Intro (Clint McElroy): 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. Oh, me? I'm your co-host, Justin McElroy.

Sydnee: And I'm Sydnee McElroy.

Justin: Um, this is a celeb request episode.

Sydnee: Well, I don't know that "request" is—

Justin: No.

Sydnee: Technically accurate.

Justin: No.

Sydnee: Nobody— nobody requested this episode. It was— it's celeb inspired?

Justin: Yeah, I guess that's true.

Sydnee: Is that— does that count?

Justin: Our dear family friend Hank Green, uh... Well, you tell it. You tell the story.

Sydnee: Hank Green tweeted, uh, a little, um— a vignette about doctors. Essentially, the point was, doctors don't know anything about teeth.
Justin: And they don't!

Sydnee: That doctors say, "I'm gonna take care of you head to toe." And you're like, "But my tooth!" And they're like, "Whoa, whoa, whoa, whoa. No. Don't know. Don't know anything about that."

And that's true! I will not argue that point. Uh, I have said on the show before, we are not taught anything about—

Justin: You probably even know less than I do about teeth.

Sydnee: No, that's not true. They don't—

Justin: Hmm. That's weird to think about, that I know more about teeth than you do.

Sydnee: No, that's not true.

Justin: And you're a doctor.

Sydnee: They don't take knowledge from you... [laughs] about teeth in medical school. They just don't necessarily give you knowledge about teeth.

Justin: But you could make the assumption safely that your brain has been filled up with so many other knowledges about the human body that some of the tooth knowledge has been displaced as a result.

Sydnee: Well, your brain has been filled up with so much knowledge about Mario that tooth knowledge has probably been displaced.

Justin: Sydnee, that was sexist.

Sydnee: [laughs]

Justin: I hate to say it, but that was— [laughs] that was sexist.

Sydnee: Was that sexist?

Justin: That's sexism, folks! You gotta call it out where you see it, and that was sexism. Ouch.
Sydnee: That had nothing to do with the fact you're a video game journalist, or at least you were in a former life.

Justin: I'm retired! Okay? I hung up Mario's hat.

Sydnee: [laughs]

Justin: I wouldn't know Mario if he spat in my face these days. All books for me.

Sydnee: Uh-huh.

Justin: You know what I did this morning? I watched A Touch of Evil by Orson Welles, a noir film. A film? Yes. Was it good? It was. Was a little bit weird to see Charlton Heston in brownface for the entire movie?

Sydnee: Ohh...

Justin: Did that soil the experience? It did, definitely, thank you viewer!

Sydnee: Oh, no. Oh, no.

Justin: Yeah, listener, it did. It did sour the experience.

Sydnee: Oh, no. Not... not great. You know, Charlie was watching a weird video that had a guy dressed as Luigi in it, and I asked her, "Why, why is that guy dressed as Luigi?" And she said, "'Cause he's the dad."

Justin: [softly] 'Cause he's the dad.

Sydnee: I don't know what that means. Do you know why medical care and dental care are so separate in this country? Why?

Justin: [sighs] You have told me the name of the thing, and I know that, but other than that I do not know.

Sydnee: Now, the— I mean, the, the big answer is... There are lots of reasons, and we'll get into some of the, the more boring reasons. But the story I want to tell is kind of the mythological origin. I mean, it's really— it really happened. I don't want to say that it is the sole, sole, uh, occurrence responsible for this, but
the mythological origin is what is known as the historic rebuff. Which is a great name for a thing.

**Justin:** That's so good, though. It's so good.

**Sydnee:** The historic rebuff. And I think this, this episode, this exact happening is, at its core, um, emblematic of the separation between the two. So even if it is not the only reason the two are so separate, I think it is worth exploring.

**Justin:** Okay.

**Sydnee:** This is a little different. It's a lot more history and a little less medical. Um, but it is strange, if you think about how linked oral health is to... rest of body health...

**Justin:** Where you about to say "real health?" Caught yourself?

**Sydnee:** No, I was just thinking, like, oral health is part of the body.

**Justin:** Non-oral health?

**Sydnee:** Yes! It's, it's strange. Uh, we're trained completely differently. Everything is coded differently. Insurance is different. They're completely separate.

**Justin:** What about, uh, like, gum disease, stuff like that? Do you guys do that?

**Sydnee:** Not really, no.

**Justin:** Or cancers of the— of that area?

**Sydnee:** Okay. Now, once you start getting into surgeries, like something that might need a surgical intervention, then you're getting into some of the medical specialties like maxillofacial surgeons and, uh... I mean, there are oral surgeons, but they... These things all get muddled after a while.

**Justin:** Okay.

**Sydnee:** And when you get into the more, um, serious mouth pathology.
Justin: Okay.

Sydnee: Um, otolaryngologists will get in there, too. So, so there are definitely some overlaps when it comes to that, that sort of thing. But when we're talking about general oral preventive health and, and dental maintenance and gum health, all of that stuff falls into the, you know, mainly the realm of dentists. You know, it's actually harder to get dental insurance than it is to get medical. I think most people know that, though.

Um, and so, doctors learn nothing about teeth, and dentists only learn about teeth. Uh, so, why? Well, the origins of dentistry were much more so a trade. And we've kind of alluded to this on the show in numerous past episodes, when we talk about barber surgeons. Right?

Justin: Mm-hmm.

Sydnee: You remember barber surgeons?

Justin: That was like a crafts--craftsman.

Sydnee: Craftsman?

Justin: A craftsman, or trades, tradespeople.

