May 23, 2024

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**RE: Docket OASH-2022-0021**

Dear Dr. Booth, Dr. Odoms-Young and Members of the Dietary Guidelines Advisory Committee:

The International Dairy Foods Association (IDFA), Washington, D.C., represents the nation's dairy manufacturing and marketing industry, which supports more than 3.2 million jobs that generate $49 billion in direct wages and $794 billion in overall economic impact. IDFA's diverse membership ranges from multinational organizations to single-plant companies, from dairy companies and cooperatives to food retailers and suppliers. Together, IDFA members represent most of the milk, cheese, ice cream, yogurt and cultured products, and dairy ingredients produced and marketed in the United States and sold throughout the world. Delicious, safe and nutritious, dairy foods offer unparalleled health and consumer benefits to people of all ages.

IDFA appreciates the opportunity to provide comments and identify scientific references to the DGAC. We applaud the DGAC for their work to consider a number of important health and nutrition scientific questions to ensure that recommendations for Americans reflect the preponderance of evidence.

The overall body of science on dairy products demonstrates that milk, yogurt, cheese and other dairy-based products are nutrient-rich, contributing significant amounts of essential nutrients to the diet. As was the case for past DGACs and Dietary Guidelines for Americans (DGAs), the preponderance of evidence shows that dairy is a key component of healthy eating patterns associated with better health outcomes. In food-based dietary guidelines throughout the world, including the United States, dairy is a standalone food group due its overall nutrition package.[i] This consistent inclusion of dairy in global food based dietary guidelines was also identified by the International Dairy Federation (IDF).[ii] We urge the current DGAC to continue to include dairy in the healthy eating patterns recommended for Americans to ensure that these eating patterns provide sufficient levels of key nutrients that all people need, especially those directly impacted by the DGAs, including our nation's most nutritionally vulnerable individuals who participate in nutrition programs guided by the DGAs. Unfortunately, the last update to the Canadian Food Guide, for example, did not include dairy as its own food group and the resulting food patterns have been found to be nutritionally inadequate, and particularly low in calcium and vitamin D.[iii]

IDFA's comments below address multiple scientific questions and a subset of the draft conclusions that have already been made and shared by the DGAC. Since the specific studies considered for development of the draft conclusions have not been publicly identified, we have provided references that address each of the scientific questions to ensure they have been included in the systematic review.

# Subcommittee 1: Dietary Patterns and Specific Dietary Pattern Components Across Life Stages

## Scientific questions related to type 2 diabetes should be considered.

At the DGAC public meeting on January 19, 2024, Subcommittee 1 reported that multiple scientific questions regarding development of type 2 diabetes, including the protocol on dairy milk intake and risk of type 2 diabetes, would be discontinued. While we understand the importance of the full scope of the DGAC's work and the numerous issues to be considered by the DGAC, we urge that work regarding dairy products including milk and the reduction of risk of type 2 diabetes continue, potentially by ensuring that all research regarding dairy consumption is included in the systematic review considering overall dietary patterns and risk of type 2 diabetes.

Recently, FDA approved a new qualified health claim for the consumption of yogurt and reduction of risk of type 2 diabetes.[iv] This new claim reflects a body of science that has shown that 3 servings of yogurt each week helps reduce the risk of developing type 2 diabetes. We encourage the DGAC to review the list of scientific references provided in the petition for this qualified health claim and ensure that those studies are included in the DGAC's systematic review.[v] This claim can be used on products that contain less than 13 grams of fat and 4 grams of saturated fat, which will likely include all fat levels of yogurt, including full-fat yogurt. The eligibility of yogurt at all fat levels for the claim reinforces the body of research on milkfat, namely that full-fat dairy products can have neutral or positive health benefits.

### ***What is the relationship between dietary patterns consumed and risk of type 2 diabetes?***

As indicated above, it is important that this systematic review considers all dairy foods, including dairy milk, since the protocol specific to dairy milk consumption and type 2 diabetes has been discontinued. To that end, we ask that the DGAC ensure that the scientific studies below be included in the systematic review.

- Drehmer M, Pereira MA, Schmidt MI, Alvim S, Lotufo PA, Luft VC, Duncan BB. Total and full-fat, but not low-fat, dairy product intakes are inversely associated with metabolic syndrome in adults. J Nutr. 2016;146:81–89.
- Kummer K, Jensen PN, Kratz M, Lemaitre RN, Howard BV, Cole SA, Fretts AM. Full-Fat Dairy Food Intake is Associated with a Lower Risk of Incident Diabetes Among American Indians with Low Total Dairy Food Intake. J Nutr. 2019;149(7):1238-1244. DOI: 10.1093/jn/nxz058.
- Liu S, Choi HK, Ford E, Song Y, Klevak A, Buring JE, Manson JE. A prospective study of dairy intake and the risk of type 2 diabetes in women. Diabetes Care. 2006;29:1579–1584.

- Luo K, Chen GC, Zhang Y, et al. Variant of the lactase LCT gene explains association between milk intake and incident type 2 diabetes. Nat Metab. 2024;6:169–186. DOI: 10.1038/s42255-023-00961-1.
- Margolis KL, Wei F, de Boer IH, Howard BV, Liu S, Manson JE, Mossavar-Rahmani Y, Phillips LS, Shikany JM, Tinker LF. A diet high in low-fat dairy products lowers diabetes risk in postmenopausal women. J Nutr. 2011;141:1969–1974.
- Mather K, Boachie R, Younes A, et al. Effects of cultured dairy and nondairy products added to breakfast cereals on blood glucose control, satiation, satiety, and short-term food intake in young women. Appl Phys Nutr Metab. 2022;45(10).
- Pereira MA, Jacobs DR Jr, Van Horn L, Slattery ML, Kartashov AI, Ludwig DS. Dairy consumption, obesity, and the insulin resistance syndrome in young adults: the CARDIA Study. JAMA. 2002;287(16):2081-2089.
- Rideout TC, Marinangeli CP, Martin H, Browne RW, Rempel CB. Consumption of low-fat dairy foods for 6 months improves insulin resistance without adversely affecting lipids or bodyweight in healthy adults: a randomized free-living cross-over study. Nutr J. 2013;12:56.
- Sluijs I, Forouhi NG, Beulens JWJ, et al. The amount and type of dairy product intake and incident type 2 diabetes: results from the EPIC-Interact Study. Am J Clin Nutr. 2012;96:382–390.
- Slurink IA, Corpeleijn E, Bakker SJ, et al. Dairy consumption and incident prediabetes: prospective associations and network models in the large population-based Lifelines Study. Am J Clin Nutr. Published online October 7. DOI: 10.1016/j.ajcnut.2023.10.002.
- Watanabe D, Kuranuki S, Sunto A, Matsumoto N, Nakamura T. Daily Yogurt Consumption Improves Glucose Metabolism and Insulin Sensitivity in Young Nondiabetic Japanese Subjects with Type-2 Diabetes Risk Alleles. Nutrients. 2018;10(12):1834.
- Zhao Y, Ji X, Guo P, et al. Dose-response relationships between dairy intake and non-communicable chronic diseases: an NHANES-based cross-sectional study. Int J Food Sci Nutr. 2022;73(4):552-563. DOI: 10.1080/09637486.2021.2021154.


