

Aronia Scientific Articles – Metabolic Syndrome/Gastric
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Title	Authors	Reference	URL Link
Dietary Prevention of Colitis by Aronia Berry is Mediated Through Increased Th17 and Treg	Pei R, Martin DA, Valdez JC, Liu J, Kerby RL, Rey FE, Smyth JA, Liu Z, Bolling BW.	Mol Nutr Food Res. 2019 Mar;63(5):e1800985. doi: 10.1002/mnfr.201800985. Epub 2018 Dec 13.	Dietary Prevention of Colitis by Aronia Berry is Mediated Through Increased Th17 and Treg - Pei - 2019 - Molecular Nutrition & Food Research - Wiley Online Library
Dietary Prevention of Colitis by Aronia Berry is Mediated Through Increased Th17 and Treg	Pei R, Martin DA, Valdez JC, Liu J, Kerby RL, Rey FE, Smyth JA, Liu Z, Bolling BW.	Mol Nutr Food Res. 2019 Mar;63(5):e1800985. doi: 10.1002/mnfr.201800985. Epub 2018 Dec 13.	Dietary Prevention of Colitis by Aronia Berry is Mediated Through Increased Th17 and Treg - Pei - 2019 - Molecular Nutrition & Food Research - Wiley Online Library
Aronia Berry Supplementation Mitigates Inflammation in T Cell Transfer-Induced Colitis by Decreasing Oxidative Stress	Pei R, Liu J, Martin DA, Valdez JC, Jeffery J, Barrett-Wilt GA, Liu Z, Bolling BW.	Nutrients. 2019 Jun 12;11(6):1316. doi: 10.3390/nu11061316.	Nutrients Free Full-Text Aronia Berry Supplementation Mitigates Inflammation in T Cell Transfer-Induced Colitis by Decreasing Oxidative Stress HTML (mdpi.com)
Aronia melanocarpa fruit juice ameliorates the symptoms of inflammatory bowel disease in TNBS-induced colitis in rats	Valcheva-Kuzmanova S, Kuzmanov A, Kuzmanova V, Tzaneva M.	Food Chem Toxicol. 2018 Mar;113:33-39. doi: 10.1016/j.fct.2018.01.011. Epub 2018 Jan 11.	Aronia melanocarpa fruit juice ameliorates the symptoms of inflammatory bowel disease in TNBS-induced colitis in rats - ScienceDirect
Aronia Berry Extract Ameliorates the Severity of Dextran Sodium Sulfate-Induced Ulcerative Colitis in Mice	Kang SH, Jeon YD, Moon KH, Lee JH, Kim DG, Kim W, Myung H, Kim JS, Kim HJ, Bang KS, Jin JS.	J Med Food. 2017 Jul;20(7):667-675. doi: 10.1089/jmf.2016.3822. Epub 2017 Jul 5.	Aronia Berry Extract Ameliorates the Severity of Dextran Sodium Sulfate-Induced Ulcerative Colitis in Mice Journal of Medicinal Food (liebertpub.com)
Gastroprotective effect of red pigments in black chokeberry fruit (Aronia melanocarpa Elliot) on acute gastric hemorrhagic lesions in rats	Matsumoto M, Hara H, Chiji H, Kasai T.	J Agric Food Chem. 2004 Apr 21;52(8):2226-9. doi: 10.1021/jf034818q.	Gastroprotective Effect of Red Pigments in Black Chokeberry Fruit (Aronia melanocarpa Elliot) on Acute Gastric Hemorrhagic Lesions in Rats Journal of Agricultural and Food Chemistry (acs.org)

Anthocyanins from Aronia melanocarpa Induce Apoptosis in Caco-2 Cells through Wnt/ β -Catenin Signaling Pathway	Wei J, Yu W, Hao R, Fan J, Gao J.	Chem Biodivers. 2020 Nov;17(11):e2000654. doi: 10.1002/cbdv.202000654. Epub 2020 Nov 6.	Anthocyanins from Aronia melanocarpa Induce Apoptosis in Caco-2 Cells through Wnt/β-Catenin Signaling Pathway - Wei - 2020 - Chemistry & Biodiversity - Wiley Online Library
Anticancer Effects of Extracts from Three Different Chokeberry Species	Gill NK, Rios D, Osorio-Camacena E, Mojica BE, Kaur B, Soderstrom MA, Gonzalez M, Plaat B, Poblete C, Kaur N, Singh H, Forester SC.	Nutr Cancer. 2020 Jul 9:1-7. doi: 10.1080/01635581.2020.1789679. Online ahead of print.	Anticancer Effects of Extracts from Three Different Chokeberry Species: Nutrition and Cancer: Vol 0, No 0 (tandfonline.com)
