

## Sawbones 208: Charcoal

Published November 10<sup>th</sup>, 2017  
[Listen here on TheMcElroy.family](#)

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

[theme music plays]

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

**Sydnee:** And I'm Sydnee McElroy. You sound like you're doing a DJ thing there.

**Justin:** [exaggerated 'cool' voice] Does it sound like I'm doing a DJ thing?

**Sydnee:** Yeah. Are you gonna play some—

**Justin:** I'm Rob Rockley.

**Sydnee:** Are you gonna play some hits of yesterday? And today? And tomorrow?

**Justin:** [normal voice] Um... I'll play hits from every era.

**Sydnee:** Alright. Well, what else you been up to? [laughs]

**Justin:** Well Sydnee, you distracted me by making me very aware of how my voice sounds and now I'm—I had to have a sip of tea.

**Sydnee:** Yeah, you took an extended sip of your tea, away from our podcast. That's not great, but... I thought you were professional, but I guess at least one of us is.

**Justin:** I'm a professional. No. Here comes the thing I was gonna say. Today was the first day—it's always a bittersweet time of year, the first time I had to cook a steak indoors in the pan. Now, Gordon Ramsay, if

you listen to Gordo, he'll tell you this is the way to do it. I love that grilled flavor.

**Sydnee:** Right.

**Justin:** But today, it was too cold. Too cold to grill.

**Sydnee:** It was cold and rainy.

**Justin:** Yeah, it was kinda miserable.

**Sydnee:** Yeah.

**Justin:** But anyway, I still made the steak.

**Sydnee:** It was good.

**Justin:** Thanks.

**Sydnee:** It was yummy.

**Justin:** Wasn't grill good, but it was good. My only problem is this: now what am I gonna do with all this charcoal that I got?

**Sydnee:** [laughs] Is that a problem?

**Justin:** It's a problem.

**Sydnee:** We'll accept it as a problem, for the premise of this podcast.

**Justin:** Yeah, for the premise of the intro, the problem is, I have too much charcoal.

**Sydnee:** Well, Justin, there's a lot of—a lot of people would tell you that there are medical uses for charcoal.

**Justin:** God, that's convenient.

**Sydnee:** Yeah.

**Justin:** So, we're gonna do an episode about it?

**Sydnee:** We're gonna do an episode on charcoal.

**Justin:** Okay, I had a problem about charcoal, and you had an episode about it.

**Sydnee:** I know, it's crazy how that worked out. Like, not planned at all.

**Justin:** It seems to work out for us like that a lot in our intros. Have you noticed that?

**Sydnee:** Pretty much every time we do an episode of Sawbones.

**Justin:** Yeah, it's almost a little creepy.

**Sydnee:** A lot of people have recommended this topic throughout the years, honestly, but even more so recently, 'cause I think this is trendy. I didn't know this was trendy, but this is trendy.

**Justin:** It's on trend?

**Sydnee:** So, thank you to everybody who recommended this, including Gina and Beckett and Jay and Julia and Ellen and Riley and Lea and R and Megan and Kira and Allison and Ashley and Brian and Mariah and Christie.

**Justin:** Wow!

**Sydnee:** Yes.

**Justin:** You sound like the lady from Romper Room at the end. '80s kids will love that one.

**Sydnee:** Yeah, I don't—'90s over here.

**Justin:** [laughs]

**Sydnee:** Yeah, so thank you everybody for making me aware of things that are trendy. 'Cause that keeps me cooler?

**Justin:** Yeah.

**Sydnee:** Sure.

**Justin:** Yeah, plugged in.

**Sydnee:** There is an actual medical use for activated charcoal, and we'll get to that, but we got a lot of other stuff to get through first. Because

the use of charcoal as medicine, specifically activated charcoal, and I'm gonna tell you what that is, dates back to ancient times. So, are you, Justin, have you heard of that difference between charcoal and activated charcoal?

**Justin:** Um...

**Sydnee:** Working in medicine, I know that activated charcoal is something we use and charcoal is something I've never heard of being used. So, that was as far as I knew, initially.

**Justin:** Yeah.

**Sydnee:** Okay. So, activated charcoal is just charcoal that has been chemically or physically processed in some way, usually to like add oxygen to it, to create more surface area.

**Justin:** Okay.

**Sydnee:** So, like, if you look at activated charcoal, it's like a pile of powdery-looking charcoal.

**Justin:** Got it.

**Sydnee:** And the idea is that the more surface area, the more little pores that you have, so the better at, like, absorbing material it is.

