



NATIONAL POTATO COUNCIL
1300 L Street, NW, Suite 910
Washington, DC 20005
(202) 682-9456 phone
www.nationalpotatocouncil.org

August 13, 2020

Kristin Koegel, USDA Food and Nutrition Service
Center for Nutrition Policy and Promotion
1320 Braddock Place, Room 4094
Alexandria, VA 22314

Filed electronically at *Federal eRulemaking Portal: www.regulations.gov*

RE: Docket FNS-2020-0015; Comments on the Scientific Report of the 2020-2025 Dietary Guidelines Advisory Committee

Dear Ms. Koegel,

The National Potato Council (NPC) represents the interests of all commercial potato growers in the United States. The U.S. potato industry comprises \$4 billion in annual sales and supports thousands of American jobs both directly and indirectly.

We are pleased to provide the following comments to the U.S. Departments of Agriculture (USDA) and Health and Human Services (HHS) for consideration as the Agencies draft the 2020-2025 Dietary Guidelines for Americans. We appreciate the Dietary Guidelines Advisory Committee (“DGAC” or “the Committee”)’s work developing the Dietary Guidelines for Americans (DGA) 2020-2025 Scientific Report.

NPC supports the DGAC’s recommendations to increase vegetable consumption. Potatoes are an important vegetable in the American diet. They provide essential nutrients, including those nutrients currently low in the American diet such as fiber and potassium.

Potatoes are also easily accessible and affordable, are available in shelf-stable forms, and can be prepared in a wide variety of ways for consumption by the general population, including the young and old. Dietary patterns high in vegetable consumption, including potatoes, are associated with healthy outcomes.

Potatoes also play a valuable role within federal feeding programs such as the National School Lunch Program (NSLP) and School Breakfast Programs. In SBP, they help introduce children to other types of vegetables, increasing participation in the programs, and thereby decrease food waste.

Finally, it is important to note that the majority of potatoes are minimally processed. Even when they are not in their harvested form, potatoes continue to provide important nutrients to the diet. As such, American consumers should be encouraged to enjoy white potatoes alongside other nutritious foods.

After reviewing the recently published Dietary Guidelines Advisory Committee Scientific Report, we ask USDA/HHS to consider the following:



NATIONAL POTATO COUNCIL
1300 L Street, NW, Suite 910
Washington, DC 20005
(202) 682-9456 phone
www.nationalpotatocouncil.org

- The 2020-2025 DGA should confirm that potatoes are a vegetable that provide essential vitamins, minerals, fiber and carbohydrates.
- Research limitations should be considered when translating DGAC report recommendations to the Dietary Guidelines.
- The 2020-2025 DGA should recommend potatoes as a healthful food for both adults and children.
- Potatoes should be recognized for playing an important role in federal feeding programs.

We appreciate the opportunity to submit the following comments, reflecting these points and relevant scientific research, to the Agencies for consideration. NPC also encourages the Agencies to consider our previous [comments](#) in addition to our comments below.

The 2020-2025 DGA should confirm that potatoes are a vegetable that provide essential vitamins, minerals, fiber and carbohydrates.

Potatoes provide essential nutrients and help address nutrients of concern

Potatoes are a vegetable that provide significant amounts of nutrients under consumed by most Americans, including nutrients of public health concern like potassium and fiber.¹ The white potato is also an important source of essential nutrients, including vitamin C, vitamin B6, dietary fiber and magnesium, and iron, as well as important phytonutrients. In fact, one medium (5.3 oz.) potato with the skin provides 620 mg of potassium (a “good source” based on the daily value), 27 mg of vitamin C (an “excellent source” based on the daily value), 0.2 mg of vitamin B6 (a “good source” based on the daily value) and 2 grams of fiber per serving.²

In addition to the nutrients above, it has also been determined that the quality of the protein in a potato is among the highest of any plant-protein source.³ The 2015-2020 DGAs recommend substituting plant-based proteins in place of some animal-based proteins to improve overall health and support the environment.⁴ The 2020 DGAC maintains these recommendations. One 5.3-ounce skin-on potato is a source of 3 grams of high-quality plant-based protein. Potato protein provides all 9 essential amino acids and has a biological value (BV) of 90 which compares favorably with other key plant sources (e.g., soybeans have a BV of 84).⁵ Potatoes are a unique source of plant-based protein that can help meet protein recommendations set by the DGAs.

