

Dietary supplements and functional foods

Food supplements are foodstuffs intended to supplement the normal diet, they constitute a concentrated source of nutrients or other substances having, alone or in combination, a nutritional or physiological effect. They are marketed in many forms (capsules, pastilles, tablets, powder packets or ampoules).

The nutritional or health claims they claim have, since July 2007, been very strictly regulated under the European Regulation 1924/2006, which requires scientific proof to be provided to the European Medicines Agency (EMA).

Functional foods are not defined by legislation. They are considered common foods intended for consumption as part of a balanced and varied diet. Their particularity lies in the fact that they contain biologically active compounds that have beneficial effects on one or more target functions of the body, beyond the basic nutritional effects, in order to improve health and well-being and/or reduce the risk of disease.

Dairy products, especially yogurts, are the most abundant probiotic foods, with Danone's Activia® and Actimel® products leading the way.

Like many foods, functional foods and probiotics are subject to safety and labeling rules, in particular with regard to claims used by the food industry as a selling point.

Recently, new guidelines have tightened the regulations around these probiotic foods because their health benefits were difficult to recognize.

European Union Regulation No 432-2012 of 16 May 2012

establishes a list of authorized health claims on foods and specifies that health claims must be based on generally accepted scientific evidence.

Probiotics fall into two types of claims: function claims and therapeutic claims:

Claim Any representation that states, suggests or implies that a food has particulate qualities related to its origin, nutritional properties, nature, processing, composition or any other quality.

Health claim refers to any representation in labeling and advertising that states, suggests or implies that there is a relationship between the consumption of a food or food constituent and a person's health.

Functional claim refers to a health claim that describes the physiological effects of food or food constituents on the body's normal functions or biological activities associated with health or performance. Functional claims can be made about the physiological effects of probiotic microorganisms in foods (e.g., "promotes regularity" and "improves nutrient absorption and aids digestion"). Function claims must include a specific, scientifically substantiated physiological effect associated with good health or performance and providing useful information to consumers.

Therapeutic claim refers to the treatment or mitigation of a disease or health disorder or related to the recovery, correction or modification of bodily functions. For example, "[name of food or food constituent] lowers blood cholesterol".

The assessment of probiotics for food use is described in the report of the Joint FAO/WHO Expert Consultation (Food and Agriculture Organization of the United Nations and World Health Organization).

Specific labeling guidelines are outlined in the Canadian Food Inspection Agency's (CFIA) Guide to Food Labelling and Advertising, which applies to all products containing probiotic microorganisms. According to the appropriate description of a probiotic product, as indicated on the label, should include the following points:

- *Strain Identification*: Any claim for a probiotic must be accompanied by the Latin name of the microorganism (i.e. genus and species), as well as the name of the strain of the microorganism. For consistency, it is recommended that the strain should be identified by the number assigned by an internationally recognized culture bank, such as the American Type Culture Collection.
- *Quantity declaration*: The quantity of the probiotic microorganism(s) present in the product must be indicated in colony-forming units (CFU) in a specified portion of the food. This statement must appear next to the Nutrition Facts table or ingredient list, or in close proximity to the claim.
- *List of ingredients*: Any food containing probiotic microorganism(s) must display a list of ingredients in accordance with the sections of the Food Regulations. The probiotic microorganism must be designated by its common name or by the class name.