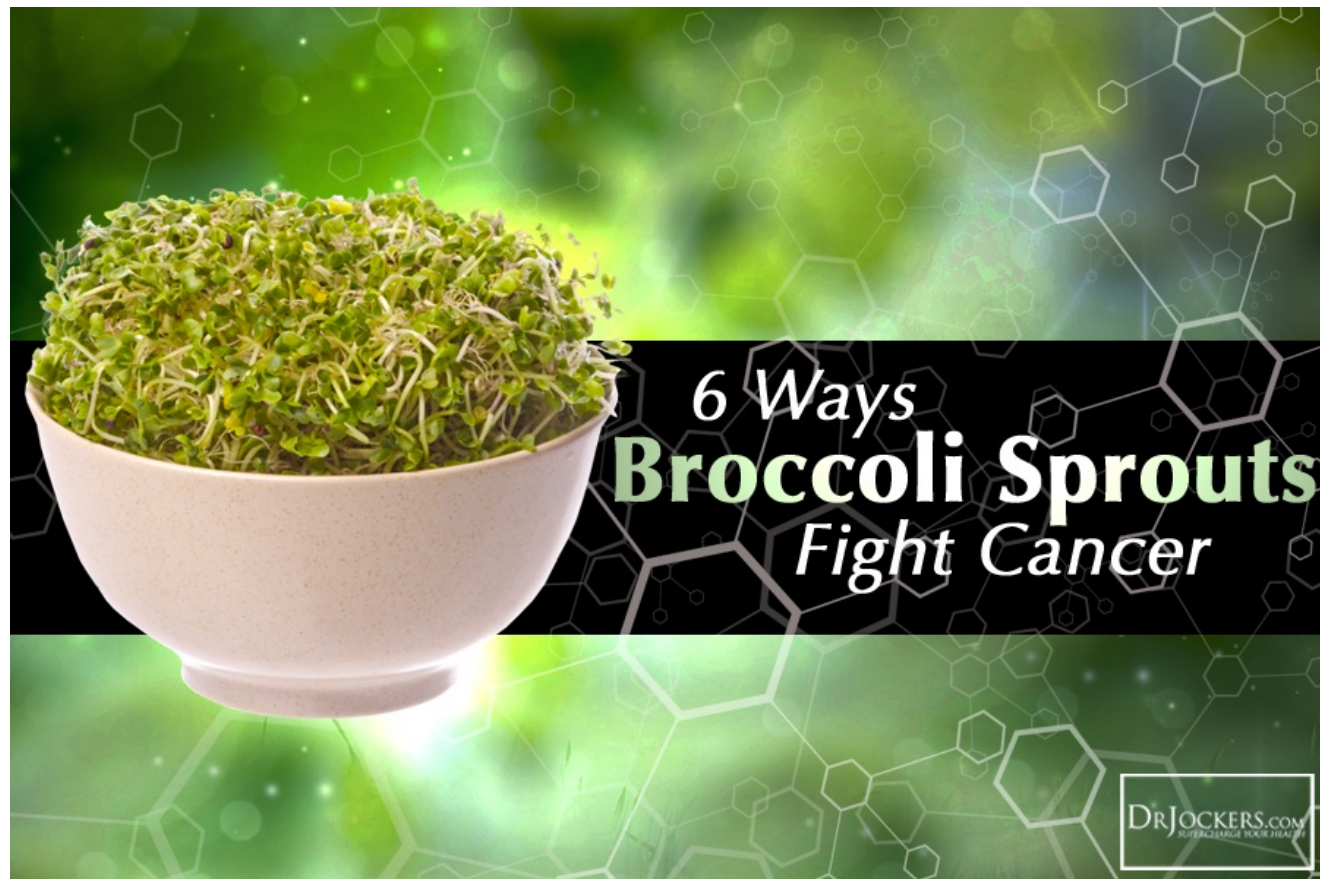


6 Ways Broccoli Sprouts Fight Cancer

DJ drjockers.com/6-ways-broccoli-sprouts-fight-cancer/

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You probably already know that cruciferous vegetables such as cauliflower, cabbage, kale, broccoli and brussel sprouts are excellent foods compact with nutrients to prevent cancer. However, did you also know that their sprouted forms which are less than a few days old can actually pack a stronger punch in the fight against cancer?

