

5 Key Health Benefits of MHBA Extracts

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1. Reduce Inflammation

Acute inflammation is the body's way of identifying damage from either trauma, chemicals or toxins, and infections. When this process is not kept in check or the body has lost its regulatory aspect, then the acute inflammation will turn into chronic inflammation and that is the begging of over 200+ different diseases, with the majority of them consisting of many different autoimmune diseases like heart diseases, diabetes, and even some cancers. Research is now showing that the Mature Hops Bitter Acid (MHBA) Extracts are very beneficial to reducing this process and helping the body return to its more normal regulatory affect.

- Liu YZ, Wang YX, Jiang CL. Inflammation: The Common Pathway of Stress-Related Diseases. *Front Hum Neurosci*. 2017 Jun 20;11:316. doi: 10.3389/fnhum.2017.00316. PMID: 28676747; PMCID: PMC5476783. <https://pubmed.ncbi.nlm.nih.gov/28676747/>
- Pahwa R, Goyal A, Jialal I. Chronic Inflammation. [Updated 2023 Aug 7]. In: StatPearls [Internet]. Treasure Island (FL): StatPearls Publishing; 2025 Jan-. Available from: <https://www.ncbi.nlm.nih.gov/books/NBK493173/>

In rats, hops helped reduce inflammation markers such as TNF- α , IL-6, and NF- κ B.

- Van Cleemput M, Heyerick A, Libert C, Swerts K, Philippé J, De Keukeleire D, Haegeman G, De Bosscher K. Hop bitter acids efficiently block inflammation independent of GR α , PPAR α , or PPAR γ . *Mol Nutr Food Res*. 2009 Sep;53(9):1143-55. doi: 10.1002/mnfr.200800493. PMID: 19655312. <https://pubmed.ncbi.nlm.nih.gov/19655312/>
- Ano, Y., Ohya, R., Yamazaki, T. *et al*. Hop bitter acids containing a β -carbonyl moiety prevent inflammation-induced cognitive decline via the vagus nerve and noradrenergic system. *Sci Rep* 10, 20028 (2020). <https://doi.org/10.1038/s41598-020-77034-w>

Summary: MHBA Extracts may help reduce chronic inflammatory conditions in your body.

2. Help Reduce the Risk of Heart Disease

Heart disease is the leading cause of death in the United States and around the world. Now there are a lot of issues that can raise the causation of heart disease. However, one of the primary issues is with the narrowing and stiffening of the arterial system, especially around the heart. When this happens, the nutrient of the blood does not get to the heart in enough supply and eventually that can cause a heart issue! Research has found that MHBA extracts from the hops flower may help reduce the risk of heart disease. Especially the plaque that can accumulate from oxidized fatty acids. The research revealed that the extracts help clean the blood and thereby relaxing the blood vessels and allowing the heart to get its's nutrients to maintain healthy heart muscles.

- Cecelja M, Chowienzyk P. Role of arterial stiffness in cardiovascular disease. *JRSM Cardiovasc Dis*. 2012 Jul 31;1(4):cvd.2012.012016. doi: 10.1258/cvd.2012.012016. PMID: 24175067; PMCID: PMC3738327. <https://pubmed.ncbi.nlm.nih.gov/24175067/>
- Tomita J, Mochizuki S, Fujimoto S, Kashihara N, Akasaka T, Tanimoto M, Yoshida K. Acute improvement of endothelial functions after oral ingestion of isohumulones, bitter components of beer. *Biochem Biophys Res Commun*. 2017 Mar 18;484(4):740-745. doi: 10.1016/j.bbrc.2017.01.133. Epub 2017 Jan 26. PMID: 28131837. <https://pubmed.ncbi.nlm.nih.gov/28131837/>
- Figard H, Girard C, Mougin F, Demougeot C, Berthelot A. Effects of aqueous hop (*Humulus Lupulus* L.) extract on vascular reactivity in rats: mechanisms and influence of gender and hormonal status. *Phytomedicine*. 2008 Mar;15(3):185-93. doi: 10.1016/j.phymed.2007.09.016. Epub 2007 Oct 24. PMID: 17951040. <https://pubmed.ncbi.nlm.nih.gov/17951040/>
- Doddapattar P, Radović B, Patankar JV, Obrowsky S, Jandl K, Nusshold C, Kolb D, Vujić N, Doshi L, Chandak PG, Goeritzer M, Ahammer H, Hoefler G, Sattler W, Kratky D. Xanthohumol ameliorates atherosclerotic plaque formation, hypercholesterolemia, and hepatic steatosis in ApoE-deficient mice. *Mol Nutr Food Res*. 2013 Oct;57(10):1718-28. doi: 10.1002/mnfr.201200794. Epub 2013 May 3. PMID: 23650230; PMCID: PMC3771820. <https://pubmed.ncbi.nlm.nih.gov/23650230/>

Summary: MHBA Extracts may help relax your blood vessels, improving blood flow to the heart.

