the way there." Which isn't bad advice for anyone. It's also really defensive medicine. Maybe he's the father of defensive medicine.

**Justin:**

Maybe.

**Sydnee:**

Yeah, I can't get sued if I just tell people to eat healthy and exercise, get plenty of sleep and laugh a lot.

**Justin:**

Yeah. There's nothing in there that...

**Sydnee:**

Nobody's going to sue me then for saying like, "Oh, I laughed too much. And well, I don't know. Now, I have a hernia."

**Justin:**

Any other well-known doctors using laughter?

**Sydnee:**

Well, I'm going to get to that, Justin. But first, why don't we head to the billing department?

**Justin:**

Let's go.



[We go to the Billing Department. Theme music plays]

[We leave the Billing Department]

**Justin:** So, we were talking, Syd, about some of the other physicians that have utilized humor to help heal folks?

**Sydnee:**

So, a lot of... As we've kind of mentioned, a lot of different physicians and counselors, therapists, philosophers, all recognized that humor and laughter was helpful.

You know, in the sense that people seem to subjectively feel better afterwards.

But you don't see a lot of mention as to why. Why do we think that that's good?

**Justin:**

Mm-hmm.

**Sydnee:**

Other than just, you know, "I'm happier now."

**Justin:**

Right.

**Sydnee:**

In the 1500s, one physician, Gilbert, began to advise that laughter was good specifically for moving blood into the skin and especially like the facial area.

That that was a way of- Which I mean, I guess you could kind of... If somebody's laughing really hard and they get flushed.

**Justin:**

Yeah, it makes sense why you would draw that conclusion.

**Sydnee:**

Exactly, exactly. And it was thought that if you did that often enough that it would actually bring more like, vitality, to your facial features.

**Justin:**

Mm-hmm.

**Sydnee:**

That you would look healthier, that you would have a more robust—

**Justin:**

A ruddy glow.

**Sydnee:**

... glow. And it would also help to clean your complexion. That your complexion would be clearer if you laughed more often, because of all this excess blood flow to your face as a result of laughter.

So, there we see somebody actually trying to make kind of a physiological tie to it.

**Justin:**

Mm-hmm.

**Sydnee:**

In the 1600s, there's an educator, Richard Mulcaster, who recommended laughter for people who were suffering from anything that was thought to be like a cold illness, and I don't mean cold in like "the common cold."

I mean, like, temperature cold.

**Justin:**

Okay.

**Sydnee:**

We've talked about this a little bit on the humors episode.

**Justin:**

Right.

**Sydnee:**

That they were disorders that were a result- That were kind of thought of as either cold or hot disorders.

**Justin:**

Sure.

**Sydnee:**

And so the way you would combat them was with something that was the opposite.

**Justin:**

So, like, disorders that had something to do with like inflammation usually or something like that—

**Sydnee:**

Would be hot.

**Justin:**

... would be hot.

**Sydnee:**

Exactly. And it was often thought that things, things that we called “the cold,” you know, upper respiratory illnesses or like pneumonias, or bronchitis or...

Those kinds of things would have been thought of as cold-type disorders.

In addition, melancholy would have been... You know, or depression—

**Justin:**

A cold-type disorder.

**Sydnee:**

... would have been thought of as a cold-type disorder.

And a lot of those also had to do with the idea of, again, going back to the humors, like, too much black bile. Too much phlegm.

**Justin:**

Mm-hmm.

**Sydnee:**

That kind of thing. And it would... The reason that Richard Mulcaster thought that it would be helpful to combat cold-type disorders with laughter specifically, is again the idea that it moves blood.

That it- Which is a warming... a warming force.

**Justin:**

Yeah, that makes sense.

**Sydnee:**

So, that you are... So you're transferring this blood to warm the chest, to warm the surface of your skin, because it kind of, I guess, if you laugh hard enough, you get sweaty? I don't know.

**Justin:**

I guess? Like I don't usually laugh...

**Sydnee:**

How hard are you laughing?

**Justin:**

That must be... You must have watched *Borat* a lot.

**Sydnee:**

[laughs]

**Justin:**

Because like that... that's a lot of laughter.

**Sydnee:**

Either that or this guy was super funny.

**Justin:**

Yeah, just like the funniest.

**Sydnee:**

I'm going to start using him as my reference point for funny.

**Justin:**

Yeah. Are you as funny as—

**Sydnee:**

Richard Mulcaster.

