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# Multipotential Miracle Tree: *Moringa oleifera* A Healing Herb to Treat Diabetes

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#### ABSTRACT

**Background**: *Moringa oleifera*, commonly known as the Drumstick tree, belongs to the family Moringanceae. It is a valued medicinal plant, mentioned 5000 years ago in *Chakra Samhita*, and is also revered in African folk medicine.

**Aim**: To compile the available information on the phytoconstituents, pharmacological or traditional uses and antidiabetic properties of *M. oleifera*.

**Methods**: A comprehensive review of information using bibliographic databases and abstracting systems such as review and research articles and journals was undertaken online.

**Result:** Some important phytoconstituents include 2,6-Dihydroxybenzoic acid, Bis(2-Ethylhexyl) phthalate, ethyl oleate, quinic acid, hexadecenal, L-(+)-ascorbic acid-2,6-dihexadecanoate, oleic acid, phytol, beta carotene. The leaf extract mainly contains anti-oxidants such as quercetin, flavonoids, alkaloids, isothiocyanates, tannins, saponins, phenolic acids, polyphenols, and large amount of vitamin C, abundant carotenoids are found, based on preclinical studies, this plant possesses analgesic, anti-inflammatory, antipyretic, anticancer, antioxidant, nootropic, hepatoprotective, gastroprotective, anti-ulcer, cardiovascular, anti-obesity, antiepileptic, antiasthmatic, antidiabetic, anti-urolithiatic, diuretic, local anesthetic, anti-allergic, anthelmintic, wound healing, antimicrobial, immunomodulatory and antidiarrheal effects. These activities may be attributed to phytoconstituents present in its root, stem, bark, leaf, flower, pod, and seeds. Leaves are used for the treatment of various diseases from malaria and typhoid fever to hypertension and diabetes. Aqueous extract of *M. oleifera* leaves reduce the blood glucose level in normal rats and normalizes the high blood glucose levels in sub, mild and severely diabetic rats. It also Improves glucose tolerance in normal, sub and mild diabetic animals.

**Conclusion:** The aqueous extract of *M. oleifera* leaves shows hypoglycemic and antihyperglycemic properties besides other pharmacological activities. It can be used as an antidiabetic drug and can be used to cure various other diseases. It should be further analyzed and researched for the presence of active compounds.

# Si Journal of Phytochemistry



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