## Scientific data related to specific food sources of saturated fat should be reviewed.

### ***<u>What is the relationship between food sources of saturated fat consumed and risk of cardiovascular disease (CVD)?</u>***

IDFA recommends the DGAC prioritize the review of science related to the question above. As nutrition science has progressed, the differences between seemingly similar substances have become clear. For many years, Americans have been urged to reduce their intake of saturated fats to help promote heart health and reduce the risk of other negative long-term health consequences.

However, a significant and growing body of science has demonstrated that not all saturated fat has the same health effects. As demonstrated in a recent review by the Academy of Nutrition and Dietetics (AND), the food sources of saturated fat need to be taken into consideration. This nutrition practice guideline by AND documents a body of evidence that a variety of dairy products, including cheese, are not associated with an increased risk of CVD.[vi]

In fact, the Subcommittee's own review of the science related to higher-fat milk compared to lower-fat milk consumption in younger children resulted in a draft conclusion statement presented at the January 19, 2024, public meeting which stated: "Limited evidence suggests that consumption of higher-fat dairy milk compared to lower-fat dairy milk in younger children is associated with favorable growth and body composition, and lower risk of obesity in children." This draft conclusion and the body of science it is based upon demonstrate advancement in the research and understanding of the health effects of consumption of full-fat milk and full-fat dairy in general. There is a benefit to including a review of milkfat under this scientific question to more fully understand the science and health effects of this source of saturated fat throughout the life cycle.

This effect on health outcomes could be due to the unique dairy matrix, which combines a number of nutrients and food components together in a way unlike any other food group and may account for the health effects and benefits of dairy products.[vii] In fact, many studies, including those listed below for inclusion in the DGAC's systematic review, demonstrate that milkfat, as found in full-fat dairy products, is <u>not</u> linked to an increased risk of CVD.

We urge the DGAC to consider the health effects of milkfat from dairy products separately from other food sources of saturated fat, and also consider the saturated fat derived from dairy subgroups such as milk, cheese and yogurt. While dairy products do provide a similar nutrient package, there is some heterogeneity in micro- and macronutrient content within the dairy category. Along with the added health benefits of fermentation, we respectfully suggest that the impact of saturated fats in dairy subgroups such as milk, cheese, and yogurt be evaluated independently.

Studies that will be important to consider in the Subcommittee's and Committee's review of the science and final recommendations are listed below.

**<u>Dairy Matrix/All Dairy:</u>**


- Appel LJ, Moore TJ, Obarzanek E, Vollmer WM, Svetkey LP, Sacks FM. A clinical trial of the effects of dietary patterns on blood pressure. DASH Collaborative Research Group. N Engl J Med. 1997;336:1117–24.
- Bhavadharini B, Dehghan M, Mente A, et al. Association of dairy consumption with metabolic syndrome, hypertension and diabetes in 147,812 individuals from 21 countries. BMJ Open Diab Res Care. 2020;8:e000826. doi:10.1136/bmjdrc-2019-000826.
- Bonthuis M, Hughes MCB, Ibiebele TI, et al. Dairy consumption and patterns of mortality of Australian adults. Eur J Clin Nutr. 2010;64:569–77.
- Chiu S, Bergeron N, Williams PT, Bray GA, Sutherland B, Krauss RM. Comparison of the DASH (Dietary Approaches to Stop Hypertension) diet and a higher-fat DASH diet on blood pressure and lipids and lipoproteins: A randomized controlled trial. Am J Clin Nutr. 2016;103:341–7. doi:10.3945/ajcn.115.123281.
- Crichton GE, Alkerwi A. Dairy food intake is positively associated with cardiovascular health: findings from Observation of Cardiovascular Risk Factors in Luxembourg study. Nutr Res. 2014;34(12):1036–44.

- Dalmeijer GW, Struijk EA, van der Schouw YT, et al. Dairy intake and coronary heart disease or stroke – a population-based cohort study. Int J Cardiol. 2013;167:925–929.
- Dunne S, McGillicuddy FC, Gibney ER, Feeney EL. Role of food matrix in modulating dairy fat induced changes in lipoprotein particle size distribution in a human intervention. Am J Clin Nutr. 2022;117(1):111–120. doi:10.1016/j.ajcnut.2022.10.002.
- Mente A, Dehghan M, Rangarajan S, et al. Diet, cardiovascular disease, and mortality in 80 countries. Eur Heart J. 2023;44(28):2560–2579. doi:10.1093/eurheartj/ehad269.
- Mitri J, Tomah S, Mottalib A, et al. Effect of dairy consumption and its fat content on glycemic control and cardiovascular disease risk factors in patients with type 2 diabetes: A randomized controlled study. Am J Clin Nutr. 2020;112:293–302. doi:10.1093/ajcn/nqaa138.
- Nicholl A, Deering KE, Evelegh K, et al. Whole-fat dairy products do not adversely affect adiposity or cardiometabolic risk factors in children in the Milky Way Study: a double-blind randomized controlled pilot study. Am J Clin Nutr. 2021;114(6):2025–2042. doi:10.1093/ajcn/nqab288.
- Otto MC, Mozaffarian D, Kromhout D, et al. Dietary intake of saturated fat by food source and incident cardiovascular disease: the Multi-Ethnic Study of Atherosclerosis. Am J Clin Nutr. 2012;96:397–404.
- Praagman J, Franco OH, Ikram MA, et al. Dairy products and the risk of stroke and coronary heart disease: the Rotterdam Study. Eur J Clin Nutr. 2015;54(6):981–90.
- Rosqvist F, Smedman A, Lindmark-Månsson H, et al. Potential role of milk fat globule membrane in modulating plasma lipoproteins, gene expression, and cholesterol metabolism in humans: a randomized study. Am J Clin Nutr. 2015;102(1):20–30.
- Schmidt KA, Cromer G, Burhans MS, et al. Impact of low-fat and full-fat dairy foods on fasting lipid profile and blood pressure: Exploratory endpoints of a randomized controlled trial. Am J Clin Nutr. 2021;114:882–892. doi:10.1093/ajcn/nqab131.
- Soedamah-Muthu SS, Masset G, Verberne L, et al. Consumption of dairy products and associations with incident diabetes, CHD and mortality in the Whitehall II study. Br J Nutr. 2013;109:718–726.
- Watanabe D, Kuranuki S, Sunto A, Matsumoto N, Nakamura T. Daily Yogurt Consumption Improves Glucose Metabolism and Insulin Sensitivity in Young Nondiabetic Japanese Subjects with Type-2 Diabetes Risk Alleles. Nutrients. 2018;10(12):1834.
- Yuan M, Singer MR, Pickering RT, Moore LL. Saturated fat from dairy sources is associated with lower cardiometabolic risk in the Framingham Offspring Study. Am J Clin Nutr. 2022;116(6):1682–1692. doi:10.1093/ajcn/nqac224.