**Justin:**

... Richard Mulcaster?

**Sydnee:**

[laughs]

**Justin:**

Beloved comedian and physician.

**Sydnee:**

You really need to check out my husband Justin's new television show because he's as funny as Richard Mulcaster.

**Justin:**

[laughs]

**Sydnee:**

Every bit as funny as 1600s educator Richard Mulcaster.

**Justin:**

Yeah.

**Sydnee:**

He even... He even said that, in a sense, laughter can be thought of as a type of physical exercise. [laughs]

**Justin:**

Uh, that's a stretch. I wish that were accurate but that... I'm not sure I can grant him that one.

**Sydnee:**

[sarcastic] That would- Because our audience would be the fittest people on earth.

**Justin:**

[sarcastic laughter]

**Sydnee:**

No.

**Justin:**

No. Well... they'd be pretty good.

**Sydnee:**

Yeah.

**Justin:**

They'd be[crosstalk 00:23:38].

**Sydnee:**

You won't allow it?

**Justin:**

Yeah.

**Sydnee:**

Okay. One of the best examples, because all of this is sort of, again, kind of anecdotal evidence or just hypothetical.

They're basing their assumptions on why laughter helps people, well, first of all, on an outdated system of medicine that is no longer used.

**Justin:**

Mm-hmm.

**Sydnee:**

The four humors. But also just based on like, "This is kind of what people look like, and this is what they feel like afterwards. So, I guess that it helped."

**Justin:**

Something... It's like the, you know, it's like the... stuff that had cocaine in it or stuff that had diuretics in it. Like, "Something is happening, like something changed, something is working."

**Sydnee:**

Exactly.

**Justin:**

Even if they don't know what.

**Sydnee:**

So the question is, how do we get from all these kind of vague ideas about laughter- And the fact that I mean, laughter therapy or using laughter to heal people probably would persist anyway, because people like it.

**Justin:**

Mm-hmm.

**Sydnee:**

You know, it's fun. And it's certainly not harming anyone.

If we think about like- Because there is something known as humor therapy now. Well, our modern concept of humor therapy probably starts really in the '30s, 1930s.

Because that is when you started to see, as a result of the polio epidemic, and so many children being hospitalized, they started to bring clowns into children's wards.

**Justin:**

Sorry kids.

**Sydnee:**

[laughs] The idea was to cheer them up.

**Justin:**

Oh yeah, sure.

**Sydnee:**

This is... this is... Okay, we're knocking a lot on clowns here and we got to be careful. Okay?

**Justin:**

Okay.

**Sydnee:**

I'm in defense of clowns.

**Justin:**

I'm allowed to have my opinions of clowns, but go on.

**Sydnee:**

You are allowed to have your opinion of clowns. There are a lot of people who still find clowns very funny.

**Justin:**

Nobody finds clowns funny. That's ludicrous. That's a ludicrous statement.

**Sydnee:**

Charlie... Charlie likes *The Big Comfy Couch* and that is a clown, thank you.

**Justin:**

Okay. That's fine. But those are clowns who like have scripts written for them with jokes in them. Clowns inherently are not funny. They're terrifying.

**Sydnee:**

Well, who... who inherently is funny if they're just standing there silently?



**Justin:**

Kevin James.

**Sydnee:**

[laughs]

**Justin:**

I could go on. Rick Moranis.

**Sydnee:**

Borat, I assume?

**Justin:**

Borat. Ever heard of him?

**Sydnee:**

No, I also think that clowns probably were funnier like back in the '30s, I think that— [laughs]

**Justin:**

When you never heard, seen, anything funny and your family was living off of apple cores, a clown would be a real gut buster. I'll grant you this.

But that's also because you're laughing a little bit because it's like, "Anything to distract me from like, how much this sucks right now."

**Sydnee:**

I think clown- Clowning is also an art that you are completely undermining.

**Justin:**

Sure.

**Sydnee:**

Like there's a—

**Justin:**

Sure, sure.

**Sydnee:**

There's a skill set there you have to learn how to do.

**Justin:**

So is being a mortician. But they're not chucklebusters either.

**Sydnee:**

Listen.

**Justin:**

Okay.

**Sydnee:**

We're all allowed to have our own idea of what's funny.

**Justin:**

That's fine.

**Sydnee:**

Okay?

**Justin:**

Yes. Fair.

