Use your diet to decrease inflammation

Eat

• **Whole plant foods**, which provide antioxidants to prevent or reduce inflammation in your body:
  ‣ Vegetables
  ‣ Fruit
  ‣ Whole grains
  ‣ Beans and lentils
  ‣ Nuts and seeds

  • **Mushrooms (cooked)**, such as white button, crimini, shiitake, enoki, maitake, and oyster mushrooms.

  • **Foods high in omega-3 fats**:
    ‣ Walnuts
    ‣ Ground flax seeds
    ‣ Salmon
    ‣ Mackerel
    ‣ Herbs and spices
    ‣ Extra virgin olive oil
    ‣ Tea, ideally green tea
    ‣ Coffee

Avoid

• **Fried foods.**
• **Charred grilled meat.**
• **Too much added sugar.**

The American Heart Association (AHA) recommends no more than 100 calories or about 6 teaspoons (25 grams) of added sugar per day for women and 150 calories or about 9 teaspoons (38 grams) for men. For example, a 12-ounce can of regular Coke has 39 grams of total sugar or about 9 ⅓ teaspoons!
Avoid (continued)

- **Too much animal protein.**
  Limit to 6 to 8 ounces by cooked weight per day and choose lean meat, such as skinless chicken and turkey, ground beef (90% lean/10% fat), fish and shellfish, and pork loin.

- **Processed foods**, which are foods changed from their natural forms.
  Eat foods closer to their natural form for more nutrients and fewer calories. For example, choose a plain baked potato over potato chips.
  Processed foods often have a long list of unfamiliar ingredients on their food labels and include ingredients like enriched white flour and processed fats, such as hydrogenated oils, interesterified oils, monoglycerides, or diglycerides.

- **Overeating.**
  To prevent overeating, eat at regular intervals. Eat 3 meals and 1 or 2 snacks a day.

- **Too much oil that is high in omega-6 fatty acids**, such as soybean, cottonseed, and corn oils

**Follow these cooking methods**

- Cook, stir-fry, or sauté meats and vegetables in broth or water instead of oil to avoid production of inflammatory compounds during the cooking process.

- If oil is used, keep heat to medium to prevent smoking. Do not heat oil or fat too hot, such as deep frying foods.

- Marinate meats in olive oil and sprinkle with spices and herbs before grilling. Grill with lower heat and turn often to prevent charring.

**Putting it all together**

1. Use the ‘plate method’ to help you build an anti-inflammatory meal and see pages 5-6 for some meal makeover ideas.

   Use a 9-inch plate at meals:
   - Fill half (½) of your plate with **non-starchy vegetables.** Aim for at least 5 servings each day. Choose a variety of colors and include cruciferous vegetables, like broccoli, cabbage, cauliflower, and Brussels sprouts, and green leafy vegetables each day.
   - Fill one-quarter (¼) of your plate with **whole grains or starchy vegetables.** Choose a variety and avoid enriched white products, like white bread and white rice.
• Fill one-quarter (¼) of your plate with animal or plant protein. Choose lean animal protein rather than high fat or processed meats. Include plant protein daily, such as beans, lentils, nuts, seeds, tofu or tempeh.

2. For dessert, choose fresh seasonal fruit. Aim for 2 to 4 servings of fruit each day.

3. Limit dairy products. Eat 1 to 2 servings per day. Probiotic sources, such as kefir and yogurt are preferred. Choose products with no additives, such as added sugar.

4. Include healthy fats each day, such as nuts, seeds, avocado, and olive oil. Use extra virgin olive oil as your main cooking and salad oil. Remember to use lower heat to prevent smoking or use broth or water when sautéing.

5. Use herbs and spices each day.

6. For beverages, drink mostly water. Drink tea each day, ideally green tea. Limit alcohol. Avoid sugary drinks.

Cooking and eating habits
• Take time to prepare meals rather than buying processed or pre-made foods. Think of this time as an investment in your health.
• Eat slowly, thoughtfully, and mindfully – rather than rushed, emotional, or distracted.

Resources for anti-inflammatory recipes
• The World’s Healthiest Foods, www.whfoods.com
• Clean Eating, www.cleaneatingmag.com

More about antioxidants
Antioxidants come from three sources: vitamins, minerals, and phytonutrients, also called phytochemicals.

