

## Cleaning a Critical Part of Reprocessing

**CLEANING is the most critical part of the whole instrument reprocessing process** – and the part that cannot be objectively controlled very well. However in the ideal world (**not** a specific Standard requirement), post cleaning and drying, items should be inspected under **illuminated magnification glass**, especially serrated edges of forceps, etc looking for any organic material/debris.

When 95% of the organic debris is removed by thorough cleaning, then 95% of the microbes will have been removed. Neither steam or disinfectant penetrate organic material at all well, so the lower the bioburden to inactivate the lower the risk of sterilisation failure.

### Cleaning Hardware Materials:

- Small brush with firm bristles, non abrasive to surfaces
  - able to withstand cleaning agents and the recommended daily brush sterilisation and drying
- Light grade nylon or similar non abrasive, cleaning pad
- Lint free cloths, or disposable low lint cloths, for drying instruments

### General Points re Cleaning:

- Do not allow used instruments (thus organic material) to dry post use – place into liquid (water or detergent) as soon as practicable post use
- Use a commercial ‘medical’ detergent which is low foaming (few occlusive bubbles), alkaline pH 8.0 - 10.8 to best facilitate most organic material removal, and is relatively easily rinsed off removing chemical (toxic/allergic) residues on instruments (e.g. ‘Clinidet’)
- Ideally use separate dedicated containers for collection of dirty/used instruments to delivery of sterilised instruments
- In general ‘Single Use’ items should not be reprocessed (because you or the surgery assume the risk otherwise), and many items e.g. ear tips, are so inexpensive that reprocessing would cost more anyway

### Manual Cleaning Method:

- Always follow manufacturer’s instructions for specific (especially more complex, dismantlable) instruments
- Use Standard Precautions protection, as required (e.g. gloves, face/eye protection, impermeable gown)
- Flush items in warm running water to remove most visible/bulk of blood and body substances
  - hot water coagulates proteins, cold water congeals fats – both harder to remove
- Fill dedicated sink/bowl with warm water and detergent (correct concentration as per manufacturer)
- Open (e.g. scissors) or dismantle all items/instruments before placing into cleaning solution
- Wash all surfaces thoroughly, preferably under water surface (no splashes), or at least low in deep sink to prevent splashes/aerosols during cleaning/scrubbing. Some stubborn material/stains may require non abrasive nylon scouring pad or soaking (**not** abrasive steel wool, or abrasive powders/pastes)
- Rinse items thoroughly post cleaning in warm to hot running water
  - removes chemical/toxic/allergic residues
- **Dry items thoroughly** (ideally with lint free cloths to reduce prolonged standing dust/debris collection)
- Visually inspect each item carefully, especially ‘higher risk’ areas e.g. serrated forcep edges
  - an illuminated magnifying glass provides significant added confidence to this inspection process
  - ideally document this inspection (date, time, initial) in adjacent sterilisation process column to help give evidence/validation of integrity of cleaning process
- If required, and if autoclave is validated for this, wrap/package instruments prior to autoclaving

### Note:

- Disinfection is not required or necessary if items are thoroughly cleaned and then being sterilised
- ‘Clinidet’ is not a disinfectant at all, but a good, commonly used detergent
- Hollow lumens/cannula and hollow plastic tubing both provide particular challenges and care in cleaning

