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| Hamburger food safety: Frequently asked questions |
| Guide for food businesses and consumers |
| OFFICIAL |

Hamburgers are a popular form of ready-to-eat food but they can be contaminated with dangerous bacteria that can lead to food poisoning if they are not cooked, handled, or stored properly.

## Top five tips for keeping your hamburgers safe to eat

1. Thorough cooking of hamburger patties minimises the risk of food poisoning.
2. Cool cooked hamburger patties quickly if intending to store them.
3. Keep raw and cooked food separate.
4. Keeping everything clean is critical to improving food safety.
5. Refrigerate or freeze minced meat as soon as possible after purchase.

## Is it dangerous to eat a raw or undercooked burger patty?

Raw and undercooked hamburger patties may contain harmful bacteria that can produce foodborne illness, such as *Escherichia coli* (*E. coli*), mostly due to improper handling and preparation of the meat. This specific bacterium can potentially result in a serious condition that can be fatal. Eating raw or undercooked patties is an emerging trend in Australia and, to date, no outbreaks of foodborne illness due to the consumption of these foods have been recorded. However, in the USA it has been a common practice for some time and has resulted in outbreaks of *E. coli*. There has been a total of five deaths since the first outbreak was recorded in the USA in 1993, more than 500 made sick and more than 150 people hospitalised.[[1]](#footnote-1)

## Why is it okay to eat a rare steak and not a rare patty?

Even though different meats require different cooking temperatures to destroy harmful bacteria, it is the surface of the meat that can become contaminated with *E. coli*. For example, a steak need only be seared on the outside and can be rare inside, while minced meat must be carefully cooked to destroy bacteria. When cooking a steak, all areas that could have been exposed to contamination are heated to the point where bacteria will be killed. With minced meat however, the very act of mincing meat means that all the meat comes into contact with the elements; bacteria on the surface of the meat is mixed through during the mincing process. In short, minced meat has far greater surface area than steak and presents a greater risk of bacterial contamination.

## What are the health risks?

Undercooking meat, poultry and other foods can be very dangerous. Raw meat and poultry can contain harmful bacteria, including pathogenic *E. coli, Salmonella, Campylobacter jejuni, Listeria monocytogenes*, and *Staphylococcus aureus*. It is important to remember that the presence of harmful bacteria cannot be assessed through sight or smell.

## Ensuring the food safety of a hamburger

To reduce the potential for foodborne illness, minced meat should be fully cooked. Other jurisdictions have guidelines or regulations suggesting known minimum cooking temperatures for hamburgers to be considered ‘fully cooked’. For example, the US FDA Food Code 2022 requires a default minimum cooking temperature of 155 °F (68 °C) for 17 seconds for non-intact meats (for example minced meats, such as hamburger patties). Due to the short time at the core cooking temperature of 68 °C that the hamburger patties must be held, this process step does not require a food safety program.

Note that there are a range of other temperature and times in the US FDA Food Code 2022 (such as cooking a hamburger patty to a core cooking temperature at 63 °C for two minutes) which is also considered as being fully cooked, however, this would require record keeping verifying this temperature-time requirement.

If alternative methods of cooking are being used, such as sous vide, it is critical to ensure that cooking is undertaken in accordance with the time and temperature requirements specified in the equipment’s user guide.

To ensure your meat is free from harmful bacteria, it is important that a clean and sanitised thermometer is used and placed in the thickest portion of the meat to check the temperature of the food.

## Reducing the risk of contamination

* Keep raw minced meat cold (5 °C or lower) and cook within two days of purchasing.
* Remember, if raw hamburger patties are kept in the temperature danger zone (between 5 °C and 60 °C) bacteria will multiply rapidly.
* Use separate chopping boards and utensils for vegetables and raw meat.
* Wash and dry your hands regularly and always wash your hands before and after touching raw meat.
* Keep your kitchen surfaces clean and sanitised, change dishcloths daily and sanitise your kitchen before and after preparing food.
* Never allow ready-to-eat foods like lettuce, tomatoes, or cheese to come in contact with raw meat or its juices.
* Throw away left-over marinade or sauce – prepare just enough for single a batch.

## For more information

* Visit the Food Safety Unit [web](https://www.health.vic.gov.au/food-safety/food-safety-library) pages at <https://www.health.vic.gov.au/food-safety/food-safety-library>
* Search ‘food safety’ on the [Better Health Channel](https://www.betterhealth.vic.gov.au) at <https://www.betterhealth.vic.gov.au>
* Call the Food Safety Unit on its free hotline: 1300 364 352 or email: foodsafey@health.vic.gov.au.

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1. CDC. 2015. [Multistate outbreak of shiga toxin-producing E. coli O26 infections linked to Chipotle Mexican Grill in Washington and Oregon](https://www.cdc.gov/ecoli/2015/o26-11-15/). <https://www.cdc.gov/ecoli/2015/o26-11-15/>. [↑](#footnote-ref-1)