need of adjusting nutrients according to each category of age, gender, and physical activity level and allows for eating of complete nutritious food that satisfies Dietary Reference Intakes only by adjusting the amount (calories) of a food product.

[0010] The invention described in Patent Literature 7 is a technique related to a nutritional supplementary food product and describes a dry type nutritional supplementary food product that can confer nutrition by addition during eating of an existing food product.

[0011] As mentioned above, many techniques are disclosed, such as a managing systems for improving dietary habit, food products with balanced nutrients per meal, and nutritious supplements for completing nutrients. However, no method for efficiently and conveniently providing a customer with a plurality of diets on a menu as nutrition-added food that satisfies a specific nutrient reference has been disclosed yet.

CITATION LIST

PATENT LITERATURE

[0012]

Patent Literature 1: Japanese Patent No. 6633625

Patent Literature 2: Japanese Patent Laid-Open No. 2019-153006

Patent Literature 3: Japanese Patent No. 6961901

Patent Literature 4: Japanese Translation of PCT International Application Publication No. 2015-509736

Patent Literature 5: Japanese Patent Laid-Open No. 2019-140952

Patent Literature 6: International Publication No. WO 2021/193658

Patent Literature 7: Japanese Patent No. 4727650

SUMMARY OF INVENTION

TECHNICAL PROBLEM

[0013] An object of the present invention is to conveniently provide a customer with a plurality of diets each having one meal amount on a menu as nutrition-added food that satisfies a specific nutrient reference.

SOLUTION TO PROBLEM

[0014] The inventors have invented complete nutritious food that satisfies nutrient reference intakes only by adjusting the amount (calories) of a food product as described in

in advance so as to compensate for the attenuation; and a plurality of nutrients, if added, can be put together to thereby decrease the number of times of adding or weighing the nutrients.

[0033] Each group of the nutrient additives does not have to be one group. For example, the group including vitamins having an upper limit of intake may be further divided into two or three subgroups. As each of the three groups is further divided into two or three subgroups, nutrition-added food that more finely satisfies the specific nutrient reference may be produced. However, the number of nutrient additives to be added is increased and is therefore not preferred. Even if the nutrient additives of each group are further divided, three or less subgroups are preferred. Six or less subgroups of the nutrient additives are preferred as a whole.

[0034] The vitamins included in the nutrient additives of the group including vitamins having an upper limit of intake according to the present invention are vitamins whose upper limit of intake is designated in nutrient reference intakes disclosed in public organizations or published papers, and can be selected according to each nutrient reference intake. Examples of the vitamins based on the "Dietary Reference Intakes for Japanese (2020 edition)" issued by the Ministry of Health, Labour and Welfare of Japan include vitamin A, vitamin D, vitamin E, niacin, vitamin B6, and folic acid. At least one or more of these vitamins may be included therein. These vitamins are not particularly limited as long as the vitamins can be used for food or for medicaments.

[0035] For some vitamins, although the upper limit of intake is not designated in the public nutrient reference intakes, the upper limit of an addition amount is designated in another law or reference such as the food hygiene law. Such vitamins whose upper limit is designated in another law or reference are also included in the vitamins having an upper limit of intake in the broad sense.

[0036] The minerals included in the nutrient additives of the group including minerals having an upper limit of intake according to the present invention are minerals whose upper limit of intake is designated in nutrient reference intakes disclosed in public organizations or published papers, and can be selected according to each nutrient reference intake. Examples of the minerals included in the nutrient additives of the group including minerals having an upper limit of intake and based on the "Dietary Reference Intakes for Japanese (2020 edition)" issued by the Ministry of Health, Labour and Welfare of Japan include iron, calcium, zinc, copper, manganese, phosphorus, iodine, selenium, chromium, and molybdenum. At least one or more of these minerals may be included therein. These

minerals are not particularly limited as long as the minerals can be used for food or for medicaments. The minerals may be inorganic salts or organic acid salts or may be contained in microbes.

[0037] For some minerals, although the upper limit of intake is not designated in the public nutrient reference intakes, the upper limit of an addition amount is designated in another law or reference such as the food hygiene law. Such minerals whose upper limit is designated in another law or reference are also included in the minerals having an upper limit of intake in the broad sense.