**Justin:** Okay. Yes, that makes sense.

**Sydnee:** Yes. So, that is the actual, like, medical charcoal that I will tell you about. There is a use for activated charcoal. Like, a charcoal briquette... I don't really have a great use for.

**Justin:** Okay.

**Sydnee:** Does that make sense?

**Justin:** So, your grand solution won't actually be that helpful to me. Now here's the thing though, I use activated charcoal in all my cooking. It's extremely pricey and unsafe.

**Sydnee:** [laughs] No, here's the great thing though: If you're interested in making activated charcoal, you can. There's a YouTube video for that. It is something you can do at home.

**Justin:** Okay, great.

**Sydnee:** I found multiple descriptions of how to make your own activated charcoal in your house, if you desire.

**Justin:** That sounds so good. I think I might actually throw it off the balcony and forget about it. Forget that it exists.

**Sydnee:** Just leave it and we'll use it next year.

**Justin:** It doesn't stay fresh, it'll go rotten.

**Sydnee:** [laughs] That's not how that works.

**Justin:** Yup.

**Sydnee:** The ancient Egyptians were already using charcoal for the smelting of ores, so it was a substance that they were familiar with, but over time... I guess maybe if you just have something and it's handy, you start to look for other ways to use it? Like, you just have that, like, Alton Brown urge to have a multitasker.

**Justin:** Multitasker, yeah.

**Sydnee:** So, they started taking it orally for any kind of stomach problem.

**Justin:** Orally, just eating the charcoal.

**Sydnee:** Right. Taking small amounts of it by mouth if your stomach hurt, or you were nauseous, or you had diarrhea, or any kind of GI problem. They also used it for unpleasant odors.

**Justin:** I... you...

**Sydnee:** Yeah? I know, this makes sense.

**Justin:** Yeah, right.

**Sydnee:** Yeah. It does.

**Justin:** It does make sense.

**Sydnee:** Now, it doesn't make sense if you consider that the number one cause of unpleasant odors for which they may use charcoal was an open, infected wound.

**Justin:** Oh no.

**Sydnee:** So, dumping charcoal in an open, you know, festering sore...

**Justin:** It'd make you look tough.

**Sydnee:** Yeah, and I mean, I'm gonna say this. Like, I don't know that is necessarily makes it worse. It makes it dirtier.

**Justin:** Right. It's not—it doesn't help.

**Sydnee:** Yeah. I don't know that it's helping, but, you know, I don't know that it's healing it either. Probably did make it smell better.

**Justin:** Sure.

**Sydnee:** Smelled like charcoal.

**Justin:** [laughs]

**Sydnee:** That's pleasant. [laughs]

**Justin:** Yeah. That's a good way to hide it.

**Sydnee:** It was also used for embalming purposes, as well. By 400 BCE, the Venetians were using it to purify water, which is, again, a theme that you see basically up until the 1800s.

**Justin:** And that works. I use—the Brita bottles that we have use charcoal, right?

**Sydnee:** Yeah. Charcoal is used as a water filtration, so that's not—

**Justin:** That's very impressive, then, for these old-timey folk.

**Sydnee:** Isn't it? And the way they would do it is not just to, like, purify or filter water, but they would also char barrels to store the water in for long trips, like overseas. So, on ships they would have big, charred barrels full of water.

**Justin:** I love that.

**Sydnee:** Yeah. And like I said, that continued as a method to preserve water on ships up until like the 1800s. So, that stuck around. Hippocrates of course had a variety of uses for charcoal. 'Cause once you find something that works, just use it for...

**Justin:** Just go for it.

**Sydnee:** Everything.

**Justin:** They got so excited when they found something that actually did something.

**Sydnee:** He agreed with the water purification idea. He also thought charcoal might be good for epilepsy. Because we didn't understand epilepsy at all, so...

**Justin:** Why not?

**Sydnee:** Anything, really. That's one of those that you'll find, like, anything is listed as good for it. Because we had no idea.

**Justin:** We didn't know what was happening, yeah.

**Sydnee:** We have no idea. We don't understand. We think something either magical or...

**Justin:** Demonic.

**Sydnee:** Yes, is happening to you, and we have no idea. So, eat some charcoal?

**Justin:** "We do have a barrel of charcoal."

**Sydnee:** "Will that help?"

**Justin:** "Is that anything?"

**Sydnee:** "Would you like it?" Anemia, it was recommended for. Again, for stomach issues. This is like a continuing theme. Like, all throughout history, like, eat this charcoal if your stomach's upset. Which seems really counter-intuitive.

