

Campylobacters

The Fact Sheet

Isolation of sub-lethally injured campylobacters from poultry and water sources.

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Source : Br J Biomed Sci, 1999, 56:1, 2-5

Abstract : Campylobacters are the most common cause of bacterial food poisoning in the UK and are prominent in many other countries worldwide.

Sources that have acted as vehicles of infection in many outbreaks include milk, water and poultry, and these may contain campylobacter cells that are sub-lethally injured and not detected by routine laboratory techniques. Current culture media contain antibiotics to suppress competing flora, and injured campylobacter cells are more sensitive to the antibiotics used and may not grow in these selective media. Therefore, the use of selective broth as the primary culture medium may reduce the isolation rate from samples containing injured cells.

To examine this, various experiments were carried out using naturally contaminated river water and fresh chicken samples. In these samples, campylobacter cells showed varying degrees of sub-lethal injury, with the greatest found in water. A delay of four to eight hours before adding antibiotics to broth significantly increased isolation rate, compared with direct culture in selective broth. With chicken, however, significantly better results were obtained with selective broth as the primary medium.

If you wish to protect yourself and your family from a wide range of undesirable substances commonly found in tap water, you should select point-of-use ceramic water filtration.

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