The 2020-2025 DGAs should continue to recognize potatoes as a vegetable that contributes healthfully to the American diet. We urge USDA/HHS to recognize the nutrient contributions of potatoes by specifically including them within recommendations of foods rich in potassium and fiber.

All vegetables should be recognized for their nutrient contribution and role in healthy dietary patterns

The 2020 DGAC Scientific Report highlighted the need to increase vegetable consumption. With this goal in mind, all vegetables should be considered on equal footing within dietary pattern recommendations. However, as mentioned in past NPC comments, arbitrary categorizations such as a “starchy vegetable,” in the national feeding programs have been used to disparage the consumption of white potatoes. While we appreciate the need to recommend a variety of vegetables, the vegetable categories within the DGA recommendations are generally confusing and difficult to follow. We understand that the



NATIONAL POTATO COUNCIL
1300 L Street, NW, Suite 910
Washington, DC 20005
(202) 682-9456 phone
www.nationalpotatocouncil.org

vegetables were subcategorized based loosely upon the groups' nutrient makeup. However, the way these groupings have been utilized within federal nutrition policy is a cause for concern.

For example, while "starchy vegetables" such as potatoes in many cases provide more nutrients than many "red/orange vegetables" or "bean/pea (legume)" categories in national feeding programs, they have historically been required to be served less, if allowed at all. From a nutrition science perspective, white potatoes provide three shortfall nutrients and two nutrients of concern, yet many in the nutrition community continue to disparage potatoes and the "starchy vegetable" category. Per King and Slavin,⁶ "All vegetables, including white potatoes, provide nutrients needed in the diet and deserve a prominent position in food guides." Given the health benefits of white potatoes and the negative connotations of "starch", NPC maintains our concern that current vegetable categorization, utilizing the terminology "starchy vegetable", is confusing, and does not effectively inform the public of the benefits of this category.

We encourage USDA/HHS to move away from the subjective color classification to one based on nutrient content to better reflect that actual contributions of various vegetables.

With the goal of providing clearer and more accurate information to the general public, if the Agencies continue to utilize the current vegetable classifications, we urge USDA/HHS to include positive language around starchy vegetables to address negative connotations often association with the term "starchy."

Research limitations should be considered when translating DGAC report recommendations to the Dietary Guidelines.

We concur with the DGAC conclusion that health-promoting dietary patterns typically include higher intakes of vegetables. As a vegetable, potatoes should therefore be featured as a core dietary component across all life stages. As stated, potatoes are part of healthy dietary patterns and contribute essential nutrients to the diet.⁷ In fact, potatoes fit into all three healthy eating patterns defined in the 2015 DGA (Vegetarian, Mediterranean and U.S. Healthy), as well as others, like Dietary Approaches to Stop Hypertension (DASH).⁸ However, while we appreciate and support the Committee's emphasis on dietary patterns rather than individual foods, USDA and HHS should note the myriad of methodological issues with dietary pattern studies when making references to individual foods, particularly potatoes and fried potatoes.

We question if the Committee included a sufficient number of adequately designed studies to issue precise recommendations about the connection between dietary patterns that include potatoes and health outcomes, like colorectal cancer (CRC). Many of these methodological issues, including inadequate dietary data, and inconsistent categorization of foods (like potatoes) in dietary patterns research were discussed at length in the DGAC's report.⁹ Recently, NPC submitted [comments](#) highlighting similar concerns around research methodology. Specifically, these comments outlined limitations such as: foundational inadequacies in dietary intake collection methods and data; negative impacts of grouping of potatoes in dietary pattern analysis methodology; challenges addressing confounding variables; and limitations with aligning outcomes from observational trials with clinical trial



NATIONAL POTATO COUNCIL
1300 L Street, NW, Suite 910
Washington, DC 20005
(202) 682-9456 phone
www.nationalpotatocouncil.org

findings. All this is to say that while we appreciate the DGAC considering dietary patterns, the research used to examine the role of food components, particularly potatoes, in relation to health outcomes and dietary patterns was not consistent or rigorous. Accordingly, this research could lead to erroneous conclusions about potatoes and health outcomes. The strongest data supports higher intakes of vegetables (including potatoes) to decrease health risks. NPC encourages USDA/HHS to review both the NPC comments on research limitations and [detailed comments](#) submitted by the Alliance for Potato Research and Education (APRE).