**Justin:** I know, but it'd be so convenient. You finish your grilling, and it's like, "What am I gonna do with all this charcoal?" The old Justin McElroy problem. Well, good news. You can just eat it.

**Sydnee:** There are people who will tell you, still to this day, that it does.

**Justin:** Oh no.

**Sydnee:** We'll get there.

**Justin:** Not now, though.

**Sydnee:** And also for vertigo, and for anthrax.

**Justin:** [laughs] Is that a persistent problem throughout history?

**Sydnee:** Anthrax?

**Justin:** Yeah.

**Sydnee:** Yeah.

**Justin:** I think we should do an episode about anthrax.

**Sydnee:** We'll do—I'll teach you about anthrax.

**Justin:** Okay.

**Sydnee:** Yeah. It's more common than you would think. I mean, I don't wanna say more common, but like, it's—

**Justin:** Thank you Sydnee, what a great—

**Sydnee:** No, I don't mean that.

**Justin:** What a cool day. What a cool day I'm gonna have tomorrow.

**Sydnee:** [laughs] I mean, it's not this completely, like, unheard-of, never-happens occurrence that I think is many people's perception of anthrax. Like, nobody ever gets it. Well, no, people got anthrax, people get anthrax. Galen—

**Justin:** That was the original title for this podcast. "People get anthrax."



**Sydnee:** [laughs] It just happens.

**Justin:** It just happens, sorry.

**Sydnee:** Deal with it.

**Justin:** That's life.

**Sydnee:** Galen followed suit. He liked the idea, like, Hippocrates' idea that there are lots of uses for charcoal. In fact, he wrote 500 treatises on the uses for charcoal in medicine.

**Justin:** Wow. He was really into charcoal.

**Sydnee:** [laughs] He was really into charcoal.

**Justin:** "I got my new book. Uh, I think it's gonna be a bestseller this time, feel really good about it."

"Uh, Galen, is it, um... is it another book about charcoal?"

"Well... thematically, yeah. There is some charcoal stuff in there, but—"

"I thought we talked about this, Galen. Please. Write about anything else."

**Sydnee:** Over and over again, it's 500 treatises of all charcoal and no fire makes Galen a cold boy.

**Justin:** [laughs]

**Sydnee:** Just over and over and over again. 500 treatises worth. I didn't read them all. Sorry.

**Justin:** [laughs]

**Sydnee:** Pliny—

**Justin:** He does have, like, a dark period. There's a blue period.

**Sydnee:** [laughs]

**Justin:** This is his Sgt. Pepper of charcoal treatises.

**Sydnee:** There's a part where he's like, "Why do we even care anymore about charcoal?" It's like his angsty teenage charcoal period.

**Justin:** “Is anyone even reading this anymore?”

**Sydnee:** [laughs]

**Justin:** “Charcoal will make you live forever. There. Whatever, nobody’s paying attention. My wife left me.”

**Sydnee:** “Screw it.” Pliny the Elder recognized—

**Justin:** My boy.

**Sydnee:** Yeah. He actually, he was right on this one. This is something Pliny got right, that he recognized that it had to be processed in some way in order to work. So, he talked about that, um, he actually talked about burning charcoal would imbue it with properties that gave it, like, benefit before—you know, it didn’t have it before.

Which is kinda right. He’s kind of talking about activated charcoal. Like, he discusses methods, sort of, of creating activated charcoal. So, he’s not wrong. However, he then advised mixing charcoal with honey and putting it on carbuncles, which are like big, infected, abscess-like sores that have multiple heads oozing pus—

**Justin:** Had to get that honey in there.

**Sydnee:** Well, we’ve talked about this before, honey. Honey has it’s—

**Justin:** Honey.

**Sydnee:** Honey. Honey has it’s uses. The honey was probably more beneficial than the charcoal.

**Justin:** Okay, I know honey has its uses. They looved honey back then.

**Sydnee:** Yes. Yes, they did love honey. And also, ingesting charcoal for ulcers and cold sores, he specifically thought it was helpful for.

**Justin:** I’m gonna eat some charcoal, because they’re ingesting enough that is makes me think that maybe they just super, duper, duper like the way that charcoal tastes.

**Sydnee:** Or everyone had pica.

**Justin:** Or everyone had pica, yes!

**Sydnee:** I don't think they did. [laughs]

**Justin:** Okay. Oh, I thought we'd kinda cracked it wide open, you and me.

**Sydnee:** No. For a while, charcoal kinda disappears from medical literature, despite the fact that probably people were still using it. I mean, this is one of those things that was probably widely available, so was still persisting. But you don't see a lot of novel uses for it for quite a while, until the 1700s. And a lot of that, the popularization of charcoal comes up because it was being used to decolor sugar so that it looked, like, cleaner and whiter.

