

**Organism Directory** 

## Clostridioides difficile

## Introduction

*C. difficile* causes antibiotic associated diarrhoea, antibiotic associated colitis and pseudo-membraneous colitis.

The major pathogenicity factor of this organism is the production of two toxins (an enterotoxin and a cytotoxin – known as toxin A and toxin B respectively). These toxins bind to the colonic epithelium and give rise to serious diarrhoea. The infection follows the disruption of the normal colonic flora with



antibiotics or other drugs with antimicrobial activity and subsequent infection with *C. difficile*. The condition can be fatal, especially in the elderly who are unable to elicit an antibody response to the toxins.

## Features

- Gram-positive rod bacterium
- Obligate anaerobe
- Spore former
- Produces toxin A and toxin B
- 37°C for 48-72 hours
- Causes food poisoning
- Catalase negative
- Oxidase negative



## Appearance

• Grey, circular, raised colonies on blood agar