DGACs food pattern modeling and overarching conclusions on dietary patterns support potatoes as a healthful food for both adults and children; this should be integrated into the guidance in the DGA. USDA and HHS should exercise caution around making statements on the health impacts of individual foods, given the limitations of the DGAC’s dietary patterns review.

Future research considerations

Given these common issues, it is recommended that all future dietary patterns research and systematic review protocols be revised according to the 2020 DGAC’s new direction – and previous Committee literature reviews not meeting this level of rigor should not be repurposed. Continuing to use the same protocols will not solve the methodological concerns outlined in the Committee’s report and noted above. Further, while the Nutrition Evidence Systematic Review (NESR) protocol inclusion and exclusion criteria were successful in eliminating a large portion of published literature for the 2020 DGAC, it was not successful in identifying the most valid and reliable studies. USDA and HHS should therefore heed the dietary pattern recommendations in the “Future Directions” portion of the DGAC report and use them as a roadmap for developing future protocols to ensure the strongest evidence-based conclusions are reached.

Finally, it is important that U.S. dietary guidance reflects the latest, most comprehensive evidence. We therefore ask that USDA and HHS consider adopting the [recommendations](#) from the National Academies of Sciences, Engineering and Medicine and implement ongoing surveillance of the literature to provide the most useful, up-to-date systematic reviews for the next Committee and, in turn, the U.S. population.

We request that in the future, requirements for dietary patterns research and NESR protocols’ inclusion and exclusion criteria should be revised according to the 2020 DGAC’s direction and should not re-purpose previous committee’s literature reviews.

Potatoes in all forms should be included and encouraged within across all life stages

Potatoes should be included within complementary foods recommendations & recognized for their significant potassium content for all lifestages

It is important to consider many factors such as cultural acceptability, affordability, accessibility, preparation/cooking method, when drafting the DGAs. Potatoes should be included as part of diet recommendations across life stages as they meet many of these considerations. Potatoes address many



NATIONAL POTATO COUNCIL
1300 L Street, NW, Suite 910
Washington, DC 20005
(202) 682-9456 phone
www.nationalpotatocouncil.org

of these factors as they are inexpensive, provide essential nutrition, have the ability to be purchased in shelf stable forms, and can be prepared in a wide variety of ways for consumption by the general population.

For the first time, the Dietary Guidelines for Americans will include recommendations around dietary patterns for the Birth to 24 (B-24) month population. An important consideration is recommendations for first foods, or complementary foods. For B-24, the DGAC recommended providing a variety of food options, including increases in fruits and vegetables, beginning at ages 6 to 12 months to provide key nutrients, foster acceptance of a variety of nutritious foods, and build healthy dietary habits.¹⁰

For infants ages 6-12 months, the DGAC noted that it was challenging to meet AI for potassium (860 mg at ages 7 to 12 months; 2,000 mg at ages 1 to 3 years). Iron too was noted as an important nutrient for this age group that is typically under consumed.¹¹ One medium, 5.3 oz potato contains 1.1mg of iron.¹² It also contains Vitamin C which enhances the bioavailability of type of non-heme iron found in vegetables. While the Committee was not able to establish a recommended food pattern for 6-12 months, they did note the importance of “prioritizing fruits and vegetables, particularly those that are rich in potassium, vitamin A, and vitamin C.”¹³

For Infants 12-24 months, the DGAC was able to establish recommendations for food patterns. The pattern, specifically encourages a variety of foods including “choosing potassium-rich fruits and vegetables.” Inclusion of potatoes within complementary foods helps to address the DGAC’s recommendations for consuming foods rich in potassium and those containing fiber, vitamin C, and iron.

