



LOMA LINDA UNIVERSITY

San Manuel Gateway College

## **Surgical Technology A.S. Degree**

### **Occupational Risks for Surgical Technology Program and Profession**

Surgical technologists work in environments that present unique occupational risks and exposures. Hazards include bloodborne pathogens, surgical smoke, sharp instruments, and prolonged standing in high-stress settings. Additionally, the potential exposure to physical, chemical, and biological agents require strict adherence to safety protocols and infection control measures.

This disclosure summarizes the potential risks and safety considerations inherent in the surgical technologist role, to ensure individuals entering the program and profession are fully informed and prepared to mitigate these risks through proper training and protective practices.

#### **Biological Hazards**

- **Bloodborne Pathogens:** Risk of exposure to HIV, Hepatitis B & C, MRSA, COVID-19, and other infectious diseases through blood, bodily fluids, and contaminated instruments.
- **Sharps Injuries:** Accidental cuts or punctures from scalpels, needles, and other sharp instruments.
- **Surgical Smoke Plume:** Inhalation of toxic by-products (e.g., hydrogen cyanide, benzene, formaldehyde) from electrosurgical and laser procedures.

#### **Chemical & Radiation Exposure**

- **Hazardous Chemicals:** Contact with anesthetic gases, sterilants (e.g., ethylene oxide, glutaraldehyde), bone cement, formalin, and cleaning agents.
- **Radiation:** Exposure to ionizing radiation and radioactive substances during fluoroscopy or X-ray procedures.
- **Hormonal Agents & Teratogens:** Exposure to prostaglandins, progesterone, and cytotoxic compounds.

## **Physical & Ergonomic Risks**

- **Musculoskeletal Injuries:** Resulting from prolonged standing, lifting, pulling, and repetitive tasks.
- **Electrical & Fire Hazards:** Risks from electrosurgical units, lasers, and other powered equipment.
- **Latex Allergies:** Reactions from frequent use of latex gloves and products.
- **Unpleasant Sensory Conditions:** Exposure to loud noises and strong odors in the OR.

## **Psychological & Emotional Stress**

- **High-Stress Environment:** Pressure from life-or-death situations, long hours, and the need for constant focus can lead to burnout and emotional fatigue.

*The Surgical Technology program equips students with the knowledge and skills to safely navigate the occupational hazards of the operating room. Through comprehensive training aligned with OSHA guidelines, students learn to properly use personal protective equipment (PPE), handle hazardous materials, and maintain a sterile and safe environment. The curriculum emphasizes risk awareness, infection control, and safety protocols, fostering a culture of safety that helps mitigate the risks of occupational hazards and exposures.*