Sprouts from the seeds of vegetables begin to germinate within days of being soaked in water. Numerous studies have found that the highest cancer protective properties are most concentrated in these sprouts at a time of 3 days following sprouting (6).

Making sprouts a daily part of your diet has not only been detected to reduce the incidence of numerous types of cancers, but the nutrients in sprouts may actually reverse the damage already created by the development of cancer in your body. (1, 3, 4, 5)



6 Benefits of Sprouts

Activates Antioxidant Pathways

Cancer Fighting Enzymes

Improves Glutathione Levels

Good Source of Quercetin

Antimicrobial Properties

Improves Gut Microflora

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Sprouts Contain Powerful Antioxidants

Vegetable sprouts such as the more commonly known alfalfa sprouts, bean sprouts and radish sprouts are nutrient dense foods containing amazing antioxidant potential. Not all sprouts are created equal and the different antioxidant properties concentrated in sprouts help your body heal.

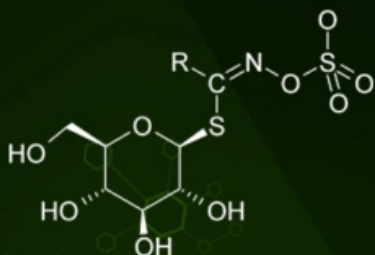
One of the most powerful cancer preventative nutrients found in cruciferous vegetable sprouts such as broccoli sprouts is glucoraphanin. Glucoraphanin is broken down during digestion and converted into a powerful antioxidant sulforaphane (SF). (2)

The antioxidant potentials of SF have the ability to influence and protect every organ in the body as long as its originating form, glucoraphanin, is consumed daily. Broccoli sprouts are the best source of this nutrient but it can also be found in kale and kale sprouts, cauliflower and brussels sprouts.



THE CHEMISTRY OF BRUSSELS SPROUTS

THE BITTER TASTE OF SPROUTS

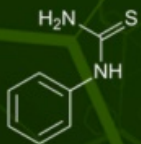


GLUCOSINATES

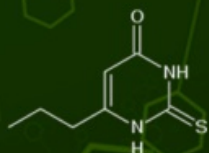
Family of compounds in cruciferous vegetables

Glucosinolates are a class of compounds found naturally in a range of green vegetables, including brussels sprouts. They are broken down into compounds called isothiocyanates when the plant is damaged or cooked.

These isothiocyanates have similarities with the synthetic compounds PTC & PROP, PTC only tastes bitter to around 70% of people. To the other 30%, is completely tasteless. Although it is not the only factor in dislike of brussels sprouts, ability to taste PTC & PROP and sensitivity to bitter vegetables appear to be strongly correlated, and has a heritable genetic basis.

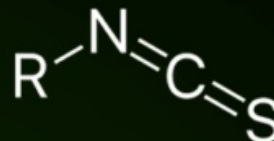


PHENYLTHIOCARBAMIDE (PTC)



PROPYLTHIOURACIL (PROP)

POTENTIAL BENEFITS OF SULFORAPHANE



ISOTHIOCYANATES

Breakdown products of glucosinolates



SULFORAPHANE

Formed from glucosinolates

One of the isothiocyanates that glucosinolates can be broken down into is sulforaphane. This compound is partly responsible for the bitterness of overcooked brussels sprouts, but it is also being studied for its antioxidant properties.

Additionally, it has been suggested that it could have a protective effect against neurodegenerative disorders, but more research is required to investigate this.



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1. Sprouts Activate Antioxidant Pathways

Sulforaphane affects other processes in the body like a strong leader provides the tools and support for his team to reach a goal.

