

## Colitis

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Colitis is often seen on farm as a looseness within growing and/or finisher pigs that stains the back end of the animals that are affected, along with forming pools of loose muck in their pens. It can affect them to varying levels, with severely affected groups of pigs losing significant ground on where they should be for their growth curves. Other groups will appear to show very little effect on productivity, although there will still be low levels of damage to the lining of the gut over the affected period.

Causes of the colitis seen on farm are often divided into the infectious and non-infectious groups. Non-infectious is usually down to an imbalance with the gut flora brought about by stresses on the gut environment. Changes in nutrition, either through a swap of ration or through new ingredients, can cause a challenge to the normal inhabitants of the pig gut and hence give mean extra fluid is kept inside the gut contents, seen as looseness as it passes from the pig. Immediately post harvest, following the incorporation of new grains into rations, can give the biggest hit to the pig gut and hence a low/medium level of looseness is a common occurrence at this point.

Infectious colitis can often be seen in parallel with other infections of the whole or small intestine, although it can also present alone. It is caused by *Brachyspira pilosicoli*, a bacterium that is a member of the same family as the one that causes Swine Dysentery (*Brachyspira hyodysenteriae*), and leads to inflammation within the large intestine, which is the final stage before the rectum. It is spread easily within faecal material and so this is the major way that an individual pig can become infected.

Infected pigs often shed the bacterium intermittently over several weeks, even when they are showing no clinical signs. In the environment, the bacteria can survive for up to 210 days in muck and around 66 days in water alone. When directly exposed to disinfectants, it is very susceptible to the majority when not contaminated with dirt.

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### Clinical Signs

The bacterium invades the large intestine (colon) of the pig and causes an inflammatory response (the medical term for inflammation is '-itis', hence it is called 'col-itis'). This inflammation means that this section of the intestine, which usually absorbs huge quantities of the water from the remaining contents of the gut, is unable to function properly.

Large quantities of wet muck are produced of varying colours and consistencies, often being seen as staining around the back end of the pigs where it runs down to the pen floor. Areas of 'cow pat-like' muck can often be found in solid floored pens, although can be more difficult to find on slatted floors.



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Since they are losing large quantities of fluid, the pigs themselves can appear tucked up and dehydrated. If they are running a temperature they will also appear depressed in behaviour amongst their pen mates. In severe cases, small amounts of mucous and/or blood can be seen, although this is not a common finding.

Growth can slow considerably even though their appetites are often unaffected, which is why treatment is often initiated. Left alone, the scour can resolve over a matter of days to weeks, although the impact on individual pigs can be severe.

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## Diagnosis

It is important to distinguish infectious colitis caused by *Brachyspira pilosicoli* from other infections of the gut, some of which can give a complicated clinical picture. Although fresh faecal samples can be taken and submitted to the laboratory, where possible a fresh post mortem will allow a study to be made of the gross pathology within the pig and subsequent samples to be taken. A swollen large intestine filled with fluid and gas can be an indication that colitis is present in the pig.

PCR testing can be very important for identifying whether there are complications from Swine Dysentery or Ileitis, or if it is a single infection causing the colitis. Culture of the bacterium can also be carried out, which then allows further testing to be completed to establish antibiotic sensitivity and hence aid the selection of treatments.

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## Treatment, Control & Prevention

Due to the severe dehydration that can result, treatment of the infectious causes of colitis often needs to be started swiftly to get the best results for the individual pigs and the group as a whole. Use of antibiotics in the water allows a quick treatment to be started and will allow control of the infection and its spread to be reduced – choice of antibiotic should ideally be based on sensitivity results following sampling, especially where resistance has been seen in the past.

Reducing the spread between groups on farm is important to break the cycle between different groups of pigs. Minimising direct contact between batches, through a strict all-in/all-out policy, or indirect contact, by changing boots and overalls between batches, is vital to prevent subsequent batches becoming infected. Thorough cleaning, disinfecting and drying is also critical. Rodents cannot be infected by the bacterium but they can still carry them in their guts and hence contaminate clean areas if rodents are allowed to move freely around buildings – effective rodent control is vital to limiting this.

Keeping the infection out of a unit is the best prevention strategy, with the most common source being pigs brought on to site. Birds can also be a source, so minimising contact between them, their faeces and the pigs is important by obstructing their access to buildings and feed troughs.

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**Please speak to your Vet to discuss any questions you may have**