

HEALTHY EATING INDEX 2020

UPDATE

HEALTHY EATING INDEX—TODDLERS 2020

NEW

What are the Dietary Guidelines for Americans?

The recently released 2020-2025 Dietary Guidelines for Americans included recommendations for infants and toddlers and necessitated a review, update, and development process of the HEI to reflect healthy eating across the lifespan. The Dietary Guidelines are recommendations to help Americans choose foods and beverages to achieve and maintain a healthy weight, promote health, and prevent disease. The Guidelines are issued every five years by the U.S. Department of Health and Human Services (HHS) and U.S. Department of Agriculture (USDA). The newest HEI is based on the [2020-2025 Dietary Guidelines for Americans](#).

LEARN MORE

nccor.org/projects/HEI

What is the Healthy Eating Index (HEI)?

The new HEI-Toddlers-2020 and the updated HEI-2020 are the latest iterations of the Healthy Eating Index, a tool designed to measure diet quality—that is, how closely an eating pattern or mix of foods matches the Dietary Guidelines for Americans' (DGA) recommendations.



For the first time, there are tandem HEIs: the HEI-Toddlers-2020 for toddlers 12 through 23 months and the HEI-2020 for children and adults 2 years and older.

HEIs are not checklists or diet assessment instruments that gather data about what people eat. Rather, the HEIs are scoring metrics that can be used to determine the diet quality of an existing set of foods or a menu.

Both the HEI-Toddlers-2020 and the HEI-2020 have 13 components, each of which reflects an important aspect of diet quality. Nine components focus on adequacy (foods we should eat enough of to get the nutrients we need and for overall good health). Four components focus on moderation (dietary components that should be limited or consumed in small amounts).

Why a new version just for toddlers?

- ▶ The 2020-2025 DGA included a USDA Dietary Pattern for toddlers age 12 through 23 months for the first time, within smaller calorie constraints appropriate for this age group. The 2020-2025 DGA did not include a USDA Dietary Pattern for infants under age 12 months, so no HEI was developed for those under age 12 months.
- ▶ Guidance in the 2020-2025 DGA is different for this age group in some respect, notably:
 - A recommendation to avoid all added sugars
 - No recommendation to limit saturated fats to less than 10% of energy intake
- ▶ Other differences between the HEIs include:
 - HEI-Toddlers-2020 reflects recommendations for complementary foods and beverages for toddlers age 12 through 23 months who are no longer receiving human milk or infant formula.
 - If toddlers are still receiving these foods, the HEI-Toddlers-2020 score should be calculated without energy or nutrient contributions from these foods.
- ▶ The development of the HEI-Toddlers-2020 addresses the need identified in the Scientific Report of the 2020 Dietary Guidelines Advisory Committee for the development of a scoring system for infants and toddlers because thus far it has only been possible for ages 2 years and older.

Relationship of USDA Food Groups and Subgroups to the Healthy Eating Index¹

FOOD GROUP/SUBGROUP/NUTRIENT

HEI-2020 COMPONENT



¹ This table shows how the groups and subgroups of the USDA Food Patterns and selected nutrients contribute to the components of the HEI.

² Includes all milk products, such as fluid milk, yogurt, and cheese, and fortified soy beverages.

³ Saturated fat is counted separately.

⁴ Includes nuts, seeds, and soy products (other than beverages).

⁵ Included as a ratio of poly- and monounsaturated fatty acids to saturated fatty acids.

⁶ Includes caloric sweeteners and syrups used as sweeteners in other food products, as well as sugars added in food preparation, processing and added at the table.

Components and scoring standards for the HEI-2020 and HEI-Toddlers-2020

HEI-2020 ¹ COMPONENT	MAXIMUM POINTS	STANDARD FOR MAXIMUM SCORE ²	STANDARD FOR MINIMUM SCORE OF ZERO ³	STANDARD FOR MAXIMUM SCORE ¹	STANDARD FOR MINIMUM SCORE OF ZERO ¹
HEI-2020 For 2 Years and Older			HEI-Toddlers-2020 For 12 through 23 months		
▲ ADEQUACY COMPONENTS					
Total Fruits ²	5	≥ 0.8 cup equiv. / 1,000kcal ⁹	No Fruits	≥0.7 cup equiv. per 1,000 kcal	No Fruits
Whole Fruits ³	5	≥ 0.4 cup equiv. / 1,000kcal	No Whole Fruits	≥0.3 cup equiv. per 1,000 kcal	No Whole Fruits
Total Vegetables ⁴	5	≥ 1.1 cup equiv. / 1,000kcal	No Vegetables	≥0.9 cup equiv. per 1,000 kcal	No Vegetables
Greens and Beans ⁴	5	≥ 0.2 cup equiv. / 1,000kcal	No Dark Green Vegetables or Legumes	≥0.1 cup equiv. per 1,000 kcal	No Dark Green Vegetables or Legumes
Whole Grains	10	≥ 1.5 ounce equiv. / 1,000kcal	No Whole Grains	≥1.5 oz equiv. per 1,000 kcal	No Whole Grains
Dairy ⁵	10	≥ 1.3 cup equiv. / 1,000kcal	No Dairy	≥2.0 cup equiv. per 1,000 kcal	No Dairy
Total Protein Foods ⁴	5	≥ 2.5 ounce equiv. / 1,000kcal	No Protein Foods	≥2.0 oz equiv. per 1,000 kcal	No Protein Foods
Seafood and Plant Proteins ^{4,6}	5	≥ 0.8 ounce equiv. / 1,000kcal	No Seafood or Plant Proteins	≥0.5 oz equiv. per 1,000 kcal	No Seafood or Plant Proteins
Fatty Acids ⁷	10	(PUFAs + MUFAs) / SFAs ≥ 2.5	PUFAs + MUFAs)/SFAs ≤1.2	(PUFAs + MUFAs)/ SFAs ≥1.5	(PUFAs + MUFAs)/SFAs ≤0.9
▼ MODERATION COMPONENTS					
Refined Grains	10	≤ 1.8 ounce equiv. / 1,000kcal	≥4.3 oz equiv. per 1,000 kcal	≤1.5 oz equiv. per 1,000 kcal	≥3.4 oz equiv. per 1,000 kcal
Sodium	10	≤ 1.1 gram / 1,000kcal	≥2.0 grams per 1,000 kcal	≤1.1 gram per 1,000 kcal	≥1.7 grams per 1,000 kcal
Added Sugars	10	≤ 6.5% of energy	≥26% of energy	0% of energy	≥13.8% of energy
Saturated Fats	10	≤ 8% of energy	≥16% of energy	≤12.2% of energy	≥18.2% of energy

