

Pineapple

Ananas comosus



Pineapple (*Ananas comosus*) is an incredibly delicious and healthy tropical fruit.

It originated in South America, where early European explorers named it after its resemblance to a pinecone.

This popular fruit is packed with nutrients, antioxidants and other helpful compounds, such as enzymes that can fight inflammation and disease.

Pineapple and its compounds have been linked to many health benefits, including aiding digestion, boosting immunity and speeding up recovery from surgery, among others.

Here are 8 impressive health benefits of pineapple.

1. Loaded With Nutrients

Pineapples are low in calories but have an incredibly impressive nutrient profile.

One cup (5.8 ounces or 165 grams) of pineapple chunks contains the following (2):

Calories: 82.5

Fat: 1.7 grams

Protein: 1 gram

Carbs: 21.6 grams

Fiber: 2.3 grams

Vitamin C: 131% of the RDI

Manganese: 76% of the RDI

Vitamin B6: 9% of the RDI

Copper: 9% of the RDI

Thiamin: 9% of the RDI

Folate: 7% of the RDI

Potassium: 5% of the RDI

Magnesium: 5% of the RDI

Niacin: 4% of the RDI

Pantothenic acid: 4% of the RDI

Riboflavin: 3% of the RDI

Iron: 3% of the RDI

Pineapples also contain trace amounts of vitamins A and K, phosphorus, zinc and calcium.

They are especially rich in vitamin C and manganese, providing 131% and 76% of the daily recommendations, respectively.

Vitamin C is essential for growth and development, a healthy immune system and aiding the absorption of iron from the diet. Meanwhile, manganese is a naturally occurring mineral that aids growth, maintains a healthy metabolism and has antioxidant properties.



2. Contains Disease-Fighting Antioxidants

Not only are pineapples rich in nutrients, they are also loaded with healthy antioxidants.

Antioxidants are molecules that help your body combat oxidative stress.

Oxidative stress is a state in which there are too many free radicals in the body. These free radicals interact with the body's cells and cause damage that is linked to

chronic inflammation, a weakened immune system and many harmful diseases .

Pineapples are especially rich in antioxidants known as flavonoids and phenolic acids.

What's more, many of the antioxidants in pineapple are bound. This allows the antioxidants to survive harsher conditions in the body and produce longer lasting effects .

3. Its Enzymes Can Ease Digestion

Pineapples contain a group of digestive enzymes known as bromelain.

They function as proteases, which break down protein molecules into their building blocks, such as amino acids and small peptides).

Once protein molecules are broken down, they are more easily absorbed across the small intestine. This can be especially helpful for people with pancreatic insufficiency, a condition in which the pancreas cannot make enough digestive enzymes .

For example, one study showed that participants with pancreatic insufficiency experienced better digestion after taking a digestive enzyme supplement containing bromelain, compared to taking the same digestive enzyme supplement without bromelain .

Bromelain is also widely used as a commercial meat tenderizer due to its ability to break down tough meat proteins .

4. May Help Reduce the Risk of Cancer

Cancer is a chronic disease characterized by uncontrolled cell growth.

Its progression is commonly linked to oxidative stress and chronic inflammation.

Several studies have shown that pineapple and its compounds may reduce the risk of cancers. This is because they may minimize oxidative stress and reduce inflammation.

One of these compounds is the group of digestive enzymes called bromelain. Test-tube studies have shown that bromelain may also help fight cancer .

For instance, two test-tube studies showed that bromelain suppressed the growth of breast cancer cells and stimulated cell death .

Other test-tube studies show that bromelain suppresses cancer in the skin, bile duct, gastric system and colon, among other areas .

Test-tube and animal studies have found that bromelain may stimulate the immune system to produce molecules that make white blood cells more effective at suppressing cancer cell growth and eliminating cancer cells.

That said, pineapple contains much less bromelain than supplements do. More human-based research is needed before any conclusions can be made.

5. May Boost Immunity and Suppress Inflammation

Pineapples have been a part of traditional medicine for centuries .

They contain a wide variety of vitamins, minerals and enzymes like bromelain that may collectively boost immunity and suppress inflammation .

One nine-week study fed 98 healthy children either no pineapple, some pineapple (140g) or lots of pineapple (280g) daily to see if it boosted their immunity.

Children who ate pineapples had a significantly lower risk of both viral and bacterial infections. Also, children who ate the most pineapple had close to four times more disease-fighting white blood cells (granulocytes) than the other two groups .



Another study found that children with a sinus infection recovered significantly faster while taking a bromelain supplement, compared to a standard treatment or combination of the two.

What's more, studies have shown that bromelain can reduce markers of inflammation .

It's believed that these anti-inflammatory properties aid the immune system.

6. May Ease Symptoms of Arthritis

Arthritis affects over 54 million adults in the US alone .

There are many types of arthritis, but most of them involve inflammation in the joints.

Since pineapples contain bromelain, which has anti-inflammatory properties, it's commonly thought that they may provide pain relief for those with inflammatory arthritis .



In fact, research from as early as the 1960s shows that bromelain was used to relieve symptoms of rheumatoid arthritis, a type of arthritis that involves inflammation of the joints.

Several recent studies have looked into the effectiveness of bromelain for treating arthritis.

One study in patients with osteoarthritis found that taking a digestive enzyme supplement containing bromelain helped relieve pain as effectively as common arthritis medicines like diclofenac.

Furthermore, one review analyzed bromelain's ability to treat osteoarthritis. It concluded that bromelain has the potential to relieve arthritis symptoms, especially in the short term .

However, it's not clear if bromelain can be a long-term treatment for arthritis symptoms. Longer studies are needed before recommending bromelain to relieve arthritis symptoms.

7. May Speed Recovery After Surgery or Strenuous Exercise

Eating pineapples may reduce the time it takes to recover from surgery or exercise.

This is largely due to the anti-inflammatory properties of bromelain.

Several studies have shown that bromelain may reduce the inflammation, swelling, bruising and pain that often occurs after surgery. It also seems to reduce markers of inflammation .

For example, one study showed that those who consumed bromelain before a dental surgery had significantly reduced pain and felt happier than people

who did not. In fact, it appeared to provide a similar amount of relief as common anti-inflammatory medicines .

Strenuous exercise can also damage muscle tissue and cause surrounding inflammation. Affected muscles cannot produce as much force and are sore for up to three days.

Proteases like bromelain are believed to speed up the recovery of damage caused by strenuous exercise by reducing inflammation around the damaged muscle tissue .

One study tested this theory by providing participants a digestive enzyme supplement that contained bromelain after 45 minutes of strenuous exercise on the treadmill. Those who took the supplement had less inflammation and maintained more strength afterward .

Several other studies have shown that bromelain can speed up recovery from damage caused by exercise .

8. Delicious and Easy to Add to the Diet

Pineapples are sweet, convenient and easy to incorporate into your diet.

They are very affordable and available year-round in many American markets, as they can be purchased fresh, canned or frozen.

You can enjoy them on their own or in smoothies, salads or on homemade pizzas.