

EGGS

Functional
and Nutritional
Properties



Eggs are one of nature's most versatile foods and can be included in everything from appetizers to desserts.

EGGS ARE USED UNIVERSALLY BECAUSE OF THEIR FUNCTIONAL PROPERTIES



Garnishing

Eggs can be used as a nutritional add-on to appetizers, salads, burgers or pasta dishes.



Binding

Whole eggs can be used to bind ingredients together, giving burgers and casseroles strength and stability.



Leavening

When eggs are beaten and placed in a hot oven the protein and water found in eggs steams and rises resulting in risen éclairs and cream puffs.

Thickening

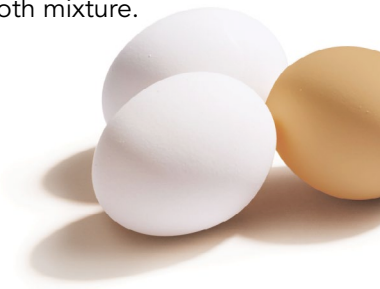
Eggs can hold up to four times their weight in moisture, so they are useful as a thickener for sauces, custards or curds.





Emulsifying

Egg yolks are often used to blend liquids that normally do not mix together well like fats and water. For example, eggs enable Hollandaise sauce or mayonnaise to be whisked together to form a smooth mixture.



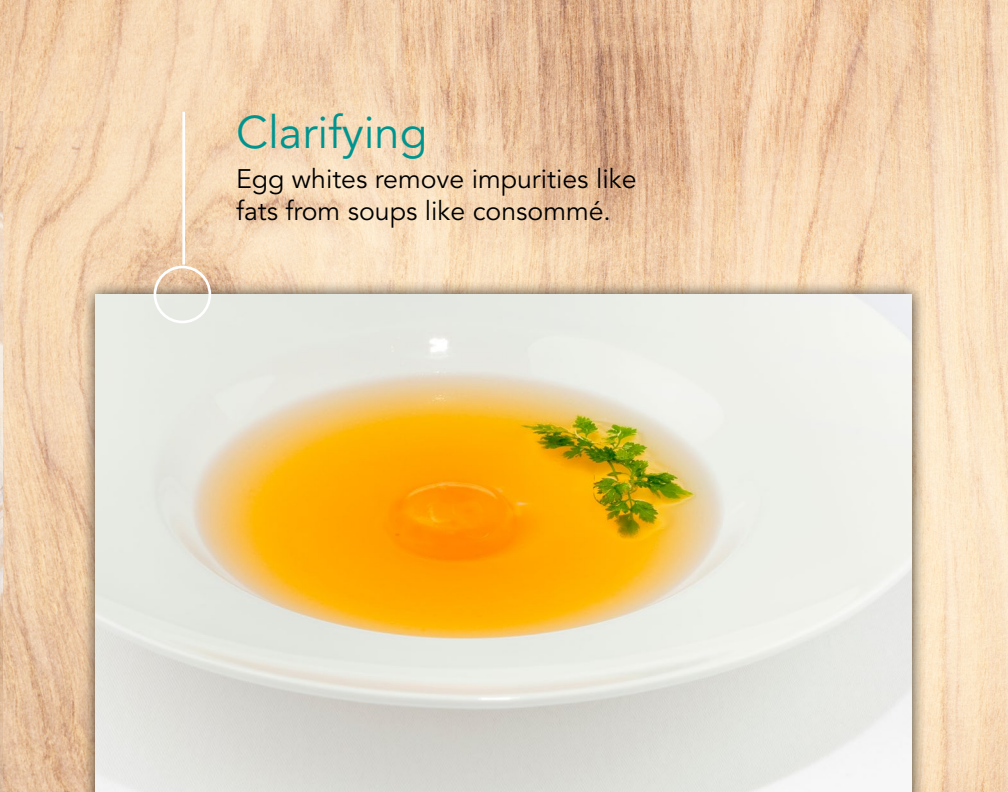
Colouring and Coating

The proteins found in eggs will brown when heated. Brushing baked goods like pies, biscuits or breads with an egg wash before baking provides a bronzed and glossy sheen.



Foaming

Egg whites can expand up to eight times their volume. They provide height and structure to soufflés, angel food cakes and meringues.

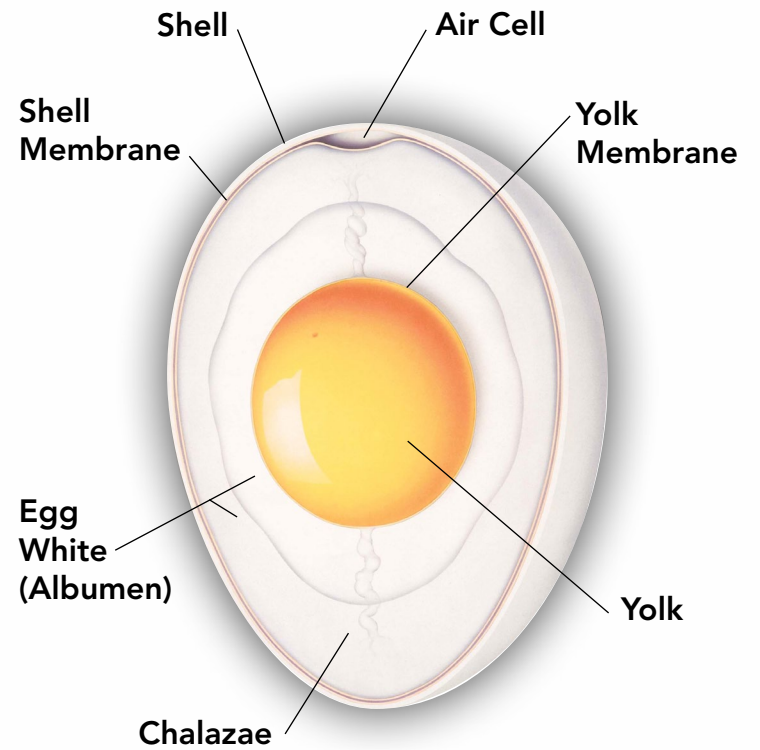


Clarifying

Egg whites remove impurities like fats from soups like consommé.



