

**SOP**

**SURGICAL HAND GLOVING**

**STERILE TECHNIQUE**

**Department of Surgery**  
**Faculty of Medicine**  
**UWUSL**

# Standard Operating Procedure (SOP) of Sterile Technique of Surgical Hand Gloving

## Title

Surgical Hand Gloving – Sterile Technique

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## Issued By

Department of Surgery, Faculty of Medicine, Uva Wellassa University of Sri Lanka

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## 1. Purpose

To ensure correct, aseptic wearing of sterile surgical gloves in order to maintain a sterile field and prevent surgical site infections and protection of both patient and healthcare worker during invasive surgical procedures

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## 2. Scope

This SOP applies to all medical students, interns, nurses, and healthcare professionals involved in sterile procedures including surgeries, minor operations, and invasive procedures.

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## 3. Responsibilities

### 3.1 Consultant / Medical Officers

- Supervise and ensure compliance with sterile technique.
- Address any breaches in sterile technique intraoperatively

### 3.2 Circulating Nurse / Assistant

- Verify correct glove size before opening the package
- Assist with gloving when requested (assisted/plunge technique)

### 3.3 Medical Students and Health Care Staff

- Perform the procedure according to this SOP.

### 3.4 Infection Control Team

- Monitor adherence
  - Provide training.
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### 4. Indications

- All surgical procedures
  - Sterile procedures (e.g:suturing, catheterization, central line insertion)
  - Any procedure requiring maintenance of a sterile field
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### 5. Contraindications

- Known allergy to glove material (e.g., latex allergy )
  - Damaged or expired sterile glove packs
  - Break in sterile technique (must repeat the procedure)
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### 6. Prerequisites and Materials Required

Ensure the following are available before commencing the gloving procedure:

Item	Specification
Sterile surgical gloves	Correct size; powder-free, latex or latex-free (as per policy)
Surgical hand scrub agent	Chlorhexidine gluconate or povidone-iodine based scrub
Sterile gown (if applicable)	Required before closed gloving technique
Sterile field / surface	Clean, dry, waist-level work surface
Approved scrub attire	Theatre dress, cap, mask, and eye protection

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## 7. Sterile Gloving Techniques

Two methods are used for donning sterile surgical gloves. The technique used depends on the clinical context:

Open Gloving Technique	Closed Gloving Technique
Used when NOT wearing a sterile gown (e.g., bedside procedures, central lines, wound care)	Used when wearing a sterile surgical gown in the operating theatre (preferred method for scrubbed team)

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## 8. Procedure

### 8.1) Assemble Equipment

Before starting the procedure, gather all necessary equipment and place it on a tray or trolley:

- Arrange items so they are within easy reach
- Ensure everything is clearly visible
- Keep the workspace clean and organized

### 8.2) Required Equipment

- Sterile surgical gloves (correct size)
- Sterile gown (for closed gloving technique)
- Handwashing facilities or alcohol-based hand rub
- Sterile field or sterile pack

### 8.3) Steps

**Choose the proper glove size for you.**

Sterile gloves come in a wide range of sizes. These can vary by company.

Try on several different pairs of sterile gloves until you find the right fit. Once you've found the right fit, you will have to discard the gloves you tried on and put a new, fully-sterile pair on. Feel for the following to identify when you have the right size for your hand:

- Ability to move your hands comfortably
- No friction on your skin
- Little to no sweating

- Little or no hand muscle fatigue

Measure hand circumference Measure around the widest part of your palm (excluding thumb) in inches. This measurement corresponds directly to glove size.

Standard sterile glove size:

6.0 – 6.5 → Small

7.0 – 7.5 → Medium

8.0 – 8.5 → Large

9.0+ → Extra large



### **Remove your jewelry.**

Consider taking off any rings, bracelets or other jewelry on your hands. These could contaminate your gloves or make them difficult to put on and uncomfortable to wear. Removing your jewelry also minimizes the risk of your glove tearing.



### **Wash your hands thoroughly.**

Before you touch your gloves or slide on your sterile gloves, wash your hands. Lather up (bubble up) your hands with soap and water. Rub your hands under the water flow for at least 20 seconds. Rinse your hands and wrists thoroughly and then dry them:

- ❖ Use an alcohol-based hand sanitizer if you don't have soap and water.
- ❖ Some types of sterile procedures require a different type of soap and a different amount of scrubbing type



### **Keep your hands above your waist.**

Once your hands are thoroughly clean, avoid letting them fall below your waistline. Holding them above this level can minimize the risk of contaminating them. If your hands do fall below your waist, repeat the hand-washing process before putting on your gloves.



### **Open the sterile glove package**

Inspect the package for tears, discoloring, or dampness, and discard if the package is compromised.

Open the outer wrap of the pack.

Make sure to open from top then bottom and then on the side. Remember, you only have a 1 inch margin you can touch. This will expose the sterile inner package that contains your gloves.

- ❖ Note that sterile gloves also have a shelf-life. Before putting on your gloves, ensure that they are not expired.



### **Remove the inner wrap.**

Take out the inner wrap and place it on a clean & sterile surface. Make sure you can see both sterile gloves through the packaging to ensure that you have opened the package properly.



### **Pick up your dominant hand glove.**

Using the non-dominant hand, grab the glove for your dominant hand. Touch only the inside of the glove cuff (the side of the cuff that will be touching your skin). Putting on your dominant hand glove first can minimize the risk of tearing or contamination to the hand you are likely using most.



### **\Place the glove onto your dominant hand.**

Let the glove hang with the fingers pointing downward. Make sure your hands are not below the waist and above the shoulders to ensure the sterility. Then slide your dominant hand into the glove with your palm facing up and fingers open.

- ❖ Remember to touch only the inside of the glove to prevent any potential contamination.
- ❖ Make adjustments only once.



### **Slip on the second glove.**

Put the fingers of your gloved hand into the folded cuff of the other glove and lift it up. Keeping your second hand flat and palm facing up, place the glove over your fingers. Then pull the second glove over your hand.

- ❖ Hold your gloved hand up to prevent touching your bare palm or wrist.



## Adjust your gloves.

Once both gloves are on, you can adjust them. Reach under the cuffed part of each glove to pull them up or make any other adjustments you may need. Do not reach between the skin and the cuff. Smooth each glove out on your hands. They should feel snug without cutting off your circulation or feeling uncomfortable



## Check the gloves for tears.

Look over each hand and glove thoroughly. If you notice any visible rips, tears, or other issues, re-wash your hands and put on new gloves.



Note: Again **keep the hand above the waist** until perform the procedure to avoid contamination

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## 9. References

1. World Health Organization (WHO). Glove Use Information Leaflet. WHO Press;
  2. Association of Surgical Technologists (AST). Standard of Practice for Gowning and Gloving
  3. Centers for Disease Control and Prevention (CDC). Guideline for Prevention of Surgical Site Infection.
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### Edited by:

Dr Samira Janaka Jayasinghe  
Consultant General Surgeon  
Senior Lecturer & Head of the Department  
Department of Surgery  
Faculty of Medicine  
Uva Wellassa University of Sri Lanka

Snr. Prof. Muditha Vidanapathirana  
Dean  
Faculty of medicine  
Uva Wellassa University of Sri Lanka

Dr. T. Tharanitharan  
Temporary Demonstrator  
Department of Surgery  
Faculty of Medicine  
Uva Wellassa University of Sri Lanka  
Date of Implementation: 08/04/2026

### Submitted by:

Dr. T. Tharanitharan  
Temporary Demonstrator  
Department of Surgery  
Faculty of Medicine  
Uva Wellassa University of Sri Lanka

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