# Care, cleaning and disinfection of
# respiratory equipment
## in sterile services department[1]

Equipment used for respiratory therapy (e.g. items that come into contact with mucous membranes of the patient) is considered semi critical; such items should be cleaned and then be disinfected before connecting to other patient.[2] High-level disinfection of respiratory equipment takes place after cleaning and is typically accomplished by physical methods or chemical germicides.[3]

## STEPS

1. **Perform hand hygiene.**

2. **Don personal protective equipment (PPE)** to protect against splashing, spraying or aerosols.
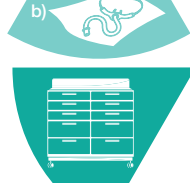
3. **Wash** the equipment with detergent and rinse with clean water.

4. **Disinfect**
   a. **Physical heat** (for heat resistant equipment): e.g. steam, hot water (more than 121°C).
   b. **Chemicals** (for plastic and other parts that can be damaged by heat): e.g. hydrogen peroxide > 0.5%, ethanol 70-90% or 0.1% sodium hypochlorite.**\***

5. **Dry**
   a. **Physical equipment** (e.g. a washer, pasteurizer or autoclave) often has a drying feature within the machine.
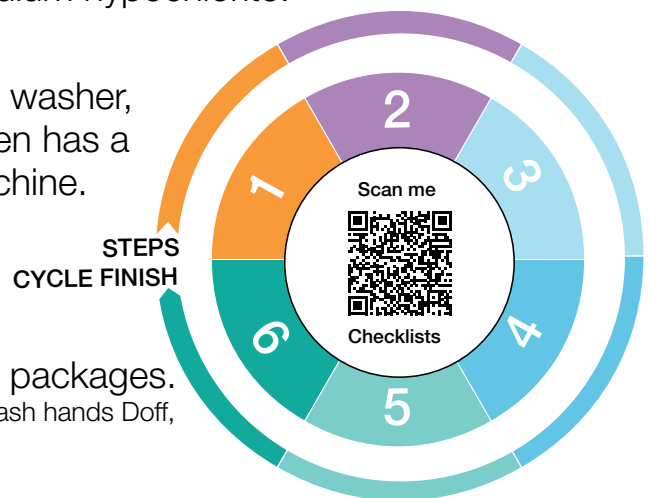   b. For **chemical methods**, let equipment parts air dry on a clean towel or cloth.

6. **Store** equipment dry in closed packages. (Before storing equipment remove PPE- wash hands Doff, discard PPE and perform hand hygiene.)

## CYCLE FINISH

STEPS CYCLE FINISH

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Checklists

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**\*** Disinfectant solutions require preparation and should be used in well-ventilated areas away from patients.
  – Prepare a fresh cloth or disposable wipe soaked in a compatible disinfectant and wipe the device from top to bottom, avoiding contact with electrical connectors.
  – 0.1% sodium hypochlorite (1000 ppm) should only be used if device is known to withstand use of chlorine-based agents and no ammonia cleaning agents or acidic body fluids (e.g. urine) are present on the device.
  – Do not use different disinfectant formulations during the same disinfection step, this may produce toxic fumes.

If chemical disinfection is used, rinse with sterile or clean water (i.e. water boiled for 5 minutes and cooled), or filtered water (i.e. water passed through a 0.2 µ filter), followed by an alcohol rinse and forced-air drying.

1   N.B. It is recommended for all involved in sterile services to review OpenWHO course on Decontamination and sterilization of medical devices: https://openwho.org/courses/IPC-DECON-EN As well as refer to WHO's Decontamination and reprocessing of medical devices for health-care facilities: https://apps.who.int/iris/handle/10665/250232 )
2   Reference: https://www.who.int/publications/i/item/infection-prevention-and-control-of-epidemic-and-pandemic-prone-acute-respiratory-infections-in-health-care
3   Please refer to quality assurance and monitoring sections in WHO Guideline for Decontamination and reprocessing of medical devices for health-care facilities: https://apps.who.int/iris/handle/10665/250232

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