

USHBC Supported Studies

Antioxidant Activity

- Blacker BC, Snyder SM, Eggett DI, Parker TI. **Consumption of blueberries with a high-carbohydrate, low-fat breakfast decreases postprandial serum markers of oxidation.** *British Journal of Nutrition*. 2013, 109:1670-1677*
[Abstract](#)

Bioavailability/Metabolism

- Koh J, Xu Z, Wicker L. **Blueberry Pectin and Increased Anthocyanins Stability Under in Vitro Digestion.** *Food Chem*. 2020, 302:125343*
[Abstract](#)
- Lin Z, Pattathil S, Hahn MG, Wicker L. **Blueberry cell wall fractionation, characterization and glycome profiling.** *Food Hydrocolloids*. 2019, 90:385-393.*
[Abstract](#)
- Koh J, Xu Z, Wicker L. **Blueberry pectin extraction methods influence physico-chemical properties.** *Journal of Food Science*, 2018, 83:2954-2962.*
[Abstract](#)
- Lin Z, Fischer J, Wicker L. **Intermolecular binding of blueberry pectin-rich fractions and anthocyanin.** *Food Chem*. 2016, 194:986-993.*
[Abstract](#)
- Hanley MJ, Masse G, Harmatz JS, Cancalon PF, Dolnikowski GG, Court MH, Greenblatt DJ. **Effect of blueberry juice on clearance of buspirone and flurbiprofen in human volunteers.** *British Journal of Clinical Pharmacology*. 2012, 75:1041-1052.
[Abstract](#)
- Milbury PE, Kalt W. **Xenobiotic metabolism and berry flavonoid transport across the blood-brain barrier.** *Journal of Agricultural and Food Chemistry*. 2010, 58:3950-3956
[Abstract](#)
- Kalt W, Blumberg JB, McDonald JE, Vinqvist-Tymchuk MR, Fillmore SAE, Graf BA, O'Leary JM, Milbury PE. **Identification of anthocyanins in the liver, eye, and brain of blueberry-fed pigs.** *Journal of Agricultural and Food Chemistry*. 2008; 56:705-12.
[Abstract](#)

Bone and Joint Health

- Devareddy L, Hooshmand S, Collins JK, Lucas EA, Chai SC, Arjmandi BH. **Blueberry prevents bone loss in ovariectomized rat model of postmenopausal osteoporosis.** *Journal of Nutritional Biochemistry*. 2008; 19:694-699
[Abstract](#)

*Publication was not directly funded, but USHBC freeze-dried blueberry powder was provided at no cost
List of Published Studies as of 10/1/2021

