

# Protecting your Heart During and After Anthracycline Chemotherapy

A collaboration of KNOWoncology.org, Cancer Choices, and The Patterson Institute for Integrative Oncology Research

## Anthracyclines

Anthracyclines are a type of drug that include Doxorubicin (also known as Adriamycin), daunorubicin, epirubicin, and idarubicin. Anthracyclines are important cancer treatment drugs, but they may also damage the heart. [1](#) With people living longer after a cancer diagnosis than in the past, supporting heart health has become more important. Early treatment of heart problems may prevent serious damage. [2](#) In this setting, integrative medicine may be helpful to protect the heart.



## Whose Heart is at Risk

The risk of heart damage depends on many factors including the types and dose of anthracycline treatment. Some risk factors include radiation to the heart area, trastuzumab therapy, previous heart attack or heart disease, smoking, high blood pressure, diabetes, high cholesterol, obesity, and being over the age of 60. [3](#) If you have risk factors, you may be referred to a cardiologist for heart function testing such as an echocardiogram. Please talk to your doctor to understand your individual risk.[4](#) If you received doxorubicin or other anthracycline treatment for childhood cancer, you may also benefit from screening at various intervals in your life. [5,6](#)



## Integrative Oncology

Integrative oncology is an approach to cancer care that focuses on the whole person. It combines research-based methods such as mind-body practices (e.g., yoga, acupuncture), natural health products, and healthy lifestyle changes alongside standard cancer treatments. The goal is to improve health, quality of life (how you feel day to day), and treatment outcomes (how you respond to treatment). It also supports people in taking an active role in their health care—before, during, and after cancer treatment. <sup>7</sup> It is important to consider interactions, dosing, and quality of any natural health products used. Please connect with a naturopathic doctor ([www.oncANP.org](http://www.oncANP.org)) or integrative oncology professional (<https://knowintegrativeoncology.org/providers>) for specific guidance.





# Nutrition – Eat Well

What you eat can have a big impact on your heart. Whether or not you've had cancer treatment, the Mediterranean diet is one of the best ways to protect your heart. [8,9,10](#) This way of eating can help lower blood pressure, improve blood sugar control (which helps prevent or manage type 2 diabetes), support a healthy weight, and keep cholesterol levels in check. [11](#)

Even more impressive, the Mediterranean diet is also one of the best diets for lowering the risk of getting cancer and for improving survival. [12,13](#)

For women who had anthracycline chemotherapy, eating 4–5 servings of fruits and vegetables per day, more than 3 servings of whole grains daily, fish more than twice per week, and 2–6 servings of healthy vegetable oils helped reduce heart-related side effects and improve quality of life. [14](#) These habits closely match the Mediterranean diet.

## What Is the Mediterranean Diet?

This diet focuses on:

- Plant-based foods: fruits, vegetables, whole grains, legumes (beans, lentils), and nuts
- Lean proteins, especially fish
- Heart healthy fats like olive oil
- Less saturated fat (like red meat) and processed foods [11](#)

## Learn more about healthy eating:

Healthy Plate Mechanics: [Canada's Food Guide](#)

Healthy Cooking for People Touched by Cancer: [www.cookforyourlife.org](http://www.cookforyourlife.org)



# Physical Activity – Move More

Being active helps protect your heart and lowers your risk of heart disease. Regular movement can help keep your blood pressure, cholesterol, and weight at healthy levels.

[15](#)

Exercise can also reduce fatigue during cancer treatment and may improve how well the heart works. [16](#) For people receiving anthracycline chemotherapy, staying active may also help prevent physical decline. [17](#)

## How Much Exercise?

Try to aim for:

- **At least 150 minutes per week** of moderate-intensity aerobic activity. Examples: brisk walking, cycling on flat ground (Moderate intensity means your breathing and heart rate go up slightly)

OR

- **75 minutes per week** of vigorous-intensity aerobic activity. Examples: jogging, brisk walking uphill (Vigorous intensity means your breathing and heart rate go up a lot).
- **You can also combine both** types of activity to meet the goal

PLUS

- Do muscle-strengthening activities at least twice a week

[15](#), [18](#), [19](#)

## Make a Plan That Works for You

Your current health and cancer treatments may impact the best type of exercise for you. If you are unsure, talk to your healthcare team for guidance. [20](#)

