

# Ileitis Clinical Signs

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The forms of presentation of ileitis in pigs are haemorrhagic or acute, chronic and subclinical.

## ACUTE FORM

The acute form affects young adults from four to 12 months of age, usually replacement gilts or hogs close to market age. It is characterized by an acute haemorrhagic syndrome with profuse bloody diarrhoea or sudden death (McOrist & Gebhart, 2012). Black tarry faeces are often seen at the beginning of the clinical presentation, or when the animal is recovering after being affected by a mild case.

In severe cases, some animals may either die with no faecal alteration, and just show a marked skin and visible mucosa pallor, or have a profuse bloody diarrhoea for a few days before death (Figure 1). Around 50% of the clinically affected animals die, and the remaining animals recover in a few weeks.

This acute form is more frequently seen as a severe outbreak in a batch of animals, but sometimes there is the odd animal in a barn that is facing a chronic ileitis problem that may show a bloody diarrhoea. Pregnant gilts are sometimes affected and may abort five to six days after the onset of the clinical signs.



**Figure 1.** Acute ileitis. Gilt with bloody diarrhoea.

## CHRONIC FORM

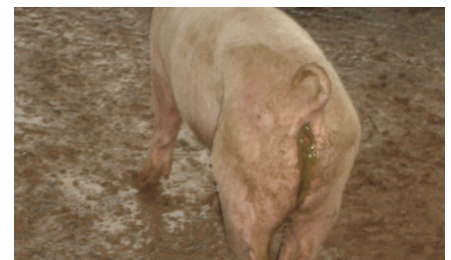
The chronic form of ileitis affects nursery pigs from six to 20 weeks of age. These pigs show a grey to green pasty to liquid transitory diarrhoea (Figure 2) (Lawson & Gebhart, 2000).

Mucus or blood are not seen in chronic ileitis.

The diarrhoea may last for seven to ten days. After that, the great majority of the animals will recover. However, there is a negative impact on the growth rate in the affected animals that will lead to an uneven batch of pigs (Figure 3) and a delay in the age of slaughter.

Despite the diarrhoea, many pigs maintain their appetite, with no marked reduction in feed consumption. However, the feed conversion ratio of the whole batch is severely compromised.

Some pigs might show some degree of anorexia, keeping their interest in the feed but not eating. Pigs that develop necrotic enteritis due to secondary bacterial infections show a dramatic loss of body condition and persistent diarrhoea.



**Figure 2.** Chronic ileitis. Growing pig with gray-greenish liquid diarrhea and poor body condition.



**Figure 3.** Uneven contemporary pigs affected by ileitis.

## SUBCLINICAL FORM

The subclinical form of ileitis might be the most common one. It is characterized by the impact in the growth rate, but no evident diarrhoea is observed. Paradis et al. (2005) have shown the existence of the subclinical disease by using different concentrations of *L. intracellularis* in the challenge inoculum. This study showed the shedding of bacteria in the faeces in the absence of diarrhoea and a negative impact on the average daily gain and feed conversion rate (Table 1).

The chronic and subclinical forms of ileitis have different timings depending on the antimicrobial program used in the nursery. With the banning of growth promoters and the restriction on the preventive use of antimicrobials in Europe, there was a change in the kinetics of the *L. intracellularis* infection with an earlier presentation of ileitis in the late nursery stage due to the faster increase of the pressure of infection in the post-weaning period. In contrast, in the Americas chronic and subclinical ileitis occur after the pigs are transferred to the growing-finishing unit.

The clinical signs of the chronic and the subclinical form of ileitis often go unnoticed by the producer, resulting in significant economic losses due to the reduction in the growth rate and the negative impact on the feed conversion rate. As a result, a careful inspection by a consulting veterinarian for an apparent wasting of the growing pigs due to anorexia and diarrhoea in an uneven batch of animals should be performed and often followed by the collection of samples for the laboratory confirmation of the disease. Moreover, a detailed examination of the records of the nursery pigs should be conducted in order to detect performance issues.

**TABLE 1.**

Clinical and performance parameters, and macroscopic and histological findings in pigs administered varying doses of *L. intracellularis* (Paradis et al., 2005 - ASSV)

Groups	Inoculum dose <sup>1</sup>	Gross lesions <sup>2</sup>	IHC <sup>3</sup>	Faecal score <sup>4</sup>	ADG <sup>5</sup>	FCR <sup>6</sup>
A	SPG	0.00 <sup>a7</sup>	0.00 <sup>a</sup>	0.08 <sup>a</sup>	0.40 <sup>a</sup>	1.63 <sup>a</sup>
F	3.2 x 10 <sup>4</sup>	0.08 <sup>ab</sup>	0.67 <sup>b</sup>	0.18 <sup>a</sup>	0.25 <sup>b</sup>	2.07 <sup>b</sup>
E	3.8 x 10 <sup>5</sup>	0.13 <sup>ab</sup>	0.63 <sup>b</sup>	0.43 <sup>a</sup>	0.23 <sup>b</sup>	2.10 <sup>b</sup>
D	2.2 x 10 <sup>6</sup>	0.33 <sup>b</sup>	0.78 <sup>b</sup>	0.37 <sup>a</sup>	0.24 <sup>b</sup>	2.24 <sup>bc</sup>
C	7.2 x 10 <sup>7</sup>	0.25 <sup>ab</sup>	0.66 <sup>b</sup>	0.93 <sup>b</sup>	0.19 <sup>b</sup>	2.51 <sup>bc</sup>
B	2.4 x 10 <sup>8</sup>	0.25 <sup>ab</sup>	0.62 <sup>b</sup>	1.34 <sup>b</sup>	0.16 <sup>b</sup>	2.92 <sup>c</sup>

1. Number of *L. intracellularis* received by each pig.
2. Proportion of pigs with gross lesions consistent with ileitis.
3. Proportion of pigs with evidence of *L. intracellularis* infection by ileal immunohistochemistry.
4. Faecal scores: 0 – Normal; 1 – Moderate; 2 – Severe diarrhoea.
5. Average daily gain.
6. Feed conversion rate.