Concerningly, the DGAC did not include potatoes in a list of high potassium foods within charts and tables within the report. In Table D7.2. (Nutrient-rich food sources of calcium, iron, potassium, and choline) in Chapter 7 (USDA Food Patterns for Children Younger than Age 24 Months Diet and Health Relationships)¹⁴, potatoes are missing from the list of potassium sources [see table in Appendix]. While many vegetables including asparagus, cauliflower, and green peppers are listed as nutrient-rich options, potatoes are again absent. It’s important that USDA and HHS point to potatoes as an accessible, affordable and well-liked vegetable that can play a role in bridging nutrient intake gaps in the B-24 population.

NPC supports the DGAC recommendations to increase vegetable consumption and include more plant-based options in the diet for all age groups. Eating potatoes falls within these recommendations. As described above, research shows that potatoes make significant contributions of key shortfall nutrients to diets of children, adolescents, and adults.

NPC was disappointed to see that potatoes were missing from the DGAC’s list of foods that are examples of good potassium sources. Table D.1.4 in Chapter 1 (Current Intakes of Foods, Beverages, and Nutrients)¹⁵, lists good sources of potassium in a chart highlighting food components of public health concern [see table in Appendix]. In this table, apricots, lentils, prunes, squash, raisins are listed as food that are high in potassium when per serving, potatoes provide more potassium per serving than all of these food choices.



NATIONAL POTATO COUNCIL
1300 L Street, NW, Suite 910
Washington, DC 20005
(202) 682-9456 phone
www.nationalpotatocouncil.org

Therefore, NPC requests USDA and HHS recommend potatoes as a high potassium food in complementary food recommendations and within DGA recommendations for ages 2 years and older.

Potatoes in all forms should be included and encouraged within DGA recommendations

All forms of potatoes fit within healthy dietary pattern recommendations

The DGAC has continued to recommend patterns that “accommodate cultural preferences and cost considerations and permits multiple approaches for the introduction of a wide variety of foods, flavors, and textures important in shaping healthy eating patterns.”¹⁶ As noted earlier, whether in their harvested form or minimally processed, potatoes provide essential nutrients and are a food enjoyed by the American public. Apart from being widely accepted, potatoes also are inexpensive to purchase, can be purchased in shelf stable forms, and prepared in a wide variety of ways.

The preparation of potato products has evolved over the past few years. Most potato products are minimally processed with the majority containing as few as three ingredients – potatoes, oil and salt. Innovations in food science and technology are driving continuous improvement. For example, innovations in types of oils and application of sodium continue to provide reduced sodium, and low saturated fat options prepared potato products on the market. For example, whether baked or deep-fried, research has demonstrated French fries are no longer a source of trans fat. Given all of these new innovations and growing variety of better-for-you options, NPC is concerned that recommendations around limiting “fried foods” are overly simplistic. Broad categorizations such as these encompass a wide variety of products with diverse health and nutrient profiles.

Further, the Committee acknowledged the need to focus on dietary patterns and the overall context of dietary choices, instead of focusing on singular food components and nutrients. They noted that there is not one food or food group that must be consumed or avoided, but rather what is more important is that consumers make small, sustainable shifts toward a healthier diet overall.¹⁷ Therefore, rather than just focusing on a food component alone, it is necessary to also consider the variety, nutrient density, and portion size. As such, we encourage USDA and HHS to avoid broad and overgeneralized recommendations about avoiding a particular food or food group and instead urge consumers to make small meaningful shifts in their dietary patterns by meeting consumer where they are in terms of dietary preferences.

Potatoes should be recognized for playing an important role in federal feeding programs

WIC

Potatoes play an important role in federal feeding programs such as The Special Supplemental Nutrition Program for Women, Infants, and Children (WIC). Consumption of white potatoes improves potassium intake (an under-consumed nutrient in all WIC demographics except formula fed (FF) infants 0-6 months) for both women and children.¹⁸ Pregnant women ages of 19- 50 generally have less-than-optimal intake of vegetables, which leads to lower-than-recommended intakes of important nutrients. One medium white potato offers key nutrients needed during pregnancy, including vitamins B-6 and C, folate, potassium and dietary fiber.¹⁹ As potatoes are an inexpensive and easy to prepare source of



NATIONAL POTATO COUNCIL
1300 L Street, NW, Suite 910
Washington, DC 20005
(202) 682-9456 phone
www.nationalpotatocouncil.org

these key nutrients, they uniquely support the goals of the WIC program which aims to safeguard the health of low-income women, infants, and children up to age 5 who are at nutrition risk by providing nutritious foods.

