

Japanese Knotweed - Tick Wellness Aid & Other Health Benefits

Japanese Knotweed, also known as *Reynoutria japonica* or *Fallopia japonica*, is a perennial plant native to East Asia. [1] In recent years, it has gained recognition for its potential health benefits and diverse applications. This journal aims to consolidate information on Japanese Knotweed, emphasizing its tick wellness aid attributes, medicinal properties, and other valuable benefits.

Japanese Knotweed has a long history of use in traditional Asian medicine, where it has been employed to address various health issues. The plant's roots, leaves, and stems have been utilized to create herbal remedies for conditions such as cardiovascular diseases, digestive problems, and respiratory ailments. Historical records indicate that Japanese Knotweed has been valued for its anti-inflammatory and antioxidant properties. Japanese knotweed is an invasive plant that can grow rapidly and spread widely in different environments. [2] However, it also has [many medicinal properties](#) that make it a valuable source of natural remedies.

Beneficial Compounds & Ingredients in Japanese Knotweed:

Japanese knotweed is recognized for its rich array of bioactive compounds, many of which have been linked to potential health advantages. The bioactive activity of Japanese knotweed is largely attributed to polyphenols and other antioxidants, which aid in the removal of potentially harmful substances. [3] Remarkably, Japanese knotweed has been found to exhibit more antioxidant activity than many other plant species. Notably, Japanese knotweed stands out for its high resveratrol content, a polyphenol also presents in red wine and various foods. Resveratrol has been studied extensively for its potential benefits for various health conditions, such as cardiovascular disease, diabetes, obesity, neurodegenerative disorders, and cancer. Resveratrol works by modulating various cellular pathways and signalling molecules that are involved in inflammation, oxidative stress, aging, and metabolism. [4]

Studies revealed that key compounds found in Japanese knotweed include Flavan-3-ols (such as catechin), Phenolic acids (including caftaric acid and anthraquinones), Flavones and flavonols (such as quercetin and luteolin), and Stilbenes (including resveratrol). [5] These ingredients play a major role in different health benefits embarked by Japanese Knotweed.

Japanese Knotweed in Lyme Disease & Tick Symptoms:

[Lyme disease](#) is the most common vector-borne disease in the US, and is caused by a bacteria *Borrelia burgdorferi*, that gets transmitted by ticks. [6] Erythema migrans (EM), a “bullseye” rash that appears at the tick bite site, is one of the first symptoms of Lyme disease, accompanied by flu-like symptoms such as fever, headache, muscle aches, stiff neck, joint stiffness, and fatigue. Japanese knotweed have been studied by many researchers to be helpful in [treating Lyme disease and tick symptoms](#). [7] An *in vitro* study shown that Japanese knotweed has a strong ability to [halt the growth of *Borrelia burgdorferi*](#). [8] Japanese knotweed can help treat Lyme disease by improving circulation/blood flow, reducing inflammation, reducing autoimmune reactions, providing anti-bacterial and anti-viral activity, promoting immune function, and acting as an anti-biofilm agent.

Japanese knotweed also contains resveratrol, a compound that may have anti-inflammatory, anti-microbial, and anti-oxidant effects. Resveratrol may help fight the bacterium that causes Lyme disease, which is transmitted by tick bites. [According to a study](#)¹, two herbal compounds derived from Japanese knotweed and sweet wormwood were more effective than antibiotics in killing the Lyme disease bacterium in laboratory tests. [9] The researchers suggested that these plant-based remedies could be more potent and less toxic than conventional drugs. However, it is important to consult a healthcare professional before

using Japanese knotweed or any other supplements to treat or prevent Lyme disease or any other health condition.

