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Kitchen hygiene in the spotlight: Exemplary behaviour can prevent illnesses

TV shows about cooking are very popular, but a research project conducted by the BfR shows that kitchen hygiene tends to receive little attention on television and that this can have an impact on the behaviour of viewers copying the recipes. The good news is that TV programmes can use this imitation effect to promote good kitchen hygiene and thus prevent illnesses in private households.

Kitchen chaos or gala menu?

Professional chefs whisk cream in the spotlight, amateurs cook their favourite recipes at their stoves at home and the recipe is included for free: Different cooking formats on television are evidence of the Germans' love of cooking. The programmes are very diverse and are broadcast on both public and private channels.

However, aside from preparing delicious food, good kitchen hygiene is also part of the art of cooking. Otherwise, ingredients contaminated with pathogens, dirty kitchen sponges or germs on hands could spoil the meal. Each year in Germany, over 100,000 illnesses are reported, many of which are caused by bacteria, viruses or parasites in food. Those who observe the usual measures of kitchen hygiene can protect themselves and others from illnesses of this type.

So how much kitchen hygiene is shown on TV programmes? And what influence does the behaviour demonstrated by TV chefs have on the hygiene behav-

our of consumers? To get to the bottom of these questions, the BfR conducted a multi-part research project on the topic of kitchen hygiene in cooperation with other project partners. The first part of the project was an analysis of the hygiene practices shown in cooking shows. The second part comprised an experimental cooking study.

Kitchen hygiene only has a minor role

To investigate hygiene practices in cooking shows, the first task was to create an inventory of TV cooking programmes and analyse them. Based on defined criteria, 100 episodes of cooking shows with high viewer numbers, which were intended to represent a broad range of existing formats, were selected. The episodes were then analysed using a list of typical kitchen hygiene lapses to each of which a severity level was assigned.

The results show that important hygiene measures in TV cooking shows are often neglected. "A hygiene lapse can be observed every 50 seconds on average", says

Cooking shows influence our hygiene behaviour

BfR kitchen hygiene study: methodological procedure and results

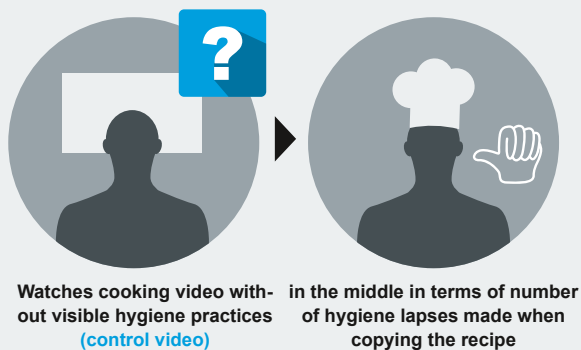
Subsample A*



Subsample B*



Subsample C*



*Randomised assignment to three video versions

PD Dr. Gaby-Fleur Böl, head of the Risk communication department at the BfR. “Severe hygiene lapses could be seen approximately every two-and-a-half minutes”, continues Böl. Behaviour which could result in the spread of pathogens or cross-contamination was shown most often. Examples were wiping dirty hands on a tea towel instead of washing them or using the chopping board without cleaning it between different work steps (see page 17).

Copying recipes, copying behaviour

The second part of the BfR project was therefore to investigate the question of what influence hygiene behaviour in the TV programmes has on the viewers’ hygiene behaviour when they copy the recipes. For this purpose, three versions of a cooking video were created which differed only with respect to the quantity and severity of the hygiene lapses committed. All three videos show a professional chef with TV experience preparing a chicken salad with homemade mayonnaise and explaining the work steps in a clear and understandable manner. The hygiene behaviour is exemplary in the first video and poor in the second, while the third video completely omits the hygiene sequences. This was the control video.

Participants each watched one of these videos in an individual setting. The selection of who watched which video was determined at random (see figure). Afterwards, the participants prepared the salad with mayonnaise in a test kitchen on their own. While they were cooking, they did not know the actual purpose of the study. They knew that they were being observed but not that their hygiene behaviour was being recorded. The investigators who were keeping the records were not aware either of which video the participants had watched (double-blind study). In this way, no one involved in the study could influence the results.

The analysis of the hygiene behaviour of the participants showed that the hygiene behaviour demonstrated in the video was reflected in the hygiene behaviour of the participants when they copied the recipe. In more precise terms, people who watched the exemplary video made significantly fewer hygiene lapses when copying the recipe than people who watched the video of the chef demonstrating poor kitchen hygiene. On average, people who were assigned to watch the control video without hygiene guidelines fell in between the other two groups in terms of the number of hygiene lapses made. Among the most common hygiene lapses committed by the participants were adding salt to food with their fingers and not washing their hands after contact with potentially hazardous foods such as raw meat. Both of these incorrect practices were also demonstrated by the chef in the video featuring poor hygiene.

Role models wanted

The results of the BfR research project provide initial indications that the hygiene behaviour shown in TV cooking shows can have an effect on the hygiene behaviour of viewers. The BfR sees a need for further research here. To obtain a valid basis for measures, the BfR is currently conducting a representative survey on the TV and cooking habits of the population. However, even without these representative data measures can already be taken. Promoting risk awareness among professional TV chefs, e.g. through informative material or by making direct contact with prominent representatives of cooking shows, could result in improved hygiene behaviour in TV programmes. It's not all down to the people in front of the camera, though. "Simple changes, such as installing soap dispensers in TV cooking studios, could allow hygiene measures to be integrated in the chefs' normal routines", according to Böhl. Increased risk awareness for kitchen hygiene during filming and editing could also ensure that cooking shows set a good example. Camera operators, editors, directors ... many people are involved in creating a programme and make decisions on which sequences are broadcast to viewers. ■

More information:
BfR leaflet "Protection against foodborne infections in private households"

BfR-Brochure "Kitchen hygiene in the spotlight: Do TV cooking shows influence our hygiene behaviour?"

Online at:
www.bfr.bund.de/en > Publications

Frequent hygiene lapses in analysed TV cooking shows



Wiping dirty hands on tea towels



Not washing hands after scratching, sneezing, blowing one's nose



Using chopping boards without washing them between different work steps



Not washing hands before preparing food



Adding salt/spices with fingers

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BfR recommendations on kitchen hygiene

- > Wash your hands thoroughly with soap before beginning
- > Clean work surfaces and hands thoroughly, also between different work steps
- > Use different chopping boards and cooking utensils for cooking and preparing raw foods (particularly poultry and other meat) or wash them thoroughly between different work steps
- > Cook foods, particularly fish and meat, thoroughly to at least 70° C for 2 minutes in the centre of the food
- > Maintain the cold chain and store highly perishable foods in the fridge
- > Keep meat and fish in the coldest compartment
- > Wash lettuce, herbs, vegetables and fruit for raw consumption carefully and peel them if necessary
- > Keep highly perishable foods cool at barbecues or picnics
- > Keep heated foods hot at over 65° C or cool them down to 7° C within a few hours
- > Wash tea towels, dish cloths and sponges at min. 60 °C or change every few days

