

**Dr. James Klosterman**  
**Proponent Testimony on Senate Bill 86**  
**Ohio Senate Health Committee**  
**April 19, 2023**

Chairman Huffman, Vice Chair Johnson, Ranking Member Antonio, and members of the Senate Health Committee,

Thank you for allowing me to testify today. My name is Dr. James Klosterman and I've been an orthopedic surgeon in the Dayton, Ohio area for more than 25 years. Many of the surgeries I perform create surgical smoke so I strongly support Senate Bill 86, the surgical smoke evacuation bill.

First, let me tell you my story. In early December of 2018, I was in a workout class with a family physician, who is a friend of mine. He noticed that I was going to the water bottle frequently. He suggested that I get checked out, so I agreed to do so. I made an appointment with a cardiologist later that week.

I went to the hospital on Friday, December 21, 2018. I was awake during the heart cath. They brought in the cardiac surgeon during the procedure and explained that I had three vessel left side disease, bad enough that I needed urgent bypass surgery. It was so urgent, that they admitted me to the ICU and scheduled surgery for Monday, Dec 24, 2018, Christmas Eve.

I spent those two days in the hospital before the surgery wondering what risk factors got me to this place. I was very active. I had no significant risk factors to explain the severity of the situation I was in. I underwent a triple vessel bypass graft open heart surgery on Dec 24, 2018.

In the fall of 2019, my eyes were opened when I discovered my risk factor that led to my health condition. I read a memo that reported the dangers of surgical smoke in the operating room (OR). It said that surgical smoke contained over 150 chemical toxins and ultrafine particles. Research shows that working in the OR for one day without smoke evacuation was equivalent to "smoking 30 unfiltered cigarettes per day." I had finally found my risk factor! The OR leaders put out a plea to become "smokeless" which I agreed to champion on their behalf. The memo referenced articles from nearly a decade earlier. I heard from the nursing staff that this has been a "common topic" for many years. I have asked many of the surgeons from my hospital and they were not aware of the dangers of surgical smoke until now. I assumed that my body had already suffered the negative consequences of surgical smoke exposure over the years of working in a smoke-filled operating room. I was thrilled that the hospital was taking apparent corrective action. I thought that at least I might be able to protect my new grafts by working in a clean air environment.

The "new smokeless bovie" (electrosurgical pencil with a smoke tube designed within the pencil) was used up until June 2, 2020, when I learned that the hospital discontinued the use of the bovie pencil with the smoke evacuation tube. On that day I had to perform six surgeries without the aid of a smoke evacuator pencil. In other words, my surgical team and I were all exposed to a lot of surgical smoke.

Little did I know that I would be in the ER the very next morning. At 630 am that day, my blood pressure at home was 190/150. I felt I was having “stroke like” symptoms so I asked my wife to take me straight to the ER. I was admitted to the neuro ICU for a “stroke work up”. Most of my acute disability came from the swelling in the cerebellum. I remember the day before very well when I worked the entire day in an OR full of surgical smoke. This became a topic of conversation for most of that day. Was this just a coincidence or was this a contributing factor?

Since then, I am back to work as an orthopedic surgeon. My doctors assume that working in a smoke-filled environment can have negative ramifications, like those I experienced. The danger of surgical smoke in the operating theater has been a problem for well over a decade. The time is now that this hazard be taken seriously! I have been fortunate to have a very successful orthopedic career but I need to work in a smoke-free OR. I actively promote the practice of surgical smoke evacuation for all surgical procedures producing plume. I hope I leave a legacy of workplace safety and clean air in the OR to those surgeons following me and for the entire surgical team. This is a critical legacy. Thank you for giving me the opportunity to tell my story. And thanks for supporting and passing SB86 so we'll have clean air in the OR.