

**The Florida Senate**  
**BILL ANALYSIS AND FISCAL IMPACT STATEMENT**

(This document is based on the provisions contained in the legislation as of the latest date listed below.)

---

Prepared By: The Professional Staff of the Committee on Health Policy

---

BILL: SB 380

INTRODUCER: Senator Garcia and others

SUBJECT: Protection from Surgical Smoke

DATE: March 3, 2023

REVISED: \_\_\_\_\_

	ANALYST	STAFF DIRECTOR	REFERENCE	ACTION
1.	<u>Looke</u>	<u>Brown</u>	<u>HP</u>	<u>Favorable</u>
2.	_____	_____	<u>CA</u>	_____
3.	_____	_____	<u>RC</u>	_____

---

**I. Summary:**

SB 380 requires hospitals and ambulatory surgical centers (ASC) to, by January 1, 2024, adopt and implement policies that require the use of a smoke evacuation system during any surgical procedure that is likely to generate surgical smoke.

The bill provides an effective date of July 1, 2023.

**II. Present Situation:**

Surgical smoke is produced by the thermal destruction of tissue by use of lasers or electrosurgical devices.<sup>1</sup> Surgical smoke has been shown to contain toxic gases, vapors and particulates, viable and non-viable cellular material, viruses, and bacteria.<sup>2</sup>

Potential known health effects from the exposure to surgical smoke include eye, nose, and throat irritation; headache; cough; nasal congestion; and asthma and asthma-like symptoms, but little is known about the health effects from chronic exposure to surgical smoke.<sup>3</sup> Other risks include the transmission of viruses through surgical smoke, for example the transmission of Human Papillomavirus (HPV) through surgical smoke from lasers has been documented,<sup>4</sup> and some researchers have suggested that surgical smoke may act as a vector for cancerous cells that may be inhaled.<sup>5</sup>

---

<sup>1</sup> The National Institute for Occupational Safety and Health (NIOSH), Centers for Disease Control and Prevention, *Health and Safety Practices Survey of Healthcare Workers*, last updated March 30, 2017, available at <https://www.cdc.gov/niosh/topics/healthcarehsps/smoke.html> (last visited March 2, 2023).

<sup>2</sup> *Id.*

<sup>3</sup> *Id.*

<sup>4</sup> *Id.*

<sup>5</sup> United States Department of Labor, Occupational Safety and Health Administration, *Surgical Suite >> Smoke Plume*, available at <https://www.osha.gov/etools/hospitals/surgical-suite/smoke-plume>, (last visited March 2, 2023).

According to the Occupational Safety and Health Administration, recognized controls and work practices for surgical smoke include:

- Using portable local smoke evacuators and room suction systems with in-line filters.
- Keeping the smoke evacuator or room suction hose nozzle inlet within two inches of the surgical site to effectively capture airborne contaminants.
- Having a smoke evacuator available for every operating room where plume is generated.
- Evacuating all smoke, no matter how much is generated.
- Keeping the smoke evacuator "ON" (activated) at all times when airborne particles are produced during all surgical or other procedures.
- Considering all tubing, filters, and absorbers as infectious waste and dispose of them appropriately.
- Using new tubing before each procedure and replace the smoke evacuator filter as recommended by the manufacturer.
- Inspecting smoke evacuator systems regularly to ensure proper functioning.<sup>6</sup>

Additionally, the Joint Commission, a major accrediting organization for hospitals and ambulatory surgical centers, addressed the issue of surgical smoke in its newsletter entitled "Quick Safety Issue 56: Alleviating the Dangers of Surgical Smoke." In the newsletter the Joint Commission recommends that "health care organizations that conduct surgery and other procedures using lasers and other devices that produce surgical smoke should take the following actions to help protect patients and especially staff from the dangers of surgical smoke.

- Implement standard procedures for the removal of surgical smoke and plume through the use of engineering controls, such as smoke evacuators and high filtration masks.
- Use specific insufflators for patients undergoing laparoscopic procedures that lessen the accumulation of methemoglobin buildup in the intra-abdominal cavity. (Surgical smoke is cytotoxic if absorbed into the blood and can cause elevated methemoglobin.) For example, a lapro-shield smoke evacuation device — a filter that attaches to a trocar — helps clear the field inside the abdomen.
- During laser procedures, use standard precautions, such as those promulgated by the Blood-Borne Pathogen Standard (29CFR1910.1030) and the Center for Disease Control and Prevention's Core Infection Prevention and Control Practices for Safe Healthcare Delivery in All Settings, to prevent exposure to the aerosolized blood, blood by-products and pathogens contained in surgical smoke plumes.
- Establish and periodically review policies and procedures for surgical smoke safety and control. Make these policies and procedures available to staff in all areas where surgical smoke is generated.
- Provide surgical team members with initial and ongoing education and competency verification on surgical smoke safety, including the organization's policies and procedures.
- Conduct periodic training exercises to assess surgical smoke precautions and consistent evacuation for the surgical suite or procedural area."<sup>7</sup>

---

<sup>6</sup> *Supra* n. 5.

<sup>7</sup> Quick Safety Issue 56: Alleviating the Dangers of Surgical Smoke, the Joint Commission, available at <https://www.jointcommission.org/resources/news-and-multimedia/newsletters/newsletters/quick-safety/quick-safety-issue-56/quick-safety-issue-56/> (last visited March 2, 2023).

**III. Effect of Proposed Changes:**

SB 380 creates s. 395.1013, F.S., to require that hospitals and ASCs adopt and implement policies that require the use of a smoke evacuation system during any surgical procedures that is likely to generate surgical smoke. The bill defines:

- “Smoke evacuation system” to mean equipment that effectively captures, filters, and eliminates surgical smoke at the site of origin before the smoke makes contact with the eyes or respiratory tract of occupants in the room; and
- “Surgical smoke” to mean the gaseous byproduct produced by energy-generating devices such as lasers and electrosurgical devices. The term includes, but is not limited to, surgical plume, smoke plume, bio-aerosols, laser-generated airborne contaminants, and lung-damaging dust.

The bill requires hospitals and ASCs to adopt and implement the required policies by January 1, 2024.

The bill provides an effective date of July 1, 2023.

**IV. Constitutional Issues:****A. Municipality/County Mandates Restrictions:**

None.

**B. Public Records/Open Meetings Issues:**

None.

**C. Trust Funds Restrictions:**

None.

**D. State Tax or Fee Increases:**

None.

**E. Other Constitutional Issues:**

None.

**V. Fiscal Impact Statement:****A. Tax/Fee Issues:**

None.

**B. Private Sector Impact:**

SB 380 may have a negative fiscal impact on hospitals and ASCs if the hospital or ASC is required to purchase and maintain equipment in order to meet the requirements of the bill.

**C. Government Sector Impact:**

None.

**VI. Technical Deficiencies:**

None.

**VII. Related Issues:**

None.

**VIII. Statutes Affected:**

This bill creates section 395.1013 of the Florida Statutes.

**IX. Additional Information:****A. Committee Substitute – Statement of Changes:**

(Summarizing differences between the Committee Substitute and the prior version of the bill.)

None.

**B. Amendments:**

None.