**Sydnee:**

I personally don't find *Borat* the funniest thing on earth.

**Justin:**

[snorts] Well, I can't help you.

**Sydnee:**

In 1964, Norman Cousins... Have you ever heard of Norman Cousins?

**Justin:**

Mm-mm.

**Sydnee:**

Okay. He was a journalist. He was a professor. He was largely known too for- He was a protester. He was a very, in most areas, a very strong liberal protester.

**Justin:**

Mm-hmm.

**Sydnee:**

And is well known for that.

He was diagnosed with a crippling and painful condition which was probably thought to be ankylosing spondylitis, which is an inflammatory autoimmune condition of the spine, and can be very painful.

Now that- Whether or not that is true, that is actually up to some debate at this point. Because he was kind of-

He was doing fine, and he went on this trip to Russia, and afterwards, he got really sick and- He survives this.

**Justin:**

Mm-hmm.

**Sydnee:**

Norman Cousins does not die at this time.

**Justin:**

[laughs]

**Sydnee:**

You looked anxious. But this may have actually been like a reactive arthritis.

**Justin:**

Mm-hmm.

**Sydnee:**

This may- He may have been misdiagnosed in retrospect. It may have been more of an acute process that resolved as opposed to a chronic illness that got better.

**Justin:**

Yeah.

**Sydnee:**

Either way, I don't think it really matters.

The point is, the doctors told him, "Look, I don't think there's anything we can do for you. You're going to be in a lot of pain. This is going to be really terrible.

"And this is probably going to be what eventually ends your life and I'm really sorry about that."

And basically threw up their hands.

**Justin:**

Yeah.

**Sydnee:**

And he said, "No. I will not accept this."

So, he left the hospital and moved into a hotel instead and hired a nurse to help him out.

**Justin:**

Okay.

**Sydnee:**

Now, one of the things he did was take megadoses of vitamin C which—

**Justin:**

Mm.

**Sydnee:**

... we have already said previously—

**Justin:**

Did not help.

**Sydnee:**

... did not help. That's fine. But the other thing he did was watch a lot of comedy. The com- Specifically, what did he watch? The Marx Brothers.

**Justin:**

Okay, they're... They are very funny.

**Sydnee:**

Laurel and Hardy.

**Justin:**

Terrifying.

**Sydnee:**

And *Candid Camera*. [laughs]

**Justin:**

Now, come on, man.

**Sydnee:**

Lots of *Candid Camera*.

**Justin:**

Lots of *Candid Camera*. Like what... What did they step in? A pie? [sarcastic]  
Hilarious.

**Sydnee:**

Which I love because—

**Justin:**

It was the *Punk'd* of its generation.

**Sydnee:**

The *Punk'd* of its generation? What I was going to say is it's *America's Funniest Home Videos*.

**Justin:**

Well, it's both, yeah.

**Sydnee:**

Which if you... Could you imagine being locked in a hotel room marathoning *America's Funniest Home Videos* over just like—

**Justin:**

Sydnee, please, that's like, too dire. I would laugh at a clown at that point.

**Sydnee:**

Do you know how many crotch shots you'd see in that?

**Justin:**

That would... Those always do get me.

**Sydnee:**

I mean like as in somebody getting hit in the crotch?

**Justin:**

Yeah. Not any crotch shots. Unless you went to a different station at the hotel TV—

**Sydnee:**

Don't do that.

**Justin:**

... that you're going to get charged for.

**Sydnee:**

And that's not going to make you laugh.

He later wrote that after locking himself in this hotel room, watching tons of comedic films and all the *Candid Camera* he could stomach—

**Justin:**

[laughs slightly]

**Sydnee:**

... [laughs] that he made, "the joyous discovery that 10 minutes of genuine belly laughter had an anesthetic effect." So, it seemed to relieve his pain and would give him at least two hours of pain-free sleep afterwards.

**Justin:**

Mm-hmm.

**Sydnee:**

So, after doing this, he recovered eventually from his painful inflammatory condition.

**Justin:**

Hmm, interesting.

**Sydnee:**

And he kind of became a prophet of laughter therapy after that. Spent the next 20 years, in addition to the other things he did, teaching about the merits of humor and laughter in the healing process.

And there's actually a movie that was made in 1984 about this. He wrote a book about it.

**Justin:**

Mm-hmm.