So, it becomes like this more popularly used substance again. And then you start seeing it pop up in medical texts for things. Again, for stomach problems, and also again for things that smell bad, specifically wounds. And I mean, you gotta wonder, like, in that case, are you putting it on the smelly wound because you think it will fix the smelly wound, or because you think it will fix the smelly?

**Justin:** Mm.

**Sydnee:** Mm.

**Justin:** One of those age-old questions.

**Sydnee:** Mm-hmm. Just because you covered it up, doesn't mean it ain't there.

**Justin:** And you were to ask them, they'd probably say, "Don't interrupt me while I'm eating my charcoal, I love it. Crunch, crunch, crunch."

**Sydnee:** [laughs] That would be a really terrible way to practice medicine, if every time you didn't know how to fix something just like, "Put the patient in this room and just shut the door."

**Justin:** And...

**Sydnee:** "We're done."

**Justin:** We're done.

**Sydnee:** "We don't know what to do." [laughs]

**Justin:** “Sorry. We’ll come back later when you’re dead.”

**Sydnee:** “Ah, that wound? That wound we’re gonna cover up so we don’t see it or smell it anymore.”

**Justin:** “Yeah. There. It’s better?”

**Sydnee:** “Have a nice day!” [laughs]

**Justin:** [laughs] “Sorry, we did our best, this is the 1700s.”

**Sydnee:** “That’ll be three chickens and...”

**Justin:** And then...

**Sydnee:** Some wheat?

**Justin:** Chocolate?

**Sydnee:** I don’t know. [laughs] In the 1800s, things got really exciting for charcoal.

**Justin:** [laughs]

**Sydnee:** It really took off.

**Justin:** [newsreel voice] “Charcoal, a substance on the grow!”

**Sydnee:** It really did. You see endless uses pop up throughout the 1800s for charcoal, partially because it started showing up in, like, official pharmacopeias, so like, big giant books of medicine.

**Justin:** Big charcoal got into the game, promoting it with their literature.

**Sydnee:** Yeah. [laughs] Well, they didn’t fund the book, but, like, they—

**Justin:** Didn’t they, Sydnee? Didn’t they?

**Sydnee:** They got in the books. [laughs]

**Justin:** Maybe look a little bit deeper, sheeple.

**Sydnee:** Follow the money.

**Justin:** Follow the money.

**Sydnee:** And again, it was for a variety of illnesses. You see it specifically added to all kinds of poultices. So like, one specific recipe was like, add breadcrumbs and yeast and charcoal together and like, make it into like a paste.

**Justin:** That's pretty close to my bread sauce that I make around Christmas time.

**Sydnee:** Eh... and then smush it onto, like, an ulcer or something that had gangrene, like a big, open, festering wound. Or any kind of open skin cancer that is very painful.

**Justin:** Oh my God.

**Sydnee:** And the recommendation was that it would... be on it. [laughs] It would fix it.

**Justin:** And later, something would happen.

**Sydnee:** Later, something would happen.

**Justin:** It would be worse.

**Sydnee:** It was thought to fix the pain, it was thought to reduce the inflammation, it was thought to fix it without, again, it's hard to say what they thought it was gonna do because they didn't really understand what was going on, but there you go.

**Justin:** Right.

**Sydnee:** It was also thought to be good to stop bleeding, and what's weird about that is like, you see that a lot with powdery substances. So, if you think about a powdered form, and you dump it on an open wound, the idea that it's gonna, like, fill the wound or absorb the blood or something, like, you see that over and over again. And it's not, like, when you think about it physically, it's not this ridiculous idea. It doesn't always work, I'm not saying it always works, but it would look—

**Justin:** It looks like clotting.

**Sydnee:** Right.

**Justin:** It looks like it's gumming up the works, somehow.

**Sydnee:** And there are things that kind of work like that, as styptics to stop bleeding.

**Justin:** Right.

**Sydnee:** That being said, one of the recommendations for bleeding was that you ate charcoal, which again...

**Justin:** Just don't eat it.

**Sydnee:** I don't know, and I certainly don't want somebody who is bleeding out to take time to go find charcoal and eat it.

**Justin:** Right.

**Sydnee:** Don't have a snack. It would often be prescribed for a nosebleed, for that reason. So, your nose starts bleeding and just start taking some charcoal by mouth and... hope?

