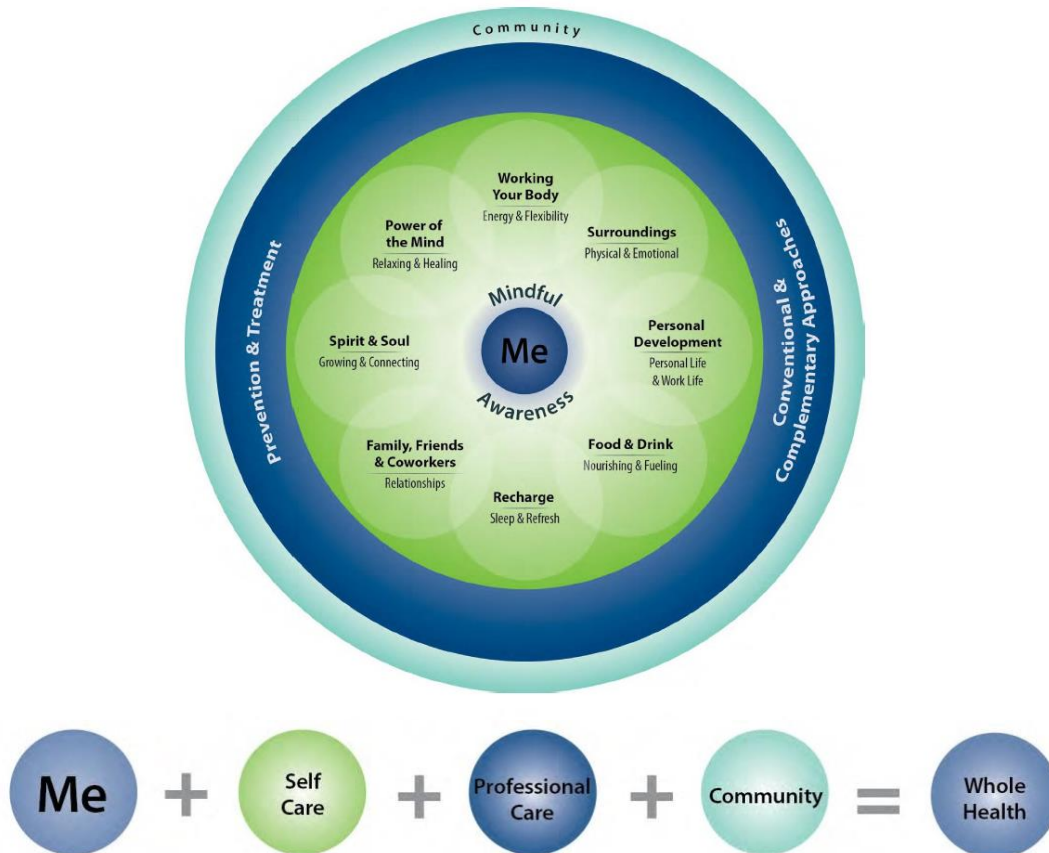


WHOLE HEALTH: INFORMATION FOR VETERANS

Eating to Reduce Inflammation



Whole Health is an approach to health care that empowers and enables YOU to take charge of your health and well-being and live your life to the fullest. It starts with YOU. It is fueled by the power of knowing yourself and what will really work for you in your life. Once you have some ideas about this, your team can help you with the skills, support, and follow up you need to reach your goals.

All resources provided in these handouts are reviewed by VHA clinicians and Veterans. No endorsement of any specific products is intended. Best wishes!

<http://www.va.gov/patientcenteredcare/>



U.S. Department of Veterans Affairs
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Cultural Transformation



Eating to Reduce Inflammation

What is inflammation?

Inflammation is one of the body's ways of protecting itself. It helps fight off infections, increases blood flow to places where healing is needed, and signals us, through pain, that something is wrong. But if inflammation levels are too high, or if a person stays in an inflamed state for too long (has chronic inflammation), it can lead to disease.

What diseases are associated with unhealthy inflammation?

Many diseases are linked to inflammation. These are often chronic (long-lasting) diseases, which can be very hard to treat. Here are some examples:^{1,2}

- Alzheimer's disease
- Asthma
- Autoimmune diseases (diseases where the body is attacked by its own immune system). These include rheumatoid arthritis, scleroderma, and lupus.
- Cancer
- Chronic obstructive lung disease, also called COPD (emphysema and bronchitis)
- Chronic pain (e.g. back pain, neck pain, headaches, arthritis)
- Depression
- Heart disease
- Inflammatory bowel disease (Crohn's or ulcerative colitis)
- Type 2 diabetes
- Obesity

There are many others as well. What they all have in common is that they can often be prevented or reduced if you focus on eating some foods and not eating others. This way of eating is often called the Anti-Inflammatory Diet. Unlike other diets, an anti-inflammatory diet is not meant to be a diet for losing weight. It supports your health in other ways.