**Sydnee:**

*Anatomy of an Illness Perceived by the...* Anyway, there's a long title. The movie is called *Anatomy of an Illness*. [laughs]

**Justin:**

Who's in it?

**Sydnee:**

Ed Asner stars in it.

**Justin:**

I... If the movie has a 10-minute-long scene of Ed Asner laughing at *Candid Camera*, I think I might have a future rental on my hands.

**Sydnee:**

[laughs] You know, it's funny, I did read... I was reading about the movie that Norman Cousins was not a huge fan of it.

**Justin:**

Really?

**Sydnee:**

He thought it was over-dramatized. He didn't like the portrayal. But he did recognize that Ed Asner tried his best.

**Justin:**

Well, that's good.

**Sydnee:**

He worked really hard.

**Justin:**

He's a pro. The man's a professional.

**Sydnee:**

Yeah, exactly. This... And you see this kind of- Probably in part because of this huge story. This was already a famous guy, and then he did this.

And then he wrote a big book about it. And then it became a big movie, and it was a very dramatic... It's a very dramatic story.

**Justin:**

Sure.



**Sydnee:**

Because he did- I mean, he did get better. I don't know that I could say laughter was the only reason, but he did get better.

**Justin:**

Mm-hmm.

**Sydnee:**

Uh, and this kind of led, in the '60s, to a lot of interest in laughter being used for therapeutic purposes.

A lot of this was led by Dr. William Fry out of Stanford, who started to study, "Okay, so we kind of think laughter is helpful. Why do we think it's helpful? And what is it actually doing from a physiological perspective?"

So, we finally see somebody studying it. And that's where I got the term, "gelotology."

**Justin:**

Okay.

**Sydnee:**

This is when we actually see the study of the effect of laughter on the human body become an organized scientific process, as opposed to just, "I don't know, make 'em laugh."

It's funny because in all these different studies, what they would have to do is induce laughter.

**Justin:**

That's a tricky one.

**Sydnee:**

And then like, study people. So, they would have to like, you know, show them funny things or read them funny stories, or have them read a funny book or something like that.

**Justin:**

Mm-hmm.

**Sydnee:**

I—

**Justin:**

*Superfudge*, for example. *Tales of a Fourth Grade Nothing*.

**Sydnee:**

That's a great book.

**Justin:**

Any of them.

**Sydnee:**

But it's funny because- What's interesting about this to me is... I was reading about like, "Well, what did they use?" And like some examples I found was *The Simpsons* are commonly used in these studies.

**Justin:**

Okay, good.

**Sydnee:**

Clips from *The Simpsons*. *South Park*.

**Justin:**

Early, early *Simpsons*, presumably.

**Sydnee:**

I don't know. *South Park* is used a lot when you read about it. It's interesting to me, because as Justin knows, I'm not a person who laughs out loud very easily.

**Justin:**

Mm-hmm.

**Sydnee:**

Even when I think something is funny. I don't laugh.

**Justin:**

You just... you just note it.

**Sydnee:**

Yes, I do. [laughs] I am one of those people. But you'd have to try to find something that would specifically make your patient laugh a lot so that you could study it.

**Sydnee:**

And from that we have learned a few things about laughter. For one, there are two different types of laughter.

**Justin:**

What are they, Syd?

**Sydnee:**

They can be classified as either Duchenne or non-Duchenne laughter named for Dr. Duchenne.

Duchenne laughter is that natural chuckle or giggle that you kind of can't control when something funny happens.

**Justin:**

Yeah.

**Sydnee:**

And it just hits you. And you have that... It usually makes you close your eyes. That's one good way to kind of distinguish.

There's actually a reflex that happens that squeezes shut the muscles that control your eyes at the same time.

**Justin:**

And that's real.

**Sydnee:**

That's real... That is more helpful laughter, let me say that.

**Justin:**

Okay.

**Sydnee:**

I don't want to say that the other is fake laughter. Anything else is non-Duchenne laughter.

And that could be... It could be a forced laugh, it could be that... I think a lot of people participate in non-Duchenne laughter when they go to live comedy shows.

Because you see views of the audience where everyone is laughing hysterically.

**Justin:**

Well that's social. You hear other people laughing and you just laugh.

**Sydnee:**

Exactly. It's a social cue. Which is why people are more likely to laugh in groups than they are alone.

**Justin:**

Mm.

