Regulatory trends of Nutrition labelling and *trans* fatty acid labelling

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Consumer Affairs Agency
Food Labelling Division
Global regulatory trends on Nutrition labelling and *trans* fatty acid labelling

**Countries and regions mandating *trans* fatty acid labelling**
- Nutrition labelling other than *trans* fatty acids (e.g., saturated fatty acids) is also mandatory.

**Countries mandating nutrition labelling**
- Israel, India, Australia, Cuba, China, New Zealand, Malaysia
- *Trans* fatty acid labelling is voluntary (may have standards for Nutrition and Health Claims).

**Japan**: Nutrition labelling is voluntary, and standards for *trans* fatty acid labelling are not established.

**[Note]** Countries regulating content of *trans* fatty acids in oils and fats

- **Denmark**
  - As of June 2003, *trans* fatty acids in oils and fats must not exceed 2% of oil or fat.

- **Switzerland**
  - As of April 2008, *trans* fatty acids in oils and fats must not exceed 2% of oil or fat.

- **Austria**
  - As of September 2009, *trans* fatty acids in oils and fats must not exceed 2% of oil or fat.

- **Hong Kong**
  - As of July 2010, nutrition labelling including *trans* fatty acids is mandatory.

- **South Korea**
  - As of 2006, nutrition labelling is mandatory.
  - As of December 2007, *trans* fatty acid labelling is mandatory.

- **Canada**
  - As of December 2005, nutrition labelling including *trans* fatty acids is mandatory.

- **United States of America**
  - As of 1994, nutrition labelling is mandatory.
  - As of January 2006, *trans* fatty acid labelling is mandatory.
  - [Note]
    - New York City (2007) as a first city and California State (2010) as a first state prohibited food service establishments using oils, shortening and margarine containing 0.5 grams or more of artificial *trans* fatty acids per serving.

- **Brazil**
  - As of 2001, nutrition labelling is mandatory.
  - As of August 2006, *trans* fatty acid labelling is mandatory.

- **Chile**
  - As of November 2006, nutrition labelling including *trans* fatty acids is mandatory.

- **Argentina**
  - As of August 2006, nutrition labelling including *trans* fatty acids is mandatory.

- **Paraguay**
  - As of August 2006, nutrition labelling including *trans* fatty acids is mandatory.

- **Taiwan**
  - As of 2002, nutrition labelling is mandatory.
  - As of January 2008, *trans* fatty acid labelling is mandatory.

- **South Korea**
  - As of 2006, nutrition labelling is mandatory.
  - As of December 2007, *trans* fatty acid labelling is mandatory.

- **Uruguay**
  - As of August 2006, nutrition labelling including *trans* fatty acids is mandatory.

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- **Brazil**
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  - As of August 2006, *trans* fatty acid labelling is mandatory.
Dietary reference intakes for Japanese (2010) have established adequate intake and dietary goals for fatty acids by age group and sex.


### Saturated fatty acids
- High saturated fatty acid intake increases LDL cholesterol level, the major risk factor coronary heart disease.
- Individual saturated fatty acids [lauric acids (12:0), myristic acids (14:0), palmitic acids (16:0) or stearic acids (18:0)] have different effects on lipoprotein cholesterol levels.

### Trans fatty acids
- *Trans* fatty acids not only increase LDL cholesterol level, but also lower HDL cholesterol level.
- *Trans* fatty acids increase risk of coronary heart disease.
- In 2003, World Health Organization (WHO) recommended very low intake of artificial *trans* fatty acids (less than 1% of daily energy intake). In 2008, Joint FAO/WHO expert consultation on Fats and Fatty acids in Human Nutrition, however, reported that possible need of revising the current recommendation in order to protect substantial subgroups from having dangerously high intakes.

### Cholesterol
- Elevated LDL cholesterol level is a major risk factor for coronary heart disease, and cholesterol intake may raise total and LDL cholesterol levels. However, association between cholesterol intake and cardiovascular diseases is inconsistently observed. Further studies are warranted to make conclusion on the effects of cholesterol on health.

### Important roles of fatty acids
- Structural component of cell membranes.
- Source of energy (provides more than twice amount of energy compared with carbohydrates and proteins).
- Supports absorption of fat soluble vitamins (vitamins A•D•E•K) and carotenoids.
- Cholesterol constitutes cell membranes and serves as precursors for hormones and vitamin D.
- N-6 fatty acids and n-3 fatty acids, fatty acids not synthesized in the body (essential fatty acids), must be obtained from diets.

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**Trans fatty acid labelling in Japan**

- **Trans** fatty acids increase risk of coronary heart disease. Several countries and regions in North America, South America, and Asia have mandated **trans** fatty acid labelling as one of the nutrients in the nutrition labelling regulations.
- Estimated mean **trans** fatty acid intake among Japanese is 0.6% of total energy intake. However, intake of individuals with unbalanced diets (e.g., high amount of sweets, which are high in fats), may exceed this level.
- Consumer Affairs Agency will release “Guidelines on **trans** fatty acid labelling” (tentative) for food industry to promote voluntary disclosure of information on **trans** fatty acid content. Considering to develop labelling systems of **trans** fatty acids, we will continue working on this issue.

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**Trans fatty acids**

**Trans** fatty acids are type of fatty acids found in processed fats and oils, such as margarine and shortening, as well as food products made with these fats. Also, **trans** fatty acids are found in meat and milk of cows and other ruminant animals.

**Example of trans fatty acids:** Elaidic acids

Reference: Ministry of Agriculture, Forestry and Fisheries

**Estimated intake**

Reference: Food Safety Commission

- **Japanese population**
  1. Estimated from consumption of food group data in the National Health and Nutrition Survey → 0.7g/day (0.3% of total energy intake)
  2. Estimated from Production data → 1.3g/day (0.6% of total energy intake)
- **US population:** 5.8g/day (2.6% of total energy intake)
- **EU population:** men: 1.2-6.7g/day (0.5%-2.1% of total energy intake)  
  women: 1.7-4.1g/day (0.8%-1.9% of total energy intake)


Recommended **trans** fatty acid intake to less than 1% of daily energy intake.

[2008: Joint FAO/WHO expert consultation on Fats and Fatty acids in Human Nutrition]

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**(1) Provide helpful information to Consumers**

1. Educate consumers about nutrition, especially on fatty acids including **trans** fatty acids.
   - Released fact sheet on **trans** fatty acids (2010, September 10)
2. Promote industry efforts to reduce **trans** fatty acids in food products and to disclose information of **trans** fatty acid content.
   - Consider definitions, analytic methods, and acceptance criterion for **trans** fatty acid labelling, and develop “Guidelines on **trans** fatty acid labelling” for food industry by the summer, 2010.
   - Request food industry to work on voluntary disclosure of information on **trans** fatty acid content.

**(2) Continue considering to develop labelling systems for **trans** fatty acids.**