ANATOMY OF THE EGG



Retard Crystallization

Eggs help in slowing down sugar and ice crystals from forming in foods like icing, marshmallows or ice cream.



MAKING THE GRADE

Naturally Nutritious

Few foods can compete with eggs when it comes to nutrition. Eggs are an excellent source of high-quality protein and are loaded with vitamins and minerals.

Only the best eggs make Grade A quality and these are the eggs sold in Manitoba grocery stores. What makes a Grade A egg?

- A firm white
- A thick, well-centred yolk
- A small air cell at the wide end of the egg
- No visible cracks on the shell



Safe handling of eggs

- Purchase only Grade 'A' eggs with clean, uncracked shells that have been stored refrigerated.
- When buying eggs, check the 'Best Before' date found on the carton.
- For optimal freshness, store eggs in their original carton on the middle shelf in the refrigerator (ideally at 4°C).
- Wash hands with warm, soapy water before and after food preparation.
- Serve eggs and egg-rich foods immediately after cooking or refrigerate and serve within three to four days.

Iron

Carries oxygen to the cells; helps prevent anemia – the iron in eggs is easily absorbed by the body.

Vitamin A

Helps maintain healthy skin and eye tissue; assists in night vision.

Vitamin D

Strengthens bones and teeth; may help protect against certain cancers and autoimmune diseases.

Vitamin E

An antioxidant that plays a role in maintaining good health and preventing disease.

Vitamin B12

Helps protect against heart disease.

Selenium

Works with vitamin E to act as an antioxidant to help prevent the breakdown of body tissues.

Folate

Helps produce and maintain new cells; helps prevent a type of anemia, helps protect against serious birth defects if taken prior to pregnancy and during the first three months of pregnancy.

Protein

Essential for building and repairing muscles, organs, skin, hair and other body tissues; needed to produce hormones, enzymes and antibodies. The protein in eggs is easily absorbed by the body.

Lutein and zeaxanthin

Maintains good vision; may help reduce the risk of age-related eye diseases such as cataracts and macular degeneration.

Choline

Plays a strong role in brain development and function.



Scrambled Egg Muffins

Ingredients:

- ½ lb. (226.80 grams) bulk pork sausage
- 12 eggs
- ½ cup (125 mL) chopped red onions
- ½ cup (125 mL) chopped green bell pepper
- ½ tsp (2 mL) salt
- ¼ tsp (1 mL) ground black pepper
- ¼ tsp (1 mL) garlic powder
- ½ cup (125 mL) shredded cheddar cheese

Instructions:

Preheat oven to 350°F (175°C). Lightly grease 12 muffin cups, or line with paper muffin liners.

Heat a large skillet over medium-high heat and stir in sausage; cook and stir until sausage is crumbly, evenly browned and no longer pink, 10 to 15 minutes; drain. Beat eggs in a large bowl. Stir in onions, green pepper, salt, pepper, and garlic powder. Mix in cooked sausage and cheddar cheese. Spoon into prepared muffin tins, about ⅓ full. Bake in preheated oven until a knife inserted near the centre comes out clean, 20 to 25 minutes. Serves 12.

Chocolate Chip Domino Brownies

Ingredients:

- ½ cup (125 mL) soft butter
- 2 cups (500 mL) firmly packed brown sugar
- 4 eggs
- 2 cups (500 mL) all-purpose flour
- 2 tsp (10 mL) baking powder
- ½ tsp (2 mL) salt
- 2 tsp (10 mL) vanilla
- 1 cup (250 mL) chopped walnuts
- 1 pkg (175 g) semi-sweet chocolate chips

Instructions:

In a mixing bowl, cream butter and brown sugar. Beat in 1 egg at a time. Sift together flour, baking powder and salt. Stir into brown sugar mixture until smooth. Fold in vanilla, nuts and chocolate chips. Spread in 9 x 13-inch (23 x 33 cm) baking pan sprayed with non-stick vegetable spray and lightly floured. Bake in 350°F (180°C) oven for 25 to 30 minutes. Cool to room temperature. Cut into 24 squares (about 2 inch/5 cm). Makes 24 squares.

Optional: Frost with Orange Buttercream Frosting or sprinkle with icing sugar, if desired.



Orange Buttercream Frosting

- ⅓ cup (75 mL) butter, room temperature
- 1 ½ cups (375 mL) icing sugar
- 4 tsp (20 mL) orange juice

In medium bowl, beat butter with electric mixer or wooden spoon until creamy. Gradually add icing sugar and orange juice, alternately, heating until light and fluffy. Makes approximately ¾ cup or 75 mL frosting.

Locally Produced

Manitoba Egg Farmers represents 170 local farm families in the province. These regulated egg farmers follow strict standards in food safety and hen care.

Regulated egg farmers in Manitoba raise their hens in a variety of different housing environments including conventional, enriched, free-run and free-range. For a look inside a laying hen barn, click on the videos in the Hen Care section of Manitoba Egg Farmers' website

www.eggs.mb.ca

