

Why eating re-heated or re-boiled rice can make you ill. 1.

- *Bacillus cereus* lives in soil and can contaminate rice.
- Its spores can survive boiling and germinate when the cooked rice cools.
- Fortunately, most strains of the bacteria themselves seldom invade our organs but they produce toxins which cause nausea and diarrhoea.



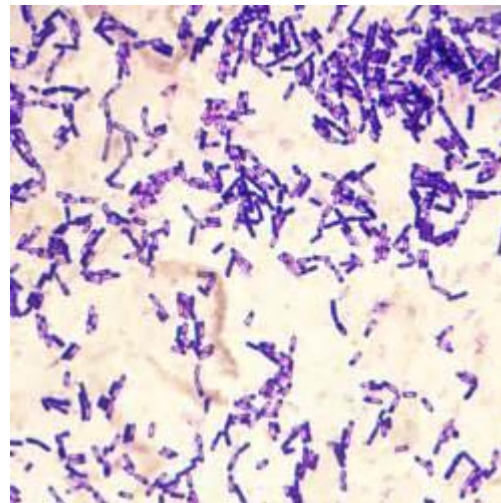
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- Queensland Health:
- Illness associated with bacillus cereus may be underreported as very few of those affected seek medical attention owing to the mild nature and short duration of symptoms.
- For this reason there is little information on the prevalence and concentration of this pathogen in retail food products.

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- Some strains of the bacterium can be dangerous so you need to see a doctor if you have become ill from eating re-heated rice.
- If you insist on preserving remaining cooked rice it must be chilled very quickly i.e. put in the refrigerator while it is still warm.
- This won't kill the spores but will prevent them from germinating and producing toxins.

Gram stained bacillus cereus:



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- Queensland Health: A total of 1,263 retail food samples were examined for bacillus cereus.
- It was detected in the following food samples: uncooked pizza bases, cooked pizzas, cooked meat pies, cooked sausage rolls, processed meats, and raw diced chicken.



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- From another site:
- Spores survive the cooking process and if the rice is cooled slowly (and left between 5°C and 60°C for a long time), these bacteria spores can germinate, grow and produce a toxin (poison) that causes vomiting.



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- If you must cook rice in advance, do not cook more than you need at one time.
- Either keep cooked rice hot (above 60°C) or cool the rice as quickly as possible and store in a refrigerator below 5°C.
 - Rice cools quicker if removed from the hot container and divided into smaller, clean shallow containers less than 10cm deep.
 - Keep the containers separate, not stacked.
 - Alternatively, you can cool the rice in a colander under cold running water before storing in a refrigerator below 5°C.