

Ma-Huang

Ma huang is one of the earliest and best-known drugs of Chinese traditional medicine. Widely known as Ma Huang, yellow horse, yellow astringent, *Ephedra sinica*, *E. intermedia* and *E. equisetina*. This amazing plant serves as a potent sympathomimetic that stimulates alpha, beta(1) and beta(2) adrenergic receptors. It excites the sympathetic nervous system, causes vasoconstriction and cardiac stimulation, and produces effects similar to those of epinephrine (adrenalin). This product has great consumption diversity. Topical use for nasal congestion (nasal sprays), as a dietary supplement (powdered ma huang herb as well as its extracts and concentrates), for colds influenza, bronchial asthmas and allergies (in the form of teas or tinctures). Also, Ma Huang has been widely recognized and FDA approved as a herbal supplement sold over the counter drug used for colds, flu, and respiratory allergies, including asthma. However, various herb items contain the entire herb Ma Huang or its concentrates. These items are utilized for an assortment of purposes including aching muscles, arthritis, and edema, as well as energy and diet products; most of which uses are not currently FDA approved. The misuse of this plant can be dangerous due to the concentration of ephedrine and pseudoephedrine, which are stimulants that can constrict blood vessels. In low doses, they act as decongestants, but in higher doses, they can raise blood pressure. Manufacturers have insisted that studies prove their product is safe when used properly. But several scientists said that it is impossible to prove whether ephedra is safe based on these studies because they screen out participants who have health problems, which are the people most likely to be hurt by the supplement.

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11/18/19

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Nevertheless, the various species of Ephedra are widespread in many lands, native to southwestern North America, southern Europe, northern Africa, southwest and central Asia, northern China and western South America. Most Ephedra species grow on shores or in sandy soils with direct sun exposure and temperate climates. As with any traditional medication, Ma Huang has its adverse effects and contraindications. The stimulant effect contributes to the herb's effectiveness as an appetite suppressant, especially when combined with caffeine, aspirin, or both. Its claims for promoting weight loss as well as for increasing energy and alertness led athletes to take ephedra products. Also, Alkaloids obtained from the species of Ephedra used in herbal medicines, which are used to synthetically prepare pseudoephedrine and ephedrine, can cause cardiovascular events. These events have been associated with arrhythmias, palpitations, tachycardia, myocardial infarction and excessive salivation. Ma Huang can be higher compared to a prescribed vasoconstrictor (asthma pills, Marax) due to its components and the intensity of the effect. Also to its contraindications of being misused as it can bring fatal results. On the other hand, this product has a potential way to be attractive to the public because it is a recognized herb from China and has been used for many years, this is why people feel confident in using it to relieve their need. It is also a medicine that is available to everyone without being prescribed by a doctor. A consumer needs to take into consideration the risk of self-medication without taking into account the observation of a doctor who is an expert in the subject. although sometimes natural medicine is more beneficial for health since it is not chemically mixed with other products that can intervene with the functioning of another organ in the body.

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As a caregiver, my responsibility is to help and guide the patient on the best path to health improvement. My knowledge in medicine must be appropriate to share with the patient regarding a specific medicine and if not known, then proceed to search for authorized entities that can provide me with the right information. My comfort level when it comes to reviewing the patient's medical history must be beneficial, accurate and informative for the patient and me as a health care provider. Finally, when planning the treatment plan for a patient and such interaction is present, based on my assessments and diagnosed the patient will have to see their primary physician to continue the dental treatment.



MA HUANG IN NATURE



PACKAGED FOR CONSUMER USE

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11/18/19

Fall, 2019

REFERENCES

- Harvard Health Publishing. “Why the FDA Banned Ephedra.” *Harvard Health*, <https://www.health.harvard.edu/staying-healthy/ephedra-ban>
- Image for Ma Hung in nature. *Wild Chinese Ma Huang Herb, E Sinica Seeds*, <https://riverssourcebotanicals.com/?product=chinese-ma-huang-herb-ephedr-sinica>.
- Image for packaged for consumer use. “Pure Raw Natural Ephedra Sinica Tea Ma Huang Herbal Tea Chinese Ephedra Ma Huang Anti-Cough Fating Aging Asthma Healthy Tea Food: Wish.” *Wish.com*, https://www.wish.com/product/pure-raw-natural-ephedra-sinica-tea-ma-huang-herbal-tea-chinese-ephedra-ma-huang-anti-cough-fating-aging-asthma-healthy-tea-food-5b3787bb7b77845f313ff027?&hide_login_modal=true.
- “MA HUANG: ANCIENT HERB, MODERN MEDICINE, REGULATORY DILEMMA; A REVIEW OF THE BOTANY, CHEMISTRY, MEDICINAL USES, SAFETY CONCERNS, AND LEGAL STATUS OF EPHEDRA AND ITS ALKALOIDS.” *HerbalGram*, <http://cms.herbalgram.org/herbalgram/issue34/article955.html?ts=1573766570&signature=d0284cdea4c6b61f8dd4cea22b69ea2b>.
- “Ma Huang Uses, Benefits & Side Effects - Drugs.com Herbal Database.” *Drugs.com*, <https://www.drugs.com/npc/ma-huang.html>.
- The Drug Information Handbook for Dentistry 24th Edition