

# OR Fire Safety Checklist

**Align Your Operating  
Room with AORN Fire  
Safety Guidelines**





# AORN

SAFE SURGERY TOGETHER

The **Association of periOperative Registered Nurses (AORN)** works hard to promote a higher standard of care in hospitals, especially related to surgery. The latest edition of the association's **Guidelines for Perioperative Practice** includes over 1,000 pages of in-depth insights on providing the best perioperative care.

One of the most critical topics covered in these guidelines is **perioperative fire safety**, listed under Environment of Care. While our list doesn't cover all of AORN's recommendations, following these five fundamental guidelines can lay the foundation for improved fire safety in the OR.

In addition to improving the standard of care in your operating rooms, following these guidelines can also help your facility meet safety standards set by The Joint Commission and other accreditors. To ensure your facility meets all requirements set by AORN and The Joint Commission, review the standards and requirements set by each organization.

# Fire Safety Checklist



**Identify potential hazards associated with fire safety and establish safe practices for communication, prevention, suppression, and evacuation. (AORN 4.1)**

- The best way to **identify risks is through internal sources** who monitor the environment on an ongoing basis. This includes regular root cause analyses and proactive risk assessments of high-risk processes.
- Be sure to speak to your team in the OR, including circulators and surgical techs, about seemingly **minor incidents and near misses**. While this data often goes unreported, it is crucial for proactive prevention.
- Credible external resources such as The Joint Commission's Sentinel Event Alerts can also help. Don't forget often overlooked hazards like **fiber-optic light cables**, which should be covered to mitigate risk.



**Develop a written fire prevention and management plan. Include key stakeholders and create an interdisciplinary team that includes perioperative RNs. (AORN 4.2)**

AORN recommends including the following information in your plan:

- Perioperative team members' roles
- Communication procedures
- Methods of prevention
- Processes for safely managing different fire scenarios
- Alarm activation procedures
- Methods to extinguish a fire
- Preferred routes and levels of evacuation
- Description of the facility's fire prevention algorithm
- Required content for, and frequency of, fire safety education
- Frequency of and procedures for fire drills



# Fire Safety Checklist *cont.*

81%

of Surgical Fires  
are Caused by  
Surgical Drapes



**Use ignition sources (e.g., active electro-surgical electrodes, drills, heated probes, lasers, electrocautery devices, fiber-optic light cords, retractors) according to manufacturer's instructions for use and applicable professional guidelines. (AORN 4.5)**

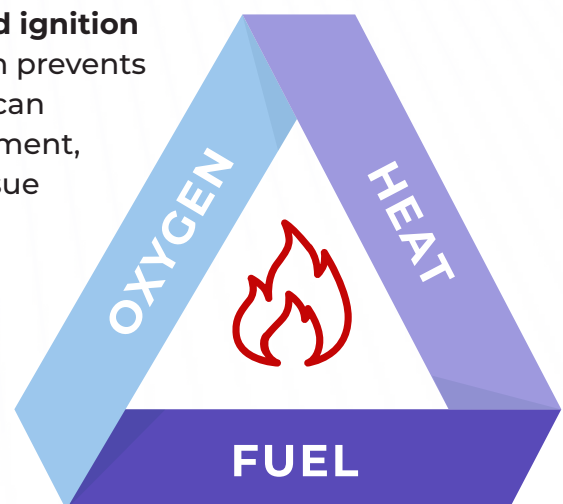
- According to AORN, "Electrosurgical units and lasers can be ignition sources, especially when they are used in the presence of oxidizers, flammable solutions or volatile or combustible chemicals or liquids. A **fiber-optic light cable can be an ignition source** if it is connected to the working element and allowed to contact drapes, sponges, or other fuel sources."
- Adhering to this guideline also **complies with the FDA's recommendation**: "When not in use, place ignition sources, such as ESUs, electrocautery devices, fiber-optic illumination light sources and lasers in a designated area away from the patient (e.g., in a holster or a **safety cover**) and not directly on the patient or surgical drapes."



**Prevent contact between fuels (e.g. alcohol-based skin antiseptic agents, collodion, drapes, ET tubes, gowns) and ignition sources. (AORN 4.6)**

- **Preventing contact between fuels and ignition sources breaks the fire triangle**, which prevents fire. Many common surgical materials can become fuel in an oxygen-rich environment, including drapes and skin, hair and tissue on the patient's body.

**Eliminating the interaction between any of these components means a fire will not start.**

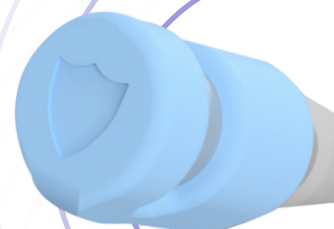


# Fire Safety Checklist *cont.*



**Use oxidizers (including nitrous oxide and oxygen) with caution near any fuel source. According to AORN, an environment is oxygen enriched when the oxygen concentration is greater than 21% by volume. (AORN 4.7)**

- **Avoid an unnecessary increase in oxygen** by verifying that the anesthesia circuit is free of leaks. When an open gas delivery system is used and the surgical site is above the sternum, the surgeon and anesthesiologist should communicate to ensure safe coordination of the oxygen and use of the ignition source.
- Anesthesiologists should use the **lowest possible oxygen concentration**



## About GloShield

Implementing GloShield fiber-optic light cable safety covers help to mitigate fire risk in ORs, as well as protect surgical patients and staff. By automatically shielding light cables when exposed, GloShield helps prevent the interaction of ignition source and fuel in addition to adding robustness and consistency to your surgical fire safety with an engineered solution. Utilization of GloShield can help your organization align with the various guidelines and recommendations from The Joint Commission and AORN. Contact Jackson Medical for additional details, and request your free sterile samples today.

## Fire Safety Resources

[AORN Fire Safety Tool Kit](#) ⬇

[Recommendations to Reduce Surgical Fires and Related Patient Injury](#) ⬇

[Surgical Fire Safety White Paper](#) ⬇

[Surgical Fire Safety Tool Kit](#) ⬇

[Fire Safety Standards and Guidelines](#) ⬇



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