

Focus on IFA's work

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Does wearing disposable gloves improve hygiene at fresh food counters?

Problem

Working environments in the food trade, and particularly at counters selling fresh and cooked meat, cheese and fish and in the convenience sector (vegetable salad and fruit preparations), qualify as damp workplaces according to TRGS 401 "Hazards from skin contact – determination, assessment, action". At such workplaces, special action must be taken to protect the skin.

The wearing of disposable gloves has been introduced at many food counters in order to demonstrate to the customer a strong awareness of hygiene and thus build confidence. Contrary to widely held beliefs, the food regulations neither demand nor recommend the wearing of moisture-tight gloves. The EC Regulation 852/2004 on food, chapter VIII "Personal hygiene", merely states: "Every person working in a food-handling area is to maintain a high degree of personal cleanliness and is to wear suitable, clean and, where necessary, protective clothing." Good hygiene in the sense of consumer protection also has positive effects for the employee if he is thus protected from disease caused by infectious germs at work. However, misinterpreted, excessive hygiene can have a detrimental effect on the employee if, for instance, the constant wearing of disposable gloves causes skin complaints.

It was therefore important to find out whether the wearing of disposable gloves when working at food counters in the food retail trade is in fact more hygienic than working with bare hands and suitable equipment.



Working at a fresh food counter in a butcher's shop

Activities

At a model counter of the Fleischerei-Berufsgenossenschaft (institution for statutory accident insurance and prevention in the meat processing industry – FBG), contact tests were carried out on the accumulation of bacteria on various surfaces (bare hand, surface of disposable gloves, surfaces of various plastic dummies). Also determined was the extent to which various foods sold at fresh food counters were already populated with bacteria in their fresh state. In addition, the same test approach was used to investigate whether the use of skin protection agents affects the accumulation of bacteria on the various surfaces in any way.

Results and Application

The surface of the palms, gloves and the equipment employed (chopping boards, forks etc.) showed a very strong accumulation of bacteria after only five minutes of handling various foods (various fresh and cooked meats and cheeses). No difference was ascertainable between tests with and without gloves. Tests on control persons who did not perform any activities with foods showed that the quantity of the various bacteria present on the skin can vary greatly from person to person.

Even in cases of relatively high bacteria counts on the palms of the hand, no measurable transfer of this skin flora onto the surfaces of the dummy cooked meat was ascertained. On the other hand, there was a high concentration of bacteria on the chopping boards. The use of different skin protection agents had no effect on bacteria counts on the hands or surfaces of gloves.

The results were used in a number of ways in the Healthy Skin Campaign run by the German statutory accident and health insurance institutions. They have been taken into account in the skin care code of practice issued by the German Social Accident Insurance Institution for the trade and distribution industry (BGHW; formerly that responsible for the retail trade).

Area of Application

Supervisory staff and everyone concerned with hygiene issues

Additional Information

- Hygienische Aspekte beim Tragen von Einmalhandschuhen im Verkauf an Frischtheken. Abschlussbericht (12.07). Order No. FB 3. Berufsgenossenschaft für den Einzelhandel, Bonn 2007
- Hautschutz beim Umgang mit Lebensmitteln. Merkblatt M 101 (09.07). Berufsgenossenschaft für den Einzelhandel, Bonn 2007
- Ohne Handschuhe, Hygiene trotzdem. Flyer. Hrsg.: Fleischerei-Berufsgenossenschaft, Mainz
- Untersuchungen zur Hygiene beim Tragen feuchtigkeitsdichter Handschuhe an Frischtheken. Merkblatt. Hrsg.: Fleischerei-Berufsgenossenschaft, Mainz 2007

Expert Assistance

IFA, Division 2: Chemical and biological hazards

Berufsgenossenschaft Handel und Warendistribution, Bonn

Fleischerei-Berufsgenossenschaft, Mainz

Literature Requests

IFA, Zentralbereich