**Full-Fat Milk:**


- Engel S, Elhauge M, Tholstrup T. Effect of whole milk compared with skimmed milk on fasting blood lipids in healthy adults: a 3-week randomized crossover study. Eur J Clin Nutr. 2019;72(2):249–254.
- Ghosh S, He W, Gao J, et al. Whole milk consumption is associated with lower risk of coronary artery calcification progression: evidences from the Multi-Ethnic Study of Atherosclerosis. Eur J Nutr. 2021;60:1049–1058. doi:10.1007/s00394-020-02301-5.
- McGovern C, Rifas-Shiman SL, Switkowski KM, Woo Baidal JA, Lightdale JR, Hivert MF, Oken E, Aris IM. Association of cow's milk intake in early childhood with adiposity and cardiometabolic risk in early adolescence. Am J Clin Nutr. 2022;116:561–571. doi:10.1093/ajcn/nqac103.
- Pala V, Sieri S, Chiodini P, Masala G, Palli D, Mattiello A, Panico S, Tumino R, Frasca G, Fasanelli F, Ricceri F, Agnoli C, Grioni S, Krogh V. Associations of dairy product consumption with mortality in the European Prospective Investigation into Cancer and Nutrition (EPIC)–Italy cohort. Am J Clin Nutr. 2019;110(5):1220-1230. doi:10.1093/ajcn/nqz183.
- Steinmetz KA, Childs MT, Stimson C, Kushi LH, McGovern PG, Potter JD, Yamanaka WK. Effect of consumption of whole milk and skim milk on blood lipid profiles in healthy men. Am J Clin Nutr. 1994;59(3):612–8.


**Fermented Dairy Products:**


- Agerholm-Larsen L, Raben A, Haulrik N, et al. Effect of 8 week intake of probiotic milk products on risk factors for cardiovascular diseases. Eur J Clin Nutr. 2000;54:288–297. DOI: 10.1038/sj.ejcn.1600937.
- Buendia JR, Li Y, Hu FB, Cabral HJ, Bradlee ML, Quatromoni PA, Singer MR, Curhan GC, Moore LL. Long-term yogurt consumption and risk of incident hypertension in adults. J Hypertens. 2018;36(8):1671-1679. DOI: 10.1097/HJH.0000000000001737.
- Sonestedt E, Wirfalt E, Wallstrom P, et al. Dairy products and its association with incidence of cardiovascular disease: the Malmo diet and cancer cohort. Eur J Epidemiol. 2011;26:609–618.


**Cheese:**


- Abdullah M, Cyr A, Lépine M-C, Labonté M-È, Couture P, Jones P, et al. Recommended dairy product intake modulates circulating fatty acid profile in healthy adults: a multi-centre cross-over study. Br J Nutr. 2015;113(3):435–44.
- Biong AS, Müller H, Seljeflot I, Veierød MB, Pedersen JI. A comparison of the effects of cheese and butter on serum lipids, haemostatic variables and homocysteine. Br J Nutr. 2004;92(5):791-797.
- Brassard D, Tessier-Grenier M, Allaire J, Rajendiran E, She Y, Ramprasath V, Gigleux I, Talbot D, Levy E, Tremblay A, et al. Comparison of the impact of SFAs from cheese and butter on cardiometabolic risk factors: a randomized controlled trial. Am J Clin Nutr. 2017;105(4):800–9.
- Drouin-Chartier JP, Tremblay AJ, Maltais Giguère J, Charest A, Guinot L, Rioux LE, et al. Differential impact of the cheese matrix on the postprandial lipid response: a randomized, crossover, controlled trial. Am J Clin Nutr. 2017;106(6):1358-1365.

- Feeney EL, Barron R, Dible V, Hamilton Z, Power Y, Tanner L, et al. Dairy matrix effects: response to consumption of dairy fat differs when eaten within the cheese matrix—a randomized controlled trial. Am J Clin Nutr. 2018;108(4):667-674.
- Hjerpsted J, Leedo E, Tholstrup T. Cheese intake in large amounts lowers LDL-cholesterol concentrations compared with butter intake of equal fat content. Am J Clin Nutr. 2011;94(6):1479-1484.
- Hu MJ, Tan JS, Gao XJ, Yang JG, Yang YJ. Effect of Cheese Intake on Cardiovascular Diseases and Cardiovascular Biomarkers. Nutrients. 2022;14(14):2936.
- Nestel P, Chronopulos A, Cehun M. Dairy fat in cheese raises LDL cholesterol less than that in butter in mildly hypercholesterolaemic subjects. Eur J Clin Nutr. 2005;59(9):1059-1063.
- Nilsen R, Hostmark AT, Haug A, Skeie S. Effect of a high intake of cheese on cholesterol and metabolic syndrome: results of a randomized trial. Food Nutr Res. 2015;59:27651.
- Patterson E, Larsson SC, Wolk A, et al. Association between dairy food consumption and risk of myocardial infarction in women differs by type of dairy food. J Nutr. 2013;143:74–79.
- Praagman J, Dalmeijer GW, van der Schouw YT, et al. The relationship between fermented food intake and mortality risk in the European Prospective Investigation into Cancer and Nutrition-Netherlands cohort. Br J Nutr. 2015;113:498–506.
- Raziani F, Tholstrup T, Kristensen MD, Svanegaard ML, Ritz C, Astrup A, Raben A. High intake of regular-fat cheese compared with reduced fat cheese does not affect LDL cholesterol or risk markers of the metabolic syndrome: a randomized controlled trial. Am J Clin Nutr. 2016;104(4):973–81.
- Soerensen KV, Thorning TK, Astrup A, Kristensen M, Lorenzen JK. Effect of dairy calcium from cheese and milk on fecal fat excretion, blood lipids, and appetite in young men. Am J Clin Nutr. 2014;99(5):984-991.
- Tholstrup T, Høy C-E, Andersen LN, Christensen RD, Sandström B. Does fat in milk, butter and cheese affect blood lipids and cholesterol differently? J Am Coll Nutr. 2004;23(2):169-176.


## ***What is the relationship between dietary patterns consumed and risk of CVD?***

While IDFA believes the review of scientific evidence regarding food sources of saturated fat and CVD is very important, it is also key to look more broadly at overall dietary patterns and their effect on the development of CVD. Overall and generally speaking, dairy products contribute to a healthy eating pattern that promotes heart health and reduces the risk of CVD, hypertension and unhealthy blood lipid profiles.

In addition to the studies presented regarding full-fat dairy products and risk of CVD, we ask the Subcommittee to include the following studies in its systematic review regarding dietary patterns and risk of CVD to ensure that the contributions of dairy in these dietary patterns are adequately considered:


- Chiu S, Siri-Tarino P, Bergeron N, Suh JH, Krauss RM. A Randomized Study of the Effect of Replacing Sugar-Sweetened Soda by Reduced Fat Milk on Cardiometabolic Health in Male Adolescent Soda Drinkers. Nutrients. 2020 Feb 4;12(2):405. doi:10.3390/nu12020405.
- Dalmeijer GW, Struijk EA, van der Schouw YT, et al. Dairy intake and coronary heart disease or stroke – a population-based cohort study. Int J Cardiol. 2013;167:925–929.
- Kondo I, Ojima T, Nakamura M, et al. Consumption of dairy products and death from cardiovascular disease in the Japanese general population: the NIPPON DATA80. J Epidemiol. 2013;23:47–54.

