

Bitter melon (*Momordica charantia* L.): Nutritional profile & therapeutic aspects

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The functional and health endorsing perspectives of various foods is often attributed to presence of bioactive molecules. The plants and their bioactive molecules are of considerable importance in this regard. Array of research interventions indicate the health promoting potential of plants and herbs. Bitter melon (*Momordica charantia*) is one of such examples that provide health benefits against various ailments by improving the quality of the life (QOL). It is nutrient dense plant containing variety of bioactive components i.e. alkaloids, steroidal saponins, polypeptide, aromatic volatile oil, vitamins and minerals. Owing to presence of such essential bioactive components, it has the ability to fight against various lifestyle related disorders e.g. cancer insurgence, diabetes mellitus, ulcer, eczema, malarial, gout, jaundice, abdominal pain, kidney (stone), laxative, leprosy, pneumonia, fever and scabies. Among bioactive moieties, p-insulin is similar to insulin whose subcutaneous injection significantly lower blood glucose levels in diabetic patients. It also contains steroidal saponins called charantin, act alike peptides and certain alkaloids that effectively control sugar level in blood. The therapeutic perspectives have also been highlighted as they are helpful in regulating blood cholesterol thus protecting the body from cardiovascular disorders like atherosclerosis. Whole fruit, seeds and leaves of bitter melon regulates impaired antioxidant status and suppress fat accumulation. Roots are also adept source for the cure of eye related disorders. Likewise, products of whole fruit for instance; dry powder, aqueous extract and juices are safe alternative to reduce blood glucose and have stomachic effects. Moreover, curative potential of its bioactive components and their utilization in value added food products are also the limelight of the article.

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