



# The Principles Of Aseptic Washing hands

# Definition



- **Aseptic** is the state of being free from disease-causing contaminants (such as bacteria, viruses, fungi, and parasites).
- **Antiseptics** (from Greek ἀντί - anti, "against" + σηπτικός - septikos, "putrefactive") are antimicrobial substances

# Improving Hand Hygiene Practice

## Why?



- Bacteria that cause hospital-acquired infections most commonly transmitted via HCW's hands
- Studies have shown that washing hands between patients reduces spread of bacteria in health care
- HCW handwashing compliance rate 40%

# Efficacy of Hand Hygiene Preparations in Killing Bacteria in Health Care Settings



\*Plain or antimicrobial soap & water better than alcohol-based hand rub if hands visibly soiled, or for spore-forming organisms (e.g. *C. difficile*, anthrax),

Antimicrobial soap recommended over plain soap in health care settings.

# Specific Indications for Hand Hygiene

- **Before**

- Patient contact
- Donning gloves for procedures such as insertion of central lines, urinary catheters, peripheral IVs

- **After**

- Contact with a patient's skin
- Contact with body fluids or excretions, non-intact skin, wound dressings
- Removing gloves

# Many personnel don't realize when they have germs on their hands



- Simple tasks can contaminate hands:
  - Taking a patient's vital signs
  - Touching the patient's clothing or linens
  - Touching equipment and furniture nearby

# Soap & Water vs. Alcohol Hand Rub in Health Care Settings

## Soap & Water

- Heavy workloads
- Sinks not conveniently located
- No soap and paper towels available
- Skin irritation from frequent soap/water
- Takes too long
- Use soap & water for visibly dirty hands, spores such as *C. difficile* & anthrax

## Alcohol Hand Rub

- Heavy workloads
- ✓ Easier to locate nearby
- Requires stock maintenance
- ✓ Less irritating to skin
- ✓ Saves time (56 min vs. 18 min in 8 h)
- Alcohol hand rub more effective at reducing bacterial counts on hands compared with soap & water

# Finger Nails and Bling



- Keep natural nail tips < 1/4 inch in length
- No artificial nails or extenders when having direct contact with high-risk patients (e.g., ICU, OR)
- Recommendations on rings unresolved

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# Washing hands



- Hand-washing is one of the most important tools in public health.
- Minimum duration 20 secunde



# The forearm zone should be released from the clothes by raising them



# Place in front of the sink, but don't touch it



# Use special devices open the water



water flow as large as possible, but don't spray areas outside the perimeter of the sink

**water hands by placing them under running water, finger should be directed downwards**



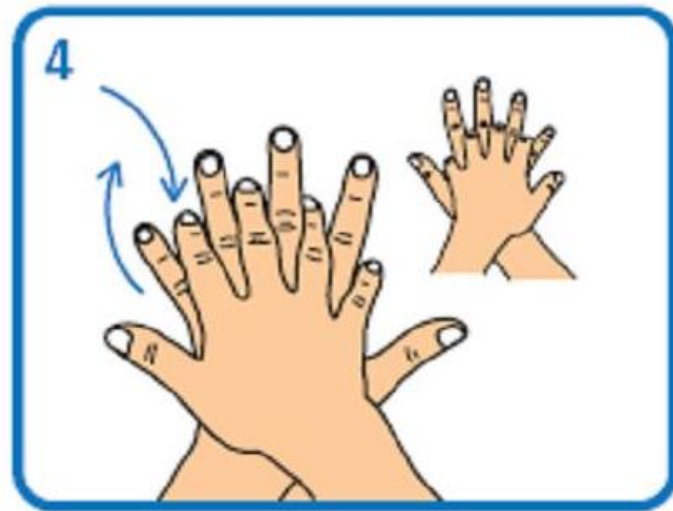
# Take 4-5 ml of soap



# Rub hands: palm to palm, circular direction



**Rub hands: right palm over left dorsum with interlaced fingers, left palm over right dorsum with interlaced fingers**



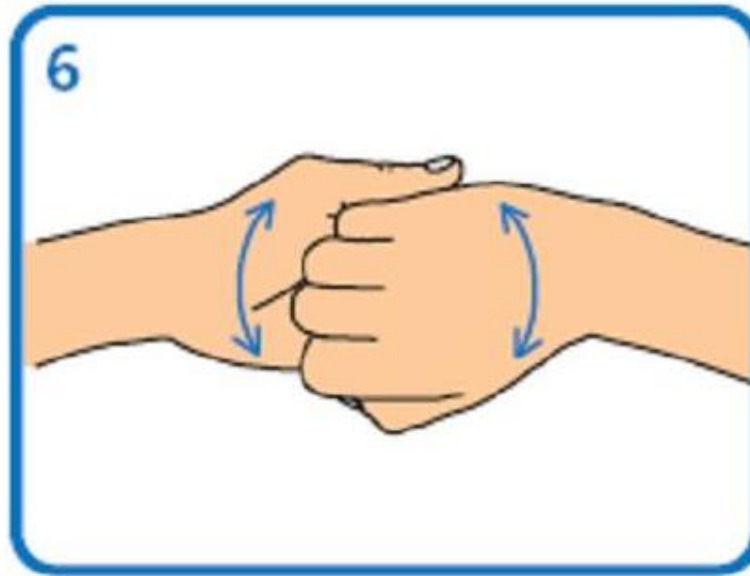
Rub back of each hand  
with palm of other hand  
with fingers interlaced