Sydnee: It, it is— it was much more of... It wasn't, uh, thought of—

Justin: Yeah, they're not artisans. I should— I misspoke.

Sydnee: [laughs]

Justin: Tradespeople

Sydnee: Yes, they're not, they're not crafting anything in your mouth. I mean, these, these were people who were mainly, uh, removing teeth. They could bleed you. Um, they— there was a point where surgeons and barber surgeons and what we would think of now as dentists and, I mean, to some extent, doctors, where it all kind of overlapped.
Um, and the surgeon or barber or whatever you want to call them that you saw could do any of these. Could do, like, a surgery, or could remove your tooth. You know, whatever. Like, would do it all.

In France in 1210, a guild of barbers was created, and this would kind of start, uh, sectioning out the professions. To decide like, "Well, how 'bout you don't know anything about surgery, so don't do surgeries any more. Just stick to pull teeth, uh..." Bloodletting was fine. A barber surgeon was totally okay to leech you or cut you. Also cut your hair.

**Justin:** "While we've got everybody in the room, um, demon barber of Seville. Uh, it would be great if you would stop killing people and turning them into meat pies. Uh, Sweeney Todd—"

**Sydnee:** [laughs]

**Justin:** "We would appreciate that if you would stop that, 'cause you are making us all look bad. And we get it, sure. It's delicious, but please. As long as we're all here."

**Sydnee:** You— you could say that was like, the third category. They divided everybody into the surgeons, the lay-barbers or barber surgeons, the people who like, cut your hair and bled you, and then Sweeney Todd.

**Justin:** They probably didn't have the guts to name him. Like, "If any of us in the room are killing people and turning them into meat pie."

**Sydnee:** "Just take one step forward."

**Justin:** "If anybody is—" Yeah, right. [laughs]

**Sydnee:** [laughs]

**Justin:** "Look to your left. Look to your right. Now look behind you, oh my God, it's Sweeney Todd!"

**Sydnee:** Um, it was easy to throw into the category of like, lay-barber or, or like I said, barber surgeons. It was easy to throw teeth into that same category as bloodletting and... I mean, they really were barbers, too. Like, they really did cut
your hair and shave you, in addition to bleeding you. Or they did cupping, sometimes, and then pulling your teeth.

But it was easy to throw it in there, because at the time, it was just thought of as a mechanical thing. How do you take care of teeth? Well, if they go bad, you take them out.

Justin: Right. Right.

Sydnee: I mean, it was, it was really that simple. It wasn't thought of like, as a disease process. So it was just... It was a mechanical problem. It had a surgical solution. It didn't require a lot of finesse, you just yanked it out. At least this was the— this was the concept at the time.

Justin: Right.

Sydnee: It wasn't until 1530 that a book about oral health was even published, where people even started talking about the concept of like, mouth health. More so than just, "I don't know, sometimes a tooth rots out."

Justin: The idea of taking care of them.

Sydnee: Yes.

Justin: Or— right.

Sydnee: Yes. Uh, it was the first book devoted entirely to dentistry. It was called The Little Medicinal Book for All Kinds of Diseases and Infirmities of the Teeth. And it was published in Germany. And it was aimed at, uh, surgeons and barbers and people who would actually take care of, of the mouth.

And, and again, it talked about pulling out teeth, but it also talked about, uh, fillings, and then just like, brushing teeth. Like, trying to keep teeth... healthy. Although, again, we're— we still at this point don't understand the origins of like, tooth decay or gum disease or anything like that. So it would be hard to say much other than... I don't know. Brush 'em.

Justin: We had an inkling... I'm trying to remember the cavity episode. We had an inkling that sugar was involved, right? Or not at this point yet?
Sydnee: Well, no, not at this point we didn't know. We have looked back and thought that sugar was involved because of the timeline of cavities, but no, we, we at this point wouldn't have, wouldn't have known.

And as we talked about— we talked about this a little bit in our episode on teeth, that there was also a time period in history where black teeth were really desirable, because they were a sign that you could afford, like—

Justin: Markers.

Sydnee: Sugar. Like, like royalty would have black, decaying teeth because they could eat fancy foods.

Justin: Um, I hung out with, uh, MC Bat Commander from The Aquabats a while back, a few weeks ago. We were filming a thing for their show, and he has been, um, using sharpie to color in one of his front teeth for years now. I just hope that it's okay. That it's not a problem.

Sydnee: I'll have to ask the dentist when I go back in a couple weeks.

Justin: Yeah, is it— is this guy okay?

Sydnee: Is this— is that okay?

Justin: I also want to say that earlier I conflated The Demon Barber of Fleet Street with The Barber of Seville.

Sydnee: Yes you did. [laughs]

Justin: I realized it at that moment, but I wanted to give people time to tweet, so now they can be embarrassed. Now they can be ashamed.

Sydnee: [laughs] Demon Barber of Seville...

Justin: It's not bad. It's a good conflation.

Sydnee: No, I like it.

Justin: Spoonerism, I guess.
Sydnee: I'll allow it. Uh, but at this point, dentistry is still very much tied to surgery. Um, we've talked about Paré, uh, a lot on this show.

Justin: Yes, yes.

Sydnee: Uh, the father of surgery. Um, and he includes a lot of information in the late 1500s about dentistry in his surgical texts. When he's describing various surgical procedures, he also has a lot of information on tooth decay and that kind of stuff. It's—the two are still very tied.

The profession of dentistry as it's own thing probably starts, we can say, in the 1700s with Pierre Fauchard, who we've talked about before, is known as the father of modern dentistry. And he wrote comprehensive books to talk about, uh, the surgeon dentist. You know, the—a separate entity. The surgeon who is a dentist, who is different from other surgeons because there are a lot things particular to oral anatomy and function and, and the things that we need to do to fix problems in the mouth that are very specialized and are, are their own—their own trade altogether.

Um, and from there there were people who started practicing exclusively on teeth, because up until then if you were... And I mean, this has been the story of medicine in general, right? At first, a doctor just did everything, because you got the title "doctor," and you just did whatever.

And then we realized that there's a lot of stuff to do on the human body, and we should probably have some people who do this part, and other people who do this part, and... We could argue whether we have become too segmented in this time in history, but there, the point is, there's a lot to know, and so it made sense to have some people who were like, doing surgery on this part, and other people who did surgery on this part.

Dentists, at this point, start practicing exclusively on teeth. Um, the first dentist to practice in America came from England in 1760, John Baker. And then, uh, Isaac Greenwood was the first American-born, uh, dentist in the United States. We've talked about before—

Justin: The first dentist president.

Sydnee: No—
Justin: The first dentist who could be president.

Sydnee: Uh, I g— there you go, Justin!

Justin: Technically speaking.

Sydnee: That's true. Uh, although this would have been before the Revolution, so.

Justin: Yeah, because that would have been... Well, it would have been wild to expect— [wheezes]

Sydnee: [laughs]

Justin: [laughs] Expect our first few presidents to have been born.

Sydnee: That's true. They were technically born in the colonies.

Justin: "I know we just started this country last week, but... the rules are rules."

Sydnee: [laughs] Uh, so in 1768, uh, one of our... We've talked about this before. Paul Revere started advertising his services as a dentist. Do you remember that?

Justin: Yeah.

Sydnee: Paul Revere was a dentist. He also, as we've, um, as we've covered, he was the first to probably practice forensic dentistry.

Justin: Oh, solving like, biting crimes. If anybody was like, bite-centric crimes, he'd be like, [gruffly] "I know these teeth..."

Sydnee: [laughs]

Justin: [gruffly] "Take it to the lab..." ["Yeah!" from CSI Miami theme?]

Sydnee: One if by dog, two if by cat?

Justin: Yeah. What? Yeah, okay. What?

Justin: I don't think so.

Sydnee: I'll work on it. Uh, so he, he started making bridges and, you know, dentures and false teeth and those kinds of things, and so he was able to identify—

Justin: When he busted a guy he'd like, [gruffly] "Bad news, Bo. The police are coming." Like the British?

Sydnee: [laughs] Uh, I think the empha— it's the emphasis. You need to work on the emph— and then it'll—

Justin: [gruffly] "The Briti— the police are coming. The police are coming?"

Sydnee: That— that's it. That's closer.

Justin: Is that better? Is that better?

Sydnee: It's closer. That's closer. That— [laughs]

Justin: Okay.

Sydnee: Keep— just keep work-shopping it.

Justin: Okay.

Sydnee: So, he was able to identify one of his friends who had fallen on the battlefield by his bridge, that he knew he had made him. He went, [softly] "I know this bridge. Aw. Jimmy."

Justin: "Also, Jimmy's—" [snorts] "Jimmy's— Jimmy's the sixth street biter!"

Sydnee: [laughs]

Justin: "I—" [laughs] "I finally cracked that case at the same time my friend was killed in battle. How could you?!!"

Sydnee: Uh, throughout the 1800s, dentistry started developing all kinds of stuff unto itself. As more and more people, you know, just practiced dentistry, outside of surgery or anything else, um, more advances were made. And we, as I already
mentioned, we started making better bridges and like, porcelain teeth, and...
Rubber was invented, and this was a good base for a lot of like, false teeth and that kind of thing.

Um, there were more dental books published. The reclining dental chair was invented. That was a big advance. That was important.

**Justin:** Do you thi— Okay. Did— was that the first reclining chair, though? Because I bet somebody got in that and they were like, "Uh, excuse me? This is awesome." [wheezes]

**Sydnee:** [laughs]

**Justin:** [laughs] I'm getting st— my— "Hi, my name is Paul Lay Z. Boy. And I—" [wheezes] "I want to license this chair technology from you."

**Sydnee:** "I wanna— I wanna buy this."

**Justin:** "I wanna buy this. This is amazing."

**Sydnee:** No, he's not gonna license it. "I wanna buy— I'll take 100% of your reclining dental chair business." But this was in the 1800s, so for...

**Justin:** A few points? On the back end? Some advisory shares?

**Sydnee:** Like, $200?

**Justin:** Something. $200 and advisory shares.

**Sydnee:** And 100% sharks. Uh, so anyway, the dental chair... I don't know if was the first reclining chair. Either way, uh... We've talked about the amalgam wars. Amalgam was brought over by the Crawcours, who were not brothers but are still called the Crawcours Brothers, from France. And they were kind of, um, snake oil salesmen themselves, and they did a lot of things wrong, but they weren't completely wrong about amalgam, but it took a while for amalgam to get over this bad association.

**Justin:** Right.
Sydnee: Uh, but as dentistry was evolving into its own thing, there were some dentists who were beginning to see... "You know what? The more we learn about teeth and oral health, the more we need to know about health in general. The more it's linked to the rest of the body."

Justin: Mm-hmm.