How do I eat an anti-inflammatory diet?

It is thought that over 60% of all chronic disease could be prevented if people ate a healthy diet.³ What does that diet look like? Some of the most important parts of it are listed below.⁴ Choose any one to start out. Over time, you can add others at a pace that works for you.

The Anti-Inflammatory Diet: Top Ten Suggestions

1. **Pay attention to proteins.** If you get most of your proteins from plants like beans, whole grains, and nuts, your levels of inflammation will be lower. If you eat red meat, it is best to eat grass-fed meat or wild game rather than grain-fed beef.⁵ Wild-caught (as opposed to farmed) fish can be a great source of protein. As journalist Michael Pollan says in his book *Food Rules*, "The fewer the feet, the better the meat."⁶
2. **Eat more fiber.** Fiber, which is a form of carbohydrate, lowers inflammation.⁷ Read food labels. Different groups suggest different daily amounts, but try for the following:
 - Women 19-50 years old: 25 grams daily

- Men 19-50: 38 grams daily
- Women over 50: 21 grams daily
- Men over 50: 30 grams daily

Good sources of fiber include whole grains, oatmeal, nuts, berries, beans, vegetables, brown rice, and popcorn. Potato skins have a lot of fiber. If you don't already eat much fiber, increase your intake of these foods slowly to avoid bowel discomfort.

3. **Eat your vegetables and fruits.** When it comes to ideas for healthier eating, eating more fruits and vegetables is usually at the top of the list. In addition to their many other benefits, vegetables and fruits reduce inflammation. Berries and cherries are especially good options. Fruit juice is *not* usually a good choice because it is high in sugars and low in fiber. Making your own smoothies is a good idea. Choose dark colored produce that is many different colors. Plants get their colors from phytonutrients, helpful compounds that are anti-inflammatory. Strive for a minimum of 5 cups of vegetables and fruits per day. If you have diabetes or pre-diabetes, emphasize non-starchy vegetables over fruits.
4. **Use more anti-inflammatory herbs and spices.**^{8,9} A 2012 study found that some of the best anti-inflammatory spices to eat, in order, are paprika, rosemary, ginger, turmeric, sage, and cumin. An earlier study looked at other chemical properties of spices and found that cloves, ground Jamaican allspice, cinnamon, sage, marjoram, and tarragon are also great choices.

Guidelines 5-8 are related to fats. In the body, different types of fats are processed in different ways, which can either increase or decrease inflammation.

5. **Avoid trans-fats.** *Trans-fats*, which are added to foods to increase their shelf life, can add to the body's inflammation. Avoid foods that have labels saying they have "partially hydrogenated" oils. Foods that often have trans-fats include baked goods (e.g. cakes, piecrusts, frozen pizza, and cookies) and fried foods (e.g. donuts, fries).
6. **Limit saturated fats.** Most (not all) *saturated fats* also promote inflammation. These fats mostly come from animal sources such as meats (lamb, pork, chicken with skin, fatty beef), and dairy products like milk, cheese, cream, and butter. If you eat meat, a good general rule is to try to eat white meats, fish and other seafood. Saturated fats from plants (coconut and palm kernel oils) may not be as much of a problem.
7. **Balance omega-6's and omega-3's.** You may have heard about *essential fatty acids*. These are types of *polyunsaturated fats* that your body can't make on its own. You have to get them from your diet. You need both *omega-6 and omega-3 fats* for your body to work properly, but they need to be in the right balance. The problem is that eating high amounts of omega-6 fats compared to omega-3's can increase inflammation. Unfortunately, that is exactly what most Americans do. Our ancestors ate twice as much omega-6 fat as omega-3. Nowadays, most Americans eat 14 to 25 times as much omega-6.

Omega-6's come from plant oils like corn oil, soybean oil, and sunflower oil, as well as nuts and seeds. Omega-3's are found in fatty fish like salmon, tuna, and mackerel. Try to eat at least two servings of fish (3-4 ounces each) weekly. Fish oil supplements are widely available. A usual dose is 1000-2000 mg per day. If you are taking blood thinners, talk to your doctor before you start taking fish oil. Omega 3's are also found in whole grains, walnuts, and green leafy vegetables. Eating a Mediterranean diet will give you a much healthier balance of omega-6's and omega 3's than the average American diet. For more information, reference the Whole Health handout "[How to Eat a Mediterranean Diet](#)."