3. Help You Lose Fat and Eventually Weight

Research has most recently, revealed that then MHBA extracts have a significant effect with burning stored fatty acids, and converting them to useable energy and therefore reducing hunger and that helps the body with weight loss. Scientists from these studies believe that the MHBA extracts helps people feel fuller longer by encouraging the body to make hormones that curb your appetite, such as GLP-1 (glucagon-like peptide-1), CCK (cholecystokinin), and PYY (peptide YY) (2).

- Walker E, Lo K, Tham S, Pahl M, Lomiwes D, Cooney J, Wohlers M, Gopal P. New Zealand Bitter Hops Extract Reduces Hunger During a 24 h Water Only Fast. *Nutrients*. 2019 Nov 13;11(11):2754. doi: 10.3390/nu11112754. PMID: 31766216; PMCID: PMC6893682. <https://pubmed.ncbi.nlm.nih.gov/31766216/>

Other studies have also shown that the MHBA extracts can help you lose fat — especially the most dangerous fat called visceral fat that is around all of your organs. This is accomplished through a thermogenic aspect of burning white adipose tissue to be used as fuel to help the body!

- Morimoto-Kobayashi Y, Ohara K, Ashigai H, Kanaya T, Koizumi K, Manabe F, Kaneko Y, Taniguchi Y, Katayama M, Kowatari Y, Kondo S. Matured hop extract reduces body fat in healthy overweight humans: a randomized, double-blind, placebo-controlled parallel group study. *Nutr J*. 2016 Mar 9;15:25. doi: 10.1186/s12937-016-0144-2. PMID: 26960416; PMCID: PMC4784395. <https://pubmed.ncbi.nlm.nih.gov/26960416/>
- Suzuki S, Yamazaki T, Takahashi C, Kaneko Y, Morimoto-Kobayashi Y, Katayama M. The relationship between the effect of matured hop extract and physical activity on reducing body fat: re-analysis of data from a randomized, double-blind, placebo-controlled parallel group study. *Nutr J*. 2018 Oct 30;17(1):98. doi: 10.1186/s12937-018-0405-3. PMID: 30376838; PMCID: PMC6208082. <https://pubmed.ncbi.nlm.nih.gov/30376838/>
- Dostálek P, Karabín M, Jelínek L. Hop Phytochemicals and Their Potential Role in Metabolic Syndrome Prevention and Therapy. *Molecules*. 2017 Oct 19;22(10):1761. doi: 10.3390/molecules22101761. PMID: 29048380; PMCID: PMC6151408. <https://pubmed.ncbi.nlm.nih.gov/29048380/>

Summary: Recent research has found that MHBA extracts may help curb your appetite and reduce body fat around the belly.

4. May Help with Anxiety and Depression

Another key aspect is that other research has found that the MHBA Extracts may help with anxiety and depression issues. It was observed in rats, that the hops helped reduce visible signs of anxiety and depression. Scientists believe that hops compounds such as humulones and lupulones are responsible for this effect. Research revealed that in a four-week study people found that taking a hops supplement daily helped significantly reduce feelings of depression, anxiety, and stress, compared to a placebo.