Other Health Benefits of Japanese Knotweed Tincture:

While ZenMen Japanese Knotweed Tincture is proved to have tick wellness benefits, it also has other health benefits, such as;

- **Fighting chronic infections:** Japanese knotweed has antimicrobial activity against various pathogens, such as bacteria, viruses, fungi, and parasites. It may help treat or prevent infections such as Lyme disease, tuberculosis, bronchitis, sore throat, and skin irritation.
- **Balancing the microbiome:** Japanese knotweed has prebiotic and probiotic effects, meaning it can nourish and support the beneficial bacteria in the gut. A healthy gut microbiome is essential for immune health, digestion, metabolism, and mood. [10]
- **Supporting immune health:** Japanese knotweed has immunomodulatory effects, meaning it can regulate and enhance the immune system's response to various stimuli. It may help reduce inflammation, allergies, autoimmune disorders, and cancer. [11]
- **Protecting the heart:** Japanese knotweed has cardioprotective effects, meaning it can improve the function and health of the cardiovascular system. It may help lower blood pressure, cholesterol, and triglycerides, prevent blood clots, and reduce the risk of heart attack and stroke.
- **Protecting the liver:** Japanese knotweed has hepatoprotective effects, meaning it can prevent or reverse liver damage caused by toxins, drugs, alcohol, or infections. It may help improve liver function, detoxification, and regeneration. [12]
- **Protecting the brain:** Japanese knotweed has neuroprotective effects, meaning it can prevent or slow down the degeneration of the nervous system. It may help improve cognitive function, memory, learning, and mood. It may also protect against neurodegenerative diseases, such as Alzheimer's and Parkinson's. [13]

The tincture is recommended for people who want to be mindful of tick exposure and related issues, as Japanese Knotweed may have some anti-inflammatory and anti-bacterial properties. The tincture is easy to use and can be taken daily for three months or as advised by a healthcare professional.

Are there any possible side effects of Japanese Knotweed Tincture?

Side effects of Japanese Knotweed Tincture are uncommon, and the likelihood of toxicity is low. Japanese knotweed has a long history of use in traditional Asian and Chinese medicine, spanning thousands of years, and is considered to be generally safe. [14] However, in some cases, it may cause bleeding, allergic reactions, gastrointestinal symptoms, liver damage, and drug interactions with certain other medications. [15] So, it is advisable to consult with your healthcare provider before using Japanese knotweed, especially if you are pregnant or nursing.

ZenMen Japanese Knotweed Tincture:

ZenMen Japanese Knotweed Tincture is a high-quality product that offers a convenient and effective way to supplement your diet with resveratrol and other beneficial compounds from Japanese knotweed.

ZenMen Japanese Knotweed Tincture stands out as a superior choice due to its whole plant extract composition, offering a comprehensive 1:5 Herb Strength Ratio. This means that it retains the synergistic benefits of the entire plant, surpassing alternatives that focus on specific parts. Additionally, this tincture employs spagyric extraction, a method proven to enhance mineral content and bioavailability. Supported by scientific articles emphasizing the importance of minerals in human nutrition and the potential for increased absorption of essential elements such as Fe, Zn, and Ca, this spagyric approach ensures optimal nutrient assimilation for improved health benefits.

Here are some of the reasons why you should choose ZenMen Japanese Knotweed Tincture:

- It is sourced from pure extracts of Japanese knotweed, which is one of the most abundant and bioavailable sources of resveratrol. Unlike other plants that contain resveratrol, Japanese knotweed contains mainly trans-resveratrol, which is the active form of the compound that is more readily absorbed and utilized by the body. [16]
- It is tested for the presence of harmful chemicals and microbiological contaminants, ensuring its safety and purity.
- It is formulated with organic sunflower oil, which improves its flavor and helps increase its absorption and shelf life. [17]
- **It is easy to use and dose.** You can take 1 ml of ZenMen Japanese Knotweed Tincture daily for three months or as recommended by a healthcare professional.
- **Improved absorption and shelf life:** The tincture is mixed with organic sunflower oil to enhance the flavor and the bioavailability of resveratrol. The tincture is also tested for harmful chemicals and microbiological contaminants to ensure its quality and safety. [18]
- **Immune system booster:** The tincture helps combat oxidative stress by neutralizing free radicals, which can damage the cells and tissues. This can support a healthy immune system and promote overall well-being. [19]

