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SPECIAL EQUIPMENT SAFETY TECHNICAL SPECIFICATION OF THE PEOPLE'S REPUBLIC OF CHINA

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Regulation on Safety Technology for Large-scale Amusement Facilities (English Translation)

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1 Scope

This part stipulates the reference intake of Chinese dietary energy, protein, energy, protein, lipids and carbohydrates.

This part applies to the dietary intake evaluation and dietary guidance, of healthy people or individuals among Chinese residents.

2 Normative references

The following documents are indispensable for the application of this document.

For dated reference documents, only the dated version applies to this document.

For undated reference documents, the latest version (including all amendments) is applicable to this document.

WS/T 476 Terminology of nutrition

3 Terms and definitions

The terms and definitions as defined in WS/T 476, as well as the following terms and definitions, apply to this document.

For ease of use, some terms and definitions in WS/T 476 are repeated below.

3.1

Dietary reference intakes; DRIs

A set of reference values, which are used to evaluate whether the dietary nutrient supply can meet human needs, whether there is a risk of excessive intake, help prevent certain chronic non-communicable diseases, including:

estimated average requirement, recommended nutrient intake, adequate intake, tolerable

maximum intake, recommended nutrient intake, acceptable macronutrient distribution range.

[WS/T 476-2015, definition 5.3.1]

3.1.1

as protein, fat, carbohydrates, in the diet, expressed in kilojoules (kJ) or joules (J) (see Appendix A).

3.3.1

Energy requirement

Estimated energy requirement; EER

The energy, which is required for the body's total energy consumption. That is, the energy consumed by basic metabolism, physical activity, food thermal effects, etc., as well as the energy required for growth and development during childhood, nutritional reserves during pregnancy, lactation during lactation period.

[WS/T476-2015, definition 3.1.16]

3.3.2

Total energy expenditure; TEE

The total energy, which is consumed in 24 hours, including the energy consumed by basal metabolism, physical activity, food thermal effects, growth and development, pregnancy nutrition reserves, lactation of pregnant women.

[WS/T 476-2015, definition 3.1.12]

3.3.3

Basal energy expenditure; BEE

The energy consumed by the basic metabolism, that is, the energy consumption, which is required for the relaxation of the muscles of the whole body, without any physical activity or nervous thinking activity. At this time, energy consumption is only used to maintain the most basic life activity states, such as body temperature, heartbeat, respiration, various organ tissues and cell functions.

3.3.4

Physical activity level; PAL

The ratio of total energy expenditure (TEE) to basal energy expenditure (BEE), which is used to express the intensity of physical activity. See formula (1) for calculation:

[WS/T 476-2015, definition 3.3.1.5]

3.5.3

Monounsaturated fatty acid; MUFA

A fatty acid, which has one double bond in the carbon chain, such as oleic acid (C18:1), palmitoleic acid (C16:1).

[WS/T 476-2015, definition 3.3.1.7]

3.5.4

Polyunsaturated fatty acid; PUFA

Fatty acids, which have two or more double bonds in the carbon chain, such as linoleic acid (C18: 2), linolenic acid (C18: 3), arachidonic acid (C20:4).

[WS/T 476-2015, definition 3.3.1.8]

3.5.5

Essential fatty acid; EFA

Fatty acids, which are necessary for the human body, cannot be synthesized by itself, but are obtained from food. It includes linoleic acid (C18: 2) and alpha- linolenic acid (C18:3).

[WS/T 476-2015, definition 3.3.1.12]

3.5.6

n-6 polyunsaturated fatty acid; n-6 PUFA

Polyunsaturated fatty acids, whose first double bond is located between the 6th and 7th carbon atoms, from the methyl end, including linoleic acid (LA, C18:2) and arachidonic acid (ARA, C20:4).

3.5.7

n-3 polyunsaturated fatty acid; n-3 PUFA

Polyunsaturated fatty acids, whose first double bond is located between the 3rd and 4th carbons, from the methyl end, including alpha-linolenic acid (ALA, C18:3), eicosapentaenoic acid (EPA, C20:5), docosapentaenoic acid (DPA, C22:5), docosahexaenoic acid (DHA, C22:6).

3.6

Carbohydrate

The general term for sugars, oligosaccharides, polysaccharides, which are important nutrients that provide energy.

[WS/T 476-2015, definition 3.4]

3.6.1

Sugar

All monosaccharides and disaccharides, such as glucose, sucrose and so on.

[WS/T 476-2015, definition 3.4.1]

3.6.2

Dietary fiber

Carbohydrates, which are contained in plant foods, cannot be digested and absorbed by the human small intestine, have health significance to the human body. It includes cellulose, hemicellulose, pectin, inulin, etc., as well as other ingredients such as lignin.

[WS/T 476-2015, definition 3.4.19]

4.1 Chinese dietary energy requirements

The dietary energy requirements of Chinese residents at different genders, ages, physical conditions and physical activity levels are as shown in Table 1.

4.2 Reference intake of Chinese dietary protein

The reference intakes of Chinese dietary protein, at different genders, ages and physiological conditions, are as shown in Table 2.

4.3 Reference intake of Chinese dietary fat and fatty acids

For the reference intakes and acceptable ranges of Chinese dietary fats and fatty acids, at different ages and physiological conditions, refer to Table 3.

4.4 Reference intake of Chinese dietary carbohydrates

For the reference intake and acceptable range of Chinese dietary carbohydrates, at different ages and physical conditions, refer to Table 4.

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