

Food Nutrition and Health

Grade 9

Topic Cake Making

Cake is a delicious , sweet item made from flour, sugar, and other ingredients, that is usually baked which can be served as a snack or dessert in a meal. They are important items for such celebrations as birthday, weddings, anniversaries or other family occasions.

Methods of cake making

Different types of cakes are made using different methods. There are five methods of cake making.

- 1. Rubbed-in method-** The fat is rubbed into the flour until the mixture looks like fine breadcrumbs. Examples of items made by this method are: rock cake, cheese scones and coconut cup cakes.
- 2. Creamed method –** The fat and sugar are beaten together until the mixture is smooth , creamy and fluffy. Cakes made by this method are: Banana cake, red velvet cake , pound cake, plain cake and fruit cake.
- 3. Melted method-** The fat is melted and added to the flour mixture. In some cases, oil is used instead of fat. Muffins, carrot cake and gingerbread are made from this method.
- 4. Whisked method-** the eggs or egg whites and sugar are whisked together until light and frothy. This method is used for jelly roll, chocolate log, meringue and true sponge cakes. They have no fat.
- 5. One- stage or all-in-one method All the ingredients** are put into a bowl, mixed together and stirred well. Liquid is added to bind the dry ingredients and give the batter the desired consistency. Best results are obtained when an electric mixer is used. Buns and coconut cake are made by this method.

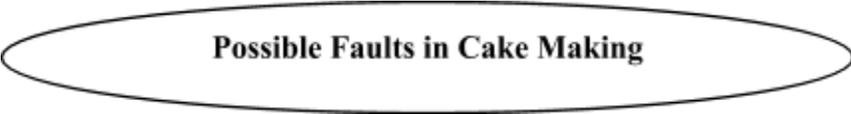
NB: Different methods of cake- making require different proportions of fat and sugar to flour(where fat is required). The consistency of the mixture is also different for each method. Different sizes of cakes need different baking temperatures.

Main ingredients, their role and functions in Cake Making

The main ingredients used in making cakes are:

- **Flour:** Perhaps the most important ingredient in a cake. Flour creates the basic structure for the entire cake. Gluten is a protein in flour that provides a way for the cake to bind to itself. It creates a web that traps and seals in air bubbles. The more gluten that is formed, the tougher the cake is. Due to this, the less gluten formation, the better, as long as the cake sets correctly. There are several types of flour, such as all-purpose flour, bread flour, cake flour, pastry flour, rye flour, buckwheat flour, etc, though you are most likely to use all-purpose or cake flour to bake a cake because those are most suitable .
- **Fat:** There are two types of **fat** used in cake baking: solid and liquid. The primary function of solid fat, also known as plastic fat, such as solid shortening, stick butter or margarine, is to incorporate air bubbles into its malleable mass for volume. This is done through creaming, or beating the fat with crystalline sugar, also known as white granulated or brown sugar (white granulated sugar combined with molasses). But, it can only be done successfully if the right ingredients, ratios, mixing times and temperature, and using the proper tools are followed.
- **Sugar:** Sugar's main role is to sweeten the cake. It also assists in the aeration and stabilization of the batter. It also add flavor and colour. Granulated, fine brown sugar or caster sugar may be used, depending on the recipe.
- **Eggs:** Eggs perform a multitude of important functions in a cake recipe, depending on the part used. Foamed eggs provide leavening, especially separated and beaten whites. Whole eggs and whites contribute to structure. Egg yolk is also a rich source of emulsifying agents and, thus, is a tenderizer; it facilitates the incorporation of air and inhibits wheat starch gelatinization. Egg yolks also add color, nutrition, and flavor and help to retain moisture in the finished cake. On the other hand, whites can have a drying effect, but they contribute slightly more protein than yolks do, although with far fewer nutrients and without the fat and cholesterol.

- **Raising agent / leavening agent:** The leavening agents used in cakes may serve to produce gas by physical, chemical or biological methods. It starts with the creation of millions of tiny air bubbles from various mixing methods, trapped in the structural framework of the cake's batter by the gluten strands. Common leavening agents are baking powder, baking soda, and yeast. Baking powder and baking soda are known as “chemical leaveners”, while yeast is a “natural leavener”. Baking soda is sodium bicarbonate, and it needs an acid to get its aeration engines started. Baking powder is the usual choice for cakes.



Possible Faults in Cake Making

Close heavy texture

- Not enough raising agent
- Too much liquid
- Too cool an oven
- Too much mixing
- Incorrect baking temperature
- Too much sugar

Cracked top

- Baking pan too small
- Placed too high in the oven
- Oven too hot
- Too stiff a batter

Cake sunken in the middle

- Too much raising agent
- Cold air in the oven during baking
- Too thin a batter
- Too much batter in pan
- Insufficient baking
- Too slow an oven

- Too much fat

Coarse texture

- Too much sugar
- Ingredients not properly combined
- Insufficient mixing
- Too much raising agent
- Incorrect oven temperature

Crisp top

- Too much sugar
- Improper mixing
- Too much raising agent

1. Tough

- Too much mixing
- Not enough shortening
- Not enough raising agent
- Not enough sugar
- Too much flour