- Lin PH, Yeh WT, Svetkey LP, et al. Dietary intakes consistent with the DASH dietary pattern reduce blood pressure increase with age and risk for stroke in a Chinese population. Asia Pac J Clin Nutr. 2013;22:482–491.
- Rietsema S, Eelderink C, Joustra ML, et al. Effect of high compared with low dairy intake on blood pressure in overweight middle-aged adults: results of a randomized crossover intervention study. Am J Clin Nutr. 2019;110(2):340-348. doi:10.1093/ajcn/nqz116.
- Skelly LE, Barbour-Tuck EN, Kurgan N, et al. Neutral Effect of Increased Dairy Product Intake, as Part of a Lifestyle Modification Program, on Cardiometabolic Health in Adolescent Girls With Overweight/Obesity: A Secondary Analysis From a Randomized Controlled Trial. Front Nutr. 2021;8:673589. doi:10.3389/fnut.2021.673589.
- Soedamah-Muthu SS, Masset G, Verberne L, et al. Consumption of dairy products and associations with incident diabetes, CHD and mortality in the Whitehall II study. Br J Nutr. 2013;109:718–726.
- Steffen LM, Kroenke CH, Yu X, et al. Associations of plant food, dairy product, and meat intakes with 15-y incidence of elevated blood pressure in young black and white adults: the Coronary Artery Risk Development in Young Adults (CARDIA) Study. Am J Clin Nutr. 2005;82(6):1169-1364. doi:10.1093/ajcn/82.6.1169.
- Wang C, Zheng Y, Zhang Y, et al. Dietary Patterns in Association with Hypertension: A Community-Based Study in Eastern China. Front Nutr. 2022;9:926390. Published 2022 Jul 8. doi:10.3389/fnut.2022.926390
- Wang L, Manson JE, Buring JE, Lee IM, Sesso HD. Dietary intake of dairy products, calcium, and vitamin D and the risk of hypertension in middle-aged and older women. Hypertension. 2008;51:1073–1079.


## ***What is the relationship between dietary patterns consumed and growth, body composition, and risk of obesity?***

In the draft conclusion statement presented at the DGAC public meeting in January, dairy was not included in the dietary patterns associated with favorable outcomes for body weight and obesity in adults. This is a significant change from the 2020 DGAC conclusion statement. As stated in our previous comment to the DGAC, we seek additional information about why dairy products were removed from the draft conclusion following this review.[viii] As it stands, the exclusion of dairy has no basis in scientific literature and leads one to question what is driving its omission.

The 2020 DGAC concluded that there was moderate evidence that dietary patterns that include moderate levels of dairy products are associated with favorable outcomes related to body weight or risk of obesity.[ix] We are unaware of a change in the body of scientific literature related to healthy weight in adults that would trigger the removal of the dairy group from this dietary pattern description.

In fact, there have been additional studies conducted and published since the 2020 DGAC review, including systematic reviews and an FAO report that provide further support that moderate levels of dairy products are associated with favorable outcomes for body weight in adults. There has also been a review by the current DGAC of a body of science related specifically to milk consumption and weight, that among other findings, indicates there is a moderate level of evidence that milk consumption is not

associated with a higher risk of obesity. This finding is not aligned with the draft conclusion that excludes dairy from the dietary pattern associated with lower risk of obesity.

IDFA requests the DGAC reconsider the exclusion of dairy products in this draft conclusion statement and justify doing so by considering the following publications and body of science:

- Beydoun MA, Gary TL, Caballero BH, Lawrence RS, Cheskin LJ, Wang Y. Ethnic differences in dairy and related nutrient consumption among US adults and their association with obesity, central obesity, and the metabolic syndrome. Am J Clin Nutr. 2008;87:1914–1925.
- FAO. Contribution of terrestrial animal source food to healthy diets for improved nutrition and health outcomes – An evidence and policy overview on the state of knowledge and gaps. Rome, FAO; 2023. Available from: https://doi.org/10.4060/cc3912en
- López-Sobaler AM, Aparicio A, López Díaz-Ufano ML, Ortega RM, Álvarez-Bueno C. Effect of dairy intake with or without energy restriction on body composition of adults: overview of systematic reviews and meta-analyses of randomized controlled trials. Nutr Rev. 2020;78(11):901-913. DOI: 10.1093/nutrit/nuaa003
- Martinez-Gonzalez MA, Sayon-Orea C, Ruiz-Canela M, et al. Yogurt consumption, weight change and risk of overweight/obesity: the SUN cohort study. Nutr Metab Cardiovasc Dis. 2014;24(11):1189-1196.
- Mozaffarian D. Dairy Foods, Obesity, and Metabolic Health: The Role of the Food Matrix Compared with Single Nutrients. Adv Nutr. 2019 Sep 1;10(5):917S-923S. DOI: 10.1093/advances/nmz053. PMID: 31518410; PMCID: PMC6743828.
- Mozaffarian D, Hao T, Rimm EB, Willett WC, Hu FB. Changes in diet and lifestyle and long-term weight gain in women and men. N Engl J Med. 2011;364(25):2392–2404. DOI: 10.1056/NEJMoa1014296.
- Yuan M, Hu FB, Li Y, Cabral HJ, Das SK, Deeney JT, Moore LL. Dairy Food Intakes, Postpartum Weight Retention, and Risk of Obesity. Nutrients. 2022 Dec 27;15(1):120. DOI: 10.3390/nu15010120. PMID: 36615778; PMCID: PMC9824318.
- Zemel MB, Richards J, Milstead A, Campbell P. Effects of calcium and dairy on body composition and weight loss in African-American adults. Obes Res. 2005;13:1218–1225.

## ***What is the relationship between dairy milk and milk alternative consumption and growth, body composition, and risk of obesity?***

During the January 19, 2024 public meeting of the DGAC, several draft conclusions were presented that address the question posed above for various milk products, as well as within different life stages. While milk is often, but not always, consumed as a beverage, it is an important source of the dairy nutrition package and therefore any recommendation for milk intake should be included in the dairy food group recommendation.

IDFA appreciates consideration by the DGAC of various forms of milk, including milk with different fat levels and flavored/sweetened milk in its systematic review. Providing Americans with options when it comes to dairy milk allows them to find a variety they like to drink, gaining access to the 13 essential nutrients found in all dairy milk. Flavored milk, in particular, contributes important nutrients to the diets of children.[x]

While the current body of evidence indicates some differences between the health benefits of certain varieties of dairy milk and those effects at different life stages, additional studies are needed in this space. With that said, the existing body of evidence considered by the Subcommittee does not identify any associations between the consumption of milk and unhealthy growth, body composition or risk of obesity. In some cases, the evidence that supports an association between full-fat milk and/or sweetened milk and healthy body composition is stronger than for lower-fat milk.

As the Subcommittee considers finalizing its conclusion statements, IDFA respectfully requests that the studies listed below be considered for inclusion in the appropriate systematic reviews.

