

GM Food Newsletter

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GM Food Allergy?



Mrs. Wong : Doctor, please help my son! He gets red, bumpy, itchy rash all over his body and the lips have swollen up! What's wrong?

Doctor : (Examine Jerry carefully) Um...you may have developed some allergic reaction. What did you eat today?

Jerry : Bread, milk, sausage, nuts, shrimp, potato chips...

Mrs. Wong : Potato chips?! Is it the one you bought yesterday? I have told you not to eat those potato chips! Can't you see the words on the label of the package?! The potato chips are made of genetically modified (GM) potato. It must be the GM potato that caused the allergy!

Jerry : So...rry, mom...

Doctor : Um...Mrs.Wong...it may not be the case because...

Mrs. Wong : No, doctor! It must be the GM potato. I have learnt from a television documentary that new proteins are synthesised in GM crops and cause allergic reactions! That is why I would never allow my children to eat any GM food.

Doctor : It may not be all the truth, Mrs.Wong...

Mrs. Wong : No, no...Doctor! GM food is something threatening! I have heard that the gene in the GM food will transfer to the bacteria in our guts. The bacteria will then become resistant to antibiotics and are hard to kill!

Doctor: The probability of such gene transfer is...

- Mrs. Wong :** I have not finished yet, doctor. You may not know that the safety of GM food is now out of our control! GM crops only approved for feed use have been found in the food! I have heard that it is the spread of pollens from the GM crops to the non-GM plants that leads to such mixing.
- Doctor :** Oops....Mrs. Wong the situation...
- Mrs. Wong :** Oh, no! Will the GM food carry DNA from animals? I am a vegetarian. I am not eating any stuff containing animal ingredients. Oh, no...no...!
- Doctor :** Hey! Mrs. Wong. Please calm down! Would you please spare me a few minutes and listen to me?
- Mrs. Wong :** Hmm...
- Doctor :** First of all, it may not be the GM potato chips that caused the allergy. There is a theoretical possibility that new allergens are synthesised in the GM food as a result of the genetic modification and causing allergy. Indeed, different GM organisms include different genes inserted in different ways and the food safety of individual GM food should be assessed on a case-by-case basis. However, the safety of the approved GM food has been assessed in their country of origin before the product is launched on the market. Such assessment could help to exclude GM food that is likely to be allergenic from entering the market.
- Mrs. Wong :** O... really?!
- Doctor :** For the transfer of genes from GM food to the bacteria in our gut, such gene transfer is a rare possibility because many complex and unlikely events would need to occur consecutively for this to happen. Nevertheless, some food and health regulatory authorities have advised the industry not to use DNA component carrying information for resistance to antibiotics that are frequently used for therapeutic purposes.
- Mrs. Wong :** Um...that would be better.
- Doctor :** Mrs. Wong, you are right. Contamination of food with GM crops not yet approved for food use occurred in the past few years. Some of the biotechnology companies explained that this might be due to unintended mixing of GM seeds with non-GM ones, or the spread of pollens of GM plants to their non-GM counterparts when the unapproved GM crops are planted for field test.
- Mrs. Wong :** Yup. It is something out of our control!
- Doctor :** Wait a minute, Mrs. Wong. It cannot be denied that GM contamination is a real problem and has raised serious concern. However, several countries have now tried to adopt strategies to control the spread of GM pollens, for example, by making a clear separation of the fields within which GM crops and non-GM crops are grown, so as to minimise any possible contamination.
- Mrs. Wong :** O...I see. How about the use of animal DNA in GM crops?
- Doctor :** By now, no GM crop containing animal DNA is allowed for food use. In Hong Kong, it has been recommended in the "Guidelines on Voluntary Labelling of Genetically Modified (GM) Food" released in July 2006, that GM food should be labelled as such if an animal gene has been introduced into food of plant origin. With such guidelines, you can make an informed choice of what you want to buy.
- Mrs. Wong :** What if...
- Jerry :** Doctor, it itches! Do I need medicine?

For more information on GM food, please visit our website

http://www.cfs.gov.hk/english/programme/programme_gmf/programme_gmf.html