



Kitchen hygiene in the spotlight

Do **TV cooking shows** influence
our **hygiene behaviour?**

TV shows dealing with all aspects of cooking are very popular in Germany. In addition to recipe ideas, the shows also convey specific hygiene behaviour.

In this way, correctly demonstrated hygiene measures as well as hygiene lapses reach a wide audience and can influence the hygiene behaviour of viewers. Surveys show that the health risks of poor kitchen hygiene are often underestimated. Against this background, the German Federal Institute for Risk Assessment (BfR) investigated the influence of TV cooking shows on kitchen hygiene at home in a recent research project. In this brochure, you will find key results of the study and general tips for the correct handling of food.



Kitchen hygiene – a frequently underestimated risk

Incorrect handling of food can be detrimental to human health.



Every year, more than 100,000 cases of illness are reported in Germany that can be attributed to microorganisms such as bacteria, viruses or parasites in food, and the unofficial figure may be much higher. For this reason, it is important to pay attention to every-day hygiene and cleanliness in the kitchen. Poor hygiene behaviour can cause the spread of germs, for example through cross-contamination (transfer of germs from one food to another) and insufficient heating of foods during the preparation of meals.

Despite the high numbers of foodborne illnesses, consumers have little awareness of food hygiene in private households as a possible health risk. This is demonstrated by the results of the current BfR Consumer Monitor, a representative survey conducted by the BfR.¹



42%

worry about kitchen hygiene in restaurants

ONLY
17%

worry about kitchen hygiene at home



¹ Information based on data of the BfR Consumer Monitor, August 2017, basis: 1,001 respondents.

TV cooking shows

TV cooking shows are very popular in Germany and internationally.

One possible reason for their lasting popularity is that more and more shows are placing increasing importance on a high entertainment value rather than only conveying knowledge and recipes.

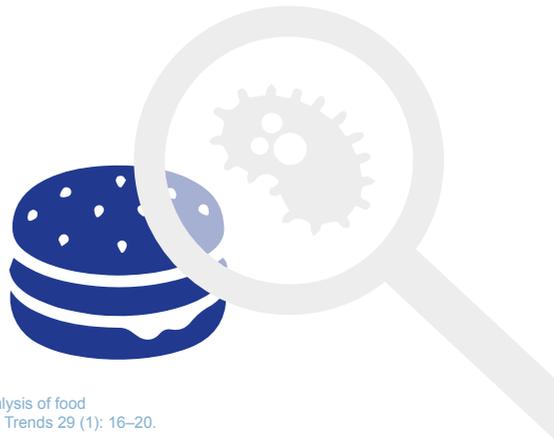
In the period between March 2015 and March 2016, at least 60 different cooking shows were broadcast on German television, mostly on public channels.



TV cooking shows between
March 2015 und March 2016

However, it is concerning that the kitchen hygiene shown in TV cooking shows is often not flawless.

This is evidenced by studies from different countries. For example, in many American TV cooking shows, the number of hygiene lapses shown is higher than the number of correctly demonstrated hygiene practices.² Unhygienic practices could lead to foodborne infections when they are copied by viewers at home.³

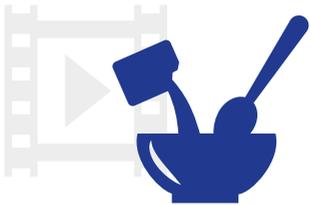


² Irbeek, E. G.; Akers, C. & Brashears, M. (2009). A content analysis of food safety measures on television's food network. *Food Protection Trends* 29 (1): 16–20.

³ Maughan, C.; Chambers IV, E. & Godwin, S. (2016). Food safety behaviours observed in celebrity chefs across a variety of programs. *Journal of Public Health* 39 (1): 1–8.

TV cooking shows and kitchen hygiene

Are viewers influenced by the hygiene behaviour shown in TV cooking shows? The results of a BfR research project provide answers to this question.



People who watch cooking videos with exemplary kitchen hygiene make fewer hygiene lapses when copying recipes than people who watch cooking videos with poor hygiene.

