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Infection

Birds become infected by consuming faeces (the faeco-oral route) and, since they are enteric bacteria, *Campylobacter* Spp. are able to survive in the harsh environment of the digestive tract. *Campylobacter* tends to colonise the lower intestines, especially the caecal region.

This bacterium does not attach itself to the gut wall but remains in the mucus in the caecal crypts. This mucus can protect *Campylobacter* Spp from many of the feed additives that are effective against salmonella. Lesions are rarely formed and invasion of the gut lining is also rare.

Once infected the population of *Campylobacter* Spp. increases dramatically – up to 1,000 million or more per g of caecal contents or faeces.

The colonisation of the caeca is influenced by *campylobacter* genetic factors.

Immunity

Although the establishment of *Campylobacter* Spp. in the caeca is not a true infection, general and local humoral immune responses are often initiated with the appearance of antibodies a couple of weeks after 'infection'. Cellular immunity has not been described.

Antibodies thus produced can be easily transferred to the chick whom they protect against infection.

Public health importance

Campylobacteriosis or *campylobacter enteritis* is a major, if not the major, cause of human food poisoning in many countries. In the third world *campylobacter* is a common cause of infantile diarrhoea.

In man *campylobacter* infection is characterised by a self-limiting watery and/or bloody diarrhoea. Serious complications such as Reiter's syndrome (an arthritis), Guillain-Barre syndrome, nephritis, myocarditis, cystitis, and septic abortion can arise.

Campylobacter can contaminate poultry meat, with up to 70% of the disease in man being epidemiologically linked to the consumption of poultry meat. The importance of a very low infective dose in the epidemiology of human *campylobacteriosis* should not be underestimated.