

FACT SHEET 4

THE INSIDE STORY ON EGG FRESHNESS



Eggs are one of our most useful foods. They are a versatile ingredient in cooking and provide important nutrients for the body.



Many people believe that the colour of the egg shell is a reflection of the nutritive value of the egg. This is a myth. The shell colour usually depends on the breed of the hen. The colour of the yolk depends on what the hen has been eating and how she utilizes the colour pigment in her feed. The colour may be dark or light yellow but the nutritional value of the yolk is much the same whatever the yolk colour.

Eggs are graded by weight and sold accordingly. The grade size is clearly marked on the carton.

The size of eggs can affect some recipes - particularly where a number of eggs are used. Most recipes, are based on a medium egg. If you use larger or smaller eggs, it could affect the results.

FACT SHEET 4 (cont.)

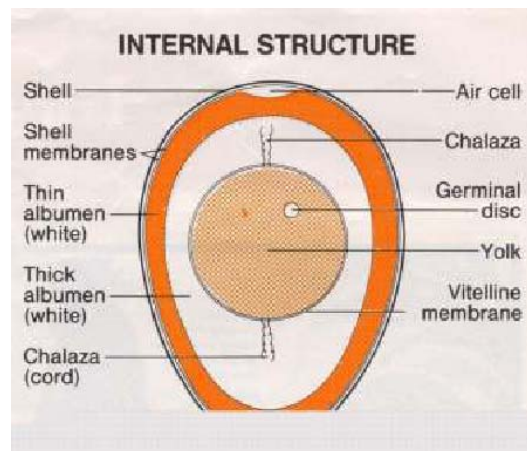
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QUALITY

All eggs sold must pass quality testing. This is to ensure that only first quality eggs are sold. A high quality egg will have a smooth, well-shaped shell free of blemishes and cracks. It will have a small air cell at the blunt end and will be free of any internal defects. Close to the yolk, the egg white will be thick and gelatinous. All eggs go through a candling process (either at the farm or at a central grading floor) where they are passed over a bright light to check for defects.

Occasionally an egg may contain a small blood spot. This may be due to the breed of the hen or it may occur if the hen is upset during the formation of the egg. Such faults are generally detected during candling. However, since candling is a manual process, small spots may occasionally be missed. These spots are not developing chickens, as is commonly believed. Commercially produced eggs are not fertile. Eggs with a small spot are perfectly edible but the spot can be removed if desired.



LONG-TERM STORAGE

Egg yolks can be stored for three days in the refrigerator. Cover unbroken yolks with a little water. If yolks are broken, press plastic wrap onto the surface to exclude air. Egg whites can be stored in an airtight container in the refrigerator for at least seven days. Eggs in the shell should not be frozen. However, beaten eggs will freeze successfully. Egg whites also freeze well. Egg yolks undergo gelation and when thawed are thick and gluggy.

To freeze yolks, it is necessary to add:

- 1 teaspoon salt to 6 yolks OR
- 1-tablespoon sugar to 6 yolks.

Use the salted yolks in savoury dishes and the sugared yolks for cakes, custards and desserts. Don't forget to label the packages as 'salty' or 'sweet'. These should keep in the freezer for up to 10 months.

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EGG STORAGE

As eggs age, they undergo certain physical change. Moisture is lost through the porous shell and will be replaced by air. The air enlarges the aircell found at the blunt end of the egg. The yolk becomes larger and is easily broken. The thick white surrounding the yolk becomes less gelatinous and tends to run into the thin white. Such changes are not noticeable in dishes such as custards, omelettes, scrambled eggs, cakes or biscuits. However, eggs with a thick white are more suitable for poaching and frying to produce a more compact result. Very liquid whites are unsuitable for beating as they give a poor foam.

Eggs begin to lose quality as soon as they are laid and it is important to store them correctly to minimize such losses. The way eggs are stored can affect their quality more than how long they are stored.

Eggs are best stored in the refrigerator, as they can lose as much quality in one day at room temperature as 4-5 days in the refrigerator. Only clean, uncracked eggs should be stored. Dirty eggs should be discarded.

Eggs should be stored in their carton with the pointed end down, as this keeps the yolk centred and prevents damage to the air cell. Eggs are packed this way, and the carton provides protection from damage. The carton also slows down moisture loss and helps prevent the eggs from absorbing odours from other strong-smelling foods. For these reasons, it is recommended that eggs should not be stored in individual egg compartments in the door of the refrigerator.

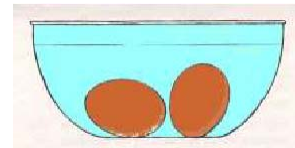
When using eggs, the best guide to the freshness is the BEST BEFORE date on the carton. However, eggs which have been stored correctly should still be edible well past this date.

HOME FRESHNESS TEST

If you would like to check the freshness of an egg there are two simple tests.

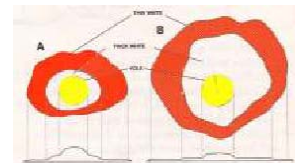
1. Water Test

Place an egg in a bowl of water. A fresh egg will generally lie at the bottom. As an egg ages, the increase in air cell size will cause the egg to float with the broad end up. (This test is only a rough guide, as several other factors such as a weak or light shell or tiny hairline cracks could cause a fresh egg to float).



2. Break Out Test

Break the egg onto a flat plate. The fresh egg will have a well-rounded yolk surrounded by a thick gelatinous white that "sits up" quite high (as diagram A). As the egg ages the white becomes less gelatinous and the yolk is flatter (as diagram B). (Sometimes large eggs have a less obvious thick white even when very fresh. This may be due to the hen approaching the end of her laying cycle).



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EGG SAFETY

Eggs, like other protein foods such as meat, fish and poultry, may be contaminated with microbes, which can, if allowed to grow, cause food poisoning. There have been many documented outbreaks of salmonella food poisoning from poorly handled eggs.

Salmonella is easy to destroy in cooking. Any food cooked uniformly to a temperature of 72°C will be free of salmonella. The problem is that we often eat eggs raw or only lightly cooked. Such foods, along with shell eggs, should be treated as though they are contaminated.

SAFETY TIPS

A few simple steps will significantly reduce the risk of food poisoning from egg dishes.

Buy your eggs from supermarkets or shops which store them in the refrigerator or at least in a cool area of the store. Refrigerate your eggs immediately on arriving home - treat them like you treat your milk.

If you make dishes in which the eggs are only lightly cooked, such as some sauces, serve the food immediately or refrigerate. Don't let it stand around at room temperature.