

MRSA in food?

BfR Opinion No. 015/2009, 26 March 2008

MRSA stands for methicillin-resistant *Staphylococcus aureus*. These are germs which are resistant to certain antibiotics. In healthy individuals they may occur as colonists, for instance, in the nose. After sustaining injuries MRSA carriers are more at risk of developing an MRSA infection. MRSA can lead to severe skin and wound infections or respiratory diseases. Individuals with a weakened immune system or older people are particularly affected. Furthermore, because of their antibiotic resistance MRSA infections are difficult to treat. Direct contact with individuals colonised with MRSA or using the same objects like towels promote infection and contribute to the spread of the germs.

In recent years there have been increased incidences of MRSA detection in animals, too. Besides pets like dogs and cats, livestock above all pigs and calves are particularly affected. Whereas an MRSA infection in pets is normally linked with the outbreak of disease, livestock are almost always germ carriers who manifest no symptoms. As a rule, the colonisation of pets and livestock also differs in terms of the detected MRSA type. In pets the dominant types are the ones that also occur in man. In contrast, mainly one specific type of MRSA is found in livestock which up to now had rarely been linked to disease in man. Contact with the living livestock can indeed carry the risk of humans becoming infected with MRSA. People could also come into contact with MRSA through food. The results of a Dutch study showed that lower levels of the germs also occurred in raw meat which was intended for human consumption. MRSA could be isolated not only from pork and veal but also from the meat from chickens, turkeys and cattle.

As a consequence of the publication of an interim risk assessment by the Dutch Authority for Food Safety and Consumer Products (VWA), the Federal Institute for Risk Assessment (BfR) examined this assessment and expressed its opinion on whether meat, that has been shown to contain MRSA, contributes to the spread of germs and increases the risk of human infection. BfR comes to the conclusion that the consumption of heated meat does not lead to a risk of infection. There are three possible paths for the transfer and spread of MRSA in raw meat: through contact with contaminated meat, through consumption of this meat and through contamination of other food by MRSA-containing meat. The latter could, for instance, occur when meat and raw foods like salad or the like are processed consecutively without hands, cutting boards and knives being cleaned in between. When handling meat normal kitchen hygiene should be strictly complied with. This includes thoroughly washing hands and working materials with warm water and soap or washing up liquid after the preparation of raw meat. These simple rules also offer protection against other pathogens associated with foods.

The data currently available do not suffice for the definitive assessment of the risk of MRSA infection from food. BfR has, therefore, submitted concrete proposals on how tests for MRSA could be integrated into a nationwide monitoring plan.

The full version of the BfR Opinion in German is available on http://www.bfr.bund.de/cm/208/mrsa_in_lebensmitteln.pdf