Here is a resource to help you get started: [7-Day Fitness Kickstart](#). [21](#)



# Psychosocial Wellbeing – Manage Stress

## Your Mental Health Affects Your Heart

There is a strong link between mental health and heart health. Ways to help with mental wellbeing include attending support groups, receiving counseling, practicing meditation, and relaxation techniques. [22](#)

## Nature Is Good for Your Heart

Spending time in nature or green spaces such as a park, garden, or forest, can help your heart too. Being in green spaces may lower blood pressure, heart rate, and stress hormones. It may also reduce the risk of type 2 diabetes, stroke, high cholesterol, and even death from heart disease or other causes. [23](#), [24](#)

## Need More Help?

If you're struggling with stress or emotional health, talk to your healthcare team about a referral to a therapist or social worker.

# Natural Health Products

## Your Mental Health Affects Your Heart

Several herbs and natural products have been studied for their impact on heart health during chemotherapy, with promising results. It is important to note that these studies are small, and did not follow people to evaluate long-term safety or effectiveness.

Natural products are not safe for everyone and quality can vary, so please consult with a naturopathic doctor ([www.oncanp.org](http://www.oncanp.org)) or integrative oncology professional (<https://knowintegrativeoncology.org/providers>) for specific guidance. [25](#)

**For best safety, always let your medical team know when you are taking supplements including vitamins and herbs.**







Below is a summary of treatments that may be worth discussing with your healthcare providers:

- **Fish oil** may reduce cardiotoxicity in children treated with doxorubicin. [26](#)
- **Milk thistle** may improve heart function in children treated with doxorubicin. [27](#)  
Safety note: Milk thistle is not likely to change the way most drugs are broken down in the liver and no known interactions have been found in studies combining milk thistle with chemotherapy. [28](#), [29](#), [30](#), [31](#)
- **Iodine** may lower levels of heart distress enzymes in women during epirubicin chemotherapy. [32](#)
- **Astragalus & turmeric** based tea may improve heart function in women alongside anthracycline-based chemotherapy. [33](#)
- **Panax ginseng** may help improve heart function in women receiving doxorubicin. [34](#)  
Safety note: Three studies found that Panax ginseng did not change how the body processes medication. [35](#), [36](#), [37](#) However, one study showed that high doses could lower the amount of cancer medication in the body. [38](#)
- **Black cumin seed oil** may improve heart function in children with acute leukemia receiving doxorubicin. [39](#) Safety note: Black seed oil has not been studied for drug interactions.
- **Ginkgo** may help to maintain normal echocardiograms following treatments. [40](#)  
Safety note: There may be an increased bleeding risk when taking ginkgo, and it should not be taken with other medications that thin the blood such as aspirin or warfarin. [41](#), [42](#), [43](#), [44](#)
- **Coenzyme Q10** (CoQ10) taken during doxorubicin chemotherapy with or without radiation treatment may preserve heart function. [45](#), [46](#), [47](#) Safety note: no human clinical trials have tested CoQ10 alongside radiation therapy.
- **Chinese herbal medicine** has been evaluated in several studies for preventing heart damage, including heart failure, from anthracycline chemotherapy, and some are shown to be helpful. [48](#), [49](#) Safety note: There has been very little research on drug interactions between Chinese herbal medicine formulas and cancer drugs.

# Tips to be Proactive

Make “Heart Healthy” lifestyle choices that include several of the [7 Lifestyle Practices](#). Eat Well, Move More, and Manage Stress have been covered, but other lifestyle practices may improve your health.



- If you smoke, consider seeking support to help you quit.
- Optimize body weight.
- Avoid drugs that stress the heart: cocaine, diet pills, ephedra (also known as ma huang), performance-enhancing drugs, and caffeinated energy drinks. [50](#)
- See [Cancer Choices](#) for more information.

## Authors/Editors

Heather Wright, ND; Sarah Soles, ND;  
Casey Martell, ND, MBA; Julie Robinson,  
ND; Laura Pole, RN, MSN, OCNS;  
Christine Mineart, MPH; Dugald Seely ND,  
MSc; Ellen Conte ND; Joel Kahn, MD; Jen  
Green, ND

## Digital copy and link to references