Studies found that a powerful antioxidant signaling gene referred to as NRF2 is dependent on the bioavailability of SF in the body (5). In other words, increasing sulforaphane in your diet is essential to the activity of many anti-inflammatory and cancer fighting responses. (5)

THE CANCER CLEANSE PROGRAM

Cancer is not an accident or something we catch.
It is **DEFINITELY** not a death sentence..

Quickstart Guide 

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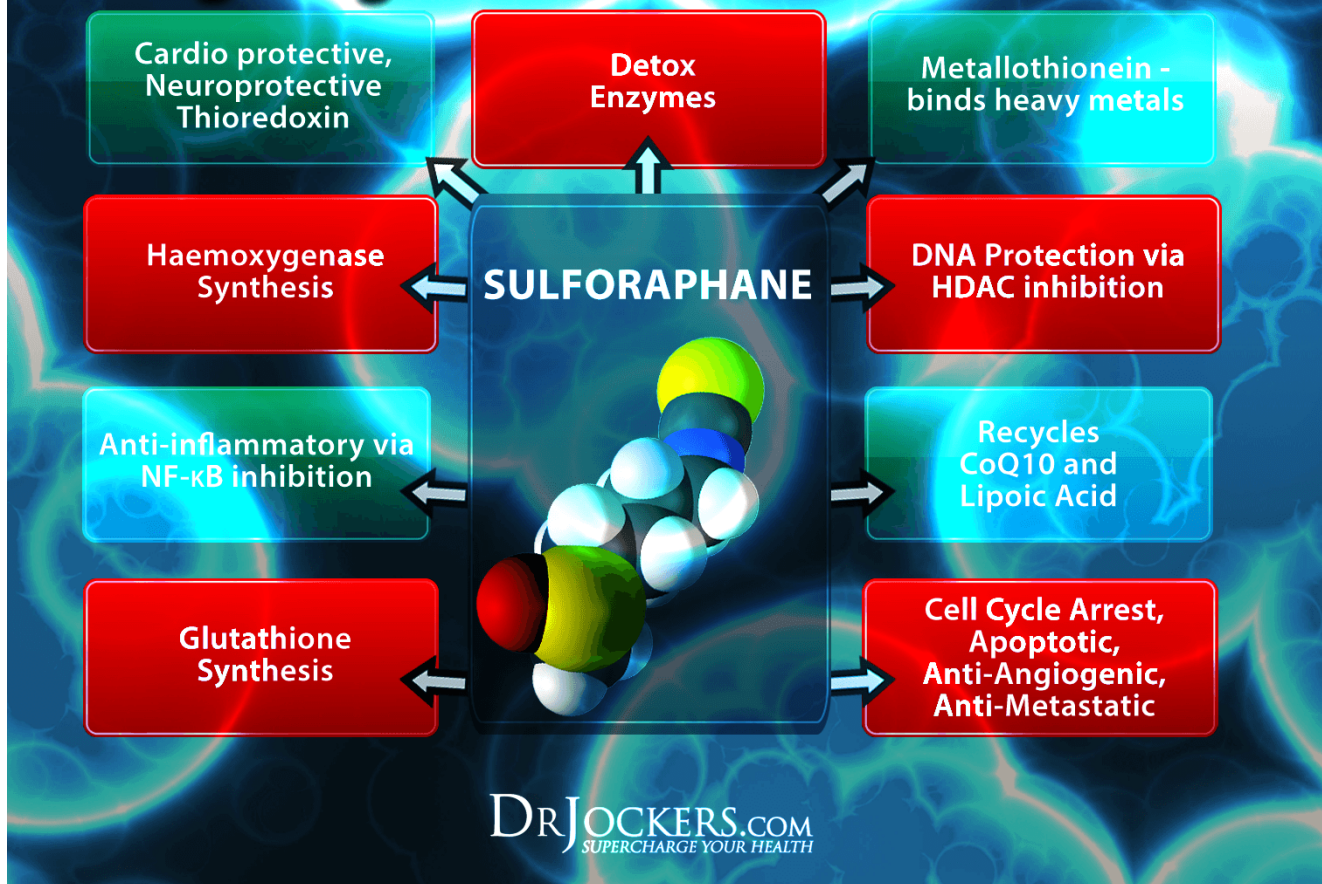
2. Sprouts Have Cancer Fighting Enzymes