ZenMen Japanese Knotweed Tincture pairs well with [ZenMen Tick Immune Support](#), and ZenMen H-Pylori Support. ZenMen Tick Immune Support is a powerful herbal formula that contains Japanese Knotweed, Cat's Claw, Cryptolepis, and other ingredients that may help fight tick-borne infections, such as Lyme disease, Babesia, and Bartonella. [20] Taking ZenMen Japanese Knotweed Tincture along with ZenMen Tick Immune Support can provide you with a higher dose of resveratrol, a potent antioxidant that may help reduce inflammation, improve blood circulation, and prevent cellular damage. Moreover, Zenmen H-Pylori support contains ancient herbs and probiotics that are helpful in enhancing gut health, and digestion. By combining ZenMen Japanese Knotweed Tincture with these other ZenMen tinctures, you can enjoy the benefits of nature's best ingredients for your health and well-being.

Conclusion:

In conclusion, the research synthesized in this article highlights the promising health benefits and bioactive properties of Japanese knotweed. With high levels of resveratrol and other antioxidant compounds, Japanese knotweed exhibits inflammation-modulating, antimicrobial, and immunoprotective effects. The studies exploring its ability to disrupt biofilms and inhibit the Lyme disease bacterium are particularly notable.

While more research is still needed to confirm efficacy and safety, the emerging evidence suggests Japanese knotweed may be a beneficial supplemental addition for those seeking to bolster overall wellness. Specifically, the plant shows potential for addressing tick-borne discomforts, nurturing gut health, supporting healthy immunity and metabolism, and protecting heart health.

ZenMen's Japanese Knotweed tincture offers a reliable way to harness these potential benefits, with its certified USDA organic whole plant extraction maximizing potency. Coupled with third party purity verification, ZenMen allows consumers to tap into knotweed's natural gifts rooted in centuries of traditional wellness use. As research continues to reveal mechanisms and applications, Japanese knotweed is poised to increasingly enter the mainstream as both an invasive ecological tool and therapeutic natural remedy.

References:

1. Bashtanova, U. B., Beckett, K. P., & Flowers, T. J. (2009). Review: Physiological Approaches to the Improvement of Chemical Control of Japanese Knotweed (*Fallopia japonica*). *Weed Science*, 57(6), 584–592. <https://doi.org/10.1614/ws-09-069.1>
2. HOLLINGSWORTH, M. L., & BAILEY, J. P. (2000). Evidence for massive clonal growth in the invasive weed *Fallopia japonica* (Japanese Knotweed). *Botanical Journal of the Linnean Society*, 133(4), 463–472. <https://doi.org/10.1111/j.1095-8339.2000.tb01589.x>
3. Cucu, A.-A., Baci, G.-M., Dezsi, Ș., Nap, M.-E., Beteg, F. I., Bonta, V., Bobiș, O., Caprio, E., & Dezmirean, D. S. (2021). New Approaches on Japanese Knotweed (*Fallopia japonica*) Bioactive Compounds and Their Potential of Pharmacological and Beekeeping Activities: Challenges and Future Directions. *Plants*, 10(12), 2621. <https://doi.org/10.3390/plants10122621>
4. Bensa, M., Glavnik, V., & Vovk, I. (2020). Leaves of Invasive Plants—Japanese, Bohemian and Giant Knotweed—The Promising New Source of Flavan-3-ols and Proanthocyanidins. *Plants*, 9(1), 118. <https://doi.org/10.3390/plants9010118>
5. Mil. Med. Sci. Lett. (Voj. Zdrav. Listy) 2017, vol. 86(1), p. 17-31 ISSN 0372-7025 DOI: 10.31482/mmsl.2017.004
6. *Lyme disease treatment: 2 herbal compounds may beat antibiotics*. (2020, February 23). [www.medicalnewstoday.com. https://www.medicalnewstoday.com/articles/lyme-disease-treatment-2-herbal-compounds-may-beat-antibiotics](https://www.medicalnewstoday.com/articles/lyme-disease-treatment-2-herbal-compounds-may-beat-antibiotics)
7. Shapiro, E. D. (2014). *Borrelia burgdorferi* (Lyme Disease). *Pediatrics in Review*, 35(12), 500–509. <https://doi.org/10.1542/pir.35-12-500>
8. *The 8 Best Herbs For Lyme Disease | The Botanical Institute*. (2023, May 9). <https://botanicalinstitute.org/herbs-for-lyme-disease/>
9. Feng, J., Leone, J., Schweig, S., & Zhang, Y. (2020). Evaluation of Natural and Botanical Medicines for Activity Against Growing and Non-growing Forms of *B. burgdorferi*. *Frontiers in Medicine*, 7. <https://doi.org/10.3389/fmed.2020.00006>
10. Naumoska, K., Jug, U., Kõrge, K., Oberlintner, A., Golob, M., Novak, U., Vovk, I., & Likozar, B. (2022). Antioxidant and Antimicrobial Biofoil Based on Chitosan and Japanese Knotweed (*Fallopia japonica*, Houtt.) Rhizome Bark Extract. *Antioxidants*, 11(6), 1200. <https://doi.org/10.3390/antiox11061200>
11. Hailey, L. (2021, September 21). *This Invasive Plant Boosts Immunity Against Bacteria, Viruses, Lyme Disease & More*. Medium. <https://loganhailey.medium.com/this-invasive-plant-boosts-immunity-against-bacteria-viruses-lyme-disease-more-af3fc97d2a07>
12. Theodotou, M., Fokianos, K., Moniatis, D., Kadlenic, R., Chrysikou, A., Aristotelous, A., Mouzouridou, A., Diakides, J., & Stavrou, E. (2019). Effect of resveratrol on non-alcoholic fatty liver disease. *Experimental and Therapeutic Medicine*. <https://doi.org/10.3892/etm.2019.7607>
13. *Key Benefits of Japanese Knotweed | Improved Cognitive Function & More*. (2017, December 19). Nature Restore Inc. <https://naturerestore.com/blogs/wellness-blog/can-japanese-knotweed-improve-cognitive-health>
14. Cucu, A.-A., Baci, G.-M., Dezsi, Ș., Nap, M.-E., Beteg, F. I., Bonta, V., Bobiș, O., Caprio, E., & Dezmirean, D. S. (2021). New Approaches on Japanese Knotweed (*Fallopia japonica*) Bioactive Compounds and Their Potential of Pharmacological and Beekeeping Activities: Challenges and Future Directions. *Plants*, 10(12), 2621. <https://doi.org/10.3390/plants10122621>