8. **Eat monounsaturated fats.** There are also *monounsaturated fats*. One of these, olive oil, is known to reduce inflammation, blood pressure, bad cholesterol, and blood sugar levels. Other sources of this type of fat are canola, peanut, safflower, and sesame oils. Avocados are another good source.

Some experts suggest you get $\frac{1}{4}$ of your fat from saturated fats, $\frac{1}{4}$ from polyunsaturated, and $\frac{1}{2}$ from monounsaturated. Many diets recommend that total fats add up to about $\frac{1}{3}$ of all the calories you eat.¹⁰ You have to explore what works best for you.

9. **Eat some dark chocolate.**¹¹ Most people like this suggestion. To help with inflammation, dark chocolate should be at least 70% cocoa mass. The cocoa percentage will be on the label. One and a half ounces daily decreases inflammation and also lowers blood pressure.
10. **If you choose to drink alcohol, choose red wine.** Red wine is known to decrease inflammation.¹² Of course, don't take up drinking to get this benefit. One study found that drinking white wine and cooking with olive oil worked together to lower inflammation as well.¹³ Other beverages, like grape juice,¹⁴ have been found to have some benefits, too, though we need more studies to see how different beverages compare. Remember, though, that even one drink of alcohol a day can increase risk of breast cancer.¹⁵

Can anything besides what I eat lower inflammation?

In addition to watching what you eat and drink, focusing on other areas of self-care can also help lower inflammation. For example:

- Working the body reduces chronic inflammation.^{16,17}
- Stress raises inflammation in the body,¹⁸ so do your best to keep your stress at a healthy level. There are many ways to manage stress, such as breathing exercises and meditation. These are outlined in the Power of Mind handouts.
- Depression is linked to more inflammation too.¹⁹ Explore ways to support good mental and emotional health.
- Getting enough sleep helps to keep inflammation under control.²⁰
- Some studies show that having healthy relationships with others lowers inflammation.²¹
- Being a spiritual/religious person also seems to be linked to less inflammation.²²

A Quick Guide to Eating and Inflammation

INCREASE

Fruits & Vegetables

- ☑ Red: berries, cherries, peppers
- ☑ Orange-Yellow: Sweet potato, pineapple, yellow pepper, squash, peaches
- ☑ Green: Dark leafy greens, broccoli, cabbage, green beans, Brussels sprouts
- ☑ Blue/Purple/Black: blueberries, blackberries, grapes, eggplant, olives, plums, purple cabbage

Fiber

- ☑ Whole grains, oatmeal, bran cereal, nuts, berries, beans, brown rice, popcorn, potato skins
- ☑ Vegetables
- ☑ Fruits

Proteins

- ☑ Plant-based (beans, grains, nuts, seeds)
- ☑ Grass-fed or wild meat and fish

Herbs & Spices

- ☑ Paprika, rosemary, ginger, turmeric, sage, cumin, cloves, Jamaican allspice, cinnamon, marjoram, tarragon, green and black tea

Omega-3's

- ☑ Fatty fish (salmon, tuna, mackerel)
- ☑ Fish oil
- ☑ Whole grains, walnuts, green vegetables

- ☑ *Eat more Omega-3's than Omega-6's*

Monounsaturated Fats

- ☑ Oils (olive, canola, peanut, safflower, sesame)
- ☑ Avocados

Desserts /Snacks

- ☑ Dark chocolate (70% of cocoa or more)

DECREASE

Proteins

- ☒ Grain-fed beef
- ☒ Processed meats (lunch/deli meats, hot dogs, bacon, sausage)

Trans-fats

- ☒ Partially hydrogenated oils
- ☒ Baked goods (cakes, pie crusts, frozen pizza, cookies)
- ☒ Fried foods (donuts, fries)

Saturated Fats

- ☒ Meats (lamb, pork, fatty beef chicken with skin)
- ☒ Dairy products (milk, cheese, cream, butter)
- ☒ Fruit juice

For you to consider:

- After reading this handout, are you concerned about inflammation? If so, what concerns you?
- Do you want to use food and drink to reduce the amount of inflammation in your body? If yes, which of the Top 10 Suggestions will you focus on first?
- Are there other areas of self-care you will focus on to reduce inflammation? (Refer to the ideas on the bottom of page 3). What goal will you set for yourself?

The information in this handout is general. **Please work with your health care team to use the information in the best way possible to promote your health and happiness.**

For more information:

ORGANIZATION	RESOURCES	WEBSITE
Veterans Health Administration	A variety of Whole Health handouts on healthy eating	https://www.va.gov/PATIENTCENTER/EDCARE/veteran-handouts/index.asp

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