Sydnee: And there were certainly dentists practicing at the time who were also doctors, and they were able to utilize this information for both. You know, the two complemented each other. Having both knowledge bases helped them.

And so there were some who began to think, "You know what? Dentistry really needs to have a rigorous training program that involves medical education, because it's really a medical specialty."

Justin: Right.

Sydnee: Uh, specifically Chapin Harris and Horace Hayden. Uh, Horace Hayden had been trained by John Greenwood, who was the personal dentists to George Washington. He made him his, um... Not wooden teeth. You know, we say they were wooden teeth, but they weren't. They weren't wooden teeth. They were from a tusk, right? Like a hippo?

Justin: I don't know. I don't know anything about teeth.

Sydnee: Yeah. Uh, but he was also a fief player, in case you care about that.

Justin: Oh.

Sydnee: He originally was a fief player, and then he got into dentistry.

Justin: Should I care about it? Is it going to be important later?

Sydnee: No, but there you go. So—

Justin: Does a twist later hinge on that— that fact?

Sydnee: Mm-mm. Just an interesting fact.

Justin: [unintelligible]
Sydnee: He learned how to play the fief. Uh, he had been—

Justin: Is this Cheko— is this Chekov's fief?

Sydnee: [laughs]

Justin: [laughs] Is it gonna back up, or you just— did you just read that and say like, "Why don't I say that?"

Sydnee: No, John Greenman was a fief player who said—

Justin: Just color him in!

Sydnee: "I'm gonna make, uh, I'm gonna learn how to make fake teeth for George Washington." That's a wild... He's a millennial before his time. Look at that career change! Midlife goes, forget fieving. It's time to make teeth! I love that!

Justin: I bet— I bet, if you believe in an afterlife, I like to think that he was watching like, "Oh, look, they're talking about me. Man, I hope they mention the fief playing!"

Sydnee: [laughs]

Justin: "People forget that, but I really always thought of myself as a fief player first."

Sydnee: So, John Greenwood trained Horace Hayden, who was given a license in 1810. He's— he was kind of like, the, the grand old man of dentistry.

Justin: A license to dr— a license— a license to drill, you might say?

Sydnee: Sure. You can say that. You can say that. So he was kind of like the important guy in dentistry at the time. Uh, Chapin Harris already had a medical degree, but he was very interested in dentistry because his brother was a dentist and he learned dentistry from him. And then he also went and studied under Hayden as well, um, because he was known as the guy, the dentist guy in America. And Harris, after all this study—
Justin: That’s what it said on his business cards.

Sydnee: And with— [laughs] with his medical background he started saying, "We need to make dentistry a real scientific discipline. It needs to be licensed. It needs to be researched. It needs to be structured and taught, and I’m gonna make it happen."

Justin: So if your wondering why dentists go to medical schools and how those two careers became integrated, that’s the story of it.

Sydnee: Well, they didn’t.

Justin: And thank you so much for—

Sydnee: No, they didn’t.

Justin: They didn’t?

Sydnee: No.

Justin: Oh, the rebuff.

Sydnee: The rebuff is about to happen. But before we, before we rebuff...

Justin: What a tease.

Sydnee: Let's retire... to the billing department.

Justin: Let's go.

[theme music plays]

Justin: Folks, uh, uh, we’d love to take a moment out of our busy, uh, podcasting schedule to talk to you about Squarespace. You got a big idea. Um, maybe it’s—

Sydnee: A reclining chair.

Justin: A reclining chair that can be used for teeth drilling. Blankets of dragons. Anything that you want to sell, or—
**Sydnee:** Blankets of dragons?

**Justin:** Pictures of blankets of dragons. I don't know, Syd. Like, just an idea! I don't have any ideas! If I had an idea, I would be making it right now, and I'd be using Squarespace. They can showc— you can, uh, use a Squarespace site to showcase your work, blog, or published content, sell products and services of all kinds, and so much more.

They make it... You, you know, so you don't need any sort of web design experience to make a Squarespace website look great. They have templates that were created by super smart experts, uh, a lot of different, you know, uh, domains, where you can register your domain and choose from over 200 different extensions on that, so you can get a nice URL. And, uh, built in search engine optimization and 24/7 award winning customer support!

So, right now, head off to Squarespace.com/sawbones for a free trial, and when you're ready to launch use the offer code "sawbones" to save 10% off your first purchase of a website or a domain! Squarespace: build it beautiful.

It doesn't say that anymore, but I always liked that tagline so I'm just gonna say it still. Build it beautiful. Also this week, a classic. Classic sawbones sponsor.

**Sydnee:** We want to tell you about our underwear.

**Justin:** We're gonna tell you about our underwear, and you just have to sit there and take it. You spend a lot of your time in underwear. Why don't you, uh, uh, uh, treat yourself to the finest underwear experience on the market? That comes to us from MeUndies.

Uh, they are using a coveted... It says here, "coveted" micro modal fabric, which is a full three times softer than cotton, and, uh, they have so many different great styles. It's always a fun print. Makes us so happy. We get the new underwear in and our kids wear them as scarves, and then we take them. Before we wear them on our... butts. [wheezes] They, they, they play with them, and then—

**Sydnee:** Yeah. Once they have been on our butts, we don't let them play with them anymore.

**Justin:** Not at all.
**Sydnee:** But prior to the butts.

**Justin:** They've got a new style, uh, boxer brief with a fly, which is the same great cut as the boxer brief, but now with an added option, if you would prefer to pee through a hole in the front of your underwear. If you're someone so inclined to do that, uh, you may, with this great new underwear innovation.

