



Nutrition and Inflammation

What is Inflammation?

Inflammation is your body's natural response to injury or infection. It's essential for healing, but it can become problematic if it persists over time. Here's a closer look at its two main types:

- **Acute Inflammation:** This is a short-term response that occurs suddenly. Symptoms include redness, swelling, warmth, pain, and sometimes loss of function. Acute inflammation is beneficial as it helps the body heal and usually resolves quickly once the cause is removed.
- **Chronic Inflammation:** This type of inflammation is long-lasting and may persist for weeks, months, or even years. It can result from unresolved acute inflammation, the body attacking its own tissues, or lifestyle factors such as smoking. Chronic inflammation can contribute to serious health conditions including:
 - Cardiovascular Disease
 - Diabetes
 - Metabolic Syndrome
 - Fatty Liver Disease
 - Rheumatoid Arthritis & Osteoarthritis
 - Depression
 - Alzheimer's Disease
 - Increased Risk of Certain Cancers

Symptoms of chronic inflammation can include joint pain, fatigue, headaches, and sleep difficulties. Since these symptoms are non-specific, blood tests are necessary for an accurate diagnosis.

How Eating Habits Affect Inflammation

Our diet plays a significant role in inflammation levels. The foods we choose can either exacerbate or alleviate inflammation:

- **Proinflammatory Foods:** These can worsen inflammation and are often linked to poor health. They include:
 - White breads, pasta, and baked goods
 - French fries and other fried foods
 - Foods high in added sugar (e.g., sodas, candy)



- Red and processed meats
- Highly processed foods
- Alcoholic beverages
- **Anti-inflammatory Foods:** These support overall health and can reduce inflammation. They include:
 - Green leafy vegetables (e.g., kale, romaine)
 - Fresh fruits and berries (e.g., blueberries, raspberries)
 - Fatty fish (e.g., salmon, mackerel)
 - Various fresh vegetables
 - Nuts (e.g., walnuts, almonds) and seeds (e.g., chia, flaxseed)

While occasional consumption of proinflammatory foods is not problematic, a consistent diet high in these foods and low in anti-inflammatory options can lead to chronic inflammation.

Key Nutrients for Managing Inflammation

- **Vitamins:** Essential for maintaining health, some vitamins play a crucial role in managing inflammation, including B6, B9 (folate), B12, C, D, E, and K. Vitamin B12 is found in animal products, and vitamin D supplementation may be necessary if dietary intake is insufficient.
- **Omega-3 Fatty Acids:** Found in fatty fish and certain seeds, omega-3s help reduce inflammation and support a healthy gut microbiome.
- **Phytochemicals:** These plant compounds have antioxidant properties that protect against oxidative damage and inflammation. Examples include:
 - **Allyl Sulfides:** Found in onions, leeks, and garlic; reduce cancer risk.
 - **Flavonoids:** Present in various fruits and vegetables; offer antioxidative and anti-inflammatory benefits.
 - **Lycopene:** Found in tomatoes and red fruits; supports eye health and cardiovascular function.

Eating Tips for Reducing Inflammation

1. **Incorporate Fruits and Vegetables:** Aim for 4-5+ servings of a variety of fruits and vegetables daily. Choose colorful options for diverse health benefits.
2. **Opt for Whole Grains:** Replace white rice and bread with brown, black, or wild rice and whole-grain bread.



3. **Select Heart-Healthy Fats:** Use olive oil, avocados, nuts, and seeds in your diet.
 4. **Include Fatty Fish:** Consume fatty fish like salmon 2-3 times a week or add omega-3-rich seeds and nuts to your diet.
 5. **Season Wisely:** Use fresh herbs and spices like turmeric, ginger, and oregano instead of salt.
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Sample Anti-Inflammatory Meal Plan

Breakfast: Mixed Berry Smoothie

Lunch: Hearty Kale and Apple Tuna Salad with Whole Grain Bread

Afternoon Snack: Turmeric and Ginger Spiced Nuts and a Small Apple

Dinner: Baked Salmon, Brown Rice, Roasted Asparagus, and Red Peppers

Evening Snack: Avocado Hummus with Cherry Tomatoes, Sliced Cucumber, and Mary's Organic Seed Crackers

Recipes

Avocado Hummus

9 ingredients, 20 minutes, 8 servings

Ingredients

- 1-2 garlic cloves
- 15 oz can chickpeas
- 2 medium ripe avocados, roughly chopped
- 2 tbsp Greek yogurt
- 3 tbsp tahini
- salt, to taste
- 1 tsp ground cumin
- ½ tsp ground cayenne pepper
- ½ lime, juiced
- Liquid from canned chickpeas, if needed

Directions

1. Add all ingredients in a large food processor. Blend ingredients together until the hummus mixture is smooth,
2. Test, and if the hummus is too smooth, add a small amount of the liquid from the canned



chickpeas, then run the processor again. Repeat until you achieve a desired creamy consistency.

