

Organism Directory

Clostridium perfringens

Introduction

C. perfringens is the most common Clostridium found in cases of gas gangrene (clostridial myonecrosis) with a high mortality rate. However, the recovery of this organism from wounds is not necessarily an indication of this condition.

Gas gangrene is a clinical diagnosis and the recovery of this organism merely supports the diagnosis. It causes a wide spectrum of other foodborne illnesses and acute gastroenteritis.

Features

- Gram-positive rod bacterium
- Obligate anaerobe
- Spore-former (under specialised conditions)
- Toxin-former
- 35-37°C for 48-72 hours
- Causes gas gangrene
- Catalase negative
- Oxidase negative
- Grows on FAA and BBA

Appearance

Large, translucent grey colonies surrounded by a double zone of haemolysis on anaerobic blood agar. Colonies may be round or take on a rhizoid appearance. The inner zone of haemolysis is clearer than the outer zone giving a target-like appearance. This double zone is much clearer on sheep blood agar, although this is rarely used in the UK.



C. perfringens at 48hrs

