

# Methods of preservation and cooking



Methods of cooking:			
Dry Heat Methods of cooking	Examples	Advantages	Disadvantages
<b>Baking</b> – food is cooked in the dry heat of the oven	<ul style="list-style-type: none"> <li>Cakes</li> <li>Pastry</li> <li>Bread</li> </ul>	<ul style="list-style-type: none"> <li>Good colour</li> <li>Good texture</li> <li>Several items can be baked</li> </ul>	<ul style="list-style-type: none"> <li>Needs specific times and temperatures</li> </ul>
<b>Roasting</b> – food is cooked using dry heat of the oven but basted with fat	<ul style="list-style-type: none"> <li>Meat</li> <li>Vegetables</li> </ul>	<ul style="list-style-type: none"> <li>Good flavour</li> <li>Crisp texture</li> <li>Items can be roasted together</li> </ul>	<ul style="list-style-type: none"> <li>Takes a long time to cook</li> <li>Additional fat content</li> </ul>
<b>Toasting</b> – Dry heat is applied to food	<ul style="list-style-type: none"> <li>Bread</li> <li>Nuts</li> <li>Seeds</li> </ul>	<ul style="list-style-type: none"> <li>Lowers the Glycaemic Index</li> <li>Adds Flavour</li> </ul>	<ul style="list-style-type: none"> <li>Food can burn quickly</li> </ul>
<b>Grilling</b> – Dry heat is applied by a hot grill either above or below	<ul style="list-style-type: none"> <li>Sausage</li> <li>Bacon</li> </ul>	<ul style="list-style-type: none"> <li>Healthier as fat drains from meat</li> <li>Quick</li> </ul>	<ul style="list-style-type: none"> <li>Food can burn quickly</li> </ul>
Dry Heat Methods of cooking	Examples	Advantages	Disadvantages
<b>Shallow Frying</b> – small pieces of food are cooked in hot shallow oil	<ul style="list-style-type: none"> <li>Meat</li> <li>Vegetables</li> </ul>	<ul style="list-style-type: none"> <li>Quick method of cooking</li> </ul>	<ul style="list-style-type: none"> <li>Additional fat content</li> <li>Health and Safety issues</li> </ul>
<b>Deep Frying</b> – Foods are submerged in hot fat / oil	<ul style="list-style-type: none"> <li>Chips</li> <li>Chicken</li> <li>Fish</li> </ul>	<ul style="list-style-type: none"> <li>Quick</li> <li>Golden, crunchy texture</li> </ul>	<ul style="list-style-type: none"> <li>Additional fat content</li> <li>Health and Safety issues</li> </ul>
Moist Heat Methods of cooking	Examples	Advantages	Disadvantages
<b>Boiling</b> – starchy food is cooking in boiling water	<ul style="list-style-type: none"> <li>Potatoes</li> <li>Pasta</li> <li>rice</li> </ul>	<ul style="list-style-type: none"> <li>Quick</li> <li>No added fat</li> <li>Softens food</li> </ul>	<ul style="list-style-type: none"> <li>Water soluble vitamin loss</li> </ul>
<b>Steaming</b> – food is cooked in the steam of boiling water	<ul style="list-style-type: none"> <li>Fish</li> <li>Vegetables</li> </ul>	<ul style="list-style-type: none"> <li>Water soluble vitamins are not lost</li> <li>Healthier</li> <li>Food is easy to digest</li> </ul>	<ul style="list-style-type: none"> <li>Can take a long time</li> <li>Causes condensation</li> </ul>
<b>Poaching</b> – Food is cooked in a small amount of simmering liquid	<ul style="list-style-type: none"> <li>Meat</li> <li>Fish</li> <li>Eggs</li> </ul>	<ul style="list-style-type: none"> <li>Healthy</li> <li>Quick</li> </ul>	<ul style="list-style-type: none"> <li>Loss of water soluble vitamins</li> <li>Food can break apart</li> <li>Bland taste</li> </ul>
<b>Stewing</b> – Food is submerged in liquid and cooked slowly to develop flavours and tenderise meats	<ul style="list-style-type: none"> <li>Meat</li> <li>Fish</li> <li>Beans</li> <li>lentils</li> </ul>	<ul style="list-style-type: none"> <li>Meat is tenderised</li> <li>Good developed flavour</li> <li>Water soluble vitamins are absorbed into the sauce / gravy</li> </ul>	<ul style="list-style-type: none"> <li>Need to plan ahead as takes a long time (2-3 hours)</li> </ul>

