

# Q&A: Surgical gloving best practices



## About the author



### Dana Weaver, RN, BSN, MHA

Ms. Weaver has 27 years of experience in the surgical services arena, working as a registered nurse in the post-anesthesia care unit and operating room for three years, as an ambulatory care manager for four years and as a director of surgical services for 10 years.

Proper surgical gloving techniques can not only save a hospital valuable time and money, they also benefit both patients and clinicians, according to Dana Weaver, RN, BSN, MHA.

#### **Q: What is the most important rule to follow in terms of best practices for surgical gloving?**

Recent surgical glove innovations and current best practices are helping operating rooms transition from older gloving practices to newer, safer ones. For example, choosing synthetic surgical gloves can help avoid potential allergic reactions to latex, such as itchy skin, rashes similar to poison ivy, sneezing and a runny nose and, in some cases, anaphylaxis. Synthetic surgical gloves are recommended as a best practice by leading health safety authorities such as the National Institute for Occupational Safety and Health (NIOSH)<sup>1</sup>, the Association of periOperative Registered Nurses (AORN)<sup>2</sup> and the American Academy of Allergy, Asthma and Immunology (AAAAI).<sup>3</sup>

#### **Q: Why is screening for latex allergies so important?**

The most common gloving mistake I saw during my clinical experience was clinicians not knowing whether or not a patient was allergic to latex. This mistake occurs for a number of reasons. For example, maybe the patient wasn't screened properly prior to being brought into the operating room. Let's consider a scenario: A patient misses their pre-admission testing visit and, on the day of the surgery, one of the clinicians — perhaps a scrub tech — opens the operating room wearing latex gloves. This clinician will touch the instrument trays, the drapes, the gowns etc., only to find out that the patient shared they have a latex allergy during their pre-op interview on the morning of the procedure. Upon learning of the allergy, the OR has to be broken down and set up again, instruments must be resterilized, etc., causing a delay that could affect the whole OR schedule for the day.

The best-practice approach of using synthetic surgical gloves could help to avoid a scenario like this and help a facility prevent costly OR teardowns and idle OR time.

#### **Q: What is double-gloving and what are the benefits?**

Double-gloving — or wearing two surgical gloves — significantly reduces infection risk for operating room personnel.<sup>4</sup> For a relatively low cost, double-gloving helps provide a high level of protection. One study shows that the interior glove reduces exposure to patient blood by as much as 87 percent when the outer glove is punctured.<sup>5</sup> Wearing a colored underglove, which contrasts visually with the color of the outer gloves, can also help improve occupational safety by increasing awareness of perforations to the outer glove.<sup>6</sup> Clinicians wearing a colored bottom glove can more quickly identify a sharps breach and minimize exposure time.

Double-gloving is recommended for invasive surgeries by many organizations, the Centers for Disease Control and Prevention (CDC)<sup>7</sup>, the Occupational Safety and Health Administration (OSHA)<sup>8</sup>, as well as the American College of Surgeons (ACS)<sup>9</sup> and AORN.<sup>10</sup>

## Q: Are there any drawbacks to double-gloving?

Not all clinicians were trained to double-glove, so adopting the practice may require a change in behavior for some healthcare workers. A change in practice isn't always easy, but making a decision to change based on the potential benefits can be. Because double-gloving has a major impact on clinician safety, it is a trend we see continuing to grow. In 2013, 27 million surgical undergloves were sold, and this number has increased to 51.85 million in 2016.<sup>11</sup>

## Q: While synthetic gloves are recommended by most U.S. health safety authorities, latex gloves are still used. What do you think is driving this trend and how can members of the health industry help stimulate this shift to synthetic gloves?

As with double-gloving, many clinicians were not trained to use synthetic surgical gloves only. Surgeons and nurses have been using latex gloves for years. Making the switch to synthetic surgical gloves requires a change to their daily behavior and practice. However, the field of healthcare has always thrived on its ability to evolve and adopt new technologies, advancements and best practices for the betterment of patients and healthcare workers alike. As members of the healthcare industry, we can continue to educate ourselves and others about the added benefits of switching to synthetic gloves and challenge ourselves to further adopt this best practice.

## Q: How can clinicians choose the right glove for the right procedure?

Before beginning a procedure, care should be taken to select the right surgical gloves. According to the Association of periOperative Registered Nurses' Recommended Practices Guideline for Sterile Technique, gloves used in the perioperative setting should be evaluated and selected for safety, efficacy and cost before use. Many factors should be considered including:

- **Product-specific requirements** — Such as compatibility with existing products
- **Procedure-related requirements** — Defined by what is necessary for the specific procedure
- **End-user requirements** — Such as the degree of protection needed
- **Patient-related requirements** — Taking into consideration the individual needs of the patient

Evaluating the following glove selection criteria through staff trials will help clinicians choose the best surgical gloves for their needs:

- **Protection** — Consider the barrier requirement related to the procedure or task and evaluate glove features such as tensile strength, thickness, puncture resistance, etc.
- **Fit and comfort** — While barrier protection should always be the primary consideration for glove selection, fit and comfort are important factors as well
- **Quality versus cost** — The cost of providing glove protection is always a consideration, but should not supersede quality and end-user considerations

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For more information, visit [cardinalhealth.com/surgicalgloves](http://cardinalhealth.com/surgicalgloves) or contact [surgicalgloves@cardinalhealth.com](mailto:surgicalgloves@cardinalhealth.com).

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1 <http://www.cdc.gov/niosh/updates/latexpr.html>

2 AORN 2015 Guidelines for Perioperative Practice: Guidelines For A Safe Environment Of Care, Part 1. Recommendation VIII.a. Pg 251.

3 American College of Allergy, Asthma and Immunology; American Academy of Allergy, Asthma and Immunology: "AAAAI and ACAAI joint statement concerning the use of powdered and non-powdered natural rubber latex gloves," *Annals of Allergy, Asthma, and Immunology* Vol. 79, Issue 6, Page 487 (December 1997)

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5 Berguer R, Heller PJ. Preventing sharps injuries in the operating room. *Journal of the American College of Surgeons*. 2004;199(3):462-467.

6 Florman S, Burgdorf M, Finigan K, Slakey D, Hewitt R, Nichols RL. Efficacy of double gloving with an intrinsic indicator system. *Surg Infect (Larchmt)*. 2005;6(4):385-395.

7 Centers for Disease Control and Prevention. Guideline for prevention of surgical site infection, 1999. *Infection Control and Hospital Epidemiology*, April 1999, 20(4):247-278. <http://www.cdc.gov/hicpac/pdf/ssguidelines.pdf>

8 Bloodborne pathogens standard. 29 CFR 1910.1030. US Department of Labor – Occupational Safety and Health Administration. [https://osha.gov/pls/oshaweb/owadisp.show\\_document?p\\_table=PREAMBLES&p\\_id=801](https://osha.gov/pls/oshaweb/owadisp.show_document?p_table=PREAMBLES&p_id=801)

9 "Statement on Sharps Safety." American College of Surgeons. October 2007. <https://www.facs.org/about-ac/s/statements/58-sharps-safety>

10 AORN Guideline for Sterile Technique from 2015 Guidelines for Perioperative Practice.

11 GHX Data 2013 – 2016 – All channels