

# Quina™



## Applications

- Microbial Support

## Introduction

**NutraMedix Quina™** is a hydro-ethanol extract made from **cinchona bark** (*Cinchona calisaya*). Once assigned to the Cinchonaceae family, *C. calisaya* became a part of the Rubiaceae family after it merged with Cinchonaceae.<sup>1,2</sup> Cinchona is native to South America, on the eastern side of the Andes between 3,000 and 12,000 feet.<sup>3</sup> Common names include cinchona, yellow cinchona,<sup>4</sup> calisaya,<sup>4</sup> quina peruana,<sup>4</sup> kinakina or quinaquina (bark of barks),<sup>3,5</sup> crown bark,<sup>5</sup> and l'arbre des fièvres (fever tree).<sup>6</sup>

**Cinchona bark** (*C. calisaya*) has a long history of traditional use for microbial support and digestive support.<sup>4,7,8</sup> It was first added to the London Pharmacopeia as *cortex peruvianus* (Peru bark) in 1677, though the source tree was unknown to the British until 1738.<sup>9</sup> Carl Linnaeus, known for his work in taxonomy, named it cinchona after a countess who had used it for microbial support. Cinchona bark was added to the U.S. pharmacopeia in 1890 and to the Danish pharmacopoeia in 1907.<sup>9,10</sup>

The major constituent alkaloids in cinchona bark include quinine, quinidine, cinchonine, and cinchonidine.<sup>3</sup> Quinine, derived from the Peruvian name of quinaquina,<sup>5</sup> was first isolated in 1820, and isolation of the other alkaloids soon followed.<sup>6,11,12</sup> Though quinine was once considered the most important alkaloid—and for a time, the price of cinchona bark was based on its quinine content—the combined alkaloids were later found to

be both gentler and more effective than the isolated alkaloids.<sup>7,12,13</sup>

**NutraMedix Quina** is made at our U.S. manufacturing facility using a specialized proprietary extraction process that optimizes the constituents of the herbs in their original, unprocessed state to obtain broad-spectrum concentration. Because our extracts are made in our own facility, we control all aspects of quality, including stringent ID testing, microbial testing, and heavy-metal testing. NutraMedix rigorously follows current good manufacturing practices (cGMP), as do our suppliers.

## Microbial Support

**Cinchona bark** (*C. calisaya*) may help with microbial support,<sup>14-20</sup> attributed to the structural quinoline ring.<sup>3</sup>

## Safety and Cautions

**Cinchona bark** (*C. calisaya*) is generally well tolerated. Adverse effects at the recommended dose are extremely rare, but may include nausea, vomiting, diarrhea, or ringing in the ears.<sup>21</sup> **Caution:** Discontinue use if ringing in the ears, deafness, skin rash, or visual disturbances occur.

Theoretically, cinchona bark may have additive effects when taken with anticoagulant or anti-platelet medication, anti-arrhythmic medication,

carbamazepine, phenobarbital, or digoxin, and it may decrease the effectiveness of medications to control gastric acid.<sup>21</sup> People who are taking quinine or quinidine medications, or who are pregnant, should not use Quina.

Safety is not documented in breastfeeding or pregnant women, or in children under age 3, due to insufficient safety research.

\*This statement has not been evaluated by the Food and Drug Administration. This product is not intended to treat, cure, or prevent any diseases.

## References

<sup>1</sup>Cavalcanti, D.R., & Albuquerque, U.P. (2013). *Evidence-Based Complementary and Alternative Medicine*, 2013, 102714.  
<sup>2</sup>Global Biodiversity Information Facility (GBIF). (n.d.). *Cinchonaceae*. <https://www.gbif.org/species/4937951>  
<sup>3</sup>Chopra, R.N. (1922). *The Indian Medical Gazette*, 57(11), 401-406.  
<sup>4</sup>Botsaris, A.S. (2007). *Journal of Ethnobiology and Ethnomedicine*, 3, 18.  
<sup>5</sup>The romance of Cinchona. (1931). *The Indian Medical Gazette*, 66(4), 211-214.  
<sup>6</sup>Eyal S. (2018). *Toxins*, 10(12), 491.  
<sup>7</sup>Esencia de Calisaya. (1893). *The Southern Medical Record*, 23(11), 628.  
<sup>8</sup>Toner, X. (1868). *The Chicago Medical Journal*, 25(19), 625-628.  
<sup>9</sup>United States Pharmacopeia (USP). (1890). *The American Journal of Dental Science*, 27(8), 380-384.  
<sup>10</sup>Christensen, S.B. (2021). *Biomedicines*, 9(5), 472.  
<sup>11</sup>Gisselmann, G., Alisch, D., et al. (2018). *Frontiers in Pharmacology*, 9, 1339.

<sup>12</sup>Cinchona bark and its alkaloids. (1924). *British Medical Journal*, 1(3310), 1023-1024.  
<sup>13</sup>King, F. (1877). *Atlanta Medical and Surgical Journal*, 15(3), 155-159.  
<sup>14</sup>Hobbs, C., & Duffy, P. (2011). *F1000 Biology Reports*, 3, 24.  
<sup>15</sup>Cruz, L.R., Spangenberg, T., et al. (2013). *Malaria Journal*, 12, 168.  
<sup>16</sup>Maldonado, C., Barnes, C.J., et al. (2017). *Frontiers in Plant Science*, 8, 391.  
<sup>17</sup>Krettli, A.U., Andrade-Neto, V.F., et al. (2001). *Memorias do Instituto Oswaldo Cruz*, 96(8), 1033-1042.  
<sup>18</sup>Vergara, S., Diaz, F., et al. (2022). *Tropical Parasitology*, 12(2), 78-86.  
<sup>19</sup>Titanji, V.P., Zofou, D., et al. (2008). *African Journal of Traditional, Complementary, and Alternative Medicines*, 5(3), 302-321.  
<sup>20</sup>Surur, A.S., Huluka, S.A., et al. (2020). *Drug Design, Development and Therapy*, 14, 4855-4867.  
<sup>21</sup>NatMed Pro. (2023). Cinchona [monograph]. <http://naturalmedicines.therapeuticresearch.com>

**NutraMedix.**

**SHAKE WELL BEFORE EACH USE:**  
 Put 1 to 30 drops in 4 oz (120 mL) of water and wait one minute before drinking. Start with 1 drop (30 min. before meals) increasing slowly up to 30 drops 2-4 times per day or as directed by your physician. Do not use if pregnant or nursing. Stop use if adverse reactions develop. Keep out of reach of children.

**<sup>†</sup>This statement has not been evaluated by the Food and Drug Administration. This product is not intended to diagnose, treat, cure or prevent any disease.**

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**QUINA™**

**MICROBIAL SUPPORT †**

**Dietary Supplement**

**1 fl. oz. (30mL)**

**Supplement Facts**

Serving Size 30 drops  
 Servings Per Container 20

Amount Per Serving	1.5 mL*
Calisaya ( <i>Cinchona calisaya</i> ) bark extract	

\*Daily Value not established

**Other ingredients:** mineral water, ethanol (20-24%)

**NutraMedix**

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 Lot #  
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