**Children and Adolescents:**

- Cifelli C, Houchins J, Demmer E, Fulgoni VL. The Relationship Between Flavored Milk Consumption, Diet Quality, Body Weight, and BMI z-Score Among Children and Adolescents of Different Ethnicities. FASEB J. April 2016;30: supplement 1154.12.
- LaRowe TL, Moeller SM, Adams AK. Beverage patterns, diet quality, and body mass index of US preschool and school-aged children. J Am Diet Assoc. 2007;107(7):1124–1133.
- Moreno LA, Bel-Serrat S, Santaliestra-Pasías A, Bueno G. Dairy products, yogurt consumption, and cardiometabolic risk in children and adolescents. Nutr Rev. 2015 Aug 1;73(suppl_1):8–14. DOI: 10.1093/nutrit/nuv014.
- Murphy MM, Douglass JS, Johnson RK, Spence LA. Drinking flavored or plain milk is positively associated with nutrient intake and is not associated with adverse effects on weight status in US children and adolescents. J Am Diet Assoc. 2008;108(4):631-639. doi:10.1016/j.jada.2008.01.004
- Ricklefs-Johnson K, Pikosky MA, Cifelli CJ, Fulgoni K, Fulgoni VL 3rd, Agarwal S. Assessment of Beverage Trends and Replacing Nondairy Caloric Beverages with Milk at Meals across Childhood Improves Intake of Key Nutrients at Risk of Inadequate Consumption: An NHANES Modeling Study. Curr Dev Nutr. 2023;7(11):102020. Published 2023 Oct 18. DOI: 10.1016/j.cdnut.2023.102020.
- Vanderhout SM, Keown-Stoneman CDG, Birken CS, O'Connor DL, Thorpe KE, Maguire JL. Cow's milk fat and child adiposity: A prospective cohort study. Int J Obes (Lond). 2021;45:2623–2628. DOI: 10.1038/s41366-021-00948-6.

**Younger Children:**

- Beck AL, Heyman M, Chao C, Wojcicki J. Full fat milk consumption protects against severe childhood obesity in Latinos. Prev Med Rep. 2017;8:1–5.
- DeBoer MD, Agard HE, Scharf RJ. Milk intake, height and body mass index in preschool children. Arch Dis Child. 2015;100(5):460–465.
- McGovern C, Rifas-Shiman SL, Switkowski KM, Woo Baidal JA, Lightdale JR, Hivert MF, Oken E, Aris IM. Association of cow's milk intake in early childhood with adiposity and cardiometabolic risk in early adolescence. Am J Clin Nutr. 2022;116:561–571. DOI: 10.1093/ajcn/nqac103.
- Nicholl A, Deering KE, Evelegh K, et al. Whole-fat dairy products do not adversely affect adiposity or cardiometabolic risk factors in children in the Milky Way Study: a double-blind randomized controlled pilot study. Am J Clin Nutr. 2021;114(6):2025–2042. DOI: 10.1093/ajcn/nqab288.

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- Noel SE, Ness AR, Northstone K, Emmett P, Newby PK. Cross-sectional and prospective associations between milk and adiposity in children. FASEB J [Internet] 2011;25(1Suppl).
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**Adolescents:**


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**Adults:**

- Zhao Y, Ji X, Guo P, et al. Dose-response relationships between dairy intake and non-communicable chronic diseases: an NHANES-based cross-sectional study. *Int J Food Sci Nutr*. 2022;73(4):552-563. Doi:10.1080/09637486.2021.2021154

## ***What is the relationship between consumption of dietary patterns with varying amounts of ultra-processed foods and growth, body composition, and risk of obesity?***

At this time, there is not a standardized definition for "ultra-processed foods" in use in nutrition research. As such, there are a wide range of foods that might be identified as ultra-processed, with little alignment on the nutrient profile, source, or contribution of these foods to the overall diet. Use of tools, such as food frequency questionnaires, which are not validated to estimate the consumption of ultra-processed foods and beverages, may lead to the misclassification of foods and beverages by processing category and misinterpretation of associations between ultra-processed foods and health markers. The lack of alignment on a definition for ultra-processed foods will make assessing the science even more difficult and drawing conclusions and developing recommendations all the more challenging.

There are multiple reasons why an individual, family, or institution may choose to prepare and/or eat ultra-processed foods including but not limited to, convenience, limited time available and expertise to prepare foods, food safety, storage considerations, affordability, accessibility, flavor preferences, and to support nutrition. Many processed and ultra-processed foods have longer shelf lives than fresh and unprocessed food, which means that they can be transported and stored for longer periods of time, reducing food waste. For example, dairy processing is pivotal to converting raw milk into a diverse range of high-quality and safe dairy products. Processing ensures the resultant dairy products are safe to consume, maintain their nutritional quality throughout their shelf life of the product, and are available to consumers year-round.[xi]

The nutrient contributions of specific dairy products and not the level of processing is of key importance to public health. For most dairy products, there is no significant inherent change to the nutrient profile of the product due solely to processing. For example, pasteurized milk has similar nutrient contributions to evaporated milk. In fact, canned foods and beverages have been found to be associated with better dietary quality and consumption of nutrient dense foods. For dairy products, processing can result in a greater variety of options within a category, allowing consumers to choose the dairy product that meets their dietary needs and the needs of their families, aiding them in meeting recommendations for dairy consumption and the nutrients dairy products provide.[xii] Importantly, we do not believe that there is a body of science today to support the belief that lower consumption of ultra-processed foods will result in improved diet quality; one might argue that avoiding these foods could actually reduce the intake of key nutrients by consumers.

If recommendations were made regarding the degree of processing of the food through the DGAs, rather than focusing on the dietary contribution of a food or beverage to an overall dietary pattern, the impact on federal nutrition programs that use canned, frozen, heat-treated or otherwise processed foods to provide millions of nutritious, safe meals each day could be impacted on a large scale.

When making recommendations about foods and beverages as part of an overall eating pattern, it is important to consider the overall contribution of nutrients to an eating pattern, and not the level of processing that the food has gone through.

IDFA recommends the Subcommittee consider the studies listed below for inclusion in the systematic review pertaining to ultra-processed foods.