# Rub hands: left palm over right dorsum with interlaced fingers



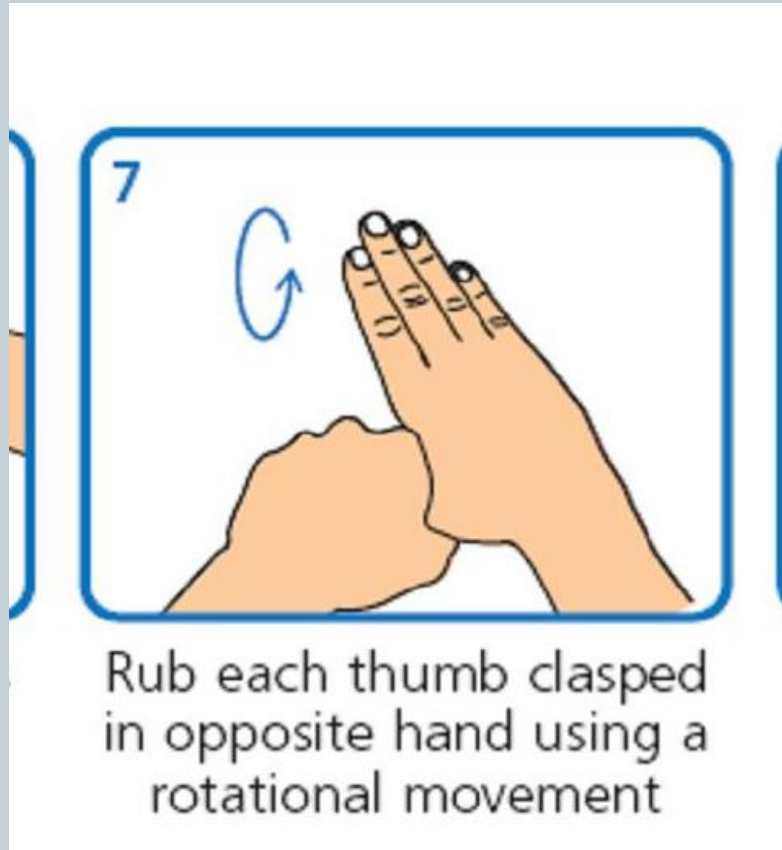
Rub palm to palm with  
fingers interlaced

**Rub fingertips with circular movements,  
backs of fingers to opposing palms with  
fingers interlocked**



Rub with back of fingers  
to opposing palms with  
fingers interlocked

# Rub of thumb: rotational rubbing of the left thumb clasped in right palm and vice versa

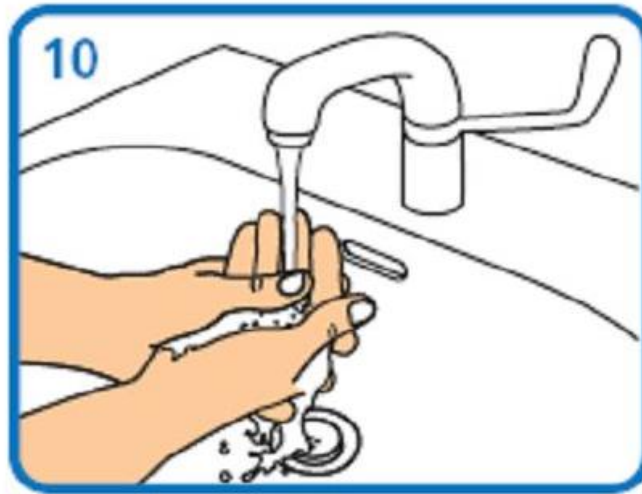


# Rotational rubbing.



Rub tips of fingers in  
opposite palm in a  
circular motion

**Rinse hands by placing them under running water, fingers should be directed downwards.**



Rinse hands  
with water

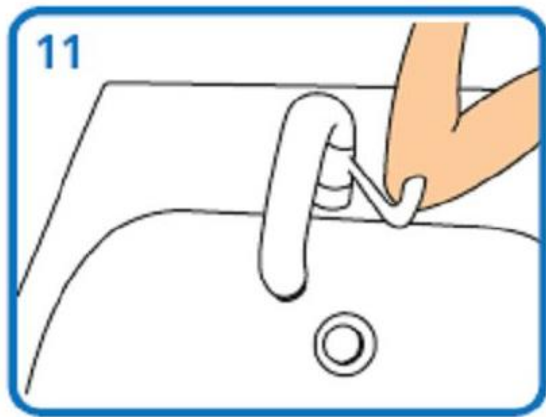
# Dry hands with paper towel: -

- fingertips should be directed up
- by plugging no rubbing
- unidirectional, from fingertip to wrist
- -use a new paper towel switching to other hands

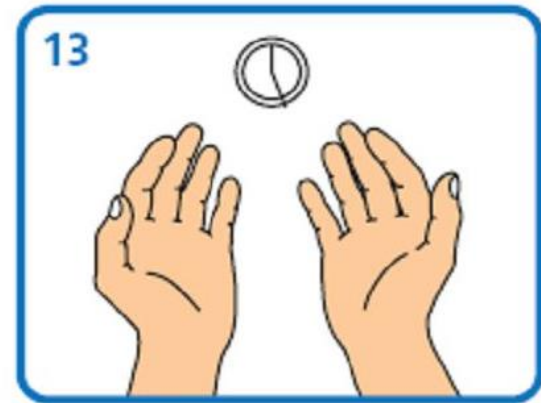


Dry thoroughly with  
a single-use towel

# Close the tap with clean paper towel



Use elbow to  
turn off tap



Hand washing should take  
15–30 seconds