

## Review Article

# Revised dietary guidelines for Koreans

Young Ai Jang PhD<sup>1</sup>, Haeng Shin Lee PhD<sup>1</sup>, Bok Hee Kim PhD<sup>2</sup>, Yoonna Lee PhD<sup>1</sup>, Hae Jeung Lee PhD<sup>1</sup>, Jae Jin Moon MS<sup>1</sup> and Cho-il Kim PhD<sup>1</sup>

<sup>1</sup>Center for Nutrition Policy & Promotion, Korea Health Industry Development Institute, Seoul, Korea

<sup>2</sup>Department of Food & Nutrition, College of Natural Sciences, Chosun University, Gwangju, Korea

With rapidly changing dietary environment, dietary guidelines for Koreans were revised and relevant action guides were developed. First, the Dietary Guidelines Advisory Committee was established with experts and government officials from the fields of nutrition, preventive medicine, health promotion, agriculture, education and environment. The Committee set dietary goals for Koreans aiming for a better nutrition state of all after a thorough review and analysis of recent information related to nutritional status and/or problems of Korean population, changes in food production/supply, disease pattern, health policy and agricultural policy. Then, the revised dietary guidelines were proposed to accomplish these goals in addition to 6 different sets of dietary action guides to accommodate specific nutrition and health problems of respective age groups. Subsequently, these guidelines and guides were subjected to the focus group review, consumer perception surveys, and a public hearing for general and professional comments. Lastly, the language was clarified in terms of public understanding and phraseology. The revised *Dietary guidelines for Koreans* are as follows: eat a variety of grains, vegetables, fruits, fish, meat, poultry and dairy products; choose salt-preserved foods less, and use less salt when you prepare foods; increase physical activity for a healthy weight, and balance what you eat with your activity; enjoy every meal, and do not skip breakfast; if you drink alcoholic beverages, do so in moderation; prepare foods properly, and order sensible amounts; enjoy our rice-based diet.

**Key Words:** dietary guidelines, Koreans, revision, dietary goals, dietary action guides

## INTRODUCTION

Dietary guidelines for healthful diets and disease prevention are important components of public health and nutrition policy. Differently from Dietary Reference Intakes<sup>1</sup> (DRIs) and similar dietary standards that are reference values for essential nutrients, dietary guidelines represent advice for the public. They are not only grounded on the scientific basis, but also on a variety of reasons including national political considerations. Hence, dietary guidelines are revised from time to time with changes in public policy recommendations based on the advances in scientific understanding on genetics, biochemistry and dietary environment.

Although there were tremendous changes in a global dietary environment including the inauguration of the World Trade Organization, the last set of general dietary guidelines proposed in 1991 by the Ministry of Health and Social Affairs then was effective till 2002 in Korea. Furthermore, dietary guidelines or action guides tailored for specific age groups, including infants and toddlers, pregnant and lactating women, children and adolescents, and more have never been developed at the national level even with rising needs for them.

With the promulgation of the National Health Promotion Act<sup>2</sup> in 1995, Korean government committed to take triennial National Health & Nutrition Survey and nutrition education for nutritional improvement and better health of the nation. Onto this, the Health Promotion Fund (HPF) was raised from tobacco sales to support and promote

programs for healthy lifestyle practice based on the Act. The revision of dietary guidelines for Koreans was completed in a 2-year project from 2002 to 2003 and supported by HPF.<sup>3,4</sup>

## Revision of dietary guidelines

The process of revising dietary guidelines (DG) was rather long and labor consuming. First of all, the dietary guidelines advisory committee was established in 2002 with experts of nutrition, preventive medicine and health promotion, and government officials from Ministries of Health and Welfare, Agriculture and Forestry, Education and Human Resources Development, and Environment. The committee was asked to set dietary goals for Koreans aiming for a better nutrition state of all through a thorough review of information related to the nutritional status and problems of Korean population, recent changes in food production and supply, disease pattern change and chronic disease prevalence, current health policy, education policy and agricultural policy, and DG development process of other countries.<sup>3</sup> For this process, the result of the first

**Corresponding Author:** Dr. Cho-il Kim, Center for Nutrition Policy & Promotion, Korea Health Industry Development Institute, Seoul, 156-800, Korea.

