

Enterococcus cecorum infection in broilers

An experienced Poultry Vet from Vetworks Belgium visited New Zealand recently to discuss *Enterococcus cecorum* infection in broilers. New Zealand appears no exception to this recent pathogenic challenge globally.

Enterococcus cecorum is normally a commensal gut microbe. However, a more pathogenic strain of *E. cecorum* appears to be translocating from the gut in 1-10 day old broilers.

Hilde explained there are two phases to *E. cecorum* flock infection; initially a very early septic phase causes early mortality.

In the second phase the bacterial infection systemically establishes in developing bone joints, and results in a much higher prevalence lameness as birds get heavier. The main clinical signs are femoral head necrosis, tibial necrosis, and kinky back.

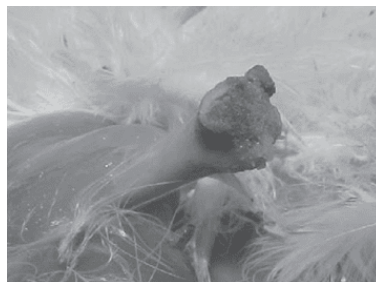
Confounding issues can include young birds under stress from viral or management challenges.



Hilde van Meirhaghe



Normal femoral head



Femoral head necrosis



Bird with kinky back

Hilde discussed reasons for this emerging bird health challenge:

- Early immune challenges facing the bird and allowing systemic infection via leaky gut
- Fast growing modern birds putting more stress on the skeleton resulting in pathogen points of entry to bones
- Rapidly growing birds presenting new nutritional challenges to support skeletal development
- Modern birds may have a less robust immune system to pathogenic *E. cecorum* due to high genetic selection pressure towards swift growth
- *E. cecorum* strains may be more pathogenic

Hilde highlighted the importance of hygiene at all levels of operation, breeder, hatchery and broiler farm, as reducing the number of day old chicks and or flocks infected is crucial.

E. cecorum appears to be a complex issue that impacts productivity, and can become a serious welfare issue also. Also in some flocks skeletal development retardation in hips, knees and vertebrae means fast growing birds can struggle to thrive.

In summary *E. cecorum*

- **Economic impact: from both septic and skeletal pathology**
 - Mortality, higher FCR, culling, and slaughterhouse condemnations
- **Pathogenesis not fully understood**
- **Treatment of lame birds not effective**
- **Prevention: avoid early bacterial translocation and maintain intestinal integrity**
- **Focus on early intestinal health and hygiene**

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