

## **BonSoy soy milk recall: Information for Medical Practitioners**

**04.01.2010**

**Version 1.0**

### **4 Key points for Medical Practitioners**

- 1. BonSoy soy milk has been withdrawn from the marketplace in Ireland and many other countries following detection of high levels of iodine in this product. This product should not be consumed.**
- 2. A cluster of 7 and possibly 8 adult cases in one practice in New South Wales in Australia have been diagnosed with thyroid conditions believed to be associated with consumption of BonSoy soy milk (as of 24 Dec 2009)**
- 3. In addition, a newborn has been diagnosed with hypothyroidism in Australia, secondary to iodine excess following maternal consumption of BonSoy during the pregnancy**
- 4. Doctors should be alert to seek information about BonSoy soy milk consumption by any persons presenting or who have presented in the past months with thyroid conditions.**

BonSoy is a soy milk product from Japan distributed nationally in Australia, Ireland and many other countries. This product has now been recalled by the Food Safety Authority of Ireland. All products produced since 1<sup>st</sup> January 2009 have been withdrawn. Tests in Australia have shown it to contain extremely high levels of iodine and consumption there has been linked to clinical thyrotoxicosis and, less commonly, hypothyroidism. Iodine crosses the placenta and may cause foetal and neonatal hypothyroidism which can cause developmental problems in the newborn.

Exceeding the safe upper limit for iodine intake may occur when 30ml is consumed per day by an adult or 5ml for a child.

#### **Recommended levels of iodine**

The recommended daily intake for iodine depends on age and life stage:

- Younger children (1 to 8 years) – 90µg
- Older children (9 to 13 years, boys and girls) – 120µg
- Adolescents (14 to 18 years) – 150µg
- Men – 150µg
- Women – 150µg
- Pregnancy and breastfeeding – 220µg and 270µg respectively.

The recommended safe upper limit for iodine is:

- Young children (1 to 3 years) – 200µg
- Older children and Adolescents (14 years) – 900µg
- Adults – 1,100µg

### **Signs and Symptoms of excessive iodine intake**

Excessive iodine can lead to hyperthyroidism or, less commonly in adults, hypothyroidism. Infants appear more susceptible to hypothyroidism following excessive iodine exposure.

The commonest symptoms of hyperthyroidism are palpitations, fatigue, weight loss, anxiety, tremor, heat intolerance and loose bowel motions. Hypothyroidism is often insidious and, in mild cases, may only be detected on routine screening but it can cause fatigue, weight gain and mental clouding.

### **Medical Management**

- Patients should be advised not to consume the product and to dispose of it either down the drain or in the bin.
- Iodine has a half life of approximately 30 days.
- When a patient presents with a history of BonSoy soy milk consumption together with symptoms or signs listed above, TSH should be measured. If the TSH is abnormal, refer to an endocrinologist for further management and follow up. Patients should be told this is a treatable condition. There is no need for any further management if the TSH is normal (Normal range 0.3-4.0 mU/L, can vary between laboratories) as stopping the ingestion of the milk will return the body's iodine levels to normal within a few weeks. Abnormal TSH will need to be followed up.
- Advice to patients who report they have drunk the milk and are pregnant: see your GP or obstetrician for a TSH measurement. The Newborn is at risk for Transient Hypothyroidism and should have a TSH soon after birth (this is usually routinely done with the Guthrie heelprick test); and again at 14 days of age. If the TSH is abnormal at birth, then treatment and further tests may be required – these should be conducted under the supervision of an endocrinologist. The effect of the high iodine levels will be to block synthesis of thyroid hormones causing hypothyroidism which in the neonatal period could cause a permanent loss of cognitive function.
- In general, the public should be aware that products or over the counter tablets made from seaweed (e.g. kelp) may cause thyroid problems
- Suspected cases should be reported to the local Director of Public Health in Departments of Public Health Medicine.

Advice for the general public about the recall of BonSoy soy milk product and a fact sheet about iodine is available on the Health Protection Surveillance Centre website [www.hpsc.ie](http://www.hpsc.ie)