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Pomegranate Bioactive Molecules and Health Benefits

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Abstract

Fruits contribute an abundant supply of antioxidants to human diet and act as the first line of defense against the risks of chronic diseases occurrence. Pomegranate is one among the highly explored and appreciated fruits on account of its promising health-promoting and disease-preventing properties. Pomegranate fruit and its key components including rind, seed, and membranous network have been evidently reported as carriers of a wide range of bioactive compounds including ellagitannins, hydroxycinnamic acids, hydroxybenzoic acids, flavons,

flavonol-3-ols, anthocyanidins, anthocyanins, and conjugated and nonconjugated fatty acids, phytosterols, vitamins, and minerals. Traditional aspects of pomegranate exploitation as remedy against infections and gastrointestinal ailments have generated a basis for the modern-age research. Findings of the research carried out in the last two decades manifest fruit, flower, seeds, and peel of pomegranate as natural strategy to treat microbiological and parasitic pathogenesis and to act as a chemopreventive and therapeutic approach against inflammatory and infectious chronic ailments. Forthcoming sections of this chapter review fundamental biochemical composition of pomegranate and its anatomical fractions and provide recent updates on pomegranate perspective applications against the risks of various forms of cancers, cardiovascular diseases, diabetes, acute and chronic liver injury, renal disorders, impaired gut health, neurodegenerative disorders, microbiological pathogenesis, and parasitic infestation.

Keywords

Pomegranate **Ellagitannins** **Inflammation** **Cancer** **Neurodegeneration**

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