**Sydnee:**

So and also, you've already bought into like the theory. Like, "I'm here for a funny thing. I'm here to laugh." And so you're more likely to laugh.

But that laughter is, unfortunately, not as medically useful.

There have also been branches of laughter meditation and laughter yoga that have kind of—

**Justin:**

Sure.

**Sydnee:**

... spawned off from this.

As you mentioned, Dr. Hunter "Patch" Adams, brought laughter into the forefront, especially after the movie.

**Justin:**

Yeah.

**Sydnee:**

That in general trying to humor your patient while nature takes its course is probably one of the most useful things as a physician that we can do.

Now, what has all this led us to? We've done all these studies.

**Justin:**

Yeah, what's it—

**Sydnee:**

We've figured out different types of laughter.

**Justin:**

What does it actually do?

**Sydnee:**

What does laughter do?

So, some studies have shown that it can reduce your blood pressure.

**Justin:**

Okay, good.

**Sydnee:**

It helps decrease levels of stress hormones in your body. So, in theory, this is where we get this idea that it helps you deal with stress and tension.

**Justin:**

Mm-hmm.

**Sydnee:**

Helps to diffuse stress and tension. It may boost your immune function. There have been some studies that have shown a little bit of improved immune function after laughter.

But I don't know that I would prescribe it for people who are in, you know, some sort of immunocompromised condition. I don't think that you could go that far.

**Justin:**

Mm-hmm.

**Sydnee:**

I think it's more of an interesting academic point. It also does relieve... It releases endorphins when you laugh, which are thought of as like your natural opiates inside your body.

**Justin:**

Mm-hmm.

**Sydnee:**

That help you deal with pain. So, they've done a lot of studies on people and like, put them in uncomfortable positions, standing in an uncomfortable position, and then showing them [laughing] *The Simpsons*.

And seeing if you can stand longer, or like crouch in that position or whatever, while you're watching something funny and laughing than you could otherwise.

**Justin:**

Yeah.

**Sydnee:**

To say like, "Well, look, their pain tol-" And they'll say afterwards like, "Well, I wasn't in as much discomfort as the people who weren't watching something funny."

**Justin:**

Wouldn't the control have to be watching something that wasn't funny?

**Sydnee:**

What do you think they'd be watching?

**Justin:**

I don't know. Like *Law and Order*, I guess?

**Sydnee:**

I guess.

**Justin:**

See, I feel like that would be... Because I would, my suspicion is, it would have an anesthetic effect regardless because you would be... have something else to focus on.

**Sydnee:**

Well, but specifically... I... Now, I didn't read about controls. What I read about is that they were in uncomfortable positions, and then they were watching something funny in an uncomfortable position.

**Justin:**

Cool.

**Sydnee:**

As far as I could tell. Anyway, the idea is that you tolerate pain better when you are laughing.

**Justin:**

So there you go. Laugh more. It's good for you.

**Sydnee:**

It'll improve your general well-being and, I guess, if you laughed enough, it could exercise your abdominal muscles.

**Justin:**

There you go.

**Sydnee:**

That's a lot of laughter.

**Justin:**

That's a lot of laughter. That's a lot of...

**Sydnee:**

That's a lot of laughter.

**Justin:**

You're going to wear out your *Borat* DVD with that one.

Folks, that's going to do it for us here on *Sawbones*. We hope you've enjoyed yourself. Thanks for sticking with us even though we've had kind of a wild schedule these past few weeks.

**Sydnee:**

That's for sure.

**Justin:**

It's been tough on our end too, so thanks for being understanding. Thanks to The Taxpayers for letting us use their song "Medicines" as the intro and outro and "midtro" of our program.

**Sydnee:**

[laughs slightly]

**Justin:**

You can find them on, on Bandcamp. It's... I think it's just Tax- I can never remember. [Taxpayers.bandcamp.com](http://Taxpayers.bandcamp.com) or The Taxpayers. Try `em both. One of those will work.

**Sydnee:**

They're worth the extra effort.

**Justin:**

Yeah, it's worth the work.



Thanks to maximumfun.org for letting us be a part of their network. There's a lot of great shows there now that you can go listen to.

And I believe that's going to do it for us. But, and... Until the next time we have something to speak with you about... 'Til next week...

**Sydnee:**

[laughs]

**Justin:**

My name is Justin McElroy.

**Sydnee:**

I'm Sydnee McElroy.

**Justin:**

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

[Outro, theme music plays]

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