## *Serpulina*

Cells are wider and less tightly coiled than leptospires and can be stained with aniline dyes such as dilute carbol fuchsin.
*Serpulina hyodysenteriae* and *S. pilosicoli* are pathogens.

### *Serpulina hyodysenteriae*

#### Specimen Collection

Deep mucosal scrapings and sections of affected intestine in 10% formalin should be collected from dead animal

Rectal swabs or faeces from several clinically affected live animals.

#### Microscopic Examination of Tissues

Wet preparations examined by darkfield microscopy. Serpulina has a flexing type motility.

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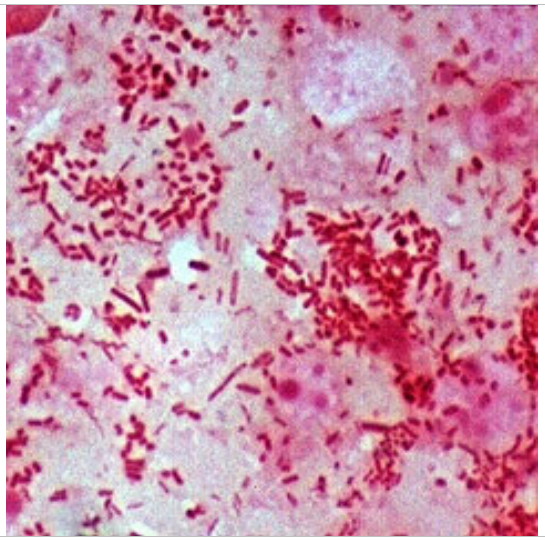
| Gram stain smear of colon of pig. Swine dysentery. |  | Smears of mucosal scrapings or faeces stained with dilute carbol fuchsin or by immunofluoresence. S. hyodysenteriae is 0.3 to 0.4 µm by 6 to 8 µm, with 2 to 4 coils and tapered ends. Three to 5 organisms per high powered field is considered significant.<br><br>Sections of intestine can be stained with silver stain. |

#### Cultural Examination

*S. hyodysenteriae* is an anaerobe but is oxygen tolerant. It grows at 42° C on prereduced blood agar with spectinomycin as a selective agent. It is strongly ß-haemolytic.

#### Identification

#### Serological Testing

#### Antibiotic Susceptibility

Variety of antimicrobials have been used for treatment and control, including macrolides, tiamulin, nitrofurans and organic arsenicals. Drug resistance has been reported.