

POMEGRANATE

Should I eat pomegranates, drink pomegranate juice or take supplements?

RECOMMENDATION: Include fresh pomegranates or pomegranate juice as part of your balanced diet - don't rely on taking pomegranate extracts or supplements until more research is done.

What's the evidence?

For Prostate Cancer *Prevention*?

Pomegranate juice and extracts might prevent prostate cancer cell growth:

- There is growing lab research showing that pomegranate juice and/or its extracts can stop the growth of - or even kill - prostate cancer cells but this has not been tested on people.¹
 - There is no evidence that drinking pomegranate juice or taking pomegranate extracts or supplements can lower the risk of getting prostate cancer for healthy men.

For Prostate Cancer *Treatment*?

Pomegranate juice and extracts might prevent progression or recurrence of prostate cancer:

- There are only a few clinical studies that have tested drinking pomegranate juice or taking pomegranate supplements in men after a prostate cancer diagnosis, however, ongoing research is promising.
- A US clinical trial studied men with rising prostate specific antigen (PSA) after surgery or radiation for prostate cancer and found that drinking 8 ounces of pomegranate juice daily was linked to a slower PSA rise and other markers of slower cancer growth.²
 - This suggests that drinking pomegranate juice might slow down the growth of prostate cancer in patients but much more research is needed before recommendations can be made.
- An ongoing Canadian trial is testing pomegranate extracts taken by men in the month prior to surgery for localised prostate cancer and will look at the effects of supplementation on prostate tumour characteristics.³

Much of this benefit is thought to be from polyphenols found in pomegranates

Polyphenol facts:

- Polyphenols are antioxidants found in many fruits and vegetables and are known to promote health.
- The polyphenols most plentiful - and most studied - in pomegranates are **ellagic acid** and **punicalagins**.
 - **Ellagic acid** is found in the arils - the red berry-like fleshy seeds inside the fruit. Also found in green tea raspberries and cranberries.
 - **Punicaligins** are found in the outer red rind and are thought to be stronger antioxidants than ellagic acid.
- When pomegranate juice is commercially made, the whole fruit including the rind is crushed ensuring that the juice contains both ellagic acid and punicalagins.
 - Thus, although the fresh arils are a healthy fruit full of vitamins (vitamin C) and minerals (potassium), pomegranate juice has the most promise for fighting prostate cancer.

Including pomegranate juice as part of a balanced diet with lots of other fruits and vegetables might help reduce cancer progression or recurrence for men diagnosed with prostate cancer

The bottom line: Drink pomegranate juice not supplements!

A commonly eaten fruit in the Mediterranean and Asia - pomegranates also have a history of being used as a herbal 'medicine' for a wide range of conditions.

- Pomegranate juice and extracts have traditionally been used to treat sore throats, dental problems, fungal infections, stomach and bowel issues, headaches and hardening of the arteries.
- Pomegranate juice is expensive and might not be healthier than drinking other fruit juices or eating other fruits - like blueberries and raspberries - that are also rich in antioxidants.
- There is not enough proof to say that drinking pomegranate juice or taking supplements is helpful for men who have been diagnosed with prostate cancer.
 - We don't know how safe pomegranate supplements are.
- A lack of research should not stop you from drinking pomegranate juice - as long as you don't drink too much. But you should be aware of possible risks including having too-much sugar, allergies and potential prescription drug interactions.

Having too-much sugar

Each 8 ounce (250 ml) glass of pomegranate juice contains almost as much sugar as a can of soda-pop.

- That's nearly 32 grams (8 teaspoons) or 128 calories - making it easy to take in too much sugar and calories.
- Limit yourself to one or two glasses per day.

Allergies

If you have asthma or any plant allergies you might also be allergic to pomegranates.

- Although not common, symptoms can include gas, stomach aches, diarrhea or rashes, but are usually not serious.

Potential prescription drug interactions

It was thought that pomegranate juice or supplements might affect prescription drugs - like grapefruit juice does. However, this is probably not a problem except for some drugs that are processed by the liver.

- Pomegranate juice or supplements might interfere with 'ACE inhibitors' and other blood pressure drugs by lowering your blood pressure too much.

Some drugs used to treat high blood pressure include:

Generic name	Brand name
Lisinopril	Prinivil® or Zestril®
Ramipril	Altace®
Benazepril	Lotensin®
Captopril	Capoten®
Enalapril	Vasotec®
Trandolapril	Mavik®

- Pomegranate juice also interferes with Rosuvastatin (Crestor®) - a drug used to treat high cholesterol - and could worsen any drug side-effects you might have.
- Until we know more about potential drug interactions, ask your doctor about drinking pomegranate juice or taking supplements if you are taking any medications that are processed in the liver or if you have high blood pressure, high cholesterol or liver problems.⁴

1. Bell C & Hawthorne S. Ellagic acid, pomegranate and prostate cancer - a mini review. *Journal of Pharmacy & Pharmacology*. 2008; 60(2):139-144.
2. Pantuck AJ, et al. Phase II study of pomegranate juice for men with rising prostate-specific antigen following surgery or radiation for prostate cancer. *Clinical Cancer Research*. 2006; 12(13):4018-4026.
3. Guns E et al. Can daily pomegranate extract impact the growth of prostate cancer in a cohort of men awaiting radical prostatectomy? A randomized placebo-controlled clinical trial underway. *Pharmaceutical Biology*. 2009; 47:8-9.
4. Farkas D & Greenblatt DJ. Influence of fruit juices on drug disposition: discrepancies between in vitro and clinical studies. *Expert Opinion on Drug Metabolism & Toxicology*. 2008; 4(4):381-393.

This information is not meant to replace advice from your doctor or dietitian.



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