Vitamins

<table>
<thead>
<tr>
<th>Vitamins</th>
<th>Food Sources</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vitamin C</td>
<td>Fruits, such as papaya, strawberries, pineapple, oranges, kiwi, and cantaloupe&lt;br&gt;Vegetables, such as bell peppers, broccoli, Brussels sprouts, and cauliflower</td>
</tr>
<tr>
<td>Vitamin E</td>
<td>Nuts and seeds, such as sunflower seeds, almonds, and peanuts&lt;br&gt;Fruit, such as avocado&lt;br&gt;Vegetables, such as spinach, Swiss chard, mustard greens, turnip greens, beet greens, asparagus</td>
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### Phytonutrients, also called phytochemicals

- They are chemical compounds found in plants.
- They give plants their color, odor, and flavor.
- Thousands have been identified so far. They show promise in decreasing inflammation and preventing disease.
- They are found in all plant foods, including vegetables, fruits, whole grains, beans, lentils, nuts, seeds, olive oil, tea, and coffee.

<table>
<thead>
<tr>
<th>Color</th>
<th>Phytonutrient</th>
<th>Food Sources</th>
</tr>
</thead>
<tbody>
<tr>
<td>Red</td>
<td>Anthocyanins</td>
<td>Red berries, cherries, apples with skin, beets, cabbage, kidney beans, adzuki beans, (also onion)</td>
</tr>
<tr>
<td></td>
<td>Ellagic acid</td>
<td>Pomegranate, (also green tea, walnuts, pecans)</td>
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<tr>
<td></td>
<td>Lycopene</td>
<td>Tomatoes, watermelon, pink grapefruit, guava</td>
</tr>
<tr>
<td>Orange</td>
<td>Carotenoids, such as beta-carotene</td>
<td>Carrots, pumpkin, winter squash, sweet potato, mango, papaya, cantaloupe, oranges</td>
</tr>
<tr>
<td></td>
<td>Flavonoids/ polyphenols, such as curcumin, naringenin</td>
<td>Turmeric, citrus fruit</td>
</tr>
<tr>
<td>Yellow</td>
<td>Carotenoids, such as lutein and zeaxanthin</td>
<td>Corn, orange pepper, oranges, honeydew melon, mango, summer squash, winter squash, pumpkin, (also green leafy vegetables, peas, Brussels sprouts, broccoli)</td>
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</tbody>
</table>
A note about antioxidant supplements
Some research has shown that taking antioxidant supplements can be harmful, such as taking more than the recommended daily allowance (RDA) of beta-carotene or vitamin E. Antioxidant supplements may also interact with some medicines. To be safe, talk to your healthcare provider before you start any supplements.

Anti-inflammatory meal makeovers

<table>
<thead>
<tr>
<th>Breakfast</th>
<th>Anti-inflammatory meal makeover</th>
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<tbody>
<tr>
<td><strong>Meal before makeover</strong></td>
<td><strong>Anti-inflammatory meal makeover</strong></td>
</tr>
</tbody>
</table>
| • 2 packs maple and brown sugar oatmeal, topped with whole milk  
• 12 ounces orange juice  
• Coffee with powdered creamer and 2 packs of sugar | • ½ to 1 cup cooked old-fashioned or steel-cut oats, topped with unsweetened soy milk, cinnamon, 1 tablespoon ground flax seeds, and 2 tablespoons chopped pecans  
• 1 cup mixed berries with 1 to 2 tablespoons of plain Greek yogurt  
• Black coffee |
### Lunch

<table>
<thead>
<tr>
<th>Meal before makeover</th>
<th>Anti-inflammatory meal makeover</th>
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</thead>
<tbody>
<tr>
<td>Salad made with iceberg lettuce, tomatoes, cucumber, bacon bits, croutons, and ranch dressing</td>
<td>Salad made with spinach and kale, tomatoes, cucumber, radish, garbanzo beans, 1 tablespoon pumpkin seeds, homemade dressing (olive oil, lemon juice, turmeric, ginger)</td>
</tr>
<tr>
<td>Sandwich made with salami, provolone, mayonnaise, and white bread</td>
<td>Sandwich made with 2 ounces roast beef, lettuce leaf, onion, mustard, and sprouted grain bread</td>
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<tr>
<td>Potato chips</td>
<td>Apple</td>
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<tr>
<td>Soda</td>
<td>Water</td>
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### Dinner

<table>
<thead>
<tr>
<th>Meal before makeover</th>
<th>Anti-inflammatory meal makeover</th>
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</thead>
<tbody>
<tr>
<td>Homemade chili made with 1 pound ground beef (80% lean/20% fat) and 1 can kidney beans, topped with corn chips and sour cream</td>
<td>Homemade chili made with ½ pound ground beef (90% lean/10% fat) and 2 cans beans, topped with avocado slices and green onions</td>
</tr>
<tr>
<td>Cornbread</td>
<td>Roasted vegetables with olive oil and marjoram</td>
</tr>
<tr>
<td>Sweet tea</td>
<td>Orange</td>
</tr>
<tr>
<td></td>
<td>Water</td>
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