Bromelain

This fact sheet provides basic information about bromelain—common names, usefulness and safety, and resources for more information.

**Common Names**—bromelain, pineapple extract

**Latin Name for the Pineapple Plant**—Ananas comosus L.

**Background**

- Bromelain is a mixture of enzymes found in the pineapple plant. Pineapple is native to the Americas but is now grown throughout the world in tropical and subtropical regions. Historically, natives of Central and South America used pineapple for a variety of ailments, such as digestive disorders.
- Currently, bromelain is used as a dietary supplement for nasal swelling and inflammation, osteoarthritis, cancer, poor digestion, and muscle soreness. Topical (applied to the skin) bromelain is used for wounds and burns.
- Bromelain is obtained from the stem or fruit of the pineapple. It is sold in the form of a powder, cream, tablet, or capsule, and it may be used alone or in combination with other ingredients.

**How Much Do We Know?**

- There have been several studies on the use of bromelain for nasal swelling and inflammation and for removing dead skin from burns. Little research has been done on other uses of bromelain.

**What Have We Learned?**

- A systematic review of the evidence indicates that bromelain is helpful in relieving symptoms of acute nasal and sinus inflammation when used in combination with standard medications.
- Research in human and animal studies has found that topical bromelain preparations may help remove dead skin from burns. However, not enough evidence exists to show whether topical bromelain helps to treat burns and other wounds.
- There is conflicting evidence about whether bromelain, alone or in combination with other ingredients, is helpful for osteoarthritis and for muscle soreness after exercise.
• There is not enough evidence to determine if bromelain is effective for the other conditions for which it has been used, including cancer and gastrointestinal problems.
• NCCIH-funded research is examining bromelain for inflammatory conditions and asthma.

**What Do We Know About Safety?**

• There have been some reports of gastrointestinal problems, increased heart rate, and menstrual problems in people who have taken bromelain orally.
• Allergic reactions may occur in individuals who are sensitive or allergic to pineapples or who may have other allergies.

**Keep in Mind**

• Tell all your health care providers about any complementary health approaches you use. Give them a full picture of what you do to manage your health. This will help ensure coordinated and safe care. For tips about talking with your health care providers about complementary health approaches, see NCCIH’s Time to Talk campaign at nccih.nih.gov/timetotalk.

**For More Information**


**NCCIH Clearinghouse**

Toll-free in the U.S.: 1-888-644-6226
TTY (for deaf and hard-of-hearing callers): 1-866-464-3615
E-mail: info@nccih.nih.gov

**PubMed®**


**NIH Office of Dietary Supplements**

Web site: ods.od.nih.gov

**NIH National Library of Medicine’s MedlinePlus**


**Key References**


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