GUIDELINE *ESSENTIALS*

CASE STUDY

Surgical Attire

Protective Footwear

What kind of footwear do you wear in the OR? Will it protect you from a sharps injury?

Two dermatology researchers evaluated 15 different kinds of shoes and their protection from a dropped scalpel. The shoes were each filled with chicken thighs to simulate feet, and a total of 15 different combinations of scalpels and blades were dropped through PVC pipes, which were positioned at a 90-degree angle to the shoe. Both the shoe and the chicken thigh were analyzed for penetration depth.

Only six shoe materials were found to protect against a possible injury from a scalpel blade. Those shoe materials included

- sneaker suede,
- suede with inner mesh lining,
- leather with inner canvas lining,
- nonpliable leather,
- rubber with inner leather lining, and
- new rubber.

The researchers recommended that in addition to following the Centers of Disease Control and Prevention's universal precautions guidelines, health care personnel, especially those working with scalpels, should wear shoes that either have an inner lining, are rubber, or are steel toed.

TAKEAWAY

Risks for foot injury, such as falling sharps and instruments, are present in the operating room. The Occupational Safety and Health Administration requires the use of protective footwear in areas where such risks are present. The employer is responsible for determining whether foot injury hazards exist and what, if any, protective footwear is required.

Reference

Barr J, Siegel D. Dangers of dermatologic surgery: protect your feet. *Dermatol Surg*. 2004;30(12 Pt 1):1495-1497.

GUIDELINE *ESSENTIALS*

CASE STUDY

Surgical Attire

Transmissible Infections and Stethoscopes

How often do you disinfect your stethoscope?

Researchers at a 221-bed hospital in central Mexico conducted a cross-sectional study to investigate stethoscopes for antibiotic-resistant and potentially pathogenic microorganisms after the facility experienced an increased prevalence of methicillin-resistant *Staphylococcus aureus* (MRSA) infections. The researchers cultured 112 stethoscopes from 12 hospital departments and found that 106 stethoscopes produced at least 1 colony forming unit (CFU). Of those 106 stethoscopes, 58 showed low pathogenic potential (with normal skin flora), and 48 showed pathogenic potential (eg, MRSA, *Staphylococcus aureus, Enterococcus faecalis*).

The researchers discussed how the elevated prevalence of MRSA infections may be related to the contamination of stethoscopes. They stressed the importance of cleaning stethoscopes routinely with antiseptics before and after patient use.

TAKEAWAY

Stethoscopes are considered noncritical patient care items and should be cleaned and disinfected with a low-level disinfectant before each patient use. Cleaning and disinfecting stethoscopes may lower the incidence of health care–acquired infections.

Reference

Campos-Murguía A, León-Lara X, Muñoz JM, Macías AE, Alvarez JA. Stethoscopes as potential intrahospital carriers of pathogenic microorganisms. *Am J Infect Control.* 2014;42(1):82-83.