Aronia plants: a review of traditional use, biological activities, and perspectives for modern medicine	Kokotkiewicz A, Jaremicz Z, Luczkiewicz M.	J Med Food. 2010 Apr;13(2):255-69. doi: 10.1089/jmf.2009.0062.	Aronia Plants: A Review of Traditional Use, Biological Activities, and Perspectives for Modern Medicine Journal of Medicinal Food (liebertpub.com)
Up-regulation of tumor suppressor carcinoembryonic antigen-related cell adhesion molecule 1 in human colon cancer Caco-2 cells following repetitive exposure to dietary levels of a polyphenol-rich chokeberry juice	Bermúdez-Soto MJ, Larrosa M, Garcia-Cantalejo JM, Espín JC, Tomás-Barberan FA, García-Conesa MT.	J Nutr Biochem. 2007 Apr;18(4):259-71. doi: 10.1016/j.jnutbio.2006.05.003. Epub 2006 Jul 24.	Up-regulation of tumor suppressor carcinoembryonic antigen-related cell adhesion molecule 1 in human colon cancer Caco-2 cells following repetitive exposure to dietary levels of a polyphenol-rich chokeberry juice - ScienceDirect
Current knowledge of Aronia melanocarpa as a medicinal plant	Valcheva-Kuzmanova SV, Belcheva A.	Folia Med (Plovdiv). 2006;48(2):11-7.	Current knowledge of Aronia melanocarpa as a medicinal plant - PubMed (nih.gov)
Anthocyanin-rich extracts inhibit multiple biomarkers of colon cancer in rats	Lala G, Malik M, Zhao C, He J, Kwon Y, Giusti MM, Magnuson BA.	Nutr Cancer. 2006;54(1):84-93. doi: 10.1207/s15327914nc5401_10.	Anthocyanin-rich extracts inhibit multiple biomarkers of colon cancer in rats - PubMed (nih.gov)
Effects of commercial anthocyanin-rich extracts on colonic cancer and nontumorigenic colonic cell growth	Zhao C, Giusti MM, Malik M, Moyer MP, Magnuson BA.	J Agric Food Chem. 2004 Oct 6;52(20):6122-8. doi: 10.1021/jf049517a.	Effects of Commercial Anthocyanin-Rich Extracts on Colonic Cancer and Nontumorigenic Colonic Cell Growth Journal of Agricultural and Food Chemistry (acs.org)

Anthocyanin-rich extract from Aronia melanocarpa E induces a cell cycle block in colon cancer but not normal colonic cells	Malik M, Zhao C, Schoene N, Guisti MM, Moyer MP, Magnuson BA.	Nutr Cancer. 2003;46(2):186-96. doi: 10.1207/S15327914NC4602_12.	Anthocyanin-rich extract from Aronia melanocarpa E induces a cell cycle block in colon cancer but not normal colonic cells - PubMed (nih.gov)
Anthocyanins are potent antioxidants in model systems but do not reduce endogenous oxidative DNA damage in human colon cells	Pool-Zobel BL, Bub A, Schröder N, Rechkemmer G.	Eur J Nutr. 1999 Oct;38(5):227-34. doi: 10.1007/s003940050065.	Anthocyanins are potent antioxidants in model systems but do not reduce endogenous oxidative DNA damage in human colon cells SpringerLink
Inhibitory effects of various beverages on the sulfoconjugation of 17beta-estradiol in human colon carcinoma Caco-2 cells	Saruwatari A, Isshiki M, Tamura H.	Biol Pharm Bull. 2008 Nov;31(11):2131-6. doi: 10.1248/bpb.31.2131.	Inhibitory Effects of Various Beverages on the Sulfoconjugation of 17β-Estradiol in Human Colon Carcinoma Caco-2 Cells (jst.go.jp)
Aronia melanocarpa (Black Chokeberry) Reduces Ethanol-Induced Gastric Damage via Regulation of HSP-70, NF-κB, and MCP-1 Signaling	Paulrayer A, Adithan A, Lee JH, Moon KH, Kim DG, Im SY, Kang CW, Kim NS, Kim JH.	Int J Mol Sci. 2017 Jun 5;18(6):1195. doi: 10.3390/ijms18061195.	Aronia melanocarpa (Black Chokeberry) Reduces Ethanol-Induced Gastric Damage via Regulation of HSP-70, NF-κB, and MCP-1 Signaling (nih.gov)