Tel: + 82 2 2194 7311; Fax: + 82 2 824 1765

Email: kimci@khidi.or.kr

Manuscript received 9 September 2007. Accepted 3 December 2007.

National Health & Nutrition Survey (NHNS) conducted in 1998 was analyzed interrelating dietary intake, health behaviours, and health examination data in depth. The 1<sup>st</sup> NHNS employed a nationwide sample of 4,000 households and members of 1 year and older in those households were subjected to the survey.<sup>5</sup> Data from more than 9,000 individuals were utilized to figure out dietary intake status and related problems of Koreans.

Then, a set of general dietary guidelines to accomplish these goals for Koreans of all age was proposed based on the aforementioned information and referencing the contents of most recent dietary guidelines of several other countries including Australia, Canada, China, Japan, UK and USA. The draft guidelines were undergone the focus group review, consumer perception surveys, and an open hearing for public and/or professional comments. At the last step, the languages were clarified in terms of public understanding and phraseology. The revised dietary goals and dietary guidelines for all are as follows.<sup>3</sup>

#### Dietary Goals for Koreans

1. Ensure to have adequate intakes of energy and protein based on the RDAs.
2. Increase the intakes of calcium, iron, vitamin A and riboflavin.
3. Try to limit fat intake not to exceed 20 % of total calories.
4. Keep salt intake less than 10 g/day. (This is the first step to lower salt intake down to 6 g/day, eventually.)
5. Decrease alcohol consumption.
6. Maintain healthy weight ( $18.5 \leq \text{BMI} < 25$ ).
7. Keep a desirable dietary habit.
8. Promote our traditional dietary culture.
9. Keep and prepare food safely.
10. Reduce food waste.

#### Dietary guidelines for Koreans of all age

- Eat a variety of grains, vegetables, fruits, fish, meat, poultry, and dairy products.
- Choose salt-preserved food less and prepare foods with less salt.
- Increase physical activity for a healthy weight and balance what you eat with your activity.
- Enjoy every meal, and do not skip breakfast.
- If you drink alcoholic beverages, do so in moderation.
- Prepare foods properly and order foods in sensible amounts.
- Enjoy our rice-based diet.

#### Development of dietary action guide

With dietary intake status and nutritional problems different among various age groups, there arose a need to develop dietary action guides tailored to each age group also. Since the preliminary result of the 2<sup>nd</sup> NHNS became available at the beginning of 2003, this data<sup>6,7</sup> was used along with 1<sup>st</sup> NHNS data<sup>5</sup> in defining specific nutrition and health problems of respective age groups.<sup>8</sup>

Six taskforces were gathered to develop dietary action guides for 6 age groups namely, infants and toddlers, children, adolescents, adults, elders, and pregnant and lactating women.<sup>3,4</sup> Based on the specific nutrition/health status and problems of respective age groups, draft dietary

action guides with practical action tips were proposed. These guides were undergone the same procedures above-mentioned as the revision of dietary guidelines. Final versions of the dietary action guides are as follows.<sup>3,4</sup>

#### Dietary action guide for infants and toddlers

- Breast-feed exclusively for the first six months of life
- Introduce solid foods considering developmental change of infants
- Encourage toddlers to eat a variety of grains, vegetables, fruits, meats and fish



Figure 1. Dietary action guide booklet for infants and toddlers

#### Dietary action guide for pregnant and lactating women

- Take milk and dairy product 3 times a day
- Eat adequate amount of lean meats or fish, vegetables, and fruits everyday
- Choose foods low in salt and use less salt in cooking
- Do not drink alcoholic beverages and go moderate on beverages with caffeine
- Care for your food: choose, prepare and store it safely
- Eat according to energy needs for a proper weight gain during pregnancy
- Eat adequate amount of foods for lactation



