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## Viewpoint: Make U.S. Hospitals Smoke-free

Dr. Anthony Hedley, orthopedic surgeon, Hedley Orthopaedic Institute

It's no secret that smoking is terrible for your health – especially your lungs. That's why most of the country banned it from public establishments years ago. But smoke still flows freely in a place most people consider safe and sterile: hospitals.

No one's lighting up cigars in the labor and delivery ward anymore, yet we're allowing surgical smoke into operating rooms, where patients – including newborns delivered via cesarean section – and their healthcare providers are at their most vulnerable.

Modern surgical tools used in almost every open procedure utilize electric heat to cut skin and tissue and seal blood vessels. The process produces smoke that contains dangerous, toxic chemicals, including many that are also found in tobacco smoke – benzene, toluene, carbon monoxide, and around 150 other substances. These chemicals are known to cause everything from watering eyes and sneezing to serious issues like asthma and cancer. In addition, the smoke can even transmit viruses from the patient's body. That's not what most patients sign up for.

But it's not just patients who are at risk. The biggest victims of surgical smoke are the ones exposed to it most – healthcare professionals like me. More than 500,000 healthcare workers are exposed to surgical smoke every year, and operating room staff can inhale the equivalent of up to 27 cigarettes a day – that's a pack and a half, unfiltered. When they inhale the smoke, the microscopic particles can enter the bloodstream through the blood, spreading viruses and toxins to the rest of the body's organs and tissues.

Several years ago, I was diagnosed with idiopathic pulmonary fibrosis, a life-threatening condition in which the tissue of the lungs toughens up, making it harder and harder to breathe. I was eventually consigned to an oxygen tank 24 hours a day. My life was effectively over. Thankfully, I was able to get both of my lungs replaced, but not everyone is so fortunate.



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I wasn't a smoker, and I didn't work with asbestos or in a hazardous work environment – or so I thought. In fact, I have personally been exposed to over 30,000 hours of surgical smoke while performing 11,000 surgeries. While pulmonary fibrosis is distinct from COPD, the most common smoking-related lung disease, I believe the toxins and deadly substances in surgical smoke destroyed my lungs.

We know this exposure takes a toll on the body. We know many of the substances from the smoke can be detected in bodily substances for days or even weeks. We know operating teams have an almost 50 percent higher chance of respiratory disease than the general public. But we don't yet know to what extent surgical smoke can cause other deadly diseases, and we shouldn't put our health on the line when we step into the surgery suite.

Ever since my traumatic experience with pulmonary fibrosis, I insist every operating room I work in has a surgical smoke evacuation device. These devices are capable of removing nearly all of the smoke, creating a safer and more sanitary environment.

Rhode Island banned surgical smoke from its operating rooms just a few weeks ago, and it's time for lawmakers and voters across the nation to do the same. There's no excuse for inaction. Our physicians, patients and nurses have been exposed to toxic fumes for too long. We banned smoke once, and we can do it again. ■

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