Cheese
## Nutritive Value of Cheese

<table>
<thead>
<tr>
<th></th>
<th>Cheddar</th>
<th>Cottage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Protein</td>
<td>27%</td>
<td>14%</td>
</tr>
<tr>
<td>Fat</td>
<td>33%</td>
<td>4%</td>
</tr>
<tr>
<td>Carbohydrate</td>
<td>0%</td>
<td>1.5%</td>
</tr>
<tr>
<td>Vitamins</td>
<td>1% (A, B)</td>
<td>1.5% (A, B)</td>
</tr>
<tr>
<td>Minerals</td>
<td>4%</td>
<td>1%</td>
</tr>
<tr>
<td>Water</td>
<td>35%</td>
<td>78%</td>
</tr>
</tbody>
</table>
Dietetic Value of Cheese

- Source of calcium for strong bones and teeth
- Source of protein to aid growth and repair of body cells
- Excellent value for money - no waste
- No cooking necessary
- Wide variety available and very versatile
- High in saturated fat so should be avoided by those on low calorie or low cholesterol diets
- Soft cheeses should be avoided by pregnant women due to the risk of listeria food poisoning
### Classification of Cheese by Production Method

<table>
<thead>
<tr>
<th>Hard Cheese</th>
<th>Semi-hard Cheese</th>
<th>Soft Cheese</th>
<th>Internal Mould Cheese</th>
<th>External Mould Cheese</th>
<th>Processed Cheese</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cheddar</td>
<td>Edam</td>
<td>Brie</td>
<td>Stilton</td>
<td>Brie</td>
<td>Cheese slices</td>
</tr>
<tr>
<td>Emmenthal</td>
<td>Gouda</td>
<td>Camembert</td>
<td></td>
<td></td>
<td>Cheese spreads</td>
</tr>
<tr>
<td>Parmesan</td>
<td>Stilton</td>
<td>Mozzarella</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Feta</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Cottage</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
## Classification of Cheese by Origin

<table>
<thead>
<tr>
<th></th>
<th>Italian</th>
<th>Irish</th>
<th>British</th>
<th>Swiss</th>
<th>Dutch</th>
<th>Greek</th>
<th>French</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mozzarella</td>
<td><strong>Mozzarella</strong></td>
<td>Wexford</td>
<td>Cheddar</td>
<td>Emmenthal</td>
<td>Edam</td>
<td>Feta</td>
<td>Roquefort</td>
</tr>
<tr>
<td>Parmesan</td>
<td><strong>Parmesan</strong></td>
<td>Kilmeaden</td>
<td>Cheshire</td>
<td>Gruyere</td>
<td>Gouda</td>
<td>Halloumi</td>
<td>Brie</td>
</tr>
</tbody>
</table>

![Mozzarella](image1.png) ![Parmesan](image2.png) ![Cheddar](image3.png) ![Emmenthal](image4.png) ![Edam](image5.png) ![Feta](image6.png) ![Roquefort](image7.png)
Types Of Cheese

- Cheddar
- Edam
- Brie
- Cottage Cheese
- Feta
- Emmenthal
- Gouda
- Camembert
- Cream Cheese
- Parmesan
- Stilton
- Mozzarella
- Ricotta
Production of Cheese

Step 1:
- A culture of lactic acid bacteria is added to pasteurised milk
- Lactose (sugar in milk) changes to lactic acid which adds flavour and acts as a preservative

Step 2:
- Milk is heated to 30°C
- Rennet is added
  Rennet contains enzymes rennin which coagulates protein (caseinogen to casein)

Step 3:
- Mixture separates into curds (solids) and whey (liquid)

Step 4:
- Curds are chopped to release more whey
Step 5:
- Whey is drained off

Step 6:
- Curds are heated to 35 - 40°C to squeeze out more whey and achieve correct consistency (Scalding)

Step 7:
- Curds are cut into blocks and piled on top of each other to complete drainage of whey (Cheddaring)

Step 8:
- The blocks are cut and 2% salt is added for flavour and preservation

Step 9:
- Salted curds are placed in moulds and pressed
- Moulds may be sprayed with hot water to form a protective rind
Step 10:

- Cheese is removed from the mould, date stamped and stored for 3-12 months to ripen (mature)

Step 11:

- Cheese is graded, packed and sold
Cheese Products

Production:

• Ripened cheese is chopped and salt, water, whey powder, dried milk and emulsifier is added

• Colourings and flavourings may also be added

• This mixture is heated and mixed

• Mixture is packed into blocks, slices, triangles or tubs
Uses of Cheese

- Sandwiches
- Snacks
- Salads – grated, sliced
- Savoury dishes – lasagne, pizza, quiche
- Sauces – cheese sauce
- Dips – cream cheese
- Baking – cheese pastry
- Dessert – cheesecake
- Garnish – gratin dishes
- To end a meal – cheeseboard
Effects of Heat on Cheese

- Protein coagulates and shrinks
- Fat melts
- Overcooking causes cheese to become hard, tough and indigestible
- Overcooking causes fat to separate and cheese to become stringy

To cook cheese effectively:
- Cook for shortest time possible
- Add cheese at end of cooking
- Avoid acid foods with cheese as they increase separation and stringiness
Buying and Storing Cheese

- Check date stamp
- Ensure vacuum packed cheeses are fully sealed when purchasing
- After opening vacuum packed cheese, it should be sealed well and stored in fridge
- Freshly cut cheese should be bought in small amounts and used quickly
- Freshly cut cheese should be wrapped well and stored in fridge
- All cheese should be used at room temperature (remove from fridge one hour before use)