- Astrup A, Monteiro CA. Does the concept of 'ultra-processed foods' help inform dietary guidelines, beyond conventional classification systems? NO. Am J Clin Nutr. 2022. doi:10.1093/ajcn/nqac123.
- Botelho R, Araújo W, Pineli L. Food formulation and not processing level: conceptual divergences between public health and food science and technology sectors. Crit Rev Food Sci Nutr. 2018;58(4):639-650. doi:10.1080/10408398.2016.1209159.
- Braesco V, Souchon I, Sauvant P, et al. Ultra-processed foods: how functional is the NOVA system? Eur J Clin Nutr. 2022. doi:10.1038/s41430-022-01099-1.
- Comerford KB. Frequent Canned Food Use is Positively Associated with Nutrient-Dense Food Group Consumption and Higher Nutrient Intakes in US Children and Adults. Nutrients. 2015;7(7):5586-5600. doi:10.3390/nu7075240.
- Gibney MJ, Forde CG. Nutrition research challenges for processed food and health. Nat Food. 2022;3:104-9. doi:10.1038/s43016-021-00457-9.
- Jones JM. Food processing: criteria for dietary guidance and public health? Proc Nutr Soc. 2019;78(1):4-18. doi:10.1017/s0029665118002513.
- Kapica C, Weiss W. Canned Fruits, Vegetables, Beans and Fish Provide Nutrients at a Lower Cost Compared to Fresh, Frozen or Dried. J Nutr Food Sci. 2012;2(4). doi:10.4172/2155-9600.1000131.
- Marino M, Puppo F, Del Bo C, Vinelli V, Riso P, Porrini M, Martini D. A systematic review of worldwide consumption of ultra-processed foods: findings and criticisms. Nutrients. 2022;13:2778. doi:10.3390/nu13082778.
- Sadler CR, Grassby T, Hart K, Raats M, Sokolović M, Timotijevic L. Processed food classification: conceptualisation and challenges. Trends Food Sci Technol. 2021;112:149-62. doi:10.1016/j.tifs.2021.02.059.
- Steffen LM, Kroenke CH, Yu X, et al. Associations of plant food, dairy product, and meat intakes with 15-y incidence of elevated blood pressure in young black and white adults: the Coronary Artery Risk Development in Young Adults (CARDIA) Study. Am J Clin Nutr. 2005;82(6):1169-1364. doi:10.1093/ajcn/82.6.1169.
- Taneri PE, Wehrli F, Roa Diaz ZM, et al. Association Between Ultra-Processed Food İntake and All-Cause Mortality: A Systematic Review and Meta-Analysis. Am J Epidemiol. 2022;kwac039. doi:10.1093/aje/kwac039.
- Visioli F, et al. The ultra-processed foods hypothesis: a product processed well beyond the basic ingredients in the package. Nutr Res Rev. 2022. doi:10.1017/S0954422422000117.

# Subcommittee 3: Food Pattern Modeling and Data Analysis

## ***Should foods and beverages with lower nutrient density (i.e., those with added sugars, saturated fat, and sodium) contribute to item clusters, representative foods, and therefore the nutrient profiles for each food group and subgroup used in modeling the USDA Dietary Patterns?***

As Subcommittee 3 considers the item clusters and specific foods and beverages, IDFA requests re-consideration of the definition of "nutrient dense" used for food pattern modeling purposes and other purposes in the DGAs. Focusing the categorization and definition of nutrient density only on the absence of three particular nutrients (added sugars, saturated fat and sodium) downplays and completely ignores the potential beneficial nutrient contributions of foods and beverages. Nutrient density should consider the full nutrient package of food products, including vitamins, minerals, dietary fiber, protein, with the identified nutrients to limit. Healthy dietary patterns are made up of foods and beverages that contribute beneficial nutrients, not merely those that have no added sugar, saturated fat or sodium.

There is a wide variety of nutrient dense dairy products in the marketplace; this includes some milk, yogurt and cheese products that provide the full range of essential nutrients provided by dairy, while also containing some added sugars, saturated fats or sodium. The presence of the three nutrients to limit does not negate the up to 13 essential nutrients that are also contributed by the milk, cheese or yogurt. In fact, these options may be more palatable to some Americans as a direct result of the presence of one or more of the nutrients to limit, helping consumers meet the recommended food group and nutrient intakes. These dairy products are important sources of nutrients and should not be excluded from the definition of "nutrient dense." Flavored dairy and cheese contribute important nutrients to the diets of Americans. Please see the references below to support our statements.


- Fayet-Moore F, Cassettari T, McConnell A, Kim J, Petocz P. Australian children and adolescents who were drinkers of plain and flavored milk had the highest intakes of milk, total dairy, and calcium. Nutr Res. 2019;66:68-81. DOI: 10.1016/j.nutres.2019.03.001.
- Feeney EL, Nugent AP, Mc Nulty B, Walton J, Flynn A, Gibney ER. An overview of the contribution of dairy and cheese intakes to nutrient intakes in the Irish diet: results from the National Adult Nutrition Survey. Br J Nutr. 2016;115(4):709-717. DOI: 10.1017/S000711451500495X.
- Nicklas TA, O'Neil CE, Fulgoni VL. The Nutritional Role of Flavored and White Milk in the Diets of Children. J Sch Health. 2013;83(10):728–733. DOI: 10.1111/JOSH.12087.


IDFA cautions the DGAC that if a definition for "nutrient dense" that focuses only on the absence of certain nutrients and does not consider the full nutrient profile is adopted in the final DGAs, it is possible that other nutrition policies may use this similar approach for defining nutrient density. This could result in nutrition policies that focus only on what a food or beverage does not have, rather than on what nutrients to encourage that they do provide and in products that provide little to no nutrition appearing to be the most beneficial for a dietary pattern.

## ***For each food group, what are the implications for nutrient intakes within the USDA Dietary Patterns if: (1) the recommended daily or weekly quantity of the food group***

***or subgroup is modified (e.g., between a range of 0 to a number above the current recommendation) and (2) if the proportion coming from each subgroup within a food group is modified?***

IDFA supports modeling that will look at various amounts of different dairy products, including milk, yogurt and cheese in diets. All of these dairy products contribute vital nutrients to healthy diets while providing different flavors, formats and uses in meals or snacks. We believe that looking at dairy intake composed of differing amounts of milk, yogurt and cheese will highlight the importance of dairy products in a healthy diet.

In fact, there are studies that have already considered the replacement of dairy with other foods or the removal of dairy foods from diets, which demonstrate nutrient shortfalls when dairy is excluded from eating patterns including the following:

- Fulgoni VL 3rd, Keast DR, Auestad N, Quann EE. Nutrients from dairy foods are difficult to replace in diets of Americans: food pattern modeling and an analyses of the National Health and Nutrition Examination Survey 2003-2006. Nutr Res. 2011;31(10):759-765. DOI: 10.1016/j.nutres.2011.09.017.
- Ricklefs-Johnson K, Pikosky MA, Cifelli CJ, Fulgoni K, Fulgoni VL 3rd, Agarwal S. Assessment of Beverage Trends and Replacing Nondairy Caloric Beverages with Milk at Meals across Childhood Improves Intake of Key Nutrients at Risk of Inadequate Consumption: An NHANES Modeling Study. Curr Dev Nutr. 2023;7(11):102020. Published 2023 Oct 18. DOI: 10.1016/j.cdnut.2023.102020.

***What quantities of foods and beverages lower in nutrient density can be accommodated in the USDA Dietary Patterns while meeting nutritional goals within calorie levels?***

IDFA would again ask the Subcommittee to reframe the definition of "nutrient dense" foods and beverages to consider the full nutrient package provided, rather than focusing on the absence of three nutrients.

This is particularly important for foods and beverages that contain significant amounts of nutrients and may also contain some added sugar, saturated fat or sodium, such as flavored yogurt, cheese or full-fat milk. Scientific research has demonstrated that full-fat dairy or flavored milk can have beneficial health outcomes, such as improved measures of CVD or improved measures of body composition and growth.

As healthy food patterns are modeled, the full nutritional package should be considered.