- Zanolli P, Rivasi M, Zavatti M, Brusiani F, Baraldi M. New insight in the neuropharmacological activity of *Humulus lupulus* L. *J Ethnopharmacol*. 2005 Oct 31;102(1):102-6. doi: 10.1016/j.jep.2005.05.040. PMID: 16046089. <https://pubmed.ncbi.nlm.nih.gov/16046089/>
- Zanolli P, Zavatti M, Rivasi M, Brusiani F, Losi G, Puia G, Avallone R, Baraldi M. Evidence that the beta-acids fraction of hops reduces central GABAergic neurotransmission. *J Ethnopharmacol*. 2007 Jan 3;109(1):87-92. doi: 10.1016/j.jep.2006.07.008. Epub 2006 Jul 11. PMID: 16920300. <https://pubmed.ncbi.nlm.nih.gov/16920300/>
- Kyrou I, Christou A, Panagiotakos D, Stefanaki C, Skenderi K, Katsana K, Tsigos C. Effects of a hops (*Humulus lupulus* L.) dry extract supplement on self-reported depression, anxiety and stress levels in apparently healthy young adults: a randomized, placebo-controlled, double-blind, crossover pilot study. *Hormones (Athens)*. 2017 Apr;16(2):171-180. doi: 10.14310/horm.2002.1738. PMID: 28742505. <https://pubmed.ncbi.nlm.nih.gov/28742505/>

Summary: In some studies, MHBA Extracts helped reduce signs of anxiety and depression.

5. May Help Relieve Hormonal Dysregulation and Menopause Symptoms

Hormone issues in cycling women can have a severe affect at different times during the cycling phase of life. Some of these can be very debilitating for some women. Then, menopause is a natural process that affects most women in their mid to late 40s or early 50s. During this time, most women experience hot flashes, night sweats, vaginal dryness, insomnia, mood changes, dry and thinner skin, hair loss, and a drop in libido.

- Santoro N, Epperson CN, Mathews SB. Menopausal Symptoms and Their Management. *Endocrinol Metab Clin North Am*. 2015 Sep;44(3):497-515. doi: 10.1016/j.ecl.2015.05.001. PMID: 26316239; PMCID: PMC4890704. <https://pubmed.ncbi.nlm.nih.gov/26316239/>

Several studies have found that MHBA Extracts may reduce many menopause symptoms. Scientists believe this effect is due to nutrients found in hops called phytoestrogens. These nutrients mimic the effects of estrogen in the body.

- Aghamiri V, Mirghafourvand M, Mohammad-Alizadeh-Charandabi S, Nazemiyeh H. The effect of Hop (*Humulus lupulus* L.) on early menopausal symptoms and hot flashes: A randomized placebo-controlled trial. *Complement Ther Clin Pract*. 2016 May;23:130-5. doi: 10.1016/j.ctcp.2015.05.001. Epub 2015 May 12. PMID: 25982391. <https://pubmed.ncbi.nlm.nih.gov/25982391/>
- Keiler AM, Zierau O, Kretzschmar G. Hop extracts and hop substances in treatment of menopausal complaints. *Planta Med*. 2013 May;79(7):576-9. doi: 10.1055/s-0032-1328330. Epub 2013 Mar 19. PMID: 23512496. <https://pubmed.ncbi.nlm.nih.gov/23512496/>
- Erkkola R, Vervarcke S, Vansteelandt S, Rompotti P, De Keukeleire D, Heyerick A. A randomized, double-blind, placebo-controlled, cross-over pilot study on the use of a standardized hop extract to alleviate menopausal discomforts. *Phytomedicine*. 2010 May;17(6):389-96. doi: 10.1016/j.phymed.2010.01.007. Epub 2010 Feb 18. PMID: 20167461. <https://pubmed.ncbi.nlm.nih.gov/20167461/>
- Sandoval-Ramírez BA, M Lamuela-Raventós R, Estruch R, Sasot G, Doménech M, Tresserra-Rimbau A. Beer Polyphenols and Menopause: Effects and Mechanisms-A Review of Current Knowledge. *Oxid Med Cell Longev*. 2017;2017:4749131. doi: 10.1155/2017/4749131. Epub 2017 Aug 17. PMID: 28904736; PMCID: PMC5585550. <https://pubmed.ncbi.nlm.nih.gov/28904736/>
- *Planta Med*. 2013 May;79(7):576-9. doi: 10.1055/s-0032-1328330. Epub 2013 Mar 19. Hop extracts and hop substances in treatment of menopausal complaints. Annekathrin M Keiler, Oliver Zierau, Georg Kretzschmar PMID: 23512496. DOI: 10.1055/s-0032-1328330 <https://pubmed.ncbi.nlm.nih.gov/23512496/>

Summary: MHBA Extracts may help ease menstruation issues as well as menopause symptoms through the fatty acid issue that has an effect on the neuroendocrine system.