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SAVOURING HEALTH AND WELL-BEING: THE POMEGRANATE PRESCRIPTION

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Introduction

Pomegranate (*Punica granatum*), locally known as delima, stands as a botanical treasure renowned for its diverse applications in medicinal contexts. Its historical presence is marked in ancient manuscripts, including Babylonian literature, the Book of Exodus, the Homeric Hymns, and the Quran, attesting to its significant medicinal and culinary uses. The etymology of the word "pomegranate" traces back to the Medieval Latin words "pomum" (meaning "apple") and "granatum" (meaning "seeded"). Cultivated primarily in the Middle East and Mediterranean regions, this small tree and its fruit play a pivotal role in traditional practices, flourishing in hot and arid climates to yield the iconic, ruby-red bounty. Comprising various parts, including seeds, peels, pulp, and juice, each component contributes to its multifaceted utility. Pomegranates have been recognised for innumerable health benefits, with implications in disease cure acknowledged since ancient times.

Moreover, pomegranate fruits, seeds, and peels are intensively utilised in traditional medicine as a natural therapy.

The Aesthetic Chemistry of Pomegranate

The vibrant coloration of pomegranate is owed to polyphenols, acting as the molecular architects of its rich hue. Furthermore, both the fruit and its outer peel boast a significant presence of flavonoids, enhancing not only

its aesthetic appeal but also amplifying its health-promoting properties. This harmonious interplay of polyphenols and flavonoids underscores the nuanced elegance of pomegranate's chemical composition.

Pomegranate's Pharmacological Properties

Beyond its visual allure, pomegranate houses formidable anti-inflammatory properties, historically harnessed for therapeutic purposes. Its efficacy spans a spectrum of ailments, including inflammatory bowel disease, rheumatoid arthritis, metabolic disorders, cardiovascular diseases, and specific cancers such as prostate, breast, colon, and lung cancers. Additionally, pomegranate showcases versatility in managing conditions like osteoarthritis and hypertension solidifying its



Image 1: Pomegranate tree and fruit (Source: Website Farmers trend)



Image 2: Diverse pomegranate products, ranging from balsamic cream to capsules and juice (Source: Website A Food Connection, Vitamins Menu and Sihate')

status as a comprehensive anti-inflammatory agent. Its potent anti-inflammatory effect, achieved through the inhibition of cyclooxygenase (COX) and lipoxygenase, crucial inflammatory mediators, has been extensively explored through diverse preclinical and clinical studies across various health disorders.

Utilizing Pomegranate: From Raw to Juice, Capsules to Cream

Pomegranate's versatility extends to consumption methods, offering choices ranging from consuming the raw fruit to relishing its delectable juice. Pomegranate juice, a reservoir of over 100 phytochemicals, seamlessly integrates into health-conscious diets, dispelling the misconception that nutritious beverages must be verdant or spinach-laden. Pomegranate cream, designed for topical application, promotes healthy skin aging, shields against ultraviolet (UV) rays, exfoliates, hydrates, and regenerates skin cells. In response to its seasonal nature, pomegranate capsules or extracts offer a

convenient alternative when the fruit is out of season.

Bioactive Compounds: The Mechanism Unveiled

Delving into pomegranate's health-promoting mechanisms reveals the significance of ellagitannins, specifically punicalin and punicalagin. These compounds stimulate the proliferation and metabolism of commensal bacteria, fostering an environment conducive to the synthesis of short-chain fatty acids (SCFAs). Upon absorption, SCFAs activate the peroxisome proliferator-activated receptor (PPAR), orchestrating the inhibition of pro-inflammatory molecules like NF- κ B, AP1, and STAT. This meticulous orchestration results in a cascade of anti-inflammatory effects, providing a comprehensive understanding of pomegranate's therapeutic potential.

Sensitivity to Pomegranate Extract

Despite myriad health benefits, caution is warranted, as some individuals may exhibit

sensitivity to pomegranate extract. Potential side effects, including itching, swelling, runny nose, hypotension, and allergic reactions, underscore the necessity for individualized considerations. Nevertheless, pomegranate is generally safe when used in normal doses.

Conclusion

In conclusion, the intricate tapestry of pomegranate's attributes, from its climatic dependencies to the vibrant polyphenols defining its colour, underscores its holistic approach to well-being. As a potent anti-inflammatory agent, pomegranate holds promise in addressing a spectrum of inflammatory diseases. However, the imperative for discerning consumption, considering individual health considerations, is paramount. Continued research into the nuanced potential of pomegranate ensures its evolving integration into diverse diets and healthcare practices, promising a continued avenue for enhancing overall health and well-being.

References

