







Let's Explore Alternatives to Shell Eggs

From the young to the old, all of us enjoy eggs as an essential and excellent source of nutrition in our daily diet. In Singapore, we consume more than 3 million shell eggs on average every day. More than 70% of these eggs are imported from Malaysia while the remaining 30% are supplied by local farms.

This dependence on a single major supplier makes us vulnerable to price increases and supply disruptions due to circumstances at source, such as a disease outbreak like bird flu.

Other than diversifying supply sources, did you know that there are shell egg alternatives available to us that may help minimise the inconvenience of a supply disruption?

Egg powder and liquid egg are alternatives that provide as much nutritional value as fresh shell eggs, as they are actually fresh shell eggs processed into different forms.



In fact, they even boast of other benefits:

Safe to Use

Egg powder and liquid egg are free from the risk of contaminated egg shells, as they are first pasteurised to eliminate salmonella and other micro-organisms.

Easy Storage

They are packaged for convenience and minimal storage space. For example, egg powder or liquid egg will require less storage space than their equivalent in a tray of 10 shell eggs.

Less Wastage

Shell eggs may break accidentally, resulting in mess and wastage. Egg powder and liquid egg are free from this risk of breakage.

The Process

Egg powder and liquid egg are produced under stringent quality checks and carefully-controlled temperatures in establishments certified by the relevant authorities.

Preparation

First, fresh shell eggs are checked and then properly stored. They are washed just before production begins.





Production of Liquid Egg

The eggs are broken and then visually checked, filtered and stored in chiller tanks.

They are then pasteurised to destroy pathogens and viruses.

The pasteurised liquid egg is packaged and chilled.

The packaged liquid egg then goes through a series of quality checks and laboratory testing and monitoring for any possible food threats, before they are certified safe for delivery.

Production of Egg Powder

In the case of egg powder, there is an additional step where the pasteurised liquid eggs are dried through a special process and made into powder.

Using Egg Powder and Liquid Egg at Home

How do I store and handle egg powder and liquid egg?

Egg powder and liquid egg should be properly stored and handled. Maintain good hygiene and other food safety practices while handling egg powder and liquid egg to prevent spoilage and contamination.

Easy-to-follow tips (you may also follow the product manufacturer's recommendations on the packaging for other dos and don'ts):



Egg Powder

- · Check the 'use-by' date
- Store in a cool, dry place
- · Handle egg powder with clean, dry hands or gloves
- After opening, the packaging or container should be resealed tightly and stored in a cool, dry place at the temperature recommended by the manufacturer
- Egg powder that is reconstituted or have already been mixed with water should be used immediately



Liquid Egg

- Check the 'use-by' date and do not store longer than the recommended shelf life
- Liquid egg should be kept refrigerated at all times at the temperature recommended on the packaging
- As a general rule, use the product immediately after opening and do not store for more than 3 days after opening
- Do not freeze packs or cartons of liquid egg which are already opened

How do I use egg powder and liquid egg in cooking and baking?

Both egg powder and liquid egg can be used in recipes that require whole eggs. They are ideal for baking or for cooking omelettes or scrambled eggs.



Egg Powder

Egg powder needs to be reconstituted or mixed with water before use. Information on product conversion and instructions on how to reconstitute or mix the eggs can also be found on the packaging.

To reconstitute egg powder, use a whisk to whisk the egg powder as you slowly pour in the water. This should be done until the egg powder is well dissolved and the egg mixture is of a smooth consistency.

Alternatively, you can use an electric blender when mixing the egg powder and water. The blending process should take 2 to 3 minutes or until the powder is completely dissolved.



Liquid egg is ready to use straight out of the packaging. Information on serving size can also be found on the packaging. The information given may vary across manufacturers.



FAQs

Q: Which countries export egg powder and liquid egg to Singapore?

A: Countries which are approved by AVA to export egg powder and liquid egg to Singapore include Australia, Belgium, Canada, China, Denmark, France, Malaysia, the Netherlands, New Zealand, Sweden and United States of America*.

*The list of countries provided here is correct at the time of print. Please refer to www.ava.gov.sg for updates.

Q: Do egg powder and liquid egg contain preservatives?

A: Liquid egg normally cannot be kept for longer than 2 to 3 weeks as it does not contain preservatives. Liquid egg products with a longer shelf life may contain a small amount of preservatives added during processing.

Egg powder, if stored properly, can have a shelf life of up to one year from the date of manufacture. Instead of adding preservatives, glucose is removed during processing from the eggs to ensure long storage stability. Sugar (sucrose), glucose-free corn syrup or sodium silicoaluminate (a permitted anticaking agent) may be added to egg powder products to ensure they do not harden.

Q: Is there a loss of nutritional value when fresh shell eggs are processed into egg powder and liquid egg?

A: Egg powder and liquid egg are similar to fresh shell eggs in nutritional value.

Q: Why do we talk about alternatives to shell eggs when there is an abundant supply of fresh shell eggs in the market?

A: One never knows when a supply disruption might occur. When we are aware that there are substitute products available in the market that work as well as shell eggs, we can make better-informed purchasing decisions the next time we are faced with a supply crisis as a result of unforeseen circumstances such as a bird flu disease outbreak. Other than the solution of diversifying supply sources, we do have access to other alternatives that we can explore.

Q: Why are egg powder and liquid egg considered safe to use?

A: Egg powder and liquid egg are pasteurised and packaged under stringent controls, and the equipment used to handle the products are sanitised daily at regular intervals. However, it is also important for consumers themselves to handle and store egg powder and liquid egg in a proper and sanitary manner to prevent them from going bad.