**Sydnee:** [laughs quietly]

**Justin:** Uh, right now you can get 15% off your first pair, free shipping, and 100% satisfaction guarantee. Just go to MeUndies.com/sawbones. That's MeUndies.com/sawbones.

**Justin:** So Sydnee, you teased me. I think, uh, it's fair to say you teased—

**Sydnee:** Yes.

**Justin:** The historic rebuff, and now I'm ready to get— get— uh, rebuff me.

**Sydnee:** Mm-hmm. So, Harris and, and Hayden, but mainly Harris. Harris was the driving force behind the—behind this at this point. Um, they... Harris approached the physicians at the college of medicine at the University of Maryland in Baltimore. That's where he was, he was working at the time.

And he said, "Hey, I think we need to add, like, a dental instruction course here. You need to have a whole other program, a dental program within the medical school, and, uh, we can get a more rigorous training."

Because at the time, you gotta remember, while he had had all of this training in dentistry and had like, from... apprenticed with actual dentists, there were still a lot of dentists practicing in the country who had little to no training.

**Justin:** Right.

**Sydnee:** Just like doctors, right?

**Justin:** Right, right, right.
Sydnee: Like the— it's the same as the origins of, of medical history, where for a while you could just say you were a doctor if you hung out with a doctor long enough. Um, with dentists it was the same idea, and you also had all the people who were doing the medicine shows at the time where they just went around and, for a few bucks—

Justin: Just saying they were doctors.

Sydnee: Yeah, would just rip your teeth out in front of a crowd of people with circus music playing.

Justin: [laughs quietly]

Sydnee: So he really wanted to add some professionalism. So he went and he said, you know, "This deserves a status as it's own profession and course of study, with licensing and peer-reviewed scientific studies and all this," and the physicians said [dismissively] "Dentistry is of little consequence."

Justin: Aw, man!

Sydnee: [contemptuously] "Go away, Harris."

Justin: Ugh. Are you quoting, or is that just your reenactment?

Sydnee: They did say, "The subject of dentistry is of little consequence."

Justin: They— how little they knew!

Sydnee: That is, that is one thing. I don't— I-I do not know that they said, "Go away, Harris."

Justin: "And also, go away." [wheezes] "We don't want you to— we're trying to have lunch at TGI Fridays."

Sydnee: So, Harris was not— was not stopped by this rebuff, though historic it may be.

Justin: [laughs quietly]
Sydnee: Uh, he persevered, uh, from 1839 to 1840. He went around and gathered signatures from a ton of different citizens to petition the state of Maryland to, uh, start a college of dental surgery at Baltimore. Uh, he had the help of Hayden who, like I said, had this reputation as the father of American dentistry at the time, so he was— you know, his, his help was big.

There were others, there were other dentists who helped, Thomas Bond and William Baxley and Parmly, and all these different people got together and by 1840, he organized the Baltimore College of Dental Surgery, the first dental school in the United States.

Justin: Mm-hmm.

Sydnee: So he, he succeeded, but it was its own thing. It was its own separate entity, this dental school. It had nothing to do with the medical school.

I had to ask the question, why did the doctors say no? Because to just say, "Dentistry is of little consequence." I mean, like, wh— why? That's such a mean... Why were they so determined not to train dentists? What is the— what was the point?

Well, I'm sure there are lots of different answers to this, and nothing is ever as simple as one reason. I did find some speculation that it had to do with the inclusion of a specific doctor/dentist in the, in the proposal, and that was Henry Willis Baxley. He was among the... Like I mentioned him, he was among the guys who helped found the dental school.

Like I said, he was a— he was medically trained. He was born in Baltimore and went to the University of Maryland, and he got his MD. there. Uh, he worked in and around Baltimore, at the penitentiary and at the general dispensary.

Um, he, he was working at the University of Maryland as a demonstrator of anatomy in 1834, and in 1837 he became, uh, the professor of anatomy. Like, the chief of anatomy there.

This might be why there was so much opposition. This specific guy, because at this moment in history there was this huge struggle at the University of Maryland between the faculty and the board of trustees.
Uh, the legislature had gotten involved and had taken a lot of power away from the faculty and the regents to like, decide their own thing, who's chief, who gets to teach this class, who gets to give these lectures, whatever.

The trustees had come in and said like, "We don't like what you're doing. We're gonna take over. We're gonna start appointing people."

The faculty didn't like this kind of oversight. This was not really supposed to be the arrangement. This is not typically stuff that trustees do, so the faculty rebelled and a bunch of them quit, so the trustees appointed their own people.

This was very dramatic, it went to court! You're looking at me like this is no big deal, it was a famous court case!

**Justin:** No, it's just— it—

**Sydnee:** Regents v. Trustees! It was a huge deal!

**Justin:** No, no, no. I'm not looking at you like it's no big deal. I'm, I'm just like... Finish, and I'll tell you why, why I'm laughing.

**Sydnee:** Baxley got caught in the crosshairs of this because he was appointed chief by the trustees, so a lot of the faculty at the University of Maryland did not like him. They didn't trust him. They saw him as, as a turncoat, you know, as an enemy. That he had joined the trustees over the faculty, and so when he was one of the ones who came forward along with Harris and Hayden and everybody else, maybe that's why they were so crappy about it?

**Justin:** It's just so wild that like... "We're gonna change the course of history because we're mad at you, for like, inter— inter-collegiate squabbling."

