

HEALTH-PROMOTING AND ANTI-INFLAMMATORY PROPERTIES OF POMEGRANATE: THE LATEST EVIDENCE FROM THE LITERATURE

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Introduction. Ellagitannin (ET)-rich fruits as pomegranate have demonstrated positive health properties related to oxidative stress and inflammatory effects. Interest in dietary (poly)phenols, including ETs, considerably intensified after the recognition of their potential health benefits. A recently published study has suggested that urolithin A, gut microbiota-derived metabolite of ETs, increased the lifespan of roundworms by a half and improved muscle function in rodents (1).

Materials and Methods. This work provides a brief overview of the evidence from *in vivo* studies investigating potential anti-inflammatory effects of pomegranate, with an emphasis on fruit-derived juices. This summary was compiled by examining studies identified from databases as PubMed focused on inflammation and/or inflammatory-associated conditions. Inflammation is a complex biological response to tissue injury or infection. Chronic inflammation has been shown to be involved in the onset and development of a range of diseases, as arteriosclerosis, obesity, diabetes, and neurodegenerative diseases.

Results. The number of peer-reviewed journal articles is greatly increased in the last years, and several human clinical trials are in progress (<https://clinicaltrials.gov/>). To date, research studies on the promising health effects of pomegranate have advanced rapidly. Most of the published works are related to prostate cancer, diabetes, and atherosclerosis; few researches are focused on other pathological conditions. Intervention studies have been carried out using pomegranate juice or whole fruit (poly)phenol extracts.

Conclusions. The present summary of the current science indicates that pomegranate juice shows promising potential for reducing inflammatory-related conditions by the improvement in anti-inflammatory responses. Therefore, consuming pomegranate juice, as part of a healthy balanced diet, should be encouraged.

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References.

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