

Supplementary Materials

Diet quality of Japanese preschool children assessed by the Healthy Eating Index-2020: Nutrient and food group intake, as well as weekday–weekend differences

Hazuki Akazawa MSc^{1,2,3}, Atsuki Sakai RD, MSc¹, Takako Takahashi RD, PhD¹, Tetsuko Okabe RD, PhD⁴, Ruriko Sasaki RD, MSc⁵, Hiromi Ishida RD, PhD⁶, Hiromitsu Ogata PhD⁶, Mitsuhiko Hara MD, PhD⁷, Yukiko Yoshioka RD, PhD⁸, Miho Nozue RD, PhD⁹, Tatsuaki Sakamoto RD, PhD¹⁰, Sanae Ito RD, PhD¹¹, Nobuko Murayama PhD¹², Katsushi Yoshita RD, PhD, PhD¹

¹Graduate School of Human Life and Ecology, Osaka Metropolitan University, Osaka, Osaka, Japan

²NISSIN Global Food Safety Institute, NISSIN FOODS HOLDINGS CO., LTD, Hachioji, Tokyo, Japan

³National Institute of Health and Nutrition, National Institutes of Biomedical Innovation, Health, and Nutrition, Settsu, Osaka, Japan

⁴School of Nursing and Nutrition, Tenshi College, Sapporo, Hokkaido, Japan

⁵Faculty of Human Life Science, Miyagi Gakuin Women's University, Sendai, Miyagi, Japan

⁶Faculty of Nutrition, Kagawa Nutrition University, Sakado, Saitama, Japan

⁷Faculty of Human Ecology, Wayo Women's University, Ichikawa, Chiba, Japan

⁸Faculty of Nutritional Science, Sagami Women's University, Sagamihara, Kanagawa, Japan

⁹Faculty of Health Promotional Sciences, Tokoha University, Hamamatsu, Shizuoka, Japan

¹⁰Faculty of Environmental and Symbiotic Sciences, Prefectural University of Kumamoto, Kumamoto, Kumamoto, Japan

¹¹Faculty of Medicine, University of the Ryukyus, Ginowan, Okinawa, Japan

¹²Faculty of Human Life Studies, University of Niigata Prefecture, Niigata, Japan

Corresponding Author:

Dr Hazuki Akazawa, Graduate School of Human Life and Ecology, Osaka Metropolitan University, 2-1-132, Morinomiya, Joto-ku, Osaka, Osaka 536-8525, Japan.

Tel: +81-70-3266-7608.

Email: hazuki.akazawa@nissin.com

Manuscript received 18 September 2025. Initial review completed 27 October 2025. Revision accepted 25 December 2025.

doi: 10.6133/apjcn.202604_35(2).0010

Supplementary Table 1. HEI-2020 scoring standards

Component	Maximum points	Minimum points	Standard for maximum score	Standard for minimum score (0)
Adequacy				
Total fruits	5	0	≥ 0.8 cup eq. per 1,000 kcal	No fruits
Whole fruits	5	0	≥ 0.4 cup eq. per 1,000 kcal	No whole fruits
Total vegetables	5	0	≥ 1.1 cup eq. per 1,000 kcal	No vegetables
Greens and beans	5	0	≥ 0.2 cup eq. per 1,000 kcal	No dark green vegetables or legumes
Whole grains	10	0	≥ 1.5 oz eq. per 1,000 kcal	No whole grains
Dairy	10	0	≥ 1.3 cup eq. per 1,000 kcal	No dairy
Total protein foods	5	0	≥ 2.5 oz eq. per 1,000 kcal	No protein foods
Seafood and plant proteins	5	0	≥ 0.8 oz eq. per 1,000 kcal	No seafood or plant proteins
Fatty acids	10	0	(PUFAs + MUFAs)/SFAs ≥ 2.5	(PUFAs + MUFAs)/SFAs ≤ 1.2
Moderation				
Refined grains	10	0	≤ 1.8 oz eq. per 1,000 kcal	≥ 4.3 oz equiv. per 1,000 kcal
Sodium	10	0	≤ 1.1 gram per 1,000 kcal	≥ 2.0 grams per 1,000 kcal
Added sugars	10	0	$\leq 6.5\%$ of energy	$\geq 26\%$ of energy
Saturated fats	10	0	$\leq 8\%$ of energy	$\geq 16\%$ of energy

Gram equivalents refer to the gram weights corresponding to HEI-2020 cup- and ounce-equivalent units (1 cup eq. = 236.59 g; 1 oz. eq. = 28.35 g), based on the U.S. Food Patterns Equivalents Database (FPED). Intakes between the minimum and maximum standards are scored proportionately.