**Justin:** Something?

**Sydnee:** Yeah. Again, for stomach uses, but it was expanded at this point in history to bad breath, burping, diarrhea, flatulence, acid reflux...

**Justin:** Oh man.

**Sydnee:** And anything, any of the common GI symptoms of pregnancy. So like, constipation or nausea. They would recommend for pregnant women just, you know, eat some charcoal.

**Justin:** Sure, why not.

**Sydnee:** Yeah. [laughs] Baby loves it.

**Justin:** Baby says, "Gotta have my charcoal!"

**Sydnee:** [laughs] A mixture of charcoal and syrup and water and ether was advised for sick headaches, which I think sick headaches, pretty much migraines. They were called sick headaches at the time, but if you read the description, it sounds a lot like migraines. And bismuth and charcoal was advised as a sedative.

**Justin:** Um...

**Sydnee:** I'm not sure that would work.

**Justin:** No...

**Sydnee:** Yeah.

**Justin:** No.

**Sydnee:** But there you go.

**Justin:** The things like sedative bother me, because like, try it once.  
Like—

**Sydnee:** Never matters.

**Justin:** It doesn't matter. Just like, it obviously doesn't. It's supposed to reduce pain. Does it? Because it seems like when you put it on, you would know.

**Sydnee:** Well, and then you're also up against, which we should probably do an episode on at some point too, the placebo effect. Which, everything—everybody—there is somebody who thinks everything works. There is somebody for everything out there, for every cure, for every treatment, for every symptom control thing, someone will think it worked for them.

**Justin:** Right.

**Sydnee:** I guarantee you.

**Justin:** People do it with hiccups all the time. Anyway, uh, what's next? What else, give me the next exciting step in charcoal's journey to now.

**Sydnee:** [laughs] There's more for the 1800s, we're not done yet, but before we finish out that chapter in charcoal history, let's go to the billing department.

**Justin:** Let's go.

[theme music plays]

[ad break]

**Justin:** Take me back, Sydnee. Take me back to the 1800s. Tell me more about charcoal.

**Sydnee:** So we're not done. We were still, and the thing is—

**Justin:** I'm never done with charcoal.

**Sydnee:** The nice thing about this is that like, as we're heading to the apex of when we finally figure out what charcoal is good for, we just had to try everything else before we got there.

**Justin:** Right.

**Sydnee:** So, charcoal was mixed with rhubarb and used as a laxative, charcoal was mixed with burnt brandy for gall bladder disease.

**Justin:** Okay, fine. Got for it.

**Sydnee:** Sure. Some brandy, yeah. If you are bleeding from the bowels, this is one of my favorite descriptions, this is directly from a medical text. "It has been used in enema, finely powdered to 4 ounces of water, thrown up the rectum."

**Justin:** [laughs] Just toss it up there.

**Sydnee:** [laughs] "Thrown up the rectum."

**Justin:** Chuck it right in.

**Sydnee:** Mm-hmm.

**Justin:** Grody.

**Sydnee:** So, there you go. That's not how— for the record, we do not "throw up the rectum," I mean, anything.

**Justin:** You basically do very little throwing in medicine.

**Sydnee:** [laughs]

**Justin:** If you think about it. Throwing is not—

**Sydnee:** There isn't a lot of throwing.



**Justin:** Not a lot of throwing.

**Sydnee:** That's fair to say. And we definitely are not trying to throw anything up or down or into an orifice at any time.

**Justin:** Yeah.

**Sydnee:** Because that's not good.

**Justin:** There's very little tests of skill in medicine, in terms of chucking stuff at people.

**Sydnee:** [laughs] There were other bleeding issues other than I've already mentioned that were treated with it as well. Like, heavy periods, it was a common treatment for. Bleeding from the lungs or from the kidneys, which... those seem like bigger problems than, you know—

**Justin:** Than charcoal can—even charcoal.

**Sydnee:** Than even charcoal could fix.

**Justin:** You dusty black friend.

**Sydnee:** Bleeding related to typhoid fever. So, you'd think the typhoid fever would be the biggest problem there. And in addition, it was used in tooth powders from the era to clean your teeth.

**Justin:** That might work, right? That has a ring of truth to it.

**Sydnee:** Another one that persists today.

**Justin:** Yeah.

**Sydnee:** I don't know if you're just looking for something abrasive.

**Justin:** I mean, yeah. I don't know. Maybe. I don't know, it sounds good.

**Sydnee:** If you rub charcoal on your teeth though, you know they'll, like, they will temporarily be black.

**Justin:** Yes. But maybe if—

**Sydnee:** Not, like, permanently. But your mouth will be black.

**Justin:** Maybe it's a contrast thing. You get used to that and then afterwards you're like "Wow, look at that."

**Sydnee:** "Look how white they are."

**Justin:** "They're so white."

**Sydnee:** Now that all that charcoal's off of them. In 1813, French chemist Michel Bertrand swallowed five grams of arsenic along with some charcoal. Now, he did this because he had a theory that charcoal would be good for treating poisoning.