1. The HEI-2020 components and scoring standards are the same as the HEI-2015. Intakes between the minimum and maximum standards are scored proportionately.

2. Includes 100% fruit juice.

3. Includes all forms except juice.

4. Includes beans, peas, and lentils.

5. Includes all milk products, such as fluid milk, yogurt, and cheese, and fortified soy beverages.

6. Includes seafood, nuts, seeds, soy products (other than beverages), and beans, peas, and lentils.

7. Ratio of poly- and monounsaturated fatty acids (PUFAs and MUFAs) to saturated fatty acids (SFAs).

How does HEI measure diet quality?

All of the components are assessed on a density basis. For most of them, that means amounts per 1,000 calories. This is done because dietary recommendations vary based on age, gender, and activity level; however, when looked at on a per-1,000 calorie basis, most of them are remarkably similar. For example, the protein foods recommendation is higher for an active teenage boy than it is for an inactive older man, in part because his energy recommendation is higher, too. Using the density approach allows a common standard to be applied to individual diets or any other mix of foods. This approach allows the HEI to capture the balance among the foods—the relative amounts of fruits, vegetables, and whole grains versus empty calories, for example. Capturing this balance means that the

HEI can characterize the quality of the diet. One of the strengths of the HEI is that it can measure diet quality at various levels of the food stream, such as the national food supply, the community food environment (e.g., foods available at a school or a fast food menu), and individual food intakes.

How does HEI scoring work?

For each component, the HEI designates a certain amount as the standard (the best possible). A maximum score—5 or 10 points depending on the component—is given to amounts that meet the standard. Amounts that don't meet the standard get fewer points, with zero being the minimum score.

Regardless of which level of the food stream the HEI is evaluating, the steps for determining the overall score for a set of foods or a menu are the same: (1) identify the set of foods under consideration; (2) determine the amount of each relevant dietary constituent in the set of foods; and (3) derive pertinent ratios of dietary constituents to energy and score each HEI component using the relevant standard.

Why do the maximum points differ by component?

Most of the components are weighted equally, with 10 points each. When a major food group and a subgroup are included—such as Total Fruit and Whole Fruit—each gets 5 points to maintain equality across the major food groups. Adding up all the components, an ideal overall score would be 100.

How is the HEI used?

The HEI is a flexible tool that can be used in various ways. Government agencies and other groups use the HEI to see how the eating patterns of Americans compare to the Dietary Guidelines recommendations and to monitor changes in dietary patterns nationwide and over time.

Learn More about the Healthy Eating Index

For more information on the HEI, see:

- ➔ Reedy, J. The Evolving Healthy Eating Index: Advancing Metrics to Capture Dietary Patterns Across a Healthy Eating Trajectory. *J Acad Nutr Diet.* 2023 May; <https://doi.org/10.1016/j.jand.2023.05.010>
- ➔ Shams-White MM, Pannucci TE, Lerman JL, et al. Healthy Eating Index-2020: Review and Update Process to Reflect the Dietary Guidelines for Americans, 2020-2025; *J Acad Nutr Diet.* 2023 May; <https://doi.org/10.1016/j.jand.2023.05.015>
- ➔ Pannucci TE, Lerman JL, Herrick KA, et al. Development of the Healthy Eating Index-Toddlers-2020. *J Acad Nutr Diet.* 2023 May; <https://doi.org/10.1016/j.jand.2023.05.013>
- ➔ Lerman JL, Herrick KA, Pannucci TE, et al. Evaluation of the Healthy Eating Index-Toddlers-2020. *J Acad Nutr Diet.* 2023 May; <https://doi.org/10.1016/j.jand.2023.05.014>
- ➔ Herrick KA, Lerman JL, Pannucci TE, et al. Continuity, Considerations, and Future Directions for the Healthy Eating Index-Toddlers-2020 (HEI Toddlers 2020). *J Acad Nutr Diet.* 2023 May; <https://doi.org/10.1016/j.jand.2023.05.012>
- ➔ Zimmer M, Obaggy J, Scanlon KS, et al. Count Every Bite to Make “Every Bite Count”: Measurement Gaps and Future Directions for Assessing Diet from Birth to 24 Months. *J Acad Nutr Diet.* 2023 May; <https://doi.org/10.1016/j.jand.2023.05.011>

The HEI was originally developed in 1995 and it has been updated to reflect changes in the Dietary Guidelines. To learn more about how to calculate and use the HEI, visit the [NCI Healthy Eating Index website](#). To learn more about the history of the HEI and scores for the U.S. population, visit the [USDA HEI website](#).