**Sydnee:** There's some theory that it came from him, that he, because of all this, he was more reluctant to join with like—

**Justin:** Kinda wanted to do his own—

**Sydnee:** "Uh, let's go do our own thing so I can get away from all these guys who hate me." Either way, there's been some speculation that maybe this is why it was so... Complete— I mean, they didn't even consider it.
It wasn't like, "Oh, I don't know. It's gonna be expensive." It was just a "no," and obviously it created a lot of hard feelings.

So from here, dentistry became its own profession with its own schooling. Um, the American Society of Dental Surgeons was organized. Uh, from there the American Journal of Dental Science was founded, the first dental journal in the world.

Um, 'cause this is part of it. If you're going to have a professional organ— if you're gonna have a profession, I should say, the profession itself, you have to have rigorous training. You have to have licensing. You have to have, um, a society that decides, what does it take to be a dentist? What, what bars must you, you know, jump? And all that.

And you have— and, and you have to have research. You have to have people who are researching and writing and sharing this information, so that everybody kind of gets on the same page, right? So that everybody does the same thing.

And so that was really what Harris knew and understood and was helping to form, was the profession of dentistry. Um, and a big chunk of that was teaching dentists.

Uh, and from there on, dentists started regulating themselves and creating their own professional standards, much the same way that physicians did early on, when we talk about like, the origins of the American Medical Association, and the, you know, the... the beginnings of the um, of AOA, like, what is the medical honor society, was a way to like, bring professionalism to medicine.

All of these organizations, they had the same thing with the dental organizations. A way to start structuring. I always thought it was— I found out an interesting point. Horace Hayden was really against a dental journal. He didn't want them to publish a dental journal.

Justin: Why not?

Sydnee: Because he thought that if you wanted to learn stuff about dentistry, it was sort of obscene to learn it from what he called a magazine.

Justin: [laughs]
**Sydnee:** You had to go to school and learn from dentists, from lectures, like in the, in the... great tradition of academics. You couldn't read a "magazine." And so he wouldn't put anything in it.

**Justin:** Do you feel like... There is a lot of ignorance on my part here, so please don't— if you're listening, don't read to much into this 'cause I really don't know. But um, do you think there's some element of gatekeeping in this, too? Like, trying to say, "We can be dentists and you can't."

Um, because there's a lot of dentistry things that like, I'm assuming laypeople could probably do, or at least these tra— more like trades-centric people that had like, apprenticed up. Like, I'm assuming there's probably some things they could do, um, and it, and it makes me wonder if like, there's some element of like, you know, "We are going to do this, so you, you can't."

**Sydnee:** Well, I think that, as you... I read a lot of accounts of the foundings of these... There were multiple early dental organizations. As I kind of mentioned when we talked about, uh, cavities and filling, the amalgam wars separated people out into different dental societies pretty early. And then there was one in the West and one in the East and... So there are all these kind of warring factions of dentists.

**Justin:** God. The amalgam wars is the coolest name for the lamest thing possible. The disparity of coolness between those two things is outrageous.

**Sydnee:** But th— you're right, in that there was a concern that you're trying to make this too hard. And then as we, as we move through history, it cost money to—

**Justin:** Sure, right.

**Sydnee:** Just like— and this is the same for medicine. I'm not picking on dentists. You could— everything I'm saying, you could replace with the word "doctor" and it would be exactly the same.

It cost money to go to dental school. It cost money to pass your exams. It cost money to get a license. It cost money to join these organizations and to stay in good f— you know, good faith with the organizations.
All of this cost money, and you did have dentists who were practicing at the time who probably were doing legit dentistry and weren't part of this and didn't go to school, 'cause it came along after them. They did allow these people to join the organizations.

Justin: They're just kind of ushered in like, uh—

Sydnee: Like, retroactively.

Justin: Retroactively. Okay, right.

Sydnee: Yeah, exactly.

Justin: "You've been a dentist this whole time."

Sydnee: [laughs] "Congratulations."

Justin: "The dentist was inside you."

Sydnee: They actually put people in their dental society without asking them, which was a big scandal.

Justin: Oh no.

Sydnee: Because then people were like, "I wasn't even at that meeting! I don't wanna be in your society! What is it?"

Uh, so as things changed, as there were more and more dental schools, uh, there became this concern again that was kind of the origins of the profession. "What a second. The more we learn, the more research we do, the more rigorous we are about this profession, the more we know... This is medicine! This is—"

Justin: Right.

Sydnee: "This is all part of medicine, and doctors don't know anything about this, and we're not learning about the rest of the body, and we need to know each others' stuff to do this— you know, the best possible way."

And there were some that were concerned that dentistry is moving too far in the direction of fixing problems after they occur, and not preventing them on the front
end, which again, same concern we always have in medicine. Are we too procedure-focused? Are we too, like, treat the problem with medicine focused as opposed to preventive health? How can we stop it?

So in the 1920s, uh, there was a biological chemist named William Gies who took the problem... Much the same way that medical education had what was called the Flexner Report, which was, uh... The Carnegie Foundation sponsored this huge report. It was like, a book sized report about medical education in the US at this point in history. It was right, right before this.

And it was... The basis of what we do in medical education now came from all the critiques in this Flexner Report.

**Justin:** Okay.

**Sydnee:** Similarly, he set out to do the same thing for dentistry. And the Gies Report was published, the Dental Education in the United States and Canada, in 1926.