School Meals Programs

NPC supports serving a variety of vegetables, including potatoes in federal feeding programs. But, over the years, there have been a number of regulatory hurdles for those wishing to serve potatoes within school meals programs including efforts to limit servings of starchy vegetables offered as part of lunch and breakfast reimbursable meals.

As a highly versatile and inexpensive vegetable, potatoes play a valuable role within the school meals programs by helping introduce children to other types of vegetables, increase school breakfast participation, and decrease food waste. The 2020 DGAC report and a 2016 NHANES analysis suggests that children ages 1 to 3 years aren't getting enough vegetables, potassium, dietary fiber and vitamin D in their diets.²⁰

White potatoes are a readily accepted, versatile and nutrient-rich vegetable, making it easy for school foodservice directors to incorporate into menus. Further, potatoes serve as a "springboard vegetable" meaning they are easily paired with other vegetables and have the ability to increase overall vegetable consumption.

Research also suggests that schools may be able to reduce plate waste and save money by optimizing entrée and vegetable pairings. A study conducted at Texas A&M University demonstrated that pairing entrées with popular vegetables such as white potatoes—served as oven-baked French fried potatoes, tater tots, and potato wedges—resulted in the least amount of plate waste.²¹

Potatoes are also one of the best nutritional values in the produce department, providing significantly better nutritional value per dollar than many other raw vegetables. A 2013 analysis examined the nutrient density per unit cost of the 46 most frequently consumed vegetables as part of the National School Lunch Program (NSLP) and found that potatoes and beans were the least expensive sources of not only potassium but also fiber. Specifically, potassium-rich white potatoes were almost half the cost of most other vegetables, making it more affordable to meet key dietary guidelines for good health.²²

Given the many benefits of potatoes, NPC recommends that USDA and HHS continue to include potatoes as part of DGA recommendations which have a direct impact on federal feeding programs.

Conclusion

In conclusion, NPC is pleased to provide comments to USDA and HHS as the Agencies draft the 2020-2025 Dietary Guidelines for Americans. The DGAs should represent healthful dietary patterns that can be achieved by the American public in order to lead to a healthier nation.

American consumers enjoy potatoes and enjoy pairing other nutritious foods with potatoes – this should not be disregarded or discouraged. The translation of nutrition science into policy is an important task and we look to support the Agencies as they take on this endeavor.



NATIONAL POTATO COUNCIL
1300 L Street, NW, Suite 910
Washington, DC 20005
(202) 682-9456 phone
www.nationalpotatocouncil.org

Should the Agencies have questions or require more background, the National Potato Council would be pleased to provide additional information.

Thank you for your consideration of these comments.

Sincerely,

W. Kam Quarles
Chief Executive Officer
National Potato Council

State Organization Signatories:

Colorado Potato Administrative Committee
Empire State Potato Growers
Idaho Grower Shippers Association
Idaho Potato Commission
Maine Potato Board
Potato Growers of Michigan, Inc.
North Carolina Potato Association
Northern Plains Potato Growers Association
Pennsylvania Cooperative Potato Growers
United Potato Growers of America
Washington State Potato Commission
Wisconsin Potato & Vegetable Growers Association



NATIONAL POTATO COUNCIL
 1300 L Street, NW, Suite 910
 Washington, DC 20005
 (202) 682-9456 phone
www.nationalpotatocouncil.org

