

The Healing Properties of Goji Berries



History

Goji berries, also known as *lycium barbarum*, *fructus lycii* and wolfberry have been used in China and other Asian countries for more than 2,000 years as a traditional medicinal herb and food supplement.¹ With their sweet taste, bright color and health promoting properties, Goji berries have also caught on in popularity in parts of India, Tibet, Nepal and Japan.

Tibetan Medicine used goji berries to treat liver, kidney and eye problems, to lower cholesterol and blood pressure, to cleanse the blood, to treat skin rashes, psoriasis, depression, allergies, insomnia, chronic liver disease, diabetes and tuberculosis.

Selection & Storage

The majority of the world's commercial Goji berry production is found in the north and south of China and comes from the fruit of *Lycium barbarum* and *Lycium chinense*, two closely related species of boxthorn in the nightshade family, *Solanaceae*.² These berries are a versatile food and can be prepared in many different ways. Goji berries can be found raw, dried, powdered, or liquefied, and can be utilized in anything from sweet beverages and teas, to hot soups and salad. Allowing the goji berries to steep in a big glass of hot or cold water (or herbal tea) for ten minutes hydrates them into a plump and juicy snack. For optimal nutritional quality, aim to purchase raw goji berries in their dried form as they will have been dehydrated at lower temperatures ensuring more health boosting properties. To ensure optimal freshness, goji berries should be stored in an airtight container in a cool, dry place.

Risks

Although goji berries provide many healing effects, they have the potential to interact with certain drugs. People taking the blood thinner Warfarin should be particularly cautious and aim to avoid goji berries since they may prolong the period Warfarin stays in the body, thereby increasing the chances of bruising and bleeding. The berries may also interact with medications for diabetes and blood pressure since Goji

¹ Zhou, S., Cheng, J., Zhou, Z., Sheng, H., He, L., Fan, X., ... Zhao, R. J. (2014). An evidence-based update on the pharmacological activities and possible molecular targets of *Lycium barbarum* polysaccharides. *Drug Design, Development and Therapy*, 33. doi:10.2147/dddt.s72892

² Ibid.

root bark has been known to lower blood sugar and decrease blood pressure. If you are taking medications that affect the liver, it is important to note that eating goji berries may have some effects on the function of the medication. In addition, if you are pregnant and breast-feeding do not eat goji since it contains a chemical, betaine, which could cause miscarriages.³

Nutritional Profile

Goji berries are low in sodium, saturated fat and cholesterol. This super fruit provides high levels of antioxidants, immune system protection and help in fighting cancer and neurodegenerative diseases, while protecting the body from inflammation-fighting free radicals. They are also a good source of protein, thiamin, calcium, dietary fiber, vitamin A, vitamin C, riboflavin, iron, potassium, zinc, copper and selenium. Goji berries provide just 23 calories per serving of 28g, 6g of carbohydrate, 2g of dietary fiber and 4g of sugar, 3g of protein.⁴ Their impressive nutritional profile includes beta-carotene, Vitamin B1 and B2, lutein and lycopene.

Healing Properties

Although this little fruit may not seem like much, on a microscopic level goji berries truly are worthy of their title as a “super fruit”. Composed of polysaccharide complexes (which include six types of monosaccharides), carotenoids, phenylpropanoids, and zeaxanthin, this berry helps decrease blood sugar levels while reducing carotenoid levels to help stabilize and treat those with diabetes and other blood sugar dysregulation issues.⁵ In addition, these blood sugar stabilizing chemicals also help keep energy and mood levels up by increasing feelings of general wellbeing, calmness, and improving neurological/psychological performance.⁶ It is these chemicals that help provide the body with high levels of anti-oxidative activity. As one research paper noted, the L. Barbarum and Zeaxanthin found within the polysaccharide complexes has been shown to reduce the activity of harmful free radicals in the body while protecting the neurological and retinal cells.⁷ These qualities help protect against age-related eye diseases, as well as preventing damage from UV light exposure and oxidative stress. In fact, a study