**Justin:** It's called the Guies Report, not the Guys Report.

**Sydnee:** G-I-E-S? Gees, guys? Yeah. [laughs]

**Justin:** Right, it— [laughs] It sounded like, sarcastically— "So this guy's report..." Anyway.

**Sydnee:** So he went to every dental school in the US and Canada, and he published his report in 1926. And he called for it to be integrated. He said, "Dentistry can no longer be accepted as mere tooth technology." He wanted to—and he— it's great if you read his conclusions, 'cause he says like, "Doctors regard teeth as these strange stone structures in the mouth that—" I mean, it's, it's— I mean, he's right, though!

He's right. Like, doctors don't know anything about teeth, and dentists aren't learning about the rest of health, and so we need to integrate them. We need to put this all together. And he argued for this, but there was tons of pushback, honestly from dentists themselves.

They didn't want to lose their, their autonomy. They didn't want medical organizations and the licensing boards of medical schools and all these different
things. They didn't want them coming in and overseeing their practice, 'cause they knew what they were doing. They were learning this stuff. Doctors don't know anything about teeth, which they're right, so they didn't want all this oversight.

So there was a lot of pushback from dentists themselves who wanted to keep their autonomy, so nothing really changed. There was all this concern, but— and I think dental school... I shouldn't say nothing changed. That part didn't change.

Dental schools took this to heart and changed a lot, in terms of their instruction and the way that they address preventive care and oral health and that kind of stuff, but as far as the integration of dentistry and medicine, that didn't change.

Um, so around this, uh, shortly after this was published, the other issue that came into focus was dental insurance. So we had had health insurance since the 1850s, right? We still didn't have any insurance to cover dentistry. Uh, so you—

**Justin:** Wow.

**Sydnee:** Yeah, there just— it didn't exist. So it actually started in California. The International Longshoreman's and Warehouseman's Union and the Pacific Maritime Association.

**Justin:** [laughs]

**Sydnee:** When asked what might improve their work life, said "You know what would help? If just like we have health insurance, if we could have dental insurance." This was in 1954. And the idea spread really quickly. To start offering dental benefits as well, uh, to attract people to your place of employment. So this was the origin of dental insurance, and it's also why it's completely separate.

**Justin:** Mm, mm. 'Cause it was just a...

**Sydnee:** Because it was just a totally different time in history, and it was added as a whole other thing. And, and because we see the two things as separate. Um, there have been calls for reform to integrate the two better since then. In 2000, uh, the Surgeon General issued this huge report, Oral Health in America, and said like, "We need to integrate these better," but again, nobody...
The problem is, at this point all the professional organizations don't want this. Um, and the result of this is, there are over a million visits to emergency rooms each year in the US about dental issues. And the problem with that... If you've ever been to an ER for a dental issue, you'll know this.

There's not much we can do for you in an ER. Dentists are almost never in ERs. I've— there's never been one in our ER, certainly. Um, I'm sure there are places where that happens but not, not around here.

And when someone comes in with a dental issue, the best I can do is, if I think there's infection I can give you an antibiotic. If you're in pain, I can give you some medicine for the pain. I can refer you, you know, but I can't... Even when we admit people for oral problems that we think the oral surgeon needs to come see them, or the maxi— for us, it's a maxillofacial surgeon who will come see them. Or actually— no, I should say he's an oral surgeon and a dentist, too. He went to all the schooling, at our hospital.

But, uh, sometimes it's just a follow-up. Like, it'll just be reviewed and say, "Well, just come see me in the office." Um, it's hard to get into a dentist if you don't have dental insurance, just like it is with a doctor. Again, I'm not picking on dentists. These are all the same for doctors.

But doctors don't know anything about teeth, so you come to the ER, we can't help you. We tell you to go see a dentist. If you can't afford it, then you're in a terrible position. It's hard to find dentists who will work on sliding scales, just like it is with doctors.

Sometimes you can find like, federally qualified health centers that will work in association with dentists, and they'll help you out. Um, but it, but it's a huge challenge. Medical and dental records are separate. I have no idea what you have— if you're my patient, I have no idea what happens with your teeth. I don't know unless you tell me.

I don't have access to any records. I don't have access to any coding or billing information that would help us like, do research to connect the rest of your body health with your oral health, because the codes are different. It makes research almost impossible.

So like, trying to figure out the origins of tooth decay and gum disease, and why is this patient so much worse off than this one, and how can we help them out
better and prevent this? That research is very hard to do, just from a practical standpoint, because of the difference in coding.

Um, moreover we tend to see oral health as tied to like, a morality thing, right? "Oh, you have bad teeth. You don't take care of your teeth." As opposed to like, "Well, no, you have more tooth decay than another patient. Let's, let's figure out why and help you prevent that." Not like it's a moral failing.

And teeth are tied to our socioeconomic status, right? That's why we call the front teeth the social six. How important it is to have those top front teeth look perfect. Um, that's why we have all kinds of ways of straightening and whitening and veneering and all kind of thing, because teeth are very much tied to your status in this country, and there's a lot of money in fixing teeth and making them look pretty. And so, a lot of dentists need to do those procedures... Again, this is the same as doctors. Procedures pay more than preventive healthcare, and preventive oral healthcare.

So I'd say the same problems exist for both professions. Um, there's also not enough dentists, especially in rural areas. There are places where there's just no access. Even if you have dental insurance, there's no dentists.

**Justin:** I guess— I guess— you know, it's hard, Syd. I've been like, sitting here trying to think about like... I know a decent amount, more than your average Joe about medical training, just 'cause I went through it kind of secondhand with you. And I've been trying to think of like, how— like, what that integration would even look like? Like, I c— I don't even know what that would look like.

