GUIDELINE

Use post-milking teat disinfection

- Disinfectants
- Water quality
- Mixing directions
- Emollients

- Operator technique
- Assess coverage
- Dip cup cleaning

Bacteria in milk from infected quarters may contaminate the skin of many other teats during milking. For example, after a liner has milked an infected quarter, bacteria may be transferred to the next 5-6 cows milked with that cluster.

After milking, bacteria multiply on the teat skin and may extend into the teat canal. If the whole surface of each teat is disinfected immediately after milking, this spread can be minimised. Teat disinfection also helps to keep teat skin supple and healthy.

Teat disinfection after milking reduces new infections due to contagious mastitis (e.g. infection with bacteria such as *Staph. aureus*) by 50% and is also important in reducing *Strep. uberis* infections. It is one of the most effective SCC and mastitis control measures available, but it only works if it is done thoroughly.

Failure to cover the *whole teat of every cow at every milking throughout the year* is the most common error in teat disinfection.

Teat disinfectants making a medicinal claim (e.g. aid in the prevention of mastitis) are classed as veterinary medicinal products and as such are subject to registration and regulation by the Health Products Regulatory Authority ([www.hpra.ie](http://www.hpra.ie)). If no medicinal claim is made, teat disinfectants may be classed as biocides, and these are subject to registration and regulation by the Department of Agriculture, Food and the Marine.

[www.pcs.agriculture.gov.ie/registers/biocidalproductregisters](http://www.pcs.agriculture.gov.ie/registers/biocidalproductregisters)
[www.hpra.ie/homepage/veterinary/veterinary-medicines-information/find a medicine/](http://www.hpra.ie/homepage/veterinary/veterinary-medicines-information/find a medicine/)
7.1 **Use a recommended teat disinfectant**

Select a product based on duration of activity, speed of bacterial kill and ability to function in the presence of organic matter. For mixing purposes, farm water must be of very high quality.

7.2 **Use a ready to use (RTU) product or mix a fresh batch every day**

RTU products are recommended as best practice, particularly for farms experiencing difficulties sourcing water of adequate quality or mixing solutions consistently.

7.3 **Use water of very high quality when disinfectant is being mixed on farm**

Cooled water from the hot water source is ideal.

Water with high organic matter content (for example, from tanks or rivers) is unacceptable because of the inactivation of the disinfectant, and the risk of contamination with bacteria such as *Pseudomonas*. *Pseudomonas spp.* can cause very severe mastitis which is virtually impossible to treat.

Water very high in minerals is also unacceptable.

7.4 **Mix all products according to the label directions**

This is especially important for iodine-based teat disinfectants. The iodine content of milk depends on many factors, including the iodine content of supplemental feed, and teat dipping with iodine-based disinfectants. The iodine content of the teat disinfectant has the potential to significantly increase the iodine concentration of milk. This is extremely important for milk destined for the infant milk market as high levels of iodine are unacceptable. Therefore, extra care must be taken when using iodine teat disinfectant products and they should only be used according to the label instructions.

7.5 **Maintain teat skin condition by using product containing an emollient such as glycerine**

Ready mixed products containing emollient are the recommended option as incorrect mixing of teat disinfectant, water and emollient can lead to the end product being totally unsuitable for controlling mastitis. Good emollients include glycerine, lanolin, glycan, sorbitol and lanolinated esters.

Do not exceed 10% glycerine for regular use. Higher levels may interfere with killing power of the disinfectant. If teat condition is particularly bad or irritation of teat skin has occurred with a change in chemical use, glycerine concentration may be increased to 20% but for no more than two weeks.
7.6 Spray or dip the whole surface of all teats after every milking throughout lactation

Ensure the whole teat surface is covered with disinfectant. The entire teat surface touched by the cluster liner must be covered. A drop of teat disinfectant seen at the end of the teat does not indicate adequate coverage. Spray upwards from beneath teats, not from the side. Do not spray cows as they walk past. Dipping is more reliable than spraying for getting complete coverage.

7.7 Check operator technique

Check that at least 15 mL of prepared teat disinfectant is being used per cow per milking if spraying (10 mL per cow per milking if dipping). Adequate volume alone, however, does not ensure teats are being covered. Check the ‘far sides’ of teats of at least some cows after spraying or dipping every day to ensure they are being covered.

Check the spray pattern of spray units. Hold a sheet of white paper 10 cm from spray and spray it like you would a teat. Hollow ring spray patterns miss the teat. If required, change or service nozzles.

7.8 When dipping, clean out dip cup as teat dip gets low - do not just top up the dip!

Minimise the amount of milk or other organic material that accumulates in the dip cup. Clean out immediately if there is dirt or manure dropped into the cup. Wash out the dip cup every day.