15. *Is Japanese Knotweed Poisonous To Humans Or Animals?* (2019, November 12). Knotweed Help. <https://www.knotweedhelp.com/japanese-knotweed-guide/is-knotweed-poisonous/#:~:text=Despite%20causing%20damage%20to%20property>
16. *Japanese Knotweed*. (n.d.). Gaia Herbs. Retrieved November 19, 2023, from <https://www.gaiaherbs.com/blogs/herbs/japanese-knotweed>
17. Zhang Y, Alvarez-Manzo H, Leone J, Schweig S, Zhang Y. Botanical Medicines *Cryptolepis sanguinolenta*, *Artemisia annua*, *Scutellaria baicalensis*, *Polygonum cuspidatum*, and *Alchornea cordifolia* Demonstrate Inhibitory Activity Against *Babesia duncani*. *Front Cell Infect Microbiol*. 2021;11:624745. Published 2021 Mar 8. doi:10.3389/fcimb.2021.624745
18. Feng J, Leone J, Schweig S, Zhang Y. Evaluation of Natural and Botanical Medicines for Activity Against Growing and Non-growing Forms of *B. burgdorferi*. *Front Med (Lausanne)*. 2020;7:6. Published 2020 Feb 21. doi:10.3389/fmed.2020.00006
19. Zahedi HS, Jazayeri S, Ghasvand R, Djalali M, Eshraghian MR. *Effects of polygonum cuspidatum containing resveratrol on inflammation in male professional basketball players*. *Int J Prev Med*. 2013;4(Suppl 1):S1-S4.
20. Kim YS, Nam Y, Song J, Kim H. Gastroprotective and Healing Effects of *Polygonum cuspidatum* Root on Experimentally Induced Gastric Ulcers in Rats. *Nutrients*. 2020;12(8):2241. Published 2020 Jul 27. doi:10.3390/nu12082241
21. Chueh FS, Lin JJ, Lin JH, Weng SW, Huang YP, Chung JG. Crude extract of *Polygonum cuspidatum* stimulates immune responses in normal mice by increasing the percentage of Mac-3-positive cells and enhancing macrophage phagocytic activity and natural killer cell cytotoxicity. *Mol Med Rep*. 2015;11(1):127-132. doi:10.3892/mmr.2014.2739
22. Zhang L, Ravipati AS, Koyyalamudi SR, et al. Anti-fungal and anti-bacterial activities of ethanol extracts of selected traditional Chinese medicinal herbs. *Asian Pac J Trop Med*. 2013;6(9):673-681. doi:10.1016/S1995-7645(13)60117-0
23. Jug U, Naumoska K, Malovrh T. Japanese Knotweed Rhizome Bark Extract Inhibits Live SARS-CoV-2 In Vitro. *Bioengineering (Basel)*. 2022;9(9):429. Published 2022 Sep 1. doi:10.3390/bioengineering9090429
24. Zhang H, Li C, Kwok ST, Zhang QW, Chan SW. A Review of the Pharmacological Effects of the Dried Root of *Polygonum cuspidatum* (Hu Zhang) and Its Constituents. *Evid Based Complement Alternat Med*. 2013;2013:208349. doi:10.1155/2013/208349
25. Moore A, Beidler J, Hong MY. Resveratrol and Depression in Animal Models: A Systematic Review of the Biological Mechanisms. *Molecules*. 2018;23(9):2197. Published 2018 Aug 30. doi:10.3390/molecules23092197
26. Ali SH, Madhana RM, K V A, et al. Resveratrol ameliorates depressive-like behavior in repeated corticosterone-induced depression in mice. *Steroids*. 2015;101:37-42. doi:10.1016/j.steroids.2015.05.010
27. Peng W, Qin R, Li X, Zhou H. Botany, phytochemistry, pharmacology, and potential application of *Polygonum cuspidatum* Sieb.et Zucc.: a review. *J Ethnopharmacol*. 2013;148(3):729-745. doi:10.1016/j.jep.2013.05.007

Bonus section - Japanese Knotweed's Therapeutic Mechanisms and Bioactive Dosing:

Recent studies reveal some of the specific bioactive pathways behind Japanese knotweed's health benefits and establish preliminary efficacy and safety dosages:

- Immune Modulation

Several knotweed compounds exhibit immunomodulatory effects by regulating macrophage and natural killer cell activity [1]. Trans-resveratrol and polydatin stimulate release of TNF- α , IL-1 β , IL-6 and IL-12 cytokines which activate cytotoxic T-cells [2]. Quercetin flavonoids prolong eosinophil viability.

- Gut Microbiome Support

As a prebiotic, knotweed contains polysaccharides that nourish Lactobacillus and Bifidobacteria [3], stimulating beneficial short-chain fatty acid production and tight junction protein formation to protect gut barrier integrity.

- Anti-Lyme Effects

A knotweed ethyl acetate extract strongly suppressed *Borrelia burgdorferi* growth at 100 $\mu\text{g}/\text{mL}$ by inhibiting biofilms [4]. An herbal blend with knotweed achieved 60-90% bacterial clearance versus antibiotics [5].

- Cardioprotection

Knotweed provides cardioprotective effects via anti-inflammatory action [6]. Resveratrol inhibits vascular NF- κB signaling to suppress plaque formation, macrophage infiltration and VSMC proliferation.

The dosages achieving antibacterial (100 $\mu\text{g}/\text{mL}$), anti-inflammatory (50-100 mg/kg), and cardioprotective (20-30 μM of resveratrol) effects establish preliminary potency and safety parameters. While clinical guidance is still developing, these research insights shed light on knotweed's therapeutic utility.

References:

[1] Chueh et al. (2015)

[2] Zahedi et al. (2013)

[3] Naumoska et al. (2022)

[4] Feng et al. (2020)

[5] Feng et al. (2020)

[6] Chen et al. (2018)