As part of the BfR research project, participants copied a recipe from a cooking video in a test kitchen. They were not aware at this time that the study topic was kitchen hygiene. The cooking video showed either a chef making multiple hygiene lapses or a chef cooking without making any hygiene lapses. The hygiene behaviour of the participants when copying the recipe was observed and evaluated to determine whether the hygiene behaviour shown in the cooking video had an effect on the participants' own hygiene behaviour. The project and study design are described on page 12 and 13.

How hygienic is the cooking in TV cooking shows?

In the scope of the study, 100 episodes of cooking shows with high viewer numbers were analysed with regard to hygiene lapses. In the analysed episodes, **one hygiene lapse was observed every 50 seconds** on average. The majority of the lapses were moderately severe. Specifically, these were hygiene lapses which could result in the spread of pathogens or in cross-contamination.

The most frequent kitchen hygiene lapses in the analysed TV cooking shows



Wiping dirty hands on a tea towel



Adding salt or spices with fingers



Not thoroughly cleaning chopping boards between different work steps



Not washing hands after scratching, sneezing, coughing, blowing one's nose, contact with hair and eyes, etc.

Kitchen hygiene – Brief tips

What measures are important to avoid foodborne infections?



Wash hands thoroughly with soap before cooking.



To avoid cross-contamination, raw foods should be prepared on separate work surfaces. Moreover, hands, work surfaces and utensils should be cleaned thoroughly between work steps.



Always cook food thoroughly: at least 70 °C for 2 minutes in the centre of the food.



Food for raw consumption such as lettuce, herbs, vegetables and fruit should be washed carefully to remove germs.



Tea towels, dish cloths and sponges should be washed or replaced regularly.

Thorough hand washing,
also between fingers and
under the nails, takes
20 to 30 seconds.



A little tip for children

Just sing “All my little ducklings” (German children’s song) or the “Happy birthday” song twice while washing hands to ensure that it takes long enough.



BfR study “TV kitchen hygiene”

Subproject 1

*Analysis of hygiene practices in TV cooking shows:
How hygienic or unhygienic is the
cooking shown in TV cooking shows?*

Methodology

TV cooking shows on German television were researched and 100 episodes of TV cooking shows were analysed with regard to hygiene lapses.

Study period

2015–2016

Sample

Non-representative selection of 100 episodes of TV cooking shows were analysed based on different criteria such as viewer numbers and frequency of broadcast. The selection was not representative of all cooking shows on German television, but aimed at eight shows of different formats with high viewer numbers.

Carried out with assistance from

*AFC Public Services GmbH Bonn and University of Bonn,
Household and Appliance Technology Section*

Subproject 2

Experimental cooking study:

Are viewers influenced by the hygiene behaviour shown in TV cooking shows?

Methodology

- *Production of three cooking videos differing with regard to the hygiene sequences (exemplary hygiene, poor hygiene, control video without hygiene sequences)*
- *The participants each watched one of the three videos. The video was selected at random. No information on the topic of kitchen hygiene was provided at this point.*
- *The recipe was then cooked by the participants in a test kitchen. The hygiene lapses made during their cooking were observed and recorded.*

Study period

November 2016 to February 2017

Sample

65 participants (57% female, average age of 48 years)

Carried out with
assistance from

*AFC Public Services GmbH Bonn and University of Bonn,
Household and Appliance Technology Section*

About the BfR

Do nanoparticles promote the occurrence of allergies? Does apple juice contain harmful aluminium? The German Federal Institute for Risk Assessment (BfR) evaluates the possible health risks of food and feed, consumer products and chemicals. Its work makes an important contribution towards ensuring that food, products and chemicals are becoming safer in Germany. The institute is independent in its scientific evaluations, research and communication. It is the scientific establishment of the Federal Republic of Germany which prepares reports and opinions on issues of food and feed safety and on the safety of substances and products. The institute therefore performs an important task in improving consumer health protection and food safety. The BfR belongs to the portfolio of the Federal Ministry of Food and Agriculture (BMEL).



You can find more tips in the fact sheet “Consumer tips: Protection against foodborne infections in private households”, which you can order free of charge from the BfR or download from the website in PDF format:

www.bfr.bund.de/cm/364/protection-against-foodborne-infections.pdf

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