

## Food involved in disease outbreaks in Germany in 2009

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In order to prevent food-borne outbreaks, comprehensive information concerning the food and circumstances involved in food production and processing is necessary. Since 2005 the Federal Institute for Risk Assessment (BfR) has thus been collecting data on foods that were involved in disease outbreaks. Food-borne outbreaks are suspected in cases of illness of two or more individuals in connection with the same food. In accordance with the general administrative regulation (AVV) "Zoonosen Lebensmittelkette", the regional veterinary and food control authorities of all German federal states (*Länder*) and the German armed forces (*Bundeswehr*) transfer information regarding the food involved to the BfR after all investigations of a food-borne outbreak have been completed.

For 2009, BfR has received information on 78 food-borne outbreaks from 15 *Länder* and the *Bundeswehr*. The reported outbreaks were mainly caused by *salmonella*. In addition, other pathogens, toxins and amines were detected in the tested samples. In 34 outbreaks reported to BfR, food was confirmed as cause of human illness. The pathogens were detected in various foodstuffs and prepared foods. As in previous years, the category "meat, meat products and sausages" dominated. Contaminated foods were primarily consumed in restaurants and private households. According to the competent authorities, cross-contamination played an essential role in at least 12 outbreaks. Cross-contamination refers to the transmission of microorganisms from one (usually raw) food to another. Furthermore, the following factors were frequently listed as possibly contributing to contamination: The handling of foods by infected individuals, an insufficient sanitation plan as well as the processing of shell eggs or other contaminated ingredients. In addition, insufficient cooling or cooling-down of foods was reported multiple times and can have contributed to the increase of pathogens in contaminated food. Insufficient heating of foods was also reported often, which can lead to the survival of pathogens in foods. According to the authorities, food companies' insufficient HACCP concepts (Hazard Analysis and Critical Control Point) were also a factor. The HACCP concepts are an essential aspect of self-monitoring plans in food companies.

In conclusion, the communicated information indicates that many of the food-borne outbreaks reported to BfR in 2009 were caused by hygiene deficiencies and mistakes in temperature management, which occurred both in private households and the commercial sector. Suitable consumer information and regular trainings of kitchen personnel in restaurants and other community catering facilities can help prevent future outbreaks. Leaflets in German containing consumer advice on protection from food-borne infections in private households can be obtained free of charge from the BfR public relations office (pressestelle@bfr.bund.de or fax on 030-8412-4970). This is also available online in document form.

The full version of this BfR Information is available in German on [http://www.bfr.bund.de/cm/208/an\\_krankheitsausbruechen\\_beteiligte\\_lebensmittel\\_in\\_deutschland\\_im\\_jahr\\_2009.pdf](http://www.bfr.bund.de/cm/208/an_krankheitsausbruechen_beteiligte_lebensmittel_in_deutschland_im_jahr_2009.pdf)