# Health Equity Working Group

IDFA appreciates the efforts of the DGAC overall and specifically the Health Equity Working Group to ensure that all Americans can identify and access foods and beverages to build an eating pattern that will align with the DGAs and promote good health. We believe that the variety of dairy products that are available to Americans provide options for nearly every person to access dairy nutrition as part of healthy, and health-promoting, diets.

**Dairy is an Important Source of Low-Cost Nutrition**

One hurdle that is often identified to eating healthier foods is the cost. While three-quarters of Americans report that cost is a major consideration as they purchase foods and beverages,[xiii] for low-income families and for many federal nutrition programs, the cost of nutritious options becomes even more important. For this reason, nutrient-rich dairy products that provide a number of important nutrients all in the same package can be very cost effective for families or food service providers looking to provide maximum nutrition on a budget. In fact, dairy is the least expensive source of calcium and vitamin D, while providing potassium, magnesium, choline and vitamin A at below average cost.[xiv] Encouraging dairy's inclusion in recommended diets will support families and federal nutrition programs, such as WIC and school meals, to incorporate nutrient-rich and inexpensive dairy.

**Dairy is Key to a Healthy Diet for Americans of all Racial and Ethnic Groups**

As demonstrated in responses to the DGAC's other scientific questions, dairy consumption is associated with lower risk of type 2 diabetes, hypertension and heart disease. While these are major health concerns for the American population as a whole, they are often even more prevalent in Black, Indigenous and People of Color (BIPOC) communities. For DGAC consideration, IDFA has compiled the following list of references for research that demonstrates that dairy foods have beneficial effects on reduction in chronic disease, and on growth and body composition in children and adults in Black, Asian, Native American and Latinx communities.


- Beck AL, Heyman M, Chao C, Wojcicki J. Full fat milk consumption protects against severe childhood obesity in Latinos. Prev Med Rep. 2017;8:1–5.
- Beydoun MA, Gary TL, Caballero BH, Lawrence RS, Cheskin LJ, Wang Y. Ethnic differences in dairy and related nutrient consumption among US adults and their association with obesity, central obesity, and the metabolic syndrome. Am J Clin Nutr. 2008;87:1914–1925.
- Comerford K, Lawson Y, Young M, et al. Executive summary: The role of dairy food intake for improving health among Black Americans across the life continuum. J Natl Med Assoc. 2024;116(2 Pt 2):211-218. DOI: 10.1016/j.jnma.2024.01.026.
- Comerford K, Lawson Y, Young M, et al. The role of dairy food intake for improving health among black Americans across the life continuum: A summary of the evidence. J Natl Med Assoc. 2024;116(2 Pt 2):292-315. DOI: 10.1016/j.jnma.2024.01.020.
- DeBoer MD, Agard HE, Scharf RJ. Milk intake, height and body mass index in preschool children. Arch Dis Child. 2015;100(5):460–5.
- Huang LY, Wahlqvist ML, Huang YC, Lee MS. Optimal dairy intake is predicated on total, cardiovascular, and stroke mortalities in a Taiwanese cohort. J Am Coll Nutr. 2014;33:426–436. DOI: 10.1080/07315724.2013.875328.
- Kummer K, Jensen PN, Kratz M, Lemaitre RN, Howard BV, Cole SA, Fretts AM. Full-Fat Dairy Food Intake is Associated with a Lower Risk of Incident Diabetes Among American Indians with Low Total Dairy Food Intake. J Nutr. 2019 Jul 1;149(7):1238-1244. DOI: 10.1093/jn/nxz058. PMID: 31070753; PMCID: PMC6904417.
- Lawson Y, Comerford KB, Mitchell EP. A review of dairy food intake for improving health for black women in the US during pregnancy, fetal development, and lactation. J Natl Med Assoc. 2024;116(2 Pt 2):219-227. DOI: 10.1016/j.jnma.2024.01.013.

- Lawson Y, Mpasi P, Young M, Comerford K, Mitchell E. A review of dairy food intake for improving health among black children and adolescents in the US. J Natl Med Assoc. 2024;116(2 Pt 2):241-252. DOI: 10.1016/j.jnma.2024.01.019.
- Lawson Y, Mpasi P, Young M, Comerford K, Mitchell E. A review of dairy food intake for improving health among black infants, toddlers, and young children in the US. J Natl Med Assoc. 2024;116(2 Pt 2):228-240. DOI: 10.1016/j.jnma.2024.01.014.
- Mitchell E, Comerford K, Knight M, McKinney K, Lawson Y. A review of dairy food intake for improving health among black adults in the US. J Natl Med Assoc. 2024;116(2 Pt 2):253-273. DOI: 10.1016/j.jnma.2024.01.018.
- Mitchell E, Comerford K, Knight M, McKinney K, Lawson Y. A review of dairy food intake for improving health among black geriatrics in the US. J Natl Med Assoc. 2024;116(2 Pt 2):274-291. DOI: 10.1016/j.jnma.2024.01.017.
- Otto MC, Mozaffarian D, Kromhout D, Bertoni AG, Sibley CT, Jacobs DR Jr, Nettleton JA. Dietary intake of saturated fat by food source and incident cardiovascular disease: the Multi-Ethnic Study of Atherosclerosis. Am J Clin Nutr. 2012;96:397–404.
- Steffen LM, Kroenke CH, Yu X, et al. Associations of plant food, dairy product, and meat intakes with 15-y incidence of elevated blood pressure in young black and white adults: the Coronary Artery Risk Development in Young Adults (CARDIA) Study. Am J Clin Nutr. 2005;82(6):1169-1364. DOI: 10.1093/ajcn/82.6.1169.
- Zemel MB, Richards J, Milstead A, Campbell P. Effects of calcium and dairy on body composition and weight loss in African-American adults. Obes Res 2005;13:1218–25.


**Variety of Dairy Products, including Lactose-Free Options, Can Help Americans Meet Dairy Recommendations**

While all groups of Americans do not consume sufficient levels of dairy to meet the recommendations of the 2020-2025 DGA, unfortunately, Black, Latinx and Asian Americans tend to consume even less than Caucasian Americans or Americans as a whole. Refer to the references below.


- Cifelli CJ, Fulgoni K, Fulgoni VL 3rd, Hess JM. Disparity in Dairy Servings Intake by Ethnicity and Age in NHANES 2015-2018. Curr Dev Nutr. 2022;7(2):100010.
- Dodd AH, Briefel R, Cabili C, Wilson A, Crepinsek MK. Disparities in consumption of sugar-sweetened and other beverages by race/ethnicity and obesity status among United States schoolchildren. J Nutr Educ Behav. 2013;45(3):240–9.


Some of this underconsumption may be a result of Americans, particularly those in the BIPOC community, feeling that they cannot consume dairy due to lactose intolerance or because it is not appropriate in their culture. Lactose malabsorption, the cause of lactose intolerance, has been estimated at 36% of the U.S. population.[xv] Estimates also indicate there are significant variations between racial and ethnic groups, with approximately 85% of adult African Americans being lactose intolerant, and high rates of lactose intolerance in individuals of Asian descent, Hispanic descent, Native Americans and Jewish individuals.[xvi] However, a recent survey of American households found that 16% of Americans report that they themselves are lactose intolerant, with a further 20% indicating that someone else in their household is lactose intolerant. In considering subgroups, 30-31% of Black/African Americans, Hispanic/Latino and Asian/Pacific Islanders responding to the survey reported that they were

lactose intolerant or allergic to dairy.[xvii] Of those who reported that they were lactose intolerant, only 39% take medication to address it. See the reference below.

