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## Storing Cooked Eggs

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Just because eggs can be stored for some time without refrigeration does not mean the same is true of cooked eggs, according to Science News (August 10, 1985). "In its raw state, the egg has several antimicrobial defenses. The cuticle, or outside portion of the shell, protects the eggs from bacterial invasion as long as this layer remains intact." The shell membrane may be an even more resistant barrier for bacteria. Furthermore an enzyme called lysozyme in the shell membrane and in the egg white destroys many bacteria. Cooking not only inactivates the egg's lysozyme, but also enlarges the shell's pores. But the most important breakdown in defenses may occur when boiled eggs are cooled in water. The contraction of the egg during cooling creates an air pocket which produces a vacuum which can draw in bacteria present in the cooling water.

Eggs that were cooled in water that had been inoculated with botulism spores resulted in the toxin being produced in the eggs. Because botulism bacteria thrive in the absence of oxygen, eggs stored in complete absence of oxygen spoiled first (23 days), those in tightly sealed plastic storage containers in a week and those in open air about 8 days.

So keep these three facts in mind:

1. Hard-boiled eggs spoil more quickly than uncooked eggs and should be refrigerated.
2. Cooling in the air may be preferable to cooling in water, especially if the water is not pure.
3. It is better not to store them in airtight containers.