

IO3: Digital Toolkit of Health Literacy Resources

Addressed Topic: Food storage and preservation

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Hello and welcome to the On-Call Toolkit of Health Literacy Resources! The topic of this video is *'Food storage and preservation'*. We will talk here about the ways to keep your food supplies from spoilage.

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Food preservation has a long history. Storing food by using three oldest preservation methods - drying, refrigeration, and fermentation, dates back to prehistoric times. Although, storing food in order to eat it later while keeping it edible and healthy is not an easy task if we don't have the means. That's why people living few centuries ago were struggling with storing large amount of food in good quality, which would help them last through the long winters.

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Nowadays we now few more methods of food storage – like freezing, irradiation, canning, pasteurization, and the addition of chemicals. We also have improved older ways to serve us better. Some of storage method we ought to technological development (like freezers or refrigerators), others – like keeping preserves and few types of vegetables (like potatoes) in cellar – stay the same for ages.

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Food preservation is a key issue, as food we obtain from plant or animal sources begin to spoil real soon after harvest or slaughter. Letting enzymes do their job would make surviving winter period, when getting fresh food (especially from plants) is way more difficult. The other important issue it to preserve specific kind food in the right way in order to keep it from spoiling.

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When it comes to preserving foods in cold temperatures (below 4°), storing at few many of the physical and chemical reactions would occur in unpreserved food. It is safe storage fruits and vegetables, eggs, dairy products, and meats by refrigerating. We shouldn't store citrus fruits this way. Refrigerating already decayed food is also a bad idea. While storing in

refrigerator we have to keep in mind that our foods can dehydrate there and use specific packages if we want to store it this way for longer period of time.

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Next method of food preservation that needs to be mentioned is thermal processing, which can be defined as the eliminating microorganisms from a food product by using high temperatures, usually by placing full bottles or jars in boiling water.

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A typical modern way to preserve food is canning. As this operation would be quite complicated and time-consuming as it involves cleaning, filling, exhausting, can sealing, heat processing, [cooking](#), labelling and storage, is usually performed using automatic machines.

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The relatively pasteurization process causes minimal changes in the taste and nutritional value of foods. This method is commonly used for storing milk and fruits. The typical process include heating to 77 °C for 1 minute and rapid cooling to 7 °C for fruits, and 72 °C for 15 seconds, followed by rapid cooling to 7 °C for milk. This conditions helps to inactivate enzymes, destroy yeasts or molds that may lead to food spoilage.

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The aseptic process preserves food by placing a sterilized product into a sterilized package that is then sealed under sterile conditions.

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Dehydration (drying) of foods has long been practiced commercially in the production of starch products, like spaghetti. This way of preserving food was really popular during wars. Different kind of foods - fruits, vegetables, skim milk, potatoes, soup mixes, and meats – could be dried and easy to carry, than rehydrated and eaten.

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The last but not least method we will mention is concentration of moist food. Process of concentration of food includes partial removal of moisture from moist foods to increase their final total solids up to 70%, for example – Jelly, Candied fruits, tomatoes etc.

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Thank you for watching! If you want to learn more on this and other interesting topics, visit our website www.on-call.eu where you can find more resources!