

Wet packaging after sterilization

Does this matter?

The objective of packaging materials is to provide a **sterile barrier** and to maintain sterility until the materials are used. If the packaging is damp or even wet following sterilization, it can be assumed that the sterilization has not been successful. Due to its altered structure, wet or damp packaging does not constitute a suitable barrier against microorganisms. Under these conditions microorganisms can multiply, and the sterile goods can as such no longer be stored as sterile goods. The following are often responsible: poor-quality packaging material as well as malfunctions in the sterilizer. Damp or wet packaging can be avoided by following the sterilizer manufacturer's instructions concerning the loading method of the trays and chamber as well as not exceeding the maximum mass defined for the selected cycle. **Wet packaging can be effectively prevented by using the following measures:**

- › Avoid overloading the sterilizer
- › Regular maintenance of the sterilizer
- › Adhere to a suitable cooling time (according to EN 13060 any remaining water droplets on the inner side of the film of laminate pouch shall evaporate within 5 min of end of the cycle)
- › Use the suitable **packaging material** indicated for steam sterilization
- › Use a cycle type compatible with the load to be sterilized
- › Do not exceed the declared maximum mass of instruments for the selected cycle
- › Do not pile up packages on the trays

In addition to the fact that wet packaging is to be regarded as non-sterile and possibly contaminated with bacteria, the need to perform the complete reprocessing procedure again also entails increased add-on costs; the time and work required to do so constitute an extra financial burden for the practice. There are many reasons why damp or wet packaging occurs after steam sterilization (1).

Important to know: For type B benchtop steam sterilizer, it is unlikely that wet packs appear. These vacuum steam sterilizer type B have a drying step where vacuum plays a major role for the **drying phase**.

Bibliography:

- (1) Debabrata Basu, Reason behind wet pack after steam sterilization and its consequences: An overview from Central Sterile Supply Department of a cancer center in eastern India, Journal of Infection and Public Health (2017),10, 235-239.