SF provides the support for the following critical enzymes to display anticarcinogenic activity: (2, 3)

1. Quinone Reductase
2. Glutathione S-Transferase
3. Phase II Enzymes

Increased function of quinone reductase and glutathione S-transferase biologically improve liver, stomach, intestine and lung functioning (3).

Multifunctional Sulforaphane Targeting Cellular Defense Processes



3. Sprouts Improve Glutathione Levels

Cruciferous vegetable sprouts, particularly cauliflower and broccoli sprouts stimulate the production of glutathione (6). Glutathione is a super antioxidant involved in the cancer protective properties in every cell within the human body.

Glutathione has been coined with the term **“master anti-oxidant”** due to its essential role in maintaining exogenous anti-oxidants such as vitamin C & E in their active form (5, 6). Glutathione is like the cell's security guard protecting the genetic equipment from outside attack.

It is estimated that each cell in the body withstands 10,000 hits by free radicals each day. Glutathione disarms these free radicals before they wreak havoc and cleans up the oxidative stress related damage that has occurred.

Sprouts are one of the greatest food sources of glutathione boosting nutrients. Consuming broccoli sprouts on a daily basis is one of the best things one can do to improve their glutathione levels and reduce oxidative stress.

GLUTATHIONE (GSH)

The most important molecule in your body that you've never heard of.



GLUTATHIONE BENEFITS:

- Increased energy
- Stronger immune system
- Greater mental focus and clarity
- Less muscle and joint discomfort
- Improved athletic performance

↓

DO THESE THINGS MATTER TO YOU?

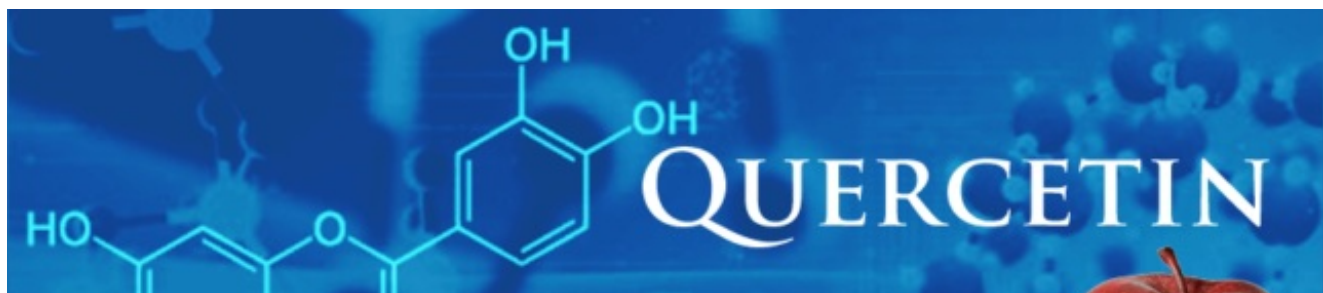
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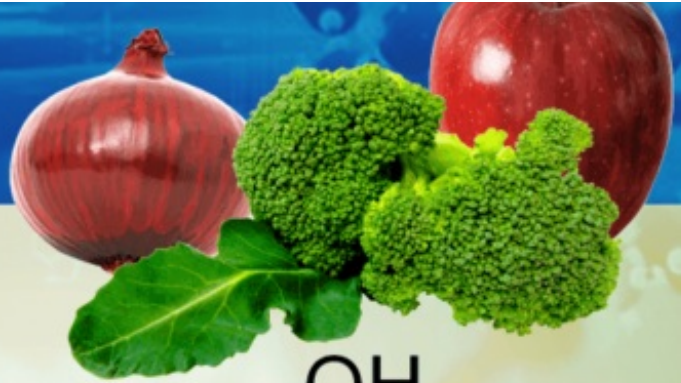
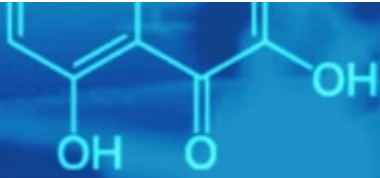
4. Sprouts Are a Source of Quercetin:

Quercetin is a potent antioxidant found in fruits and vegetables known to prevent cancer. Quercetin is a type of flavonoid which is part of a diverse group of polyphenols giving plants their pigmentation. Sprouts are highly concentrated with quercetin and contribute to reducing inflammation, protecting cardiovascular function and detoxifying the toxic waste that oxidative stress creates in our cells. (1)

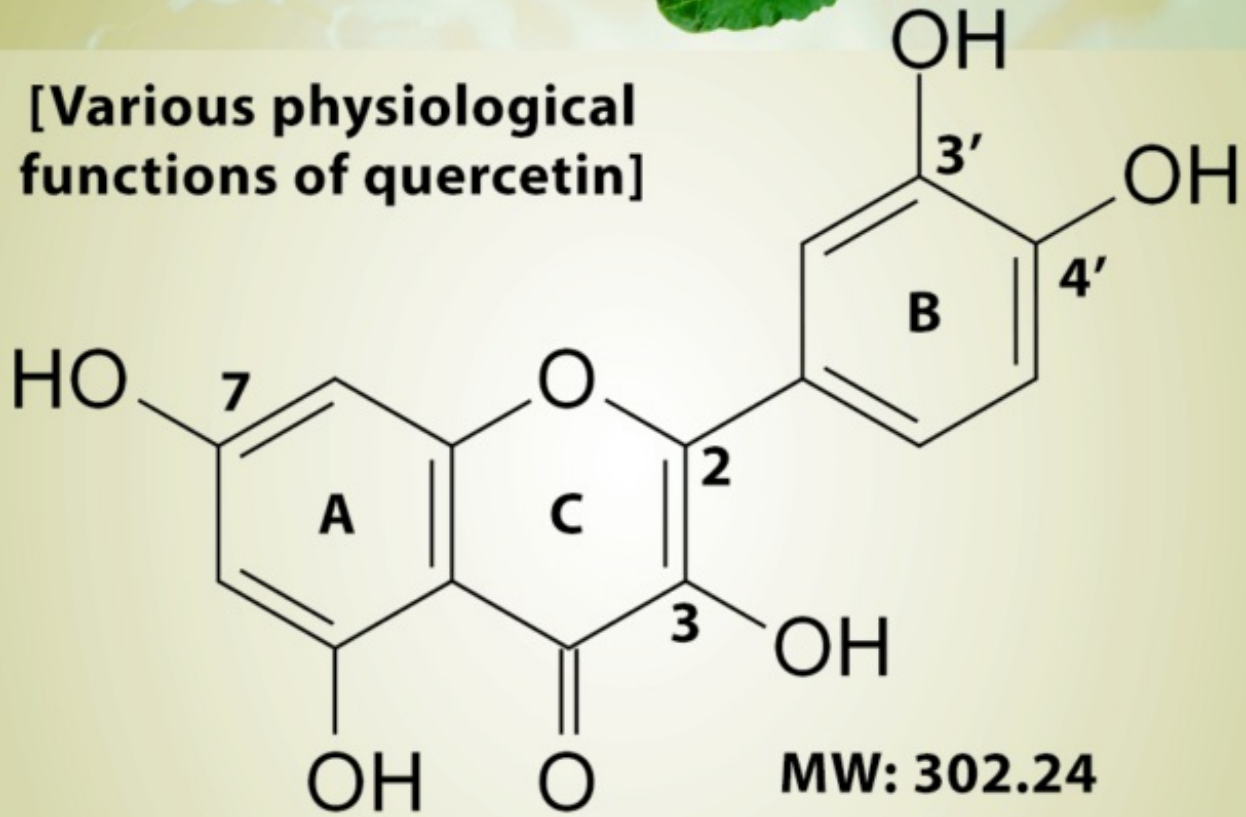
Quercetin is also intricately involved with preventing the spread of cancer. This powerful antioxidant blocks the signals which tell cancer cells to reproduce and spread. Furthermore, the presence of quercetin enables cancer cells to perform the process of apoptosis otherwise known as “cellular suicide”. (1)