³ Rivera, C. A., Ferro, C. L., Bursua, A. J., & Gerber, B. S. (2012). Probable Interaction Between Lycium barbarum (Goji) and Warfarin. *Pharmacotherapy: The Journal of Human Pharmacology and Drug Therapy*, 32(3), e50-e53. doi:10.1002/j.1875-9114.2012.01018.x

⁴ Nutrition Data. (n.d.). Goji Berries (Tibetan) Nutrition Facts & Calories. Retrieved from <http://nutritiondata.self.com/facts/custom/280160/1>

⁵ Kulczyński, B., & Gramza-Michalowska, A. (2016). Goji Berry (Lycium barbarum): Composition and Health Effects - A Review. *Polish Journal of Food and Nutrition Sciences*, 66(2), 1-11. doi:10.1016/b978-0-12-404738-9.00016-7

⁶ Amagase, H., & Nance, D. M. (2008). A Randomized, Double-Blind, Placebo-Controlled, Clinical Study of the General Effects of a Standardized Lycium barbarum (Goji) Juice, GoChi™. *The Journal of Alternative and Complementary Medicine*, 14(4), 403-412. doi:10.1089/acm.2008.0004

⁷ Benzie, I. F., & Wachtel-Galor, S. (2011). *Herbal medicine: Biomolecular and clinical aspects* (2nd ed.). Boca Raton, FL: CRC Press/Taylor & Francis.

published in the Journal of American Academy of Optometry's Optometry & Vision Science found that "drinking goji berry juice every day as a dietary supplementation for 90 days increases plasma zeaxanthin and antioxidant levels significantly, which protect eyes from hypopigmentation and accumulation of oxidative stress compounds that can damage the macula."⁸

While the impact they have on retinal and neurological cells should not be understated, it is their anti-cancer activity that has been leading current research. In a study on mice done in 2005, researchers concluded that the polysaccharides found within goji berries could "significantly reduce lipid peroxidation in mice and inhibit proliferation of liver cancer cells,"⁹ by lowering lipid properties in the blood.

Lastly, goji berries have been found to be useful for promoting healthy gut bacteria, while also promoting increased sexual function in both the male and female reproductive systems. It is these same properties that have made it such a staple within Chinese society for thousands of years.¹⁰

Recipe

Goji Berry Granola Bars (5 servings)



Ingredients

½ cup gluten free rolled or quick oats
¼ cup cashew pieces, chopped
¼ cup pecans, chopped
½ cup raw sunflower or pumpkin seeds
1 tbsp. hemp powder
⅛ cup ground flax seed
½ cup almond butter
¼ cup coconut sugar
Pinch of sea salt
¼ cup goji berries

Directions

1. Mix the oats, cashew pieces, pecans, sunflower or pumpkin seeds, hemp powder, and flax seeds in a large bowl.
2. Whisk together almond butter, coconut sugar and sea salt. Pour into oat mixture and add goji berries mixing well.
3. Line a shallow baking dish with parchment paper and add the mixture pressing well into the dish. Cover with more parchment paper and refrigerate for 3 hours.
4. Remove from fridge and cut into bar shapes. Then store in the refrigerator.

⁸ Ibid.

⁹ Curtin, N. J., & Szabo, C. (2013). Therapeutic applications of PARP inhibitors: Anticancer therapy and beyond. *Molecular Aspects of Medicine*, 34(6), 1217-1256. doi:10.1016/j.mam.2013.01.006

¹⁰ Bucheli, P., Vidal, K., Shen, L., Gu, Z., Zhang, C., Miller, L. E., & Wang, J. (2011). Goji Berry Effects on Macular Characteristics and Plasma Antioxidant Levels. *Optometry and Vision Science*, 88(2), 257-262. doi:10.1097/opx.0b013e318205a18f