Phytolacca americana L.: **AN ETHNOPHARMACOLOGICAL AND TOXICOLOGICAL REVIEW**

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Phytolacca americana L. Fam. Phytolaccaceae (pokeweed, pokeberry, крмус, крмес, крмец, винобој)

Is a tall, branched perennial herb that reaches a height of 3 meters. It has white or greenish flowers in racemes, which develop into clusters of dark purple, almost black, shining, 10-celled, juicy, purple berries. The plant occurs abundantly in all parts of the United States and also grows spontaneously in southern Europe and northern Africa.

Phytolacca americana L. has been used in traditional medicine for treatment of emetic and cathartic properties, dyspepsia and especially for chronic rheumatism. Pokeberries commonly nowadays are used in our country for preparing a remedy in rakia for resolving problems with circulation, cholesterol, metabolism disorders etc. Also, pokeberries are often used for healing children's smallpox. Therefore there is an increased necessity of an ethnopharmacological and toxicological review of *Phytolacca americana* because is also well known for it's toxicity.

The work reviews and analyses the traditional use, biological activities with the corresponding chemical constituents, and toxicological data on the various plant parts. Data regarding *Phytolacca americana* was collected using electronic databases and library search for selected peer-reviewed articles. Additional information on traditional use and botany was obtained from published books.



Phytolacca americana have been used in northern African, American and southern European traditional medicine. The review encompasses antibacterial usage of pokeflowers from Slavic people against abdominal typhus in the seventh century. Turks in the middle ages prepared "krmas madjun" remedy from poke with grape malt syrup against fever. Some anti-cancer and anti-viral research has been reported on this perennial herb. The leaves and the roots are especially toxic, the berries much less so, because of their content of phytolaccatoxin and related triterpenes. Intoxications generally arise from eating uncooked leaves in salads or mistaking the roots for parsnips or horseradish. Poke root is quite toxic; children have died and adults have been hospitalized from gastroenteritis and disminished respiration by ingesting it or other parts of the plant. Oral intake of small quantities of raw pokeberries can result in serious disorders of the gastrointestinal tract accompanied by weakened respiration and pulse.

RECOMMENDATION

Poke root should not be sold as an herbal beverage or food. All packages containing poke root must carry an appropriate warning statement regarding the product's toxicity and its potential danger when taken internally.

Extracts of poke are mitogenic; therefore the use of gloves is recommended when handling the plant.

Employment of the young shoots as pot herbs, a widespread practice in some areas, is also not recommended.