Brain Function

- Rutledge GA, Sandhu AK, Miller MG, Edirisinghe I, Burton-Freeman BB, **Shukitt-Hale B. Blueberry phenolics are associated with cognitive enhancement in supplemented healthy older adults.** *Food & Function.* 2021; 12:107-118.
[Abstract](#)
- **Krikorian R, Kalt W, McDonald JE, Shidler MD, Summer SS, Stein AL. Cognitive performance in relation to urinary anthocyanins and their flavonoid-based products following blueberry supplementation in older adults at risk for dementia.** *Journal of Functional Foods.* 2020, 64:103667.
[Abstract](#)
- Shukitt-Hale B, Thangthaeng N, Miller MG, Poulouse SM, Carey AN, Fisher DR. **Blueberries improve neuroinflammation and cognition differentially depending on individual cognitive baseline status.** *J Gerontol A Biol Sci Med Sci.* 2019, 74:977-983.*
[Abstract](#)
- Krishna G, Ying Z, **Gomez-Pinilla F. Blueberry supplementation mitigates altered brain plasticity and behavior after traumatic brain injury in rats.** *Molecular Nutrition and Food Research.* 2019, 63:e1801055.
[Abstract](#)
- **Carey AN, Gildawie KR, Rovnak A, Thangthaeng N, Fisher DR, Shukitt-Hale B. Blueberry supplementation attenuates microglia activation and increases neuroplasticity in mice consuming a high-fat diet.** *Nutritional Neuroscience.* 2019, 22:253-263.
[Abstract](#)
- Boespflug EL, Eliassen JC, Dudley JA, Shidler MD, Kalt W, Summer SS, Stein AL, Stover AN, **Krikorian R. Enhanced neural activation with blueberry supplementation in mild cognitive impairment.** *Nutritional Neuroscience.* 2018, 21:297-305.
[Abstract](#)
- Miller MG, Hamilton DA, Joseph JA, **Shukitt-Hale B. Dietary blueberry improves cognition among older adults in a randomized, double-blind, placebo-controlled trial.** *European Journal of Nutrition.* 2018, 57:1169-1180.
[Abstract](#)
- McNamara RK, Kalt W, Shidler MD, McDonald J, Summer SS, Stein AL, Stover AN, **Krikorian R. Cognitive response to fish oil, blueberry, and combined supplementation in older adults with subjective cognitive impairment.** *Neurobiology of Aging.* 2018, 64:147-156.*
[Abstract](#)
- Poulouse SM, Rabin BM, Bielinski DF, Kelly ME, Miller MG, Thanthang N, Shukitt-Hale B. **Neurochemical differences in learning and memory paradigms among rats supplemented with anthocyanin-rich blueberry diets and exposed to acute doses of ⁵⁶Fe particles.** *Life Sciences in Space Research.* 2017, 12:16-23*
[Abstract](#)
- Ebenezer PJ, Wilson CB, Wilson LD, Nair AR, **Francis J. The anti-inflammatory effects of blueberries in an animal model of post-traumatic stress disorder (PTSD).** *PLoS One* 2016, 11:e0180923. [Abstract](#)
- **Carey AN, Gomes SM, Shukitt-Hale B. Blueberry supplementation improves memory in middle-aged mice fed a high-fat diet.** *Journal of Agricultural and Food Chemistry.* 2014,62:3972-3978.
[Abstract](#)
- Shukitt-Hale B. **Blueberries and neuronal aging.** *Gerontology.* 2012, 58:518-523.
[Abstract](#)

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List of Published Studies as of 10/1/21

- **McGuire SO, Sortwell CE, Shukitt-Hale B, Joseph JA, Hejna MJ, Collier TJ. Dietary supplementation with blueberry extract improves survival of transplanted dopamine neurons.** *Nutritional Neuroscience*. 2006; 9:251-258.
[Abstract](#)

Cancer

- Aqil F, Jeyabalan J, Kausar H, Radha Munagala R, Singh IP, **Gupta R. Lung cancer inhibitory activity of dietary berries and berry polyphenolics.** *Journal of Berry Research*. 2016, 6:105-114.
[Abstract](#)
- Jeyabalan J, Aqil F, Munagala R, Annamalai L, Vadhanam MV, **Gupta RC. Chemopreventive and therapeutic activity of dietary blueberry against estrogen-mediated breast cancer.** *Journal of Agricultural and Food Chemistry*. 2014, 62:3963-3971,
[Abstract](#)
- Kanaya N, Adams L Takasaki A, **Chen S. Whole blueberry powder inhibits metastasis of triple negative breast cancer in a xenograft mouse model through modulation of inflammatory cytokines.** *Nutrition and Cancer*. 2014, 66:242-248.
[Abstract](#)
- **Adams LS, Kanaya N, Phung S, Liu Z, Chen S. Whole blueberry powder modulates the growth and metastasis of MDA-MB-231 triple negative breast tumors in nude mice.** *Journal of Nutrition* 2011, 141:1805-1812.
[Abstract](#)