**Justin:** Heck of a way to test it.

**Sydnee:** And so, Michel went for it. And he survived. And this should have been a lethal dose of arsenic, but it wasn't. He was fine.

**Justin:** What a... that's a big swing.

**Sydnee:** Yeah.

**Justin:** It's a big swing from Michel.

**Sydnee:** Uh-huh. And if that wasn't enough, as we go on to, like, really tough French scientists in history, in 1831, Professor Pierre-Fleurus Touéry, a pharmacist, swallowed charcoal along with ten times the lethal dose of strychnine.

**Justin:** Wah!

**Sydnee:** In front of the French Academy of Medicine. As in, not like in the front yard, but like, he had gathered the French—

**Justin:** "Hey everybody, look at this. I'm about to eat poison."

**Sydnee:** [laughs] Academy of Medicine. I'm picturing all of these very, like, stoic French scientists and doctors, and they're all sitting in a big, like, almost like an operating theatre, and they're all lining the walls and they're all leaning forward and they've got their notepads and they're watching as he, like, stands there and he's like, "Watch me eat this stuff!" And then he eats the strychnine and he eats the charcoal.

**Justin:** I wonder if he told them what he was doing or if he just started eating strychnine.

**Sydnee:** I don't know because, I mean, nobody—there's no documentation of somebody trying to stop him and say, like, "Don't! Don't eat strychnine!"

**Justin:** "No! Pierre!"

**Sydnee:** "Please!" No, they watched him. They took notes. He did fine, he was all fine.

**Justin:** That's impressive.

**Sydnee:** And so, this led to the adoption by many people in Europe of charcoal as an antidote to poisoning.

**Justin:** Okay.

**Sydnee:** So, you see, we were going somewhere in the 1800s. All this weird experimentation with charcoal...

**Justin:** We got there.

**Sydnee:** Took us to a helpful place. When you get to the 1900s, you can find in the British Pharmaceutical Codex in 1911, a list of uses specifically for charcoal. And they talk about the use internally as an antiseptic and an absorbent, which does speak to, like, if there are poisons or something in there.

But you're still seeing mention for a lot of other things, things that we've already talked about, like acid, what they would call acid indigestion or dyspepsia, diarrhea, dysentery. They thought it would remove mucus and stimulate the movements of the stomach and intestine. They thought that if you applied it externally, it was a good deodorant. They talk still about using it for poultices for things that smell bad. [laughs]

**Justin:** Couldn't they have just been happy with the poison thing?

**Sydnee:** That's the thing, like, we're still—"The powder may also be administered on buttered bread in the form of sandwiches." That was a mention.

**Justin:** Yeah, good.

**Sydnee:** If you think about it, if you administer anything on buttered bread in the form of sandwiches, that's—

**Justin:** It's a good way of administering it, for sure.

**Sydnee:** Yeah. Lozenges of charcoal and biscuits were popular forms, and then there were, of course, like I mentioned, tooth powders still in use. It wasn't until the 1900s that US doctors started to take note of what those bold French physicians had done, and also in Japan, they had done some experiments with using it to treat poisoning.

And they attempted it several times in the US when there were—not intentionally, like, I don't have stories of American doctors swallowing arsenic and, you know, charcoal.

**Justin:** Because they already did it. You'd get up there and be like, "Everyone, look, I have an important science thing that I'm about to," but, "We saw it already! Do something more! Do 20 times the lethal dose of strychnine, tough guy."

**Sydnee:** They didn't do that. Instead, they waiting until somebody else, like, was poisoned and said, "Look, you're gonna die, but why don't you try eating this charcoal? I really wanna see what happens." [laughs]

**Justin:** [sings] I'm proud to be an American...

**Sydnee:** [laughs] So, several times when there was a case of toxic exposure or poisoning, they tried it, and they had some success with that. When they did that, what they would do is they would take charcoal and flour and salt and mix that all together.

**Justin:** And then bake it?

**Sydnee:** And then put that in some water.

**Justin:** Okay...

**Sydnee:** And then like, drink it down.

**Justin:** Why?

**Sydnee:** It's just the way they administered the charcoal.

**Justin:** Okay.

**Sydnee:** I mean, they had to—I mean, if you think about it, like, a spoonful—

**Justin:** An ancient Greek guy is like, “You’re crazy. You’re wasting it, you’re losing all the great charcoal flavor. Just eat it.”

