

Hamburger food safety

Hamburgers are a popular form of ready-to-eat food but they can be a vehicle for pathogenic bacteria – if not cooked, handled or stored properly they can potentially lead to food poisoning when eaten.

Top 5 tips for keeping your hamburgers safe to eat

- Thorough cooking of hamburger patties minimises the risk of food poisoning.
- Cool down cooked hamburger patties quickly if intending to store.
- Keep raw and cooked food separate.
- Keeping everything clean is critical to improving food safety.
- 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 pathogenic strains of *Escherichia coli* (*E.coli*), mostly due to improper handling and preparation of the meat. This specific pathogenic 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 a number of outbreaks of *E. coli*. There have 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 2}

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

Different meats require different cooking temperatures to destroy harmful bacteria.

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, the very act of mincing meat means that all surfaces of the meat come into contact with the elements; bacteria on the surface of the meat are mixed through during the mincing process.

In short, minced meat has far greater surface area than steak and therefore presents a greater risk of bacterial contamination.

¹ CDC. 2015. Multistate outbreak of shiga toxin-producing *E. coli* O26 infections linked to Chipotle Mexican Grill in Washington and Oregon. (<http://www.cdc.gov/ecoli/2015/O26-11-15/index.html>)

² Marler B. 2015. A history of hamburger *E. coli* outbreaks. (<http://luckypeach.com/a-history-of-hamburger-e-coli-outbreaks/>)

Don't let your food turn nasty

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 food safety of a hamburger

In order to reduce the potential for foodborne illness, minced meat should be cooked right through to the centre. No pink should be visible and juices should run clear. Some guidelines suggest cooking hamburgers until the thermometer reads at least 75 °C internal temperature. 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 (4 °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 usage.

For more information

- Visit the Food Safety Unit website at: <<https://www2.health.vic.gov.au/public-health/food-safety/food-safety-information-for-community-groups/community-group-food-fundraisers/food-fundraisers-class-3-hamburgers>> or search 'food safety' on the Better Health Channel at: <<https://www.betterhealth.vic.gov.au/>>.
- Call the Food Safety Unit on its free hotline: 1300 364 352 or email: foodsafety@dhhs.vic.gov.au for more information.

The Food Safety Unit, Department of Health and Human Services Victoria would like to acknowledge and thank the New South Wales Department of Primary Industries Food Authority for the use of their research in the production of this guide.