Cardiovascular/Lipids

- Curtis PJ, van der Velpen V, Berends L, Jennings A, Feelisch M, Umpleby AM, Evans M, Fernandez BO, Meiss MS, Minnion M, Potter J, Minihane AM, Kay CD, **Rimm EB, Cassidy A. Blueberries improve biomarkers of cardiometabolic function in participants with metabolic syndrome-results from a 6-month, double-blind, randomized controlled trial.** *The American Journal of Clinical Nutrition*. 2019, 109:1535-1545.
[Abstract](#)
- Johnson SA, Feresin RG, Navaei N, Figueroa A, Elam ML, Akhavan NS, Hooshmand S, Pourafshar S, Payton ME, **Arjmandi BH. Effects of daily blueberry consumption on circulating biomarkers of oxidative stress, inflammation, and antioxidant defense in postmenopausal women with pre- and stage 1-hypertension: a randomized controlled trial.** *Food and Function*. 2017, 8:373-380.
[Abstract](#)
- Johnson SA, Figueroa A, Navaei N, Wong A, Kalfon R, Ornsbee LT, Feresin RG, Elam MI, Hooshmand S, Payton ME, **Arjmandi BH. Daily blueberry consumption improves blood pressure and arterial stiffness in postmenopausal women with pre- and stage 1-hypertension: A randomized, double-blind, placebo-controlled clinical trial.** *Journal of the Academy of Nutrition and Dietetics*. 2015, 115:369-377.
[Abstract](#)
- Stull AJ, Cash KC, Champagne CM, Gupta AK, Boston R, Beyl RA, Johnson WD, **Cefalu WT. Blueberries improve endothelial function, but not blood pressure, in adults with metabolic syndrome: A randomized, double-blind, placebo-controlled clinical trial.** *Nutrients* 2015, 7:4107-4123. [Abstract](#)

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List of Published Studies as of 10/1/21

- McAnulty LS, Collier SR, Landram MJ, Whittaker DS, Isaacs SE, Klemka JM, Cheek SL, Arms JC, **McAnulty SR. Six weeks daily ingestion of whole blueberry powder increases natural killer cell counts and reduces arterial stiffness in sedentary males and females.** *Nutrition Research*. 2014, 34:577-584.
[Abstract](#)
- **Basu A, Du M, Leyva MJ, Sanchez K, Betts NM, Wu M, Aston CF, Lyons TJ. Blueberries decrease cardiovascular risk factors in obese men and women with metabolic syndrome.** *Journal of Nutrition*. 2010, 140:1582-1587.
[Abstract](#)
- **Kalt W, Foote K, Fillmore SAE, Lyon M, Van Lunen TA, McRae KB. Effect of blueberry feeding on plasma lipids in pigs.** *British Journal of Nutrition*. 2008; 100:70-78.
[Abstract](#)

Diabetes/Insulin Resistance

- **Stote KS, Wilson MM, Hallenbeck D, Thomas K, Rourke JM, Sweeney MI, Gottschall-Pass KT, Gosmanov AR. Effect of blueberry consumption on cardiometabolic health parameters in men with type 2 diabetes: an 8-week, double-blind, randomized, placebo-controlled trial.** *Curr Dev Nutr*. 2020, 4:1-10.
[Abstract](#)
- Liu W, Mao Y, Schoenborn J, Wang Z, Tang G, Tang X. **Whole blueberry protects pancreatic beta-cells in diet-induced obese mouse.** *Nutr & Metab*. 2019, 16:34.
[Abstract](#)
- Elks CM, Terrebonne JD, Ingram DK, Stephens JM. **Blueberries improve glucose tolerance without altering body composition in obese postmenopausal mice.** *Obesity* 2015, 23:573-580.*
[Abstract](#)
- Seymour EM, Tanone II, Urcuyo-Llanes DE, Lewis SK, Kirakosyan A, Kondoleon MG, Kaufman PB, **Bolling SF. Blueberry intake alters skeletal muscle and adipose tissue peroxisome proliferator-activated receptor activity and reduces insulin resistance in obese rats.** *Journal of Medicinal Food*. 2011, 14:1511-1518.
[Abstract](#)
- Stull AJ, Cash KC, Johnson WD, Champagne CM, **Cefalu WT. Bioactives in blueberries improve insulin sensitivity in obese, insulin-resistant men and women.** *Journal of Nutrition*. 2010, 140:1764-1768.
[Abstract](#)
- DeFuria J, Bennett G, Strissel KJ, Perfield JW II, Milbury PE, Greenberg AS, **Obin MS. Dietary blueberry attenuates whole-body insulin resistance in high fat-fed mice by reducing adipocyte death and its inflammatory sequelae.** *Journal of Nutrition*. 2009; 139:1510-1516.
[Abstract](#)