Appendix

Table D7.2. Nutrient-rich food sources of calcium, iron, potassium, and choline¹

Nutrient	Criteria for Selection	Food items	
Calcium	Calcium density \geq 200 mg/100 kcal, except for fruits and vegetables for which 100 kcal is a large volume (i.e., energy/cup < 50 kcal); in those cases, food is selected if calcium content is \geq 200 mg/cup.	<u>Dairy</u> Cheese Milk Yogurt <u>Fruits and Vegetables</u> Cooked turnip greens/ spinach	<u>Other</u> Tofu
Iron ²	Iron density \geq 2 mg/100 kcal, except for fruits and vegetables for which 100 kcal is a large volume (i.e., energy/cup < 50 kcal); in those cases, food is selected if iron content is \geq 2 mg/cup.	<u>Meats and Seafood</u> Octopus/squid Oysters/mussels/snails Liver Game meat Anchovy Ground beef <u>Other</u> Tofu	<u>Fruits and Vegetables</u> Bok choy Cauliflower Okra Asparagus Mushrooms Tomatoes (cooked) Edible-pod green peas Green peppers (cooked) Avocado
Potassium ³	Potassium density \geq 400 mg/100 kcal, except for fruits and vegetables for which 100 kcal is a large volume (i.e., energy/cup < 50 kcal); in those cases, food is selected if potassium content is \geq 400 mg/cup eq.	<u>Fruits and Vegetables</u> Bok choy Tomatoes Green pepper Cauliflower Mushrooms Asparagus Summer squash Okra Red pepper Eggplant Tomatoes (cooked) Carrots Edible-pod green peas Broccoli (cooked) Melon (cantaloupe/ honeydew) Apricot	Beets Pumpkin/ winter squash Kiwifruit Nectarines/ peaches Grapefruit Papaya Banana <u>Dairy</u> Milk Yogurt <u>Seafood</u> Fish Snails, clams
Choline ⁴	Choline density \geq 50 mg/100 kcal, except for fruits and vegetables for which 100 kcal is a large volume (i.e., energy/cup < 50 kcal); in those cases, food is selected if choline content is \geq 50 mg/cup.	<u>Protein foods</u> Liver Eggs Shrimp/scallops/crab/ lobster Fish Soy milk Beef/pork/lamb Turkey	<u>Fruits and Vegetables</u> Bok choy Mushrooms Cooked okra Edible-pod green peas



NATIONAL POTATO COUNCIL
 1300 L Street, NW, Suite 910
 Washington, DC 20005
 (202) 682-9456 phone
www.nationalpotatocouncil.org

Table D1.4 Food components of public health concern – summary by life stage

Table D1.4 Food components of public health concern – summary by life stage					
Food Component (life stages)	Dietary Intake Metric	Biochemical or Clinical Indicator	Associated Health Condition	Major food categories contributing to intake ¹	Food sources that are good sources ²
Fiber (ages 1 yr and older, including pregnant or lactating women)	% >AI	No reliable biochemical marker exists	Coronary heart disease	Mixed dishes (burgers/sandwiches), vegetable (non-starchy, starchy), grains (breakfast cereals/bars)	Vegetables, fruits, whole grains
Vitamin D³ (ages 1 yr and older, including pregnant or lactating women)	% <EAR	Serum 25(OH) vitamin D concentrations	Impaired peak bone mass accrual; low bone mass and osteoporosis	Dairy (milk, yogurt), mixed dishes (burgers/sandwiches), and protein foods (eggs)	Some seafood, UV exposed mushrooms, fortified milk
Calcium³ (ages 1 yr and older, including pregnant or lactating women)	% <EAR	No reliable biochemical marker exists	Impaired peak bone mass accrual; low bone mass and osteoporosis	Mixed dishes (burgers and sandwiches), dairy (milk, yogurt), beverages other than milk or 100% juice (waters)	Yogurt, fortified orange juice, cheese, sardines, milk
Potassium³ (ages 1 yr and older, including pregnant or lactating women)	% >AI	24-hour urinary excretion	Hypertension and cardiovascular disease	Mixed dishes (burgers/sandwiches), vegetable (non-starchy, starchy), beverages (coffee/tea)	Apricots, lentils, prunes, squash, raisins
Sodium (ages 1 yr and older, including pregnant or lactating women)	% >CDRR	24-hour urinary excretion	Hypertension and cardiovascular disease	Mixed dishes (burgers/sandwiches), protein foods (poultry), vegetables (non-starchy)	
Saturated Fat (ages 2 yr and older, including pregnant or lactating women)	% >10 % TE	Total cholesterol; LDL cholesterol	Cardiovascular disease	Mixed dishes (burgers/sandwiches), desserts and sweet snacks, high fat dairy	
Added Sugars (ages 1 yr and older, including pregnant or lactating women)	% >10 % TE	No reliable biochemical marker exists	Overweight and obesity and related comorbidities	Sweetened beverages, desserts and sweet snacks, and coffee and tea	
Iron³ (Infants fed human milk; adolescent, pre-menopausal, pregnant women)	% <EAR	Serum ferritin, soluble transferrin receptor, hemoglobin	Iron deficiency and iron deficiency anemia	Various heme and non-heme dietary sources of iron are consumed. Iron requirements are higher for vegetarian diets.	Meat, poultry, seafood, and fish, fortified breakfast cereal, legumes and pulses
Iodine (pregnant women)	% <EAR ⁵	Urinary iodine concentrations	Impaired neurocognitive development	Goitrogens in the diet are relevant.	Seaweed, cod, yogurt, iodized salt, milk
Folic Acid (pregnant women, 1 st trimester)	% <EAR	Serum and RBC folate	Neural tube defects	Vegetables (dark green), grains,	Spinach, liver, asparagus, Brussels sprouts, enriched grains.

