THE USE OF GRAVIOLA FRUIT IN THE TREATMENT OF CANCER

lan Walker

Executive **Director** of Policy Information and Communications - Cancer Research UK

https://doi.org/10.5281/zenodo.7586616

ABSTRACT

Graviola (**soursop**) is promoted as an alternative cancer treatment. There is not enough reliable evidence that graviola works as a treatment for cancer.

- Graviola is the fruit from trees in the rain forests.
- Claims that graviola can treat cancer are not backed up by research.
- It can cause nerve damage leading to symptoms that are similar to Parkinson's disease

Keywords: Graviola, soursop, lymphoma, cancer treatment, mental health.

What is graviola?

Graviola comes from a tree in the rain forests of Africa, South America, and

Southeast Asia. It is a common food there.

Its scientific name is Annona muricata. It is also known as:

- custard apple
- cherimoya
- guanabana
- soursop

doi



• brazilian paw paw

The active ingredient is a type of plant compound (phytochemical) called annonaceous acetogenins.

People use graviola pulp in juices, smoothies and ice cream.

Why people with cancer use it

People in Africa and South America use the bark, leaves, root, and fruits of the graviola tree to treat:

- infections with viruses or parasites
- rheumatism
- arthritis
- depression
- sickness

We know from research that some graviola extracts can help to treat these conditions.

In laboratory studies, graviola extracts can kill some types of liver and breast cancer cells. These cells are resistant to some chemotherapy drugs. A more recent study showed that graviola pulp extract has an effect on prostate cancer cells in mice. But there have not been any studies in humans. So, we don't know whether it can work as a cancer treatment or not.

Many sites on the internet advertise and promote graviola capsules as a cancer cure. But reputable scientific cancer organizations do not support them.

How you have it

Graviola comes in the form of fruit powder, leaf or stem powder, and pulp extract.

Side effects

We don't know much about how graviola affects the body. But some chemicals in graviola concern scientists. It may cause nerve changes and movement disorders.

The nerve changes may cause symptoms like Parkinson's disease. Laboratory research has found that some substances in graviola can cause nerve damage. It crosses into the brain from the bloodstream.

One research study has looked at Caribbeans eating large amounts of graviola. It found that they were more likely to develop certain nerve changes. They were also more likely to have hallucinations.

Studies on animals found that graviola may lower blood sugar and blood pressure. Talk to your doctor first before taking graviola if you have diabetes or high blood pressure. Graviola may also cause damage to your kidneys and liver if taken frequently.

It is unlikely that drinks or foods containing graviola could harm you when taken as part of a normal diet.



Talk to your doctor before taking any kind of complementary or alternative therapy.

Research into graviola as a cancer treatment

Websites or magazines often promote graviola. They base their claims on unsupported opinions and anecdotal evidence. There isn't reliable scientific evidence that graviola works as a cancer treatment.

A 2015 systematic review found that several studies show positive results in using graviola. But there still needs to be more robust and systematic clinical trials to test and confirm its value in cancer treatment. And to see if it is safe. Only then can it be used as a treatment for cancer.

A 2018 review found that graviola can be used as a chemopreventive agent. This means it stops cancer from happening. It has also been found to be effective against many cancers. However, these were laboratory studies and not human trials. There has to be further studies and evidence to prove it has the same effects in humans.

Another review in 2018 agrees that there are no valid human clinical trials for graviola.

How much it costs

Be cautious about believing information or paying for any alternative cancer therapy on the internet.



A word of caution

It is understandable that you might want to try anything if you think it might help treat

or cure your cancer. Only you can decide whether to use an alternative cancer

therapy such as graviola.

You could harm your health if you stop your cancer treatment for an unproven

treatment.

Many websites promote graviola as a cure for cancer. But no reputable scientific

cancer organizations support any of these claims.

References

doi

Anti cancer activity on Graviola, an exciting medicinal plant extract vs various cancer cell lines and a detailed computational study on its potent anti-cancerous leads. J Paul and others, 2013 Current topics in medicinal chemistry, Volume 13, Issue 14

Graviola inhibits hypoxia-induced NADPH oxidase activity in prostate cancer cells reducing their proliferation and clonogenicity. G Deep and others

Scientific Reports. 2016 March 16;6:23135.

Anti Hyperglycemic Activities of Annona Muricata (Linn)

D Olawale Adeyemi and others African Journal of Traditional Complementary and Alternative Medicines. 2009; 6(1): 62–69.

Tryptamine-derived alkaloids from Annonaceae exerting neurotrophin-like properties on primary dopaminergic neurons.

F Schmidt and others, 2010 Bioorganic and medicinal chemistry Volume 18, Issue 14

Possible mechanisms of action of the hypotensive effect of Annona muricata (soursop) in normotensive Sprague–Dawley rats

R Chukwuemeka and others Journal of Pharmaceutical Biology, Volume 50, 2012 - Issue 11

Graviola: A Systematic Review on Its Anticancer Properties

P Ioannis and others American Journal of Cancer Prevention, 2015, Vol. 3, No. 6, 128-131



The information is based on literature searches and specialist checking. We used many references and there are too many to list here. If you need additional references for this information please contact patientinformation@cancer.org.uk with details of the particular issue you are interested in.

This scientific contribution was automatically extracted by BiofarmaX to create a record of this author's body of work. We received this article to further our goal of maintaining the most comprehensive scientific repository possible. In doing so, we process publicly available (personal) data relating to the author as a member of the global scientific community.



Multidisciplinary Scientific Journal of Biology, Pharmacy and Health www.biofarma.med.br ISSN Number: (2965-0607) ORCID zenodo



