



What you need to know about antioxidants and your radiation therapy

Princess Margaret

For patients getting radiation therapy

Read this brochure to know:

- What are antioxidants
- Should I take antioxidants during radiation treatment
- What vitamins and supplements can I take
- Can I eat foods with antioxidants
- Where to get more information

What are antioxidants?

Antioxidants are nutrients found in some foods. Antioxidants are also found in supplements such as pills like vitamin and mineral supplements.

Antioxidants help your body in many ways. Antioxidants help your body protect your cells from damage. Antioxidants also help your body repair damage to your cells. Antioxidants are good for normal cells because they help repair and prevent damage.

Should I take antioxidants during radiation therapy?

Radiation therapy controls your cancer by damaging your cancer cells. In the same way antioxidants protect normal cells, antioxidants may also protect cancer cells.

Avoid taking large amounts of antioxidants during your radiation therapy treatment. Antioxidants may reduce the radiation therapy damage to your cancer cells.

Avoid common antioxidants such as:

- Vitamin C
- Vitamin E
- Beta carotene
- Selenium

Do not take large amounts of antioxidants:

- one week before your first radiation treatment if time allows
- during your radiation treatment
- one week after your last radiation treatment

The antioxidant supplements referred to in this pamphlet are vitamin and mineral supplements. This pamphlet does not refer to nutritional supplements such as Ensure® or Boost®.

Taking small amounts of antioxidants does not affect your radiation treatment. Small amounts of antioxidants like those found in food and some multivitamins are safe. Continue to eat foods with antioxidants as a part of your normal diet.

Look at the side of your supplement or multivitamin bottle to check the amount of antioxidants.

Below is a table of safe amounts of antioxidants you can take while on treatment. Do not go over the safe amounts listed below.

Antioxidant	Safe amount (daily)
Vitamin C	90 mg. for men 75 mg. for women
Vitamin E natural vitamin E (d-alpha-tocopherol) synthetic vitamin E (dl-alpha-tocopherol)	22 I.U. 33 I.U.
Selenium	55 mcg
Beta-carotene	Avoid because there is no safe level

This table shows safe amounts of antioxidants from Health Canada.

What vitamins and supplements can I take?

Not all vitamin and mineral supplements have antioxidants. For example calcium, vitamin D and vitamin B12 are not antioxidants. These vitamin and minerals are safe to take during your radiation treatment. Talk to your doctor, pharmacist or dietitian about what you can take during treatment.

Can I eat foods with antioxidants?

Many foods have antioxidants. You can keep eating these foods because they have small amounts of antioxidants.

The amount of antioxidants in your food will not effect your radiation treatment. Get the nutrients your body needs by eating many foods. Good sources of antioxidants are listed below.

Good sources of Vitamin C are:

broccoli	cranberry juice	mango
brussel sprouts	guava	papaya
cantaloupe	kiwi fruit	red peppers
citrus fruits	lychee nuts	strawberries
citrus juices		

Good sources of Vitamin E are:

brown rice	nuts and seeds
whole wheat	green leafy vegetables
vegetable oils	wheat germ

Good sources of Beta-carotene are:

apricots	carrots	sweet potatoes
broccoli	papaya	winter squash
cantaloupe	spinach	

Good sources of Selenium are:

Brazil nuts	seafood	tuna
beef	organ meats	turkey
whole grains		

Where can I get more information?

Talk to your healthcare team if you have questions about antioxidants and your treatment. Bring your antioxidant or vitamin supplement bottles with you.

Key points:

- Large amounts of antioxidants may reduce radiation therapy damage to your cancer cells
- The amount of antioxidants in your food will not affect your radiation treatment
- Stop taking antioxidant supplements 1 week before your first radiation treatment
- Do not take antioxidant supplements during and 1 week after your radiation treatment

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