AI=Adequate Intake; CDRR=Chronic Disease Risk Reduction; EAR=Estimated Average Requirement; RAF=reproductive-aged females; TE=total energy intakes.
¹See Food Category Sources of Food Groups and Nutrients Data Supplement [<https://www.dietaryguidelines.gov/2020-advisory-committee-report/data-analysis>]²
²Based on reference values provided in FoodData Central; values obtained at <https://fdc.nal.usda.gov/> and based on the percent DV per serving
³FDA's designation as a nutrient of "public health significance."
⁵ Iodine dietary data are not currently available in FNDDS

¹ Potato product form impacts in vitro starch digestibility and glucose transport but only modestly impacts 24 h blood glucose response in humans - Food & Function (RSC Publishing) [Internet]. [cited 2020 Apr 7]. Available from: <https://pubs.rsc.org/en/content/articlelanding/2019/fo/c8fo02530d#!divAbstract>

² <https://p.widencdn.net/vpixzm/Potatoes-nutritional-label-2019-ENGLISH>

³ Gorrissen, S. (2017). Characterising the muscle anabolic potential of dairy, meat and plant-based protein sources in older adults. Retrieved 2020, from Characterising the muscle anabolic potential of dairy, meat and plant-based protein sources in older adults

⁴ U.S. Department of Health and Human Services and U.S. Department of Agriculture. 2015 – 2020 Dietary Guidelines for Americans. 8th Edition. December 2015. Available at <https://health.gov/dietaryguidelines/2015/guidelines/>.

⁵ (Woolfe JA. The Potato in the Human Diet. 1987. Cambridge University Press)(McGill CR, Kurilich AC, Davignon J. The role of potatoes and potato components in cardiometabolic health: A review. Ann Med. 2013;45(7):467-73.)



NATIONAL POTATO COUNCIL
1300 L Street, NW, Suite 910
Washington, DC 20005
(202) 682-9456 phone
www.nationalpotatocouncil.org

-
- ⁶ Janet C. King, Joanne L. Slavin, White Potatoes, Human Health, and Dietary Guidance, *Advances in Nutrition*, Volume 4, Issue 3, May 2013, Pages 393S–401S, <https://doi.org/10.3945/an.112.003525>
- ⁷ Johnston EA, Petersen KS, Kris-Etherton PM. Daily intake of non-fried potato does not affect markers of glycemia and is associated with better diet quality compared to refined grains: A randomized, crossover study in healthy adults. *Br J Nutr*. 2020;1–29.
- ⁸ Miller PE, Cross AJ, Subar AF, Krebs-Smith SM, Park Y, Powell-Wiley T, Hollenbeck A, Reedy J. Comparison of 4 established DASH diet indexes: examining associations of index scores and colorectal cancer. *Am J Clin Nutr*. 2013;98:794–803
- ⁹ Dietary Guidelines Advisory Committee. 2020. *Scientific Report of the 2020 Dietary Guidelines Advisory Committee: Advisory Report to the Secretary of Agriculture and the Secretary of Health and Human Services*. U.S. Department of Agriculture, Agricultural Research Service, Washington, DC. Chapter 8: Dietary Patterns
- ¹⁰ Dietary Guidelines Advisory Committee. 2020. *Scientific Report of the 2020 Dietary Guidelines Advisory Committee: Advisory Report to the Secretary of Agriculture and the Secretary of Health and Human Services*. U.S. Department of Agriculture, Agricultural Research Service, Washington, DC. Chapter 7: USDA Food Patterns for Children Younger Than Age 24 Months
- ¹¹ Dietary Guidelines Advisory Committee. 2020. *Scientific Report of the 2020 Dietary Guidelines Advisory Committee: Advisory Report to the Secretary of Agriculture and the Secretary of Health and Human Services*. U.S. Department of Agriculture, Agricultural Research Service, Washington, DC. Chapter 7: USDA Food Patterns for Children Younger Than Age 24 Months. pp 4
- ¹² <https://p.widencdn.net/vpixmap/Potatoes-nutritional-label-2019-ENGLISH>
- ¹³ Dietary Guidelines Advisory Committee. 2020. *Scientific Report of the 2020 Dietary Guidelines Advisory Committee: Advisory Report to the Secretary of Agriculture and the Secretary of Health and Human Services*. U.S. Department of Agriculture, Agricultural Research Service, Washington, DC. Chapter 7: USDA Food Patterns for Children Younger Than Age 24 Months. pp 40
- ¹⁴ Dietary Guidelines Advisory Committee. 2020. *Scientific Report of the 2020 Dietary Guidelines Advisory Committee: Advisory Report to the Secretary of Agriculture and the Secretary of Health and Human Services*. U.S. Department of Agriculture, Agricultural Research Service, Washington, DC. Chapter 7: USDA Food Patterns for Children Younger Than Age 24 Months. pp 14
- ¹⁵ Dietary Guidelines Advisory Committee. 2020. *Scientific Report of the 2020 Dietary Guidelines Advisory Committee: Advisory Report to the Secretary of Agriculture and the Secretary of Health and Human Services*. U.S. Department of Agriculture, Agricultural Research Service, Washington, DC. Chapter 1 Current Intakes of Foods, Beverages, and Nutrients. pp 92
- ¹⁶ Dietary Guidelines Advisory Committee. 2020. *Scientific Report of the 2020 Dietary Guidelines Advisory Committee: Advisory Report to the Secretary of Agriculture and the Secretary of Health and Human Services*. U.S. Department of Agriculture, Agricultural Research Service, Washington, DC. Part A. Executive Summary. pp 8
- ¹⁷ Dietary Guidelines Advisory Committee. 2020. *Scientific Report of the 2020 Dietary Guidelines Advisory Committee: Advisory Report to the Secretary of Agriculture and the Secretary of Health and Human Services*. U.S. Department of Agriculture, Agricultural Research Service, Washington, DC. Chapter 14: USDA Food Patterns for Individuals Ages 2 Years and Older. pp 28
- ¹⁸ U.S. Department of Health and Human Services and U.S. Department of Agriculture. 2015 – 2020 Dietary Guidelines for Americans. 8th Edition. December 2015. Available at <https://health.gov/dietaryguidelines/2015/guidelines/>.
- ¹⁹ Storey M. Vegetable consumption and selected nutrient intake of women of childbearing age. *J Nutr Educ Behav* 2016.
- ²⁰ Storey M. Nutrient intakes and vegetable and white potato consumption by children 1 to 3 years. *Adv Nutr* 2016;7(Suppl):241S-246S.
- ²¹ Capps et al. Examining vegetable plate waste in elementary schools by diversity and grade. *Health Beh and Policy Rev*. 2016;3(5):419-428(10).



NATIONAL POTATO COUNCIL

1300 L Street, NW, Suite 910

Washington, DC 20005

(202) 682-9456 phone

www.nationalpotatocouncil.org

²² Drewnowski A, Rehm CD. Vegetable cost metrics show that potatoes and beans provide most nutrients per penny. PLoS One. 2013 May 15;8(5):e63277