

Study Guide: Surgical Asepsis

Overview

This guide covers the key concepts and procedures for maintaining a sterile environment during patient care. Use it to reinforce your understanding of medical versus surgical asepsis, sterile technique principles, and step-by-step procedures for setting up and maintaining a sterile field.

1. Levels of Asepsis

Medical asepsis, modified sterile technique, and surgical asepsis differ in barrier precautions and equipment sterility.

Level	Gloves Used	Equipment	Typical Use
Medical (Clean)	Clean exam gloves	Clean supplies	Routine patient care, vitals, hygiene
Modified Sterile	Exam gloves	Some sterile items	Procedures not requiring full sterility
Surgical (Sterile)	Sterile gloves	All sterile	Invasive procedures, wound care

2. Principles of Surgical Asepsis

1. A sterile object or field is contaminated by contact with any nonsterile surface.
2. Only sterile items may touch other sterile items.
3. The outer 1-inch border of a sterile field is considered contaminated.
4. Keep sterile fields and items in sight, at or above waist level.
5. Do not reach over or turn your back on a sterile field.
6. Sterile items have expiration dates—always verify before use.
7. If in doubt about sterility, discard the item and replace it.
8. There are no “gray areas” in sterility: sterile can only touch sterile.

3. Nurse’s Role Before a Sterile Procedure

- Verify patient allergies (latex, antiseptics)
- Assess pain level and readiness—maintain patient comfort
- Position patient and equipment for easy access and good visualization
- Perform hand hygiene thoroughly
- Gather all necessary sterile supplies and check expiration dates
- Ensure work surface is clean, dry, and waist level or above

4. Setting Up a Sterile Field

1. Place a clean, dry surface or sterile drape at waist level.
2. Remove the outer wrapper without touching the inner sterile package.
3. Open the first flap away from you, then the side flaps, finally the flap toward you.
4. Touch only the 1-inch border when handling the sterile package.
5. Reach in carefully to add sterile items in the order of use.

5. Donning Sterile Gloves

1. Check glove package integrity and expiration date.
2. Perform hand hygiene and allow hands to air dry.
3. Open glove wrapper, touching only the outer edge.
4. Pick up the dominant hand glove by the folded cuff; insert hand without touching outside.
5. Slide the non-dominant hand under the cuff of the second glove, then adjust both gloves.
6. Always keep hands in view and above waist level.

6. Adding Items and Fluids

Sterile Items

- Flip or drop items onto the field without touching the 1-inch border.
- Use a sterile transfer (with sterile gloves) for direct placement.

Sterile Fluids

1. Remove the cap, placing it face up on a clean surface.
2. “Lip” the bottle: pour a small amount into a waste receptacle before filling the sterile container.
3. Pour steadily without splashing or touching the rim to the sterile receptacle.

7. Common Breaches and Corrections

Breach	Why It has Contaminated	Corrective Action
Touching the 1-inch border	Border is considered nonsterile	Replace drape or repack supplies
Reaching over the field	Air currents can carry microbes	Reposition yourself or supplies; reset the field
Turning back on the sterile field	Unknown contact with nonsterile area	Re-establish field with fresh drape and supplies
Expired sterile items	May harbor microorganisms	Discard and use new sterile items

8. Self-Assessment Questions

1. What are the key differences between medical and surgical asepsis?
2. Why must you keep sterile items at or above waist level?
3. Describe the steps for pouring a sterile solution without contamination.
4. List three corrective actions for a breached sterile field.

Misunderstandings about Surgical Asepsis

Misconception 1: “Once Sterile, Always Sterile”

Many students assume a field or instrument remains sterile indefinitely. Sterility can be lost through unnoticed breaches, expired packaging, or even prolonged exposure to air. Always reassess sterility before use and replace items at the first sign of doubt.

Misconception 2: “Any Glove Will Do for a Sterile Procedure”

It is tempting to grab whatever gloves are handy, but exam gloves are not designed or packaged for sterility. Only gloves labeled “sterile” and opened with strict technique protect against infection. Mixing glove types undermines the entire sterile barrier.

Misconception 3: “Airborne Contamination Isn’t a Big Concern”

People often focus solely on direct contact, forgetting that air currents, talking, and even foot traffic can carry microbes onto a sterile field. Limiting movement and keeping doors closed are as critical as gowning and gloving.

Misconception 4: “You Can Multitask and Still Maintain Sterility”

Juggling tasks around a sterile field—like charting or fetching items—increases the risk of accidental breaches. True sterile consciousness means dedicating your full attention to the field whenever you are in or near it.

Misconception 5: “Touching the Edge of a Sterile Drape Is Safe”

That 1-inch border is not there for decoration. It is considered contaminated, so handling or leaning on it compromises everything inside. Always grasp drapes and packages away from this border.

Misconception 6: “Expiration Dates Are Just Suggestions”

Sterile packaging degrades over time—paper tears, seals weaken, and barriers fail. Treat every expiration date as absolute: swap out items promptly and log replacements to stay audit-ready.

Misconception 7: “Double-Gloving Eliminates All Risk”

While double-gloving can reduce needle-stick injuries and minor tears, it does not make you invincible. A puncture through both layers still contaminates the inner glove, so respond to any suspected breach as you would a full compromise.