**Sydnee:** [laughs] No, I mean, they were putting it in brandy and stuff before. So. But if you think about it, like, if you’re talking about like—first of all, like, something that’s hard or charcoal that is still a solid and you’ve got somebody who’s been poisoned, are you expecting them to like gnaw on it?

**Justin:** I’m just saying we were eating it at some point. I don’t know why we got so wimpy.

**Sydnee:** But it would also be hard if it was in a powdered form. Like, you put a spoonful of that in your mouth and it’s just everywhere.

**Justin:** Yeah.

**Sydnee:** You know?

**Justin:** Ooh, yeah.

**Sydnee:** It’s just everywhere.

**Justin:** Like a Lik-M-Aid that you dump in there.

**Sydnee:** I think about trying to eat coffee grounds, that’s what I imagine it would be like. Just like, everywhere. So, you know, you mix it with some flour and salt and water.

**Justin:** Sure.

**Sydnee:** Make it into a loaf of bread, spread it with butter, eat it as a sandwich. [laughs]

**Justin:** Again, buttered bread.

**Sydnee:** So, in the 1930s, a really—I found this one mention of this very specific, and I found kind of upsetting, use for charcoal. Which was that if a woman had had either an elective abortion or a miscarriage, or if a person had had an elective abortion or a miscarriage, afterwards, they would take like a charcoal—basically like a pencil with a long thin rod of

charcoal, and insert it into the cervix. The thought was that it would prevent infection afterwards.

**Justin:** Yikes.

**Sydnee:** Which sounds highly unpleasant.

**Justin:** Yeah.

**Sydnee:** And they expanded this use to any time after a delivery if they would start to notice an odor.

**Justin:** We just put a pencil in there.

**Sydnee:** Yes.

**Justin:** How did they administer it?

**Sydnee:** Odor thought to be the harbinger of what they used to call child bed fever or puerperal fever, which is really like an infection inside the uterus after birth. But if they smelled something, they would put charcoal up there, which again, like, this sounds like, "We're trying to fight infection," but you're kinda just trying to cover up a bad smell. It's just like the wounds we talked about before, you smell something bad, you don't know what to do about it, let's just cover it up.

**Justin:** Yeah. Nice try, old-timey doctors.

**Sydnee:** Now, today, as I kind of already mentioned, activated charcoal is supported by studies to be used in lots of poisoning situations. It is not an antidote for every single poisoning. It will not work to adsorb everything you can overdose on, every toxic substance, but there are a lot of things that you can use it for. A lot of times it's just a single dose that they'll give you. It's usually in an emergency room situation.

**Justin:** Like a pill?

**Sydnee:** It's actually like a suspension. So, it's like a liquid.

**Justin:** You administer via IV?

**Sydnee:** No, no, like oral liquid.

**Justin:** Oh.

**Sydnee:** It's like a suspension you take. I mean, I guess if you're awake and alert and you can swallow things, you could do that, or if you're not, let's say if you're unconscious or altered or something like that, they could put a tube through your nose down into your stomach, like a nasogastric tube. Deliver it that way.

Anyway, so they do use it in some poisoning situations. There are some medications that we have some evidence that maybe multiple doses of charcoal might be more effective, but again, it's not used for every single poisoning. But there are a lot of times when activated charcoal can be helpful for that.

Now, that being said, there are still a lot of people who tout its benefits for GI problems. You'll see a lot of recommendations to take charcoal if you have gas or if you have stomach cramping or diarrhea or anything like that, or just to keep you regular, you should take charcoal every day.

**Justin:** Just a little charcoal.

**Sydnee:** There have been studies on this, but they're not very consistent. It's really hard to see, like, a routine response to taking charcoal on a regular basis.

**Justin:** Can I ask a stupid question? If we, if it's—so, you eat the charcoal juice and it takes out the bad stuff? Like, it sucks up the bad stuff, right? So, like, why wouldn't that work for, like, stomach acid? You know what I mean? Like, we're talking about...

**Sydnee:** Well, part of what we're dealing with is that, like, it's not gonna bind everything. It's not like it has—it's not like charcoal is a magic substance that knows what your body needs and doesn't need and can carry it out. And you do need stomach acid.

