



# Bacillus cereus (*B. cereus*)

## What is it?

- *Bacillus Cereus* is an organism occurring naturally in most foods and it can cause two different forms of food poisoning, diarrhoeal and emetic, both caused by toxins produced by the bacteria.
- The disease is usually mild and short lived, with rapid recovery generally within 12 to 24 hours.
- Food poisoning outbreaks are usually a result of cooked rice or protein rich dishes being stored at incorrect temperatures.

## Where is it found?

- *B. cereus* is commonly found in the natural environment as well as a wide variety of foods.
- The emetic illness strains are often associated with rice and other starchy foods whereas the diarrhoea illness strains are more commonly associated with meats, fish and vegetables.
- *B. cereus* must grow to high numbers to be able to cause illness in humans and is not a common cause of foodborne disease.

## Why is it a problem?

- *B. cereus* diarrhoeal type food poisoning is characterised by watery diarrhoea, abdominal cramps and pain around six to fifteen hours after consumption of contaminated food. Nausea may accompany diarrhoea, but vomiting rarely occurs. Symptoms persist for 24 hours in most cases.

- The emetic type of food poisoning is characterised by nausea and vomiting within a half hour to six hours after consumption of contaminated foods. Occasionally, abdominal cramps and/or diarrhoea may also occur. Duration of symptoms is generally less than 24 hours.

## Who is at risk?

- All people are believed to be susceptible to *B. cereus* food poisoning.
- Dehydration may occur in the elderly and the immuno-compromised as a result of the diarrhoeal illness.

## How can the risk be reduced?

Effective prevention and control measures should be used to minimise the growth of *B. cereus* on foods. It is recommended that:

- hot foods should be held at temperatures above 60°C,
- cold foods should be held at temperatures below 4°C,
- when hot foods are cooled, it should be done rapidly and in small containers, and
- non-refrigerated storage of rice and other cereals should be avoided.