Figure 2. Dietary action guide booklet for pregnant and lactating women

#### Dietary action guide for children

- Eat plenty of vegetables, fruits, milk and dairy products daily
- Eat a variety of lean meats, fish, eggs, and bean products daily

- Enjoy outdoor activity everyday and eat according to your energy needs
- Start your day with breakfast
- Choose healthy and nutritious foods for snack
- Avoid food wastes
- Enjoy your meal with a good table manner



Figure 3. Dietary action guide booklet for children

*Dietary action guide for adolescents*

- Eat plenty of vegetables, fruits, milk and dairy products daily
- Go moderate on fried foods and/or fast foods
- Know your healthy weight and eat according to your needs
- Choose water as a drink
- Start your day with breakfast
- Choose safe foods: read food and nutrition labels
- Enjoy our rice-based diet



Figure 4. Dietary action guide booklet for adolescents

*Dietary action guide for adults*

- Eat a variety of vegetables, fruits and dairy products daily
- Choose less fatty meats and fried foods
- Choose salt-preserved food less, and prepare foods with less salt
- Increase physical activity for a healthy weight and balance activity with what you eat
- If you drink alcoholic beverages, limit yourself to only 1-2 drinks a day
- Enjoy every meal on time

- Prepare and/or order foods in adequate amounts and keep them safe
- Enjoy our rice-based diet



Figure 5. Dietary action guide leaflet for adults

*Dietary action guide for the elderly*

- Eat a variety of side dishes with vegetables, fish, meat, poultry and bean products
- Eat dairy products and fruits daily
- Choose salt-preserved food less and prepare foods with less salt
- Be physically active each day for a hearty appetite and a healthy weight
- Drink adequate amounts of water and go moderate with alcoholic beverages
- Enjoy three meals and between-meal snacks daily
- Prepare and/or order foods in sensible amounts and reject them if in doubt



Figure 6. Dietary action guide leaflet for the elderly

**Interim evaluation of Health Plan 2010 and its revision**

At the interim evaluation<sup>9</sup> of the Health Plan 2010<sup>10</sup> for Koreans, the increase in obesity and chronic disease prevalence along with increase in energy/fat intake was noted from the interim report of the 3<sup>rd</sup> NHNS<sup>11, 12</sup> conducted in spring 2005. Based on this evaluation result and interim report, the Health Plan 2010 was revised for its goals and contents.<sup>13</sup> The new plan encompasses 24 focus areas, 169 specific health objectives, and 108 health promotion programs with overarching goals of extending healthy life expectancy and achieving equity in health. Accordingly, the development and dissemination of die-

tary guidelines focusing on prevention of obesity and chronic diseases was included as one of those programs demanding immediate action in the focus area of Nutrition in the New Health Plan 2010.<sup>14</sup>

Presently, a HPF-supported research project is under way to revise dietary goals and dietary guidelines for Koreans. In this process, results from the most recent National Health & Nutrition Survey and the health goals of the New Health Plan 2010<sup>14</sup> will be used to revise dietary goals first. And a new set of dietary guidelines will be developed reflecting the current status and/or expected change in health and nutrition of the Korean population and accommodating the concept of DRIs<sup>1</sup> for Koreans. With the Health Promotion Fund, the Ministry of Health and Welfare has placed the development and dissemination of dietary guidelines on the top of the work list to be completed by the end of 2008.

#### ACKNOWLEDGMENT

This study was supported by a grant of the Korea Health 21 R&D Project, Ministry of Health & Welfare, Republic of Korea. (03-PJ1-PG1-CH12-0002).

#### AUTHOR DISCLOSURES

Young Ai Jang, Haeng Shin Lee, Bok Hee Kim, Yoonna Lee, Hae Jeung Lee, Jae Jin Moon and Cho-il Kim, no conflicts of interest.

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