Protective effects of Aronia melanocarpa juices either alone or combined with extracts from Rosa canina or Alchemilla vulgaris in a rat model of indomethacin-induced gastric ulcers	Valcheva-Kuzmanova S, Denev P, Eftimov M, Georgieva A, Kuzmanova V, Kuzmanov A, Kuzmanov K, Tzaneva M.	Food Chem Toxicol. 2019 Oct;132:110739. doi: 10.1016/j.fct.2019.110739 . Epub 2019 Jul 30.	Protective effects of Aronia melanocarpa juices either alone or combined with extracts from Rosa canina or Alchemilla vulgaris in a rat model of indomethacin-induced gastric ulcers - ScienceDirect
Effect of Aronia melanocarpa fruit juice on indomethacin-induced gastric mucosal damage and oxidative stress in rats	Valcheva-Kuzmanova S, Marazova K, Krasnaliev I, Galunska B, Borisova P, Belcheva A.	Exp Toxicol Pathol. 2005 Apr;56(6):385-92. doi: 10.1016/j.etp.2005.01.001 .	Effect of Aronia melanocarpa fruit juice on indomethacin-induced gastric mucosal damage and oxidative stress in rats - ScienceDirect
Aronia berry inhibits disruption of Caco-2 intestinal barrier function	Valdez JC, Cho J, Bolling BW.	Arch Biochem Biophys. 2020 Jul 30;688:108409. doi: 10.1016/j.abb.2020.108409. Epub 2020 May 25.	Aronia berry inhibits disruption of Caco-2 intestinal barrier function - ScienceDirect

Estimation of the Chelating Ability of an Extract from Aronia melanocarpa L. Berries and Its Main Polyphenolic Ingredients Towards Ions of Zinc and Copper	Borowska S, Tomczyk M, Strawa JW, Brzóska MM.	Molecules. 2020 Mar 26;25(7):1507. doi: 10.3390/molecules25071507.	Molecules Free Full-Text Estimation of the Chelating Ability of an Extract from Aronia melanocarpa L. Berries and Its Main Polyphenolic Ingredients Towards Ions of Zinc and Copper HTML (mdpi.com)
The polyphenol-rich extract from chokeberry (Aronia melanocarpa L.) modulates gut microbiota and improves lipid metabolism in diet-induced obese rats	Zhu Y, Zhang JY, Wei YL, Hao JY, Lei YQ, Zhao WB, Xiao YH, Sun AD.	Nutr Metab (Lond). 2020 Jul 7;17:54. doi: 10.1186/s12986-020-00473-9. eCollection 2020.	The polyphenol-rich extract from chokeberry (Aronia melanocarpa L .) modulates gut microbiota and improves lipid metabolism in diet-induced obese rats Nutrition & Metabolism Full Text (biomedcentral.com)
Activity-Guided Fractionation of Red Fruit Extracts for the Identification of Compounds Influencing Glucose Metabolism	Ostberg-Potthoff JJ, Berger K, Richling E, Winterhalter P.	Nutrients. 2019 May 24;11(5):1166. doi: 10.3390/nu11051166.	Activity-Guided Fractionation of Red Fruit Extracts for the Identification of Compounds Influencing Glucose Metabolism (nih.gov)
Anthocyanin-rich Aronia melanocarpa extract improves body temperature maintenance in healthy women with a cold constitution	Sonoda K, Aoi W, Iwata T, Li Y.	Springerplus. 2013 Nov 21;2:626. doi: 10.1186/2193-1801-2-626. eCollection 2013.	Anthocyanin-rich Aronia melanocarpa extract improves body temperature maintenance in healthy women with a cold constitution SpringerPlus Full Text (springeropen.com)
Short-term supplementation with Aronia melanocarpa extract improves platelet aggregation, clotting, and fibrinolysis in patients with metabolic syndrome	Sikora J, Broncel M, Markowicz M, Chałubiński M, Wojdan K, Mikiciuk-Olasik E.	Eur J Nutr. 2012 Aug;51(5):549-56. doi: 10.1007/s00394-011-0238-8. Epub 2011 Aug 18.	Short-term supplementation with Aronia melanocarpa extract improves platelet aggregation, clotting, and fibrinolysis in patients with metabolic syndrome - PubMed (nih.gov)
