

QUINA

MICROBIAL DEFENSE



Quina is an extract produced from the bark of *Cinchona calisaya*, a tree from South America that is found between 1,400 meters and 2,800 meters above sea level. Nutramedix utilizes a proprietary extraction and enhancement process that makes this product far more effective than any other *Cinchona calisaya* product available.

Primary Uses of Quina:

- ANTIBACTERIAL
- ANTIMALARIAL
- ANTIPROTOZOAL
- ANTI-INFLAMMATORY

Quina has been used for centuries by native South Americans to treat a number of illnesses including malaria, cancer, fever, dysentery, typhoid, pneumonia, etc. It was one of the first South American medicinal plants to become known outside of the Americas. It was first used in Europe in the mid- 1600's and recognized by the British Pharmacopoeia in 1677. Quinine, one of the four alkaloids in Quina known to have antimalarial properties, has been used to produce medicines to treat malaria for nearly 200 years. Malaria strains have mutated rendering these drugs far less effective causing researchers to re-evaluate the medicinal properties of whole plant extracts of Cinchona species such as Quina.

Quina is utilized by some health care professionals in the U.S. as an important component of a Lyme disease protocol. It has been found to be very effective in treating *Borrelia burgdorferi*, the bacteria that causes Lyme disease, *Babesia* and many of the co-infections that are usually associated with this condition.

In a pharmacological study conducted in May 2005 at the University of Guayaquil, Ecuador, Nutramedix Quina was found to be 14% more effective as an anti-inflammatory than Indomethacin (Indocin), a nonsteroidal anti-inflammatory drug (NSAID) prescribed to treat fever, pain and inflammation. A toxicology study was conducted on Nutramedix Quina at the same University, and no toxic effects were reported even when laboratory animals received 240,963 times the equivalent human dose.

Some other medicinal properties that have been reported:

- ANTIARRHYTHMIC
- ANTIPYRETIC
- ANTISPASMODIC
- ANTIFUNGAL
- ANTIPARASITIC
- AMEBICIDE
- ANALGESIC
- ASTRINGENT
- DIGESTIVE
- FEBRIFUGE
- NERVINE
- NEURASTHENIC



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