Exercise/Muscle

- **Brandenburg JP, Giles LV. Blueberry supplementation reduces the blood lactate response to running in normobaric hypoxia but has no effect on performance in recreational runners.** *Journal of the International Society of Sports Nutrition*. 2021; 18:26.
[Abstract](#)
- **Avendano EE and Raman G. Blueberry consumption and exercise: Gap analysis using evidence mapping.** *Journal of Alternative and Complementary Medicine*. 2021, 27:3-11.
[Abstract](#)

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List of Published Studies as of 10/1/21

- Blum JE, Gheller BJ, Hwang S, Bender E, Cheller M, **Thalacker-Mercer AE. Consumption of a blueberry-enriched diet by women for 6 weeks alters determinants of human muscle progenitor cell function.** *Journal of Nutrition.* 2020, 150:2412-2418.
[Abstract](#)
- **Brandenburg JP** and Giles LV. **Four days of blueberry powder supplementation lowers the blood lactate response to running but has no effect on time-trial performance.** *International Journal of Sports Nutrition and Exercise Metabolism.* 2019; 29:636-642.
[Abstract](#)
- McAnulty LS, Nieman DC, Dumke CL, Shooter LA, Henson DA, Utter AC, Milne G, **McAnulty SR. Effect of blueberry ingestion on natural killer cell counts, oxidative stress, and inflammation prior to and after 2.5 h of running.** *Applied Physiology, Nutrition, and Metabolism* 2011, 36:976-984.
[Abstract](#)

Eye Health

- Tremblay F, Waterhouse J, Nason J, **Kalt W. Prophylactic neuroprotection by blueberry-enriched diet in a rat model of light-induced retinopathy.** *Journal of Nutritional Biochemistry* 2013, 24:647-655. [Abstract](#)

Food Safety

- Bialka KI, **Demirci A. Decontamination of Escherichia coli 0157:H7 and Salmonella enterica on blueberries using ozone and pulsed UV-light.** *Journal of Food Science.* 2007, 72:M391-396.
[Abstract](#)
- Popa I, Hanson EJ, **Todd ECD, Schilder AC, Ryser ET. Efficacy of chlorine dioxide gas sachets for enhancing the microbiological quality and safety of blueberries.** *Journal of Food Protection* 2007, 70:2084-2088.
[Abstract](#)

Gut Health

- Ntemiri A, Ghosh TS, Gheller ME, Tran TT, Blum JE, Pellanda P, Vickova K, Neto MC, Howell A, **Thalacker-Mercer A, O'Toole PW. Whole blueberry and isolated polyphenol-rich fractions modulate specific gut microbes in an in vitro colon model and in a pilot study in human consumers.** *Nutrients.* 2020, 12:E2800.
[Abstract](#)
- Morissette A, Kropp C, Songpadith JP, Junges Moreira R, Costa J, Marine Casado R, Pilon G, Varin TV, Dudonne S, Boutekrabt L, St-Pierre P, Levy E, Roy D, Desjardins Y, Raymond F, Houde VP, **Marette A. Blueberry proanthocyanidins and anthocyanins improve metabolic health through a gut microbiota-dependent mechanism in diet-induced obese mice.** *Am J Physiol Endocrinol Metab.* 2020; 318:E965-E980.
[Abstract](#)
- Polewski MA, Esquivel-Alvarado D, Wedde Ns, Kruger CG, **Reed JD. Isolation and characterization of blueberry polyphenolic components and their effects on gut barrier dysfunction.** *J Agric Food Chem.* 2020; 68:2940-2947.
[Abstract](#)
- Ivey KL, Chan AT, Izard J, Cassidy A, Rogers GB, **Rimm EB.** Role of dietary flavonoid compounds in driving patterns of microbial community assembly. *mBio.* 2019; 10:e01205-19.
[Abstract](#)

