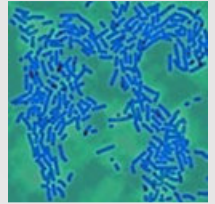
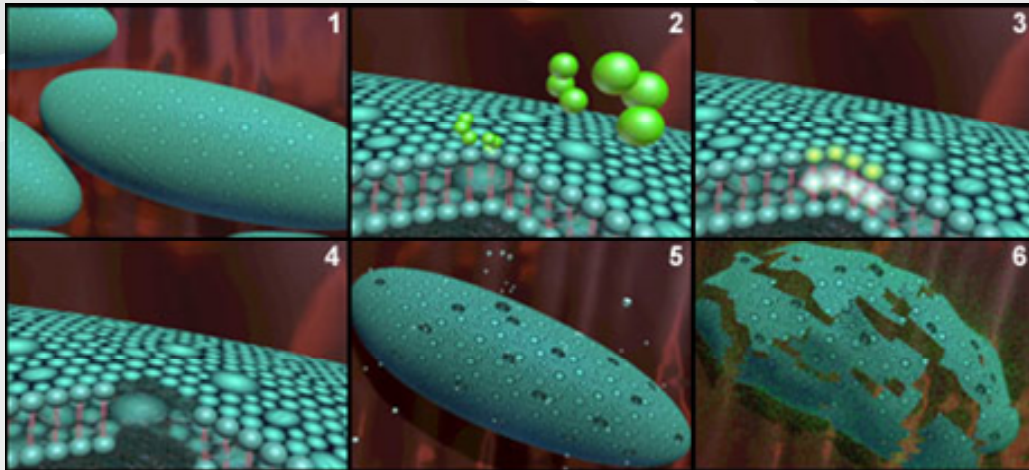




How Does Ozone Kill Bacteria?

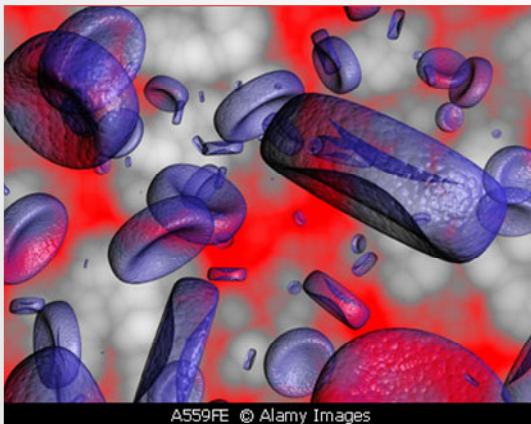


Food Bacteria



Sequence of ozone destroying a bacterium.

- 1 Computer generated model of a bacillus (rod shaped) bacterial cell.
- 2 Ozone (green) comes into contact with the cell wall. The cell wall is vital to the bacteria because it ensures the organism can maintain its shape.
- 3 Once ozone makes contact, a mechanism called an oxidative burst occurs which literally creates a tiny hole in the cell wall.
- 4 A close-up view of the cell wall.
- 5 Image showing the cell after constant bombardment by the ozone.
- 6 After a few seconds, and thousands of ozone collisions later, the bacterial wall can no longer maintain its shape and the cell dies.

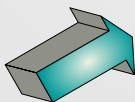


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The human body also protects itself via oxidative burst! White blood cells will seek out bacteria in the bloodstream. The bacteria will envelope the white cell. Once inside the cell wall, the white cell will metabolize water into oxidants such as hydroxyl (OH⁻) & hydrogen peroxide (H₂O₂). This action destroys the cell from the inside out.

In 2002, the Scripps Research Institute department of chemistry in La Jolla, CA discovered chemical signatures similar to ozone were present during oxidative bursts.

Ozone is the most powerful oxidant commercially available!!



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