'Cause you wouldn't want to treat it like a specialty where you do four years of med school and then do your residency for three years in, in teeth. Like, that seems like a lot of wasted... Like, you wouldn't want the full slate of medical education for every dentist, right?

**Sydnee:** Probably not, yeah.

**Justin:** Like, especially if we have a problem in the pipeline that's gonna slow down getting dentists, make it more expensive, you know, to, to, to do. Um, and I know dentists can like, practice right out of dental school, or at least do a year of res— like, one year of residency. They're not doing the same length of residency that, um—
Sydnee: Well, they're not doing residencies, per se.

Justin: Right.

Sydnee: I've seen that proposed. I've seen a resident—a dental residency proposed. There are some schools where they're doing, um, like joint, uh, undergrad dental school degrees, so you don't have to go for full undergrad and then to dental school. They're like, combining it, which is not a bad idea, honestly, to like, streamline and target the dental education more towards the stuff you need to know.

Justin: Then you think about like, administration-wise, right? Like, if you put dentists into the hospital system, right? They're gonna roll up to people that don't know anything about teeth. I mean, at this point right now, like if we flipped a switch tomorrow, right? Like how—how would that even work? Like, they would have be—they would still be siloed off.

Sydnee: We, we need to, I think—

Justin: Because they don't share the training, you know what I mean? From the...

Sydnee: I think some easy things would be... And I don't know if this is in an undergraduate capacity, like if you want to... Or maybe we just need to have classes in medical school about oral health. And maybe if the dentistry schools could be tied with the medical schools and the universities more, that would help too, where you could have joint classes on oral health as part of whole body health.

And to see the connections, because I think we all need to. I think dentists and doctors don't get enough of each others' stuff, on both sides.

Justin: You almost need to do the first two years together, and then everybody go do your, your own thing.

Sydnee: Yeah, I think there would be a way to integrate like, whole body health and oral health into a single class that we all should take, um, to understand the connections. Because people die of, of originally dental problems. Now, obviously they become much more than dental problems before they become serious
enough to be fatal, but, but people die as a result of things that started out as dental issues.

So it should be the purview of physicians, but at the same time, we can't fix those problems, so it is the purview of dentists, too. There's a lot of overlap, and we both need that education.

Um, but the thing about it, and I think it's the same thing I see and medicine... Dentists push back against a lot of these changes the same way that doctors push back against changes in the healthcare system, because generally the people who are making the changes aren't doctors, and they're not dentists, and they don't really know much about it.

I think if we... 'Cause we need huge changes. I'm advocating, and I have many times on this show, I advocate for universal healthcare, for a single-payer healthcare system. The same should apply to dentistry. It should all be under one umbrella. You should not have to go broke paying to get your tooth fixed, or to get your blood pressure fixed.

I always advocate for that, but I think you have to have doctors and dentists part of this conversation. And that's why it gets so segmented, is because you start trying to interfere with professional autonomy and telling us how to do the things we do each day, but the system still sucks to work in.

So all of a sudden, I have all these new papers to fill out and check marks to make, and you're checking like, am I getting everybody all of their numbers where they need to be, but you're not giving me the support that I need to do it, because the system still sucks.

**Justin:** Right, right, right.

**Sydnee:** And dentists are afraid of the same thing that doctors are. The more oversight, the more organizations, the more... The more the legislatures get involved, the more we have to do, and the patients' lives aren't getting better, and our lives are getting worse.

**Justin:** Right.

**Sydnee:** Um, patients' lives are getting worse, too. Everybody's lives are getting worse. So we need to overhaul the whole system, but yeah, part of it has to be...
I, as a doctor, should know something about oral health. And dentists need to know what happens next.

More about— I think, I think we need to talk more about the origins of tooth decay and gum disease and how we can prevent it, other than brushing. 'Cause that's all we know, right?

**Justin:** Right.

**Sydnee:** Brushing, flossing, go to your dentist. Let's talk more about the origins of that, and then also about how those things interact with the rest of the body. Um, we all need to learn more, because then we could serve our patients better. Doctors and dentists.

Um, there's a great book. Mary Otto, Teeth: The Story of Beauty, Inequality, and the Struggle for Oral Health in America. I got a lot of information from, from that. I would, if you want to more about this, I would recommend that book.

**Justin:** Uh, folks, thank you so much for listening to our program. Um, we are on iTunes and every other podcasting service. If you want to give us a review or a subscription there, we'd sure appreciate it. Um, we have got some merchandise at mcelroymerch.com. That's M-C-E-L-R-O-Y. You can buy our book on Amazon. It's called The Sawbones Book, appropriately enough.

Thanks to the Taxpayers for the use of their song Medicines as the intro and outro of our program, and uh, thanks to you at home for listening! We really appreciate you.

**Sydnee:** And if you're a dentist and you want to come teach me about teeth, I will not rebuff you.

**Justin:** [laughs]

**Sydnee:** [laughs] I will un-rebuff you and welcome the information!

**Justin:** Uh, but, but don't tweet at her, folks. She's got a lot of tweets to read already.

**Sydnee:** [laughs] You can email us!
Justin: You can email.

Sydnee: Email us and tell me about teeth, because I'm still...

Justin: You're gonna say that now, and you're gonna regret it! Ooh, here in a week you'll be like, "These flippin' dentists..."

Sydnee: [laughs]

Justin: "Stop emailing." Uh, that's gonna do it for us this week, so until next time, my name is 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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