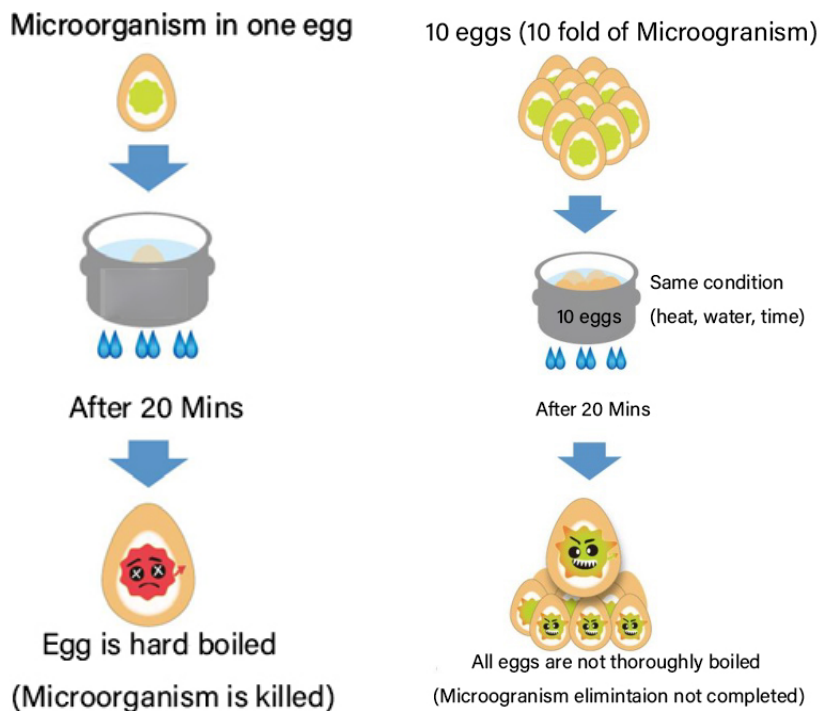


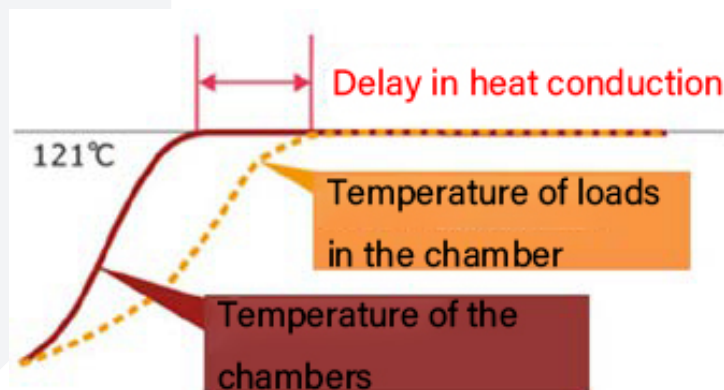
What You Need to Know About Autoclave

Autoclave is nothing new in a laboratory setting and also a must for microbial studies but efficacy of autoclave could be compromised if precautions are not taken accordingly.

1. Delay in Heat Conduction



Take egg boiling as an example, 20 minutes are sufficient for boiling one egg but result in incomplete boiling if the same condition is applied to 20 eggs. Delay in heat conduction accounts for the incomplete sterilization if more items are put in the autoclave as time needed to reach 121 °C would be longer.



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It is therefore the temperature shown on the monitor of autoclave is not the exact temperature of the items being autoclaved.

To combat with such delay, the chamber capacity should be loaded no more than 75%, operation time is suggested to be increased if the loading exceeds 75% of the capacity.

2. The Size and Packing Fashion of Article

Bigger size of article can block the passage of steam and thus compromise the efficacy and efficiency of sterilization, due to the small amount of steam at the bottom of the chamber, packing fashion of the articles at the bottom should be sparse to facilitate better steam circulation. Choice of basket loading the articles matters, basket with pores is more much preferred as it allows penetration of steam through the basket.

3. Full Release of Cold Air

Saturation of steam matters in terms of steam temperature, temperature cannot meet the requirement if cold air is not fully exhausted even though the pressure reaches and hence affect sterilization.

For the application of autoclave bags, pour in 100ml water to squeeze the air out of the bag and leave the bag unsealed. Loosen the cap of vessels if such apparatus is used.

TOMY autoclave is equipped with temperature sensor malfunction detection for real-time monitoring on chamber temperature and pressure, cold air is released when temperature changes to ensure a favourable condition for sterilization.



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