



**JOINT PRESS RELEASE  
FOR IMMEDIATE RELEASE**

**RARE CASES OF ALLERGIC REACTIONS LINKED TO  
CONSUMPTION OF GOS**

The Ministry of Health (MOH) and the Agri-Food & Veterinary Authority of Singapore (AVA) would like to inform the public of rare cases of allergic reactions linked to the consumption of products with galacto-oligosaccharide (GOS), which is found in some milk formulas sold in Singapore.

2. Since 2007, about two cases of GOS allergies on average have been reported each year in Singapore. All the cases have a history of atopy or allergic conditions such as atopic dermatitis (eczema), allergic rhinitis or asthma and were found to be sensitised to house dust mites. To date, there were no reported cases of infants (below 2 years old) who had been allergic to GOS.

3. Exposure to GOS in our population includes milk formulas for infants, children (e.g. follow-on formula and growing up milk) and pregnant or lactating mothers. GOS allergy symptoms include:

- a) Respiratory: Sneezing, runny nose/ blocked nose, cough, throat and chest tightness, and wheezing
- b) Skin: Hives and itch, including itchy eyes
- c) Gastrointestinal: Diarrhoea

4. GOS is a carbohydrate added in foods as a prebiotic to promote the growth of good bacteria in the gut to help maintain a healthy digestive system. Many countries, including Singapore, have approved the use of GOS in food products as it has been evaluated to be safe for human consumption. (Please refer to the Annex for information on GOS and food allergies.)

5. GOS is not well documented to cause food allergy. Healthy individuals with no history of allergy are not likely to develop allergic reactions due to the consumption of GOS. Consumers who had previously consumed, or who are currently consuming GOS products with no allergic reactions, are highly unlikely to have GOS allergy.

6. Our local clinicians are conducting further studies to better understand the mechanism of the GOS in triggering the allergic reactions. We will continue to closely monitor the situation.

## **Advisory for Consumers**

7. All food products containing GOS must be clearly labelled. The public can find out if a milk product contains GOS by reading the statement of ingredients on the product labels, under the term “galacto-oligosaccharides”.

8. Consumers with a history of atopy or allergic conditions such as asthma, allergic rhinitis or atopic dermatitis (eczema) are advised to exercise vigilance when consuming products containing GOS for the first time. An allergic reaction to GOS could take from minutes to hours within ingestion for symptoms to appear.

9. We advise consumers who encounter an allergic reaction to seek medical attention. If a severe reaction is experienced (e.g. difficulties in breathing or giddiness and/or loss of consciousness), they should seek immediate medical treatment at the nearest hospital. As part of follow-up, the patient may be referred to a specialist experienced in treating food allergies for a detailed evaluation to be carried out.

**MINISTRY OF HEALTH  
AGRI-FOOD & VETERINARY AUTHORITY OF SINGAPORE  
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## **Food Allergies**

1. Food allergy is a response to a food triggered by our body's immune system. Common food allergens are food proteins which cause allergic reactions. Examples of food allergens are eggs, soybean, peanut, cow's milk, fish, tree nuts, crustacean products and gluten.
2. Food allergy can affect both children and adults. The typical symptoms of food allergy include itching in the mouth, swelling of the lips, face, tongue, diarrhoea and red itchy bumps. Some may experience severe allergic reaction or anaphylaxis, characterised by difficulty in breathing and a severe drop in blood pressure resulting in giddiness and/ or loss of consciousness. This reaction is life threatening if left untreated and would require immediate medical attention.
3. Common food allergens, like any other ingredients, are required to be declared under the statement of ingredients on the labels of pre-packed foods. This is to facilitate consumers making informed food choices. Food manufacturers may also highlight the presence of food allergens using additional statements e.g. "contains peanuts", as long as the ingredient is disclosed under the statement of ingredients.

### **About GOS**

4. GOS is not well documented for causing food allergy and is unlike the classical food allergens which are proteins. Oligosaccharides resembling GOS can also be found naturally in human milk.
5. GOS has been evaluated to be safe for human consumption. Milk-based products with GOS have been on the market in Europe since 2000 and in Southeast Asia since 2007. Many countries including Australia, New Zealand, European Union, United States, China, Indonesia, Malaysia and Thailand have approved the use of GOS in foods. It is estimated that worldwide, over 100 million infants and young children have consumed products containing GOS since its introduction in 2000.