- Keith JN, Nicholls J, Reed A, Kafer K, Miller GD. The prevalence of self-reported lactose intolerance and the consumption of dairy foods among African American adults are less than expected. *J Natl Med Assoc*. 2011;103(1):36-45. Doi:10.1016/s0027-9684(15)30241-8

Black and Hispanic/Latino Americans were more likely to report avoiding milk due to digestive issues.[xviii] This avoidance of dairy may result in lower intake of nutrients that are part of the dairy matrix, including calcium, protein, vitamin D. This underconsumption of dairy products and the essential nutrients they provide may exacerbate some health conditions that are more prevalent in Black or Latinx communities, since dairy consumption is linked with lower risk of type 2 diabetes and hypertension. Please refer to the listed references below.

- Bailey RK, Fileti CP, Keith J, Tropez-Sims S, Price W, Allison-Ottey SD. Lactose intolerance and health disparities among African Americans and Hispanic Americans: an updated consensus statement. J Natl Med Assoc. 2013;105(2):112-127. DOI: 10.1016/s0027-9684(15)30113-9.
- Fulgoni VL 3rd, Keast DR, Auestad N, Quann EE. Nutrients from dairy foods are difficult to replace in diets of Americans: food pattern modeling and an analyses of the National Health and Nutrition Examination Survey 2003-2006. Nutr Res. 2011;31(10):759-765. DOI: 10.1016/j.nutres.2011.09.017.
- Ricklefs-Johnson K, Pikosky MA, Cifelli CJ, Fulgoni K, Fulgoni VL 3rd, Agarwal S. Assessment of Beverage Trends and Replacing Nondairy Caloric Beverages with Milk at Meals across Childhood Improves Intake of Key Nutrients at Risk of Inadequate Consumption: An NHANES Modeling Study. Curr Dev Nutr. 2023;7(11):102020. Published 2023 Oct 18. DOI: 10.1016/j.cdnut.2023.102020.

Even for those who do need to avoid lactose, there are numerous strategies that can be used to consume dairy products and benefit from the nutrition those products provide. These include lactose-free or lactose-reduced dairy products, consuming smaller portions of dairy products in a single setting or consuming yogurt or probiotic-containing dairy products.[xix] However, 42% of Americans have never consumed lactose-free milk, including 34-40% of Hispanic/Latino, Black/African American and Asian/Pacific Islanders.[xx] This indicates that there are many Americans that are missing a key method of accessing dairy nutrition.

Visit most grocery stores today, and you will see several lactose-free and low-lactose dairy options in the dairy case. Dairy companies have made a purposeful choice to expand lactose-free dairy at food retail and foodservice establishments to respond to the needs expressed by the communities they serve. The proliferation of lactose-free milk and dairy options in the U.S. marketplace provides the DGAC a unique opportunity to recognize a need to improve nutrition education and awareness of these new choices. The 2020-2025 DGAs included a recommendation that lactose-free dairy products are part of the dairy group and lactose-free dairy products are important options within the federal nutrition programs, including the National School Lunch Program and the Special Supplemental Nutrition Program for Women, Infants and Children (WIC). To ensure that Americans concerned about their ability to consume lactose and dairy are still able to benefit from the nutrition provided by dairy foods, we ask that the

2025-2030 Scientific Report emphasize the availability of lactose-free dairy products and other strategies for consuming dairy products.

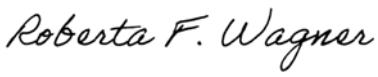
## Scientific References are Needed for Additional Transparency

To add transparency to the DGA development process, IDFA urges USDA and HHS to make publicly available the list of studies already considered for systematic reviews as the scientific review process proceeds. While it is helpful to have the inclusion and exclusion criteria identified as part of the protocols and the full list of studies available when the Scientific Report is issued, the public should have access to the body of research being used to develop scientific conclusion statements during the review process. This will allow the public to identify any potential gaps and provide appropriate references before the Scientific Report is published.

## Conclusion

IDFA appreciates the work of the DGAC and agency staff to examine a number of important scientific questions to help Americans build a healthy diet. We encourage the addition of the above references that support the inclusion of nutrient-rich dairy products in diets that support good nutrition and healthy lives.

Sincerely,



Roberta Wagner
Senior Vice President, Regulatory and Scientific Affairs

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[i] Comerford KB, Miller GD, Boileau AC, Masiello Schuette SN, Giddens JC, Brown KA. Global Review of Dairy Recommendations in Food-Based Dietary Guidelines. Front Nutr. 2021 May 25;8:671999. doi: 10.3389/fnut.2021.671999. PMID: 34113643; PMCID: PMC8186461.

[ii] International Dairy Federation. (2024). Developing Evidence-Based, Food-Based Dietary Guidelines: Critical Contributions of Dairy (Factsheet of the IDF N° 40/2024). https://doi.org/10.56169/OEBL2893

[iii] Barr SI. Is the 2019 Canada's Food Guide Snapshot nutritionally adequate?. Appl Physiol Nutr Metab. 2019;44(12):1387-1390. doi:10.1139/apnm-2019-0432

[iv] https://www.fda.gov/media/176608/download?attachment

[v] https://www.regulations.gov/document/FDA-2019-P-1594-0001

[vi] Johnson SA, Kirkpatrick CF, Miller NH, Carson JAS, Handu D, Moloney L. Saturated Fat Intake and the Prevention and Management of Cardiovascular Disease in Adults: An Academy of Nutrition and Dietetics Evidence-Based Nutrition Practice Guideline. *J Acad Nutr Diet*. 2023;123(12):1808-1830. doi:10.1016/j.jand.2023.07.017

[vii] Thorning TK, Bertram HC, Bonjour JP, de Groot L, Dupont D, Feeney E, Ipsen R, Lecerf JM, Mackie A, McKinley MC et al... Whole dairy matrix or single nutrients in assessment of health effects: current evidence and knowledge gaps. *Am J Clin Nutr*. 2017;105(5):1033–45.

[viii] National Milk Producers Federation and International Dairy Foods Association. Comment submitted to Janet deJesus. April 11, 2024. Available at: https://www.regulations.gov/comment/HHS-OASH-2022-0021-3115

[ix] 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. Available at: https://doi.org/10.52570/DGAC2020

[x] Fayet-Moore F, Cassettari T, McConnell A, Kim J, Petocz P. Australian children and adolescents who were drinkers of plain and flavored milk had the highest intakes of milk, total dairy, and calcium. Nutr Res. 2019;66:68-81. Doi:10.1016/j.nutres.2019.03.001

Nicklas TA, O'Neil C E, & Fulgoni V L. The Nutritional Role of Flavored and White Milk in the Diets of Children. Journal of School Health. 2013;83:728–733. .org/10.1111/JOSH.12087

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