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# Review

Spices used in Indian cooking have a long history of use as medicines to prevent and treat diseases. Many studies have confirmed that spices can be useful medicines, but the major challenge is now to provide scientific evidence and plausible mechanisms for their therapeutic responses. This review focuses on the therapeutic potential of Indian spices to treat multiple symptoms of the metabolic syndrome such as insulin resistance, diabetes, obesity, altered lipid profile and hypertension. The metabolic syndrome is prevalent and has become an important financial burden to the healthcare system in both developed and developing countries. Inflammation and oxidative stress have been proposed as initiators of the metabolic syndrome, especially of insulin resistance. Natural products with anti-inflammatory and anti-oxidant properties are found in spices. Adequate doses of these compounds may be effective in treating the metabolic syndrome. Testing these potential treatments requires adequate animal models, usually rodents, so the limitations of these models are important. Furthermore, this review highlights the need for adequate legislation and regulation to ensure the safety and success of evidence-based functional foods and nutraceuticals.

**Keywords:** Spices, Diabetes, Cardiovascular disease, Metabolic syndrome, Inflammation, Oxidative stress,

Nutraceuticals, Food safety .