The therapeutic properties of quercetin in diet can reduce an individual’s risk of colon, breast, spleen and prostate cancer (1).





[Various physiological functions of quercetin]



Antioxidant effect

Lipid reduction effect

Anti-inflammation effect

Hypotensive effect

Anti-cancer effect

Anti-obesity effect

5. Sprouts Have Antimicrobial Properties

Cruciferous vegetable sprouts have been used in ancient history for its use in medicines as antibiotics (1).

As glucoraphanin is broken down by myrosinase, an enzyme found in sprouts, SF is synthesized. A sulfur containing compound, SF has been extensively studied to contain natural protective properties which act as an antimicrobial agent in the digestive tract and other organs in the body (7). Some supplements such as our NrF2 Power and EstroProtect use glucoraphanin in a much larger, clinically impactful dosage. I use these to help down-regulate inflammation and improve hormone balance and gut flora.



6. Sprouts Improve the Gut Microflora

Specifically, the presence of SF inhibits the colonization of a bacterium known as Helicobacter pylori in the gastrointestinal tract. This bacterium is associated with inducing oxidative damage and disturbs the health of the gut microflora critical to protecting systemic or whole body, health and healing. As a result, gastrointestinal inflammation increases and is known to cause gastritis and increase the risk of developing stomach cancer. (5)

Consuming sprouts daily can not only decrease your risk of developing stomach cancer, but also intestinal and colorectal cancer (3, 5). Maintaining healthy gut microflora is essential to a healthy immune system required for reducing inflammation and reducing your risk of cancer.

Your Guide to Sprouting

Sprouting increases the nutritional value of raw foods and makes them easier to digest.

Step 1

Soak your seeds, nuts, or legumes overnight.

Step 2

Rinse with fresh water in the morning, and then every 12 hours for 3-4 days.



Step 3

Store upside down in a glass jar with a cheesecloth over the top, or a sprouting bag.

Step 4

Expose the fresh sprouts to sunlight before eating to increase chlorophyll absorption.

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Maximize the Benefits From Sprouts

How can you make sprouts a regular part of your diet and achieve eating up to 5 servings a week?

- Add sprouts to your salads, wraps, stir fry or make a refreshing sprout style slaw.
- Buy sprouts at farmers markets or trusted local farmers which grow their sprouts from high quality seeds. Environmental contaminants such as pesticide use degrade the potential cancer fighting compounds concentrated in sprouts (5).
- Avoid the contamination of mold in your cruciferous vegetable seeds when planning on growing your own sprouts by always buying from a trusted local source.
- The presence of other compounds containing sulfur enhances the antioxidant properties of sulforaphane (3). In combination with sprouts, try adding sulfur containing foods such as garlic to your diet.
- Quality may be more important than quantity. When you are choosing which vegetables to budget into your grocery expense, keep in mind that broccoli and cauliflower sprouts contain 10-100 times more glucoraphanin than does a mature head of broccoli or cauliflower (6). As always, a variety of vegetables including their sprouted forms are essential.

- Researchers have found that the anticancer properties of sprouts are undetectable following the discontinued consumption of sprouts after only two months (5). Eat sprouts daily for optimal cancer fighting properties.



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