Dose-dependent effects of polyphenolic extracts from green tea, blue-berried honeysuckle, and chokeberry on rat caecal fermentation processes	Frejnagel S, Juskiwicz J.	Planta Med. 2011 Jun;77(9):888-93. doi: 10.1055/s-0030-1250664. Epub 2011 Jan 14.	Thieme E-Journals - Planta Medica / Abstract (thieme-connect.com)
Ingestion of black chokeberry fruit extract leads to intestinal and systemic changes in a rat model of prediabetes and hyperlipidemia	Jurgoński A, Juśkiewicz J, Zduńczyk Z.	Plant Foods Hum Nutr. 2008 Dec;63(4):176-82. doi: 10.1007/s11130-008-0087-7. Epub 2008 Aug 23.	Ingestion of Black Chokeberry Fruit Extract Leads to Intestinal and Systemic Changes in a Rat Model of Prediabetes and Hyperlipidemia SpringerLink

Hypoglycemic and hypolipidemic effects of Aronia melanocarpa fruit juice in streptozotocin-induced diabetic rats	Valcheva-Kuzmanova S, Kuzmanov K, Tancheva S, Belcheva A.	Methods Find Exp Clin Pharmacol. 2007 Mar;29(2):101-5. doi: 10.1358/mf.2007.29.2.1075349.	Aronia melanocarpa extract reduces blood pressure, serum endothelin, lipid, and oxidative stress marker levels in patients with metabolic syndrome - Get your full text copy in PDF #878315 Medical Science Monitor (medscimonit.com)
Changes in Cholinesterase Activity in Blood of Adolescent with Metabolic Syndrome after Supplementation with Extract from Aronia melanocarpa	Duchnowicz P, Ziobro A, Rapacka E, Koter-Michalak M, Bukowska B.	Biomed Res Int. 2018 Mar 26;2018:5670145. doi: 10.1155/2018/5670145. eCollection 2018.	Changes in Cholinesterase Activity in Blood of Adolescent with Metabolic Syndrome after Supplementation with Extract from Aronia melanocarpa (nih.gov)
Fruits of Black Chokeberry Aronia melanocarpa in the Prevention of Chronic Diseases	Jurikova T, Mlcek J, Skrovankova S, Sumczynski D, Sochor J, Hlavacova I, Snopek L, Orsavova J.	Molecules. 2017 Jun 7;22(6):944. doi: 10.3390/molecules22060944.	Fruits of Black Chokeberry Aronia melanocarpa in the Prevention of Chronic Diseases (nih.gov)
[Effect of anthocyanins from Aronia melanocarpa on blood pressure, concentration of endothelin-1 and lipids in patients with metabolic syndrome]	Broncel M, Koziróg-Kołacińska M, Andrykowski G, Duchnowicz P, Koter-Michalak M, Owczarczyk A, Chojnowska-Jeziarska J.	Pol Merkur Lekarski. 2007 Aug;23(134):116-9.	Antihyperlipidemic Effect of Aronia melanocarpa Fruit Juice in Rats Fed a High-Cholesterol Diet SpringerLink
Quantification of anthocyanins in elderberry and chokeberry dietary supplements	Vlachoianis C, Zimmermann BF, Chrusasik-Hausmann S.	Phytother Res. 2015 Apr;29(4):561-5. doi: 10.1002/ptr.5284. Epub 2015 Jan 19.	Quantification of Anthocyanins in Elderberry and Chokeberry Dietary Supplements - Vlachoianis - 2015 - Phytotherapy Research - Wiley Online Library
Antiobesity Effect of Fermented Chokeberry Extract in High-Fat Diet-Induced Obese Mice	Kim NH, Jegal J, Kim YN, Chung DM, Heo JD, Rho JR, Yang MH, Jeong EJ.	J Med Food. 2018 Nov;21(11):1113-1119. doi: 10.1089/jmf.2017.4124.	Antiobesity Effect of Fermented Chokeberry Extract in High-Fat Diet-Induced Obese Mice Journal of Medicinal Food (liebertpub.com)

