

Mixing Cocaine and Surgery: William Stewart Halsted (Down the (Science) Rabbit Hole)

(0:00 - 2:45)

What if you needed surgery and I told you that your surgeon was addicted to cocaine? That's not great, right? What if I told you he was a pioneer in his field, a leader at a world-renowned medical centre, he'd take meticulous care of your incision site, and you're still hung up on the cocaine thing, aren't you? Well, let me introduce you to William Stuart Halstead. And don't worry, he hasn't performed a surgery in over 100 years, so I'm guessing he's not available right now. William Halstead began his surgical career in New York in 1880, and he was bold.

Like, we're talking crazy, episode of Grey's Anatomy type bold. And given that one of his colleagues described him as a very muscular fellow, he may have been the McDreamy of the 19th century, I don't know. 19th century ladies, is he a McDreamy? Hit me up in the comments.

He did one of the first ever gallbladder surgeries in the U.S. on his own mother on her kitchen table in the middle of the night. And it's not like he could be like, don't worry, mom, I've done a million of these. He was probably like, I mean, I think it'll work, so... He also gave his own sister a blood transfusion of his own blood.

Now, this was nearly a century and a half ago, so adjust your yardstick accordingly, but even for his time, dude was bold. As a medical intern, he was impressed with Joseph Lister's anaesthetic technique and its superior outcomes. Like, fewer people died with these techniques.

Halstead was always looking for ways to improve surgery, reduce infections, improve suture technique. And when he learned about cocaine's ability as an anaesthetic, Halstead began experiments on himself, his colleagues, and his medical students. While this tinkering eventually increased use of local anaesthetics, especially in dentistry, it unfortunately had another not terribly unexpected outcome.

Cocaine addiction, for Halstead and many of his colleagues. This nearly ruined his career, and it did ruin the careers of most of his colleagues. The only paper he ever wrote on these experiments was an absolute train wreck of incoherency.

A sample. Neither indifferent as to which of how many possibilities may best explain, nor yet at a loss to comprehend, why surgeons have, and not so many, quite without discredit, them could have exhibited seriously any interest in what, as a local anaesthetic, had been recognised in half the surgeons by most someone who had written the subject in hand. That greater part of a somewhat comprehensible paper, which poor health disinclined me to complete.

At least he got that last part right. After failed attempts to kick the habit, he spent several months at a mental health facility, where they treated him for his addiction to cocaine. With morphine.

So he's now addicted to morphine. But he's, like, still really good at what he does. So he's invited to work at the newly opened Johns Hopkins Hospital in Baltimore.

(2:46 - 3:05)

He's absolutely meticulous in his work, dedicated to incision cleanliness, careful tissue handling, controlling bleeding. Talk about OCD. While this seems like exactly what you'd want in a surgeon now, at the time he was so meticulous that his colleagues would often get impatient with him and dubbed a Halstead to be a procedure that took longer than was absolutely necessary.

(3:06 - 4:27)

He actually accidentally made operating with gloves on a thing, when all that cleanliness made his scrub nurse Caroline have a reaction to the antiseptic. Halstead had a pair of gloves made for her, and as it turns out, wearing gloves while working in an open body cavity is a really good idea for everyone involved. He was also innovating surgical procedures.

He was a pioneer in intestinal surgery, vascular surgery, and lots of other things I'm glad were invented before I was born. He experimented with the first radical mastectomies for breast cancer. Radical here meaning root.

They thought they could pull out cancer by the root like a weed. If only you removed enough body parts. Fortunately or unfortunately, we've since discovered that it doesn't entirely work like that.

All of these accomplishments were certainly enough to convince his colleagues that Halstead was no longer an addict. In 1890, he was appointed surgeon in chief at Johns Hopkins Hospital and is considered one of their founding physicians. A few years later, he became a professor of surgery and he established the first formal surgeon training in the country when the School of Medicine opened.

He remained the chief of surgery until his death in 1922, performing innovative surgeries, providing dynamic instruction to surgical students, and taking at least three grains of morphine daily. Thank you for joining me. If you'd like to know more about William Stuart Halstead or go down an internet rabbit hole on any of the topics mentioned today, check out the links below.