**Justin:** Sure, I mean, that's true. You don't need strychnine.

**Sydnee:** No. [laughs] You know, stomach acid is very, it's important. And yes, there is acid reflux, which is, I mean, not even necessarily the overproduction of acid so much as acid where it shouldn't be. You need acid in your stomach, not your esophagus. So, I don't know that absorbing it with charcoal would really make a difference.

But I mean, the bigger thing is that, I think because it does specifically work to eliminate poisons, it starts to become this "detoxifying agent" in

kind of pseudo-medical circles. And anything like that you'll start to see, like, "Well yeah, use it for anything." Like, I saw it mentioned for hangovers, I saw for high cholesterol, I saw mentions of it for teeth whitening. Still recommended for teeth whitening.

All kinds of like, skin and hair preparations that you'll find of it. Like, put this charcoal-based lotion on your skin, or use this for your hair and it will make your skin clearer and glowier or something. It'll make your hair thicker and fuller. Lots of cosmetic kind of claims from charcoal. And then of course it is, like you said before, it is used in water filters. That actually works. If you look all over Goop...

**Justin:** Oh it's like, all over there.

**Sydnee:** Yeah. Gwyneth Paltrow's lifestyle website where she does push, again, like, pseudo-medical type products. You will find lots and lots of products, like bars that contain, like soaps and stuffs that contain charcoal, sprays that contain charcoal, like, just charcoal sticks that you can, like, put in your bath.

**Justin:** Sure. Why not? It does a cool thing, why can't we just all be excited? It grills steaks and can get rid of poison.

**Sydnee:** And it can save you if you're poisoned.

**Justin:** That's enough.

**Sydnee:** But charcoal is very trendy, and not only that, but you'll find, because it is trendy, and because it is being associated with this, like, wellness kind of lifestyle brand thing, you'll see it incorporated in like, cool food and beverage type things. So for instance, you can find places that sell charcoal ice cream.

**Justin:** Okay.

**Sydnee:** And it is black ice cream.

**Justin:** Ugh.

**Sydnee:** It will make your mouth black. Like, it's wild to see it.

**Justin:** That's so grody.



**Sydnee:** You can find these YouTube videos, but there's like charcoal ice cream out there, charcoal lattes that are very popular some places, all kinds of like, charcoal smoothies and things like that. Again, all kind of aimed at trying to bring you wellness, or balance, or detoxifying you, or something, some sort of non-specific but sounds pretty good medical claim.

**Justin:** Yeah. A better—building on the fact that, like, it does actually do something at some point.

**Sydnee:** It does. It does, I will not—I don't know if this counts as one of our "cure-alls cure nothing," because it does in fact cure something.

**Justin:** Yeah.

**Sydnee:** But if you are actually poisoned, please do not buy charcoal ice cream or lattes. Please go to an emergency room and let them treat you appropriately.

**Justin:** Gwyneth.

**Sydnee:** [laughs]

**Justin:** That is gonna do it for us folks, this week. I hope you've enjoyed yourself. Thank you to The Taxpayers for letting us use their song "Medicines" as the intro and outro of our program. Make sure, this week, you go to listen to another great show on the Maximum Fun network.

I'd recommend Still Buffering. It's a show that Sydnee does with her sisters about how teen life has changed over the years. Last week was about sexual harassment and it's a—

**Sydnee:** And sexism.

**Justin:** And sexism in general, and it was a really, it's a great discussion.

**Sydnee:** Thank you.

**Justin:** I think it's a really great show, and there are fun ones and more serious ones, so pick one and just go listen to the whole thing, because I think you'll like it.

**Sydnee:** Well, that was swell of you.

**Justin:** Well Sydnee, I only endorse products I believe in. Sorry. That's me. Mr. Integrity. That is gonna do it for us, folks.

Oh, one thing actually, I don't think we've mentioned this. We're gonna be at PodCon along with Still Buffering and My Brother, My Brother and Me and bunch of other great podcasts. We're gonna be doing live shows there all weekend—well, I mean, we won't, but there will be live shows there all weekend. We'll just do the one.

But if you wanna come see a live Sawbones and a toon of other shows, go to PodCon.com. It's gonna be in Seattle, December 9<sup>th</sup> and 10<sup>th</sup> at the Washington State Convention Center, and it is gonna be a really fun time. Tickets are 100 bucks. And you should totally come, it's gonna be great.

**Sydnee:** Yeah.

**Justin:** Anyway, that is gonna do it for us, folks. So, until next week, my name is Justin McElroy.

**Sydnee:** And I'm Sydnee McElroy.

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

[theme music plays]

MaximumFun.org  
Comedy and culture.  
Artist owned.  
Listener supported.

[Maximum Fun advertisement]