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- Lee S, Keirsey KI, Kirkland R, Grunewald ZI, Fischer JG, de La Serre CB. **Blueberry supplementation influences the gut microbiota, inflammation, and insulin resistance in high-fat-diet-fed rats.** *Journal of Nutrition* 2018; 148:209-219.*
[Abstract](#)

Immune Function

- Rousseau M, Horne J, Guenard F, de Toro-Martin J, Garneau V, Guay V, Kearney M, Pilon G, Roy D, Couture P, Couillard C, Marette A, **Vohl M-C. An 8-week freeze-dried blueberry supplement impacts immune-related pathways: a randomized, double-blind placebo-controlled trial.** *Genes & Nutrition* 2021; 16:7.
[Abstract](#)
- Lewis ED, Ren Z, DeFuria J, Obin MS, Meydani SN, Wu D. **Dietary supplementation with blueberry partially restores T-cell-mediated function in high-fat-diet-induced obese mice.** *British Journal of Nutrition* 2018, 119:1393-1399.*
[Abstract](#)
- Nair AR, Mariappan N, Stull AJ, **Francis J. Blueberry supplementation attenuates oxidative stress within monocytes and modulates immune cell levels in adults with metabolic syndrome: a randomized, double-blind, placebo-controlled trial.** *Food and Function.* 2017; 8:4118-4128.
[Abstract](#)

Inflammation

- South S, Lucero J, Vijayagopal P, Juma S. **Anti-inflammatory action of blueberry polyphenols in HIG-82 rabbit synoviocytes.** *J Med Food.* 2019, 22:1032-1040. *
[Abstract](#)
- Du C, Smith A, Avalos M, South S, Crabtree K, Wang W, Kwon Y, Vijayagopal P, **Juma S. Blueberries improve pain, gait performance, and inflammation in individuals with symptomatic knee osteoarthritis.** *Nutrients.* 2019; 11:E290.
[Abstract](#)
- Ono-Moore KD, Snodgrass RG, Huang S, Singh S, Freytag TI, Burnett DJ, Bonnel EI, Woodhouse LR, Zunino SJ, Peerson JM, Lee JY, Rutledge JC, **Hwang DH. Postprandial inflammatory responses and free fatty acids in plasma of adults who consumed a moderately high-fat breakfast with and without blueberry powder in a randomized placebo-controlled trial.** *Journal of Nutrition* 2016, 146:1411-1419.
[Abstract](#)
- Xin, J, Feinstein DI, Heyna MJ, Lorens SA, **McGuire SO. Beneficial effects of blueberries in experimental autoimmune encephalomyelitis.** *Journal of Agricultural and Food Chemistry.* 2012, 60:5743-5748. [Abstract](#)

Obesity

- Moghe SS, Juma S, Imrhan V, **Vijayagopal P. Effect of blueberry polyphenols on 3T3-F442A preadipocyte differentiation.** *Journal of Medicinal Food.* 2012, 15:448-452
[Abstract.](#)

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Oral Health

- Lagha AB, LeBel G, Grenier D. **Dual action of highbush blueberry proanthocyanidins on *Aggregatibacter actinomycetemcomitans* and the host inflammatory response.** *BMC Complement Altern Med.* 2018; 18:10.
[Abstract](#)
- Lagha AB, Howell A, Grenier D. **Highbush blueberry proanthocyanidins alleviate *Porphyromonas gingivalis*-induced deleterious effects on oral mucosal cells.** *Anaerobes.* 2020, 65:102266
[Abstract](#)

Reviews

- Kalt W, Cassidy A, Howard LR, Krikorian R, Stull AJ, Tremblay F, Zamora-Ros R. **Recent research on the health benefits of blueberries and their anthocyanins.** *Advances in Nutrition.* 2019.
[Abstract](#)

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