

Leaflet about food for particularly sensitive groups of people

Particularly sensitive groups of people include people whose body's defences against foodborne infections are impaired or not yet fully developed. These include¹:

- small children up to 5 years,
- seniors (especially if their immune system is weakened),
- pregnant women,
- people whose immune system is weakened due to previous illness or medication.

These groups of people are often referred to by the abbreviation YOPI, which stands for young, old, pregnant and immunosuppressed.

There are special legal requirements for the nutrition of these and other groups of people in communal catering facilities (e.g. child day care centres, retirement homes, residential homes, day care centres for senior citizens, hospitals, rehabilitation centres):

According to § 17 Tier-LMHV², the distribution of **raw milk** in communal catering facilities is prohibited. Food produced with **raw egg** may only be served to YOPIs in communal catering facilities in accordance with § 20 a Tier-LMHV² if the destruction of Salmonellae is ensured by a suitable procedure before serving.

YOPIs should also refrain from consuming raw milk and raw egg at home. This also includes desserts made with raw egg, such as tiramisu, parfait or zabaglione. All other foods made with raw egg, e.g. scrambled egg, boiled egg or fried egg, should be fully cooked.

The supply of the following foods to YOPIs by communal catering facilities is additionally discouraged¹, and YOPIs should also avoid these foods at home:

1. from the product group „**milk** and milk products, including **cheese**“:
 - products made using raw milk (e.g. butter, mixed milk beverages, desserts) that are not sufficiently reheated shortly before consumption
 - cheese made from raw milk with the exception of hard cheese matured for at least 6 months (e.g. Parmigiano Reggiano, Grana Padano)
 - sour milk cheese and soft cheese made from pasteurized milk that has been produced with surface smear (yellow and / or red smear) (e.g. Harzer, Mainzer, Olmützer Quargel, Limburger, Munster)
 - ice cream produced in the communal catering facility itself

2. from the product group „made from **meat** including poultry“:
 - undercooked meat or poultry (e.g. steak, pink duck breast, carpaccio)
 - raw minced meat preparations (e.g. Mett, Hackepeter, Tartar)
 - spreadable, quickly matured raw sausages (e.g. fresh Mettwurst, Teewurst, Braunschweiger)

3. from the product group „made from **fish** or **seafood**“:
 - raw fish and raw seafood (e.g. sushi, sashimi, oysters)
 - smoked or pickled fish products (e.g. smoked salmon, stremel salmon, smoked trout, smoked mackerel, gravlax)

4. From the product group "made from **fruit, vegetables** and **other parts of plants**":
 - raw sprouts / seedlings (e.g. in salads)
 - raw frozen berries (e.g. in desserts and cakes)
 - Raw frozen vegetables (e.g. in smoothies, salads)
 - Cereal flours and unbaked dough made of them

To **protect against listeriosis**, it may be advisable not only to reheat raw food, but also ready-to-eat food that has already been heated before serving. Alternatively, these products can be replaced with other ready-to-eat foods that are free of listeria due to their manufacturing process (e.g., whole canned foods)¹. Packaged ready-to-eat boiled or cooked sausage slices, soft cheeses, and deli salads should not be distributed or consumed after the expiration date, and uninterrupted cold storage must be ensured.

Spices and **dried herbs** play a major role in the introduction of microorganisms into food. Although microorganisms cannot multiply in sufficiently dried foods, they can persist in these foods. If such contaminated dried herbs and spices are added to foods with higher water content and if subsequent cooking or other inactivation steps are omitted, multiplication of the germs and/or the formation of microbial toxins in these foods may occur if they are not stored/warmed properly³. It is therefore recommended to always add dried herbs and spices before cooking.

Melons can come into contact with bacteria, viruses or parasites from production through transport to use in private households. Pathogens can be transferred from the skin to the pulp when melons are cut open and can multiply well on the low-acid pulp, especially in warm temperatures. Community facilities are therefore strongly advised to only cut melons in quantities that can be served to customers within about two hours. As a precautionary measure, YOPIs should avoid eating sliced melons that have been kept at room temperature for several hours to protect against infection. These individuals should also carefully consider consuming cut melons if they do not know if they have been stored unrefrigerated for a long period of time⁴.

Salads that are pre-cut and wrapped in foil may be contaminated with antibiotic-resistant and/or pathogenic bacteria. Microorganisms can easily multiply in the plastic bags due to the moisture. Therefore, YOPIs should avoid eating such products and prefer to use freshly prepared and thoroughly washed salads⁵.

However, washing cannot safely completely remove pathogens or antibiotic-resistant bacteria that may be present on plant-based foods. Therefore, in rare individual cases, it is necessary for particularly immunocompromised persons to heat **vegetables and fresh herbs** sufficiently (at least two minutes to 72 °C inside the food) before consumption in accordance with the instructions of their treating physicians⁵.

For immunosuppressed cancer patients, there are also recommendations that aim at a germ-free diet and advise, among other things, to **boil fruit and vegetables**⁶. Fruits and vegetables for raw consumption may in principle be contaminated with antibiotic-resistant and/or pathogenic bacteria, so that a ban on serving them to particularly immunocompromised (hospitalized) patients (e.g. after bone marrow transplantation) may be appropriate. However, against the backdrop of the benefits for a healthy diet, a general dispensing ban in hospitals or for this risk group would, according to current knowledge, be disproportionate⁶.

The Commission for Hospital Hygiene and Infection Prevention (KRINKO) also recommends that immunosuppressed patients in risk groups 2 and 3 (= severe and very severe immunosuppression/-deficiency), the risk of using **probiotics** (or their release in the sense of a declaration of no objection with regard to probiotic food supplements) should be carefully weighed against the expected benefit⁷.

If you have any questions about this leaflet, please do not hesitate to contact us
by email to veterinaerdezernat@rpda.hessen.de

References

- ¹ „Sicher verpflegt; Besonders empfindliche Personengruppen in Gemeinschaftseinrichtungen“: Handlungsempfehlung des Bundesinstituts für Risikobewertung (Auszug mit Genehmigung der Pressestelle des BfR vom 05.03.2021)
<https://mobil.bfr.bund.de/cm/350/sicher-verpflegt-besonders-empfindliche-personengruppen-in-gemeinschaftseinrichtungen.pdf>
- ² Verordnung über Anforderungen an die Hygiene beim Herstellen, Behandeln und Inverkehrbringen von bestimmten Lebensmitteln tierischen Ursprungs
- ³ „Verfügbare mikrobiologische Standards für getrocknete Küchenkräuter und Gewürze“, Dr. Sara Schaarschmidt, BfR, Rundschau für Fleischhygiene und Lebensmittelüberwachung 2/2016
- ⁴ „Melonen: Gesundheitsgefahr durch Verunreinigung mit pathogenen Bakterien“, Stellungnahme Nr. 021/2013 des BfR vom 9. August 2013
- ⁵ „Resistente Keime: Rohkost und Salat gut waschen und frisch selbst zubereiten“, Stellungnahme Nr. 013/2019 des BfR vom 12. April 2019
- ⁶ Nicht öffentliche Stellungnahme des BfR zu einer möglichen Gefährdung der menschlichen Gesundheit durch das Vorkommen von *Stenotrophomonas maltophilia* in verzehrfertigen Lebensmitteln
- ⁷ Empfehlung der Kommission für Krankenhaushygiene und Infektionsprävention (KRINKO) beim Robert Koch-Institut, Anforderungen an die Infektionsprävention bei der medizinischen Versorgung von immunsupprimierten Patienten, Bundesgesundheitsblatt 2021 - 64:232-264