Methods of Preservation:			
Methods of Preservation	Examples	Advantages	Disadvantages
<b>Heat</b> – Heat kills most micro-organisms and it stops any enzyme activity	<ul style="list-style-type: none"> <li>Pasteurisation of milk</li> <li>All cooked food</li> <li>Canned foods</li> </ul>	<ul style="list-style-type: none"> <li>Makes the food safe to eat</li> <li>Can speed up cooking time for the consumer</li> </ul>	<ul style="list-style-type: none"> <li>Doesn't kill heat resistant bacteria</li> </ul>
<b>Freezing</b> – The microorganisms become inactive at very cold temperatures but will start reproducing during defrosting.	<ul style="list-style-type: none"> <li>Frozen meat / fish</li> <li>Readymade meals</li> <li>Desserts</li> </ul>	<ul style="list-style-type: none"> <li>Food can stay fresh when travelling over long distances</li> <li>Increased shelf life</li> </ul>	<ul style="list-style-type: none"> <li>More expensive due to transport and equipment to keep food frozen</li> </ul>
<b>Drying</b> – Microorganisms need moisture to reproduce	<ul style="list-style-type: none"> <li>Pot noodles</li> <li>Coffee</li> <li>Milk</li> <li>Soups</li> <li>Gravy granules</li> </ul>	<ul style="list-style-type: none"> <li>Cheap to do</li> <li>Food takes up less space</li> <li>Increased shelf life</li> </ul>	<ul style="list-style-type: none"> <li>Can take away from flavour and texture of foods</li> </ul>
<b>Removing Air (Oxygen)</b> – Most microorganisms need oxygen to reproduce. Food items are sealed in cans, jars, MAP, vacuum packaging	<ul style="list-style-type: none"> <li>Canned food</li> <li>Food in jars</li> <li>Meat and fish</li> <li>Sandwiches</li> <li>Crisps</li> </ul>	<ul style="list-style-type: none"> <li>Longer shelf life</li> <li>Preserves the taste and texture</li> <li>MAP (modified atmosphere packaging) is designed to let oxygen in and carbon dioxide out to maintain the environment</li> </ul>	<ul style="list-style-type: none"> <li>MAP – bad for the environment</li> <li>Jars and cans are heavy (increased transport cost)</li> </ul>
<b>Chemicals: salt, sugar, vinegar, smoke</b> – The pH levels needed for bacterial growth and enzymic action are changed	<ul style="list-style-type: none"> <li>Salted meat and fish</li> <li>Pickles</li> <li>Chutneys</li> <li>Jams</li> </ul>	<ul style="list-style-type: none"> <li>Changes the flavour (e.g. pickled onions)</li> <li>Extended shelf life</li> </ul>	<ul style="list-style-type: none"> <li>If extra salt is added can be less healthy</li> <li>Takes a long time for the process</li> </ul>
<b>Irradiation</b> – Food is exposed to low doses of radiation which kills all micro-organisms	<ul style="list-style-type: none"> <li>Herbs</li> <li>Spices</li> <li>Some vegetables and fruit</li> </ul>	<ul style="list-style-type: none"> <li>Delays food from ripening (allowing it to be sold for a longer period)</li> <li>Can help prevent vegetables from sprouting roots</li> </ul>	<ul style="list-style-type: none"> <li>Loss of nutrients</li> <li>Consumer concern, leading to avoidance</li> </ul>