Effects of glucomannan-enriched, aronia juice-based supplement on cellular antioxidant enzymes and membrane lipid status in subjects with abdominal obesity	Kardum N, Petrović-Oggiano G, Takic M, Glibetić N, Zec M, Debeljak-Martacic J, Konić-Ristić A.	ScientificWorldJournal. 2014;2014:869250. doi: 10.1155/2014/869250. Epub 2014 Dec 9.	Effects of Glucomannan-Enriched, Aronia Juice-Based Supplement on Cellular Antioxidant Enzymes and Membrane Lipid Status in Subjects with Abdominal Obesity (nih.gov)
Dietary polyphenols increase fecal mucin and immunoglobulin A and ameliorate the disturbance in gut microbiota caused by a high fat diet	Taira T, Yamaguchi S, Takahashi A, Okazaki Y, Yamaguchi A, Sakaguchi H, Chiji H.	J Clin Biochem Nutr. 2015 Nov;57(3):212-6. doi: 10.3164/jcfn.15-15. Epub 2015 Sep 29.	Dietary polyphenols increase fecal mucin and immunoglobulin A and ameliorate the disturbance in gut microbiota caused by a high fat diet (nih.gov)
Antioxidant and antiproliferative activity of chokeberry juice phenolics during in vitro simulated digestion in the presence of food matrix	Stanisavljević N, Samardžić J, Janković T, Šavikin K, Mojsin M, Topalović V, Stevanović M.	Food Chem. 2015 May 15;175:516-22. doi: 10.1016/j.foodchem.2014.12.009. Epub 2014 Dec 10.	Antioxidant and antiproliferative activity of chokeberry juice phenolics during in vitro simulated digestion in the presence of food matrix - ScienceDirect
Antioxidative protection of dietary bilberry, chokeberry and Lactobacillus plantarum HEAL19 in mice subjected to intestinal oxidative stress by ischemia-reperfusion	Jakesevic M, Aaby K, Borge GI, Jeppsson B, Ahrné S, Molin G.	BMC Complement Altern Med. 2011 Jan 27;11:8. doi: 10.1186/1472-6882-11-8.	Antioxidative protection of dietary bilberry, chokeberry and Lactobacillus plantarum HEAL19 in mice subjected to intestinal oxidative stress by ischemia-reperfusion (nih.gov)
Gut Microbiota Modulation by Polyphenols from Aronia melanocarpa of LPS-Induced Liver Diseases in Rats	Kong Y, Yan T, Tong Y, Deng H, Tan C, Wan M, Wang M, Meng X, Wang Y.	J Agric Food Chem. 2021 Mar 24;69(11):3312-3325. doi: 10.1021/acs.jafc.0c06815. Epub 2021 Mar 10.	Gut Microbiota Modulation by Polyphenols from Aronia melanocarpa of LPS-Induced Liver Diseases in Rats Journal of Agricultural and Food Chemistry (acs.org)
Effects of simulated digestion on black chokeberry (Aronia melanocarpa (Michx.) Elliot) anthocyanins and intestinal flora	Yu W, Gao J, Hao R, Yang J, Wei J.	J Food Sci Technol. 2021 Apr;58(4):1511-1523. doi: 10.1007/s13197-020-04664-3. Epub 2020 Aug 11.	Effects of simulated digestion on black chokeberry (Aronia melanocarpa (Michx.) Elliot) anthocyanins and intestinal flora - PubMed (nih.gov)
Aronia berry polyphenols have matrix-dependent effects on the gut microbiota	Liu X, Martin DA, Valdez JC, Sudakaran S, Rey F, Bolling BW.	Food Chem. 2021 Oct 15;359:129831. doi: 10.1016/j.foodchem.2021.129831. Epub 2021 Apr 20.	Aronia berry polyphenols have matrix-dependent effects on the gut microbiota - ScienceDirect

<p>Aronia melanocarpa polysaccharide ameliorates inflammation and aging in mice by modulating the AMPK/SIRT1/NF-κB signaling pathway and gut microbiota</p>	<p>Zhao Y, Liu X, Zheng Y, Liu W, Ding C.</p>	<p>Sci Rep. 2021 Oct 18;11(1):20558. doi: 10.1038/s41598-021-00071-6.</p>	<p>Aronia melanocarpa polysaccharide ameliorates inflammation and aging in mice by modulating the AMPK/SIRT1/NF-κB signaling pathway and gut microbiota (nih.gov)</p>
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