[0038] The vitamins and the minerals included in the nutrient additives of the group including vitamins or/and minerals having no upper limit of intake according to the present invention are vitamins and minerals whose upper limit of intake is not designated in nutrient reference intakes disclosed in public organizations or published papers, and can be selected according to each nutrient reference intake. Examples of the vitamins and the minerals included in the nutrient additives of the group including vitamins or/and minerals having no upper limit of intake and based on the "Dietary Reference Intakes for Japanese (2020 edition)" issued by the Ministry of Health, Labour and Welfare of Japan include vitamin B1, vitamin B2, vitamin B12, vitamin C, vitamin K, pantothenic acid, biotin, potassium, and magnesium. At least one or more of these vitamins or minerals may be included therein. These vitamins or minerals are not particularly limited as long as the vitamins or minerals can be used for food or for medicaments.

[0039] In the case of dividing the group including vitamins having an upper limit of intake or the group including minerals having an upper limit of intake into two or more subgroups, one of the subgroups can be mixed with the nutrient additives of the group including vitamins or/and minerals having no upper limit of intake. The resulting nutrient additives, albeit including the minerals or the vitamins having an upper limit of intake, are regarded as the nutrient additives of the group including vitamins or/and minerals having no upper limit of intake.

[0040] When the nutrient additives of each group include a plurality of nutrients, the quantitative amounts (ratios) of the vitamins or/and the minerals within the nutrient additives of each group can be determined by calculating the amount of a nutrient that falls short of the specific nutrient reference from the contents of nutrients in the basic configurations of a plurality of nutrition-added foods to be provided on a menu. In a specific method, on the basis of an average value, a maximum value, or the like of a deficient nutrient among the

[Table 18]

Nutrient	Material	Content ratio	Average deficiency (g)	Base formulation (g)	1 Single formulation	2 Vitamin Upper limit	3 Mineral Upper limit	4 No upper limit	5 Mineral Upper limit a	6 Mineral Upper limit b
Vitamin A (retinol)	Vitamin A oil	0.06	0.000051	0.000842	0.000842	0.000842				
Vitamin D	Vitamin D3 oil	0.0025	0.000002	0.000789	0.000789	0.000789				
Vitamin E	α-Tocopherol preparation	0.513	0.000008	0.000016	0.000020	0.000020				
Niacin	Niacin preparation	0.26	0							
Vitamin B6	Pyridoxin hydrochloride	0.806	0							
Folic acid	Folic acid	1	0							
Iron	Diiron pyrophosphate	0.285	0.000698	0.002448	0.002450		0.002450		0.002450	
Zinc	Zinc yeast	0.1	0.000910	0.009101	0.009106		0.009106		0.009106	
Copper	Copper yeast	0.05	0							
Manganese	Manganese yeast	0.05	0.000251	0.005012	0.004604		0.004604		0.004604	
Iodine	Iodine yeast	0.0035	0.000033	0.009474	0.009475		0.009475		0.009475	
Selenium	Selenium yeast	0.002	0.000005	0.002279	0.002280		0.002280		0.002280	
Chromium	Chromium yeast	0.002	0.000001	0.000555	0.000555		0.000555		0.000555	
Molybdenum	Molybdenum yeast	0.002	0							
Calcium	Calcium lactate	0.129	0.080410	0.623335	0.062334		0.062334			0.062334
	(Calcium phosphate)	0.39								
Phosphorus	Calcium phosphate	0.201	0.003775	0.018782	0.018785		0.018785			0.018785
	(Diiron pyrophosphate)	0.079								
Potassium	Potassium Chloride	0.523	0.002489	0.004760	0.004761			0.004761		
Magnesium	Magnesium Oxide	0.593	0.030090	0.050743	0.050743			0.050743		
Vitamin K	Vitamin K preparation	0.01	0.000015	0.001521	0.001521			0.001521		
Vitamin B1	Vitamin B1 preparation	0.26	0.000078	0.000302	0.000304			0.000304		
Vitamin B2	Vitamin B2 preparation	0.1	0.000168	0.001681	0.001687			0.001687		
Vitamin B12	Vitamin B12 powder preparation	0.0011	0.000000	0.000291	0.000292			0.000292		
Pantothenic acid	Calcium pantothenate	0.46	0.000426	0.000927	0.000928			0.000928		
Biotin	Biotin preparation	0.0103	0.000006	0.000622	0.000680			0.00068		
Vitamin C	L-Ascorbic acid	0.98	0.011248	0.011478	0.011478			0.011478		
Total					0.183634	0.001651	0.109589	0.072394	0.02847	0.081119