3. Taste, and adjust seasonings as needed.

Turmeric and Ginger Spiced Nuts

8 ingredients 20 minutes 4 servings

Ingredients

- ½ tbsp extra-virgin olive oil
- 2 tsp ground turmeric
- ½ tsp ground ginger
- ¼ cup raw cashews
- ¼ cup raw walnuts
- ¼ cup raw pumpkin seeds
- ⅛ tsp black pepper
- ⅛ tsp sea salt

Directions:

1. Preheat your oven to 350°F
2. Combine all of the nuts and seeds in a large bowl
3. Mix the spices in a separate bowl
4. Add the olive oil on top of the nuts/seeds and mix until well coated
5. Add the spices to the nuts and stir everything together until the spices coat the nuts evenly.
6. Cover a large baking sheet with parchment paper, then transfer nuts/seed mixture onto the baking sheet. Arrange the nuts/seeds in a single layer to ensure they brown equally.
7. Bake for 15 minutes. At the halfway point, pull the tray out of the oven to toss the nuts, then put it back in the oven to finish baking.

Mixed Berry Smoothie

6 Ingredients 5 minutes 1 serving

Ingredients:

- 1 cup frozen mixed berries
- ¾ cup water
- ½ cup low-fat plain Greek yogurt
- ½ banana
- ¼ avocado
- 2 tbsp chopped walnuts

Directions:

1. Combine berries, water yogurt, banana, avocado, and walnuts in a blender. Blend on high speed until smooth. If necessary, add more water to reach desired consistency.



Turmeric Tea

9 ingredients 10 minutes 1 serving

Ingredients

- 1 tsp cinnamon
- Pinch of clove
- Pinch of nutmeg
- tsp fresh ginger (optional)
- Pinch of fresh ground black pepper *
- As much turmeric as you can handle! Start with a teaspoon and go up from there.
- 1-2 cups of water
- Raw honey to sweeten
- Milk or milk sub of choice

* some studies show it aids in the absorption of curcumin, the active ingredient in turmeric

Directions

1. Simmer herbs and water together for 10 mins.
2. Strain out and add honey and milk.

Meals

Overnight Oats with Berries and Nuts

8 ingredients 10 minutes (prep time) 1 serving

Ingredients

- 1/3 cup old fashioned rolled oats
- 1/2 cup milk (regular, or unsweetened almond, oat, or soy)
- 3 tbsp plain, low-fat yogurt (regular or dairy-free)
- 1 tsp chia seeds
- Pinch of cinnamon (optional)
- 1/2 tsp vanilla (optional)
- 1/2 cup fresh mixed berries, divided
- 1/4 cup chopped nuts

Directions:

1. Add oats, milk, yogurt, chia seeds, cinnamon, vanilla, and 1/4 cup fresh berries into a jar or container with a lid.
2. Mix ingredients together, then place in the fridge overnight.
3. When ready to eat, remove lid and give oats a stir. Add a bit of extra milk if the oats seem too thick.
4. Top with extra 1/4 cup of fresh berries and 1/4 cup chopped walnuts. Enjoy!

NOTE: If you feel like you need some sweetener in this recipe, you can add 1-2 tsp of honey or maple syrup to the jar along with the other ingredients.



Hearty Kale & Apple Tuna Salad

9 ingredients 10 minutes 2 servings

Ingredients

- 1/2 can Tuna (drained), or Wild Salmon
- 1 stalk Celery (diced)
- 2 cups Kale Leaves (finely sliced)
- 1/2 Carrot (grated)
- 1/2 Apple (diced)
- 2 tbsps Sunflower Seeds
- 1 tbsp Dijon Mustard
- 1 1/2 tsps Extra Virgin Olive Oil
- Sea Salt & Black Pepper (to taste)

Directions

Place all ingredients together in a large salad bowl. Add olive oil and mustard and toss well. Season with sea salt and pepper to taste. Enjoy!

Lentil & Feta Tabbouleh

9 ingredients 10 minutes 4 servings

Ingredients

- 2 cups Lentils (cooked)
- 2 Tomato (medium, diced)
- 2/3 cup Feta Cheese (crumbled)
- 4 cups Parsley (chopped)
- 1/2 cup Red Onion (finely diced)
- 1/4 cup Extra Virgin Olive Oil
- 1/2 Lemon (juiced)
- 2 tsps Sumac (ground)
- Sea Salt & Black Pepper (to taste)

Directions

Toss all ingredients in a large bowl until evenly combined. Add sea salt and black pepper to taste. Divide into bowls and enjoy!



Mediterranean Goddess Bowl

14 ingredients 25 minutes 4 servings

Ingredients

- 1 cup Quinoa (uncooked)
- 1 1/2 cups Water
- 4 cups Baby Spinach
- 1 Tomato (diced)
- 1/4 cup Red Onion (finely diced)
- 1 Cucumber (diced)
- 1/2 cup Parsley (finely chopped)
- 1 cup Hummus
- 1 tbsp Chili Powder

Dressing

- 1 tbsp Tahini
- 1/4 cup Extra Virgin Olive Oil
- 1/2 tsp Oregano
- 1/2 tsp Black Pepper
- 1/2 Lemon (juiced)

Directions

1. Combine quinoa and water in a saucepan and place over high heat. Bring to a boil. Once boiling, reduce to a simmer. Cover and let simmer for 12 to 15 minutes or until all water is absorbed. Remove from the heat, fluff with a fork and set aside.
2. Optional Step: Place a frying pan over medium heat and add a splash of oil. Add spinach and saute just until wilted. Remove from heat and set aside. (Note: You can skip this step and add the spinach in raw if you prefer).
3. In a jar, combine tahini, olive oil, oregano, black pepper and lemon juice. Shake well to mix and set aside.
4. Divide quinoa between bowls, top with sauteed spinach, tomato, red onion, cucumber and parsley. Top with a large spoonful of hummus and sprinkle the hummus with chili powder. Drizzle with desired amount of dressing. Enjoy!

Fish en Pallipote

11 ingredients 45 minutes 4 servings

Ingredients:

- 4 6-oz boneless skinless white fish filets (eg. tilapia, halibut, basa)
- ¾ tsp kosher salt, divided
- ½ tsp black pepper, divided



- 1 ½ cans white beans, drained and rinsed
- ½ cup olives, crushed
- ½ cup marinated artichoke hearts, quartered, marinating liquid reserved
- ½ cup cherry tomatoes or grape tomatoes, halved
- 1 lemon, zest and juice of
- 2 tsp extra virgin olive oil
- 2 tbsp fresh parsley, chopped
- 2 tbsp fresh dill, chopped
- 4 large pieces parchment paper, double the length of the fish

Directions:

1. Preheat oven to 375 °F
2. Season the fish filets with ½ tsp of salt and ¼ tsp black pepper
3. In a medium bowl combine white beans, olives, artichoke hearts, 2 tbsp artichoke marinade, tomatoes, lemon zest & juice, olive oil, ¼ tsp salt, and ¼ tsp black pepper
4. Center each filet in a piece of parchment paper and top with a heaping ¾ cup of the bean salad. Tightly fold the parchment closed so no steam can escape, then place in a baking dish.
5. Place the baking dish in the oven and bake for 30 minutes, or until the fish is cooked through
6. To serve, unfold the parchment and top each with parsley and dill.

Turmeric Chickpeas with Garlic Tahini

11 ingredients 10 minutes 3 servings

To make Turmeric Chickpeas

Ingredients:

- 1 pound dried chickpeas
- 1 tablespoon dried turmeric powder
- 6 cups water
- salt to taste

Directions

1. Rinse the dried chickpeas well, then combine in a large bowl along with turmeric powder and water. Soak 6 hours or overnight
2. Transfer everything, including the soaking water, to a thick-bottomed pot. Add extra water if needed, to cover chickpeas by one inch
3. Bring to a boil, then reduce heat and simmer until chickpeas are cooked through, about 40-60 minutes.
4. Drain off excess liquid, then season with salt to taste

To make Turmeric Chickpeas with Garlic Tahini

Ingredients:

- ¼ cup tahini
- 2 cloves garlic, peeled and crushed into a paste
- big squeeze of fresh lemon juice
- 5 tbsp water



- 1 tsp salt, plus extra to taste
- 1 bunch of broccoli, trimmed and chopped
- 2 cups turmeric chickpeas
- 1 bunch of chives, minced
- ¼ cup toasted pine nuts
- 4-5 handfuls of arugula
- Pepper, to taste
- 1-2 tbsp extra virgin olive oil

Directions

1. Whisk the tahini, garlic, lemon, and water together in a small bowl. Continue whisking until the mixture really thickens. Set aside
2. Bring a medium saucepan of water to a boil, add 1 tsp salt, and cook the broccoli until it brightens and becomes a bit tender, about a minute or two. Drain
3. In a large bowl, gently toss the broccoli, turmeric chickpeas, chives, pinenuts, and arugula with the olive oil. Season with salt and pepper to taste
4. Slather the tahini mixture across a large platter, then top with the broccoli and chickpea salad .

Miso, Sweet Potato & Broccoli Bowls

16 ingredients 40 minutes, 4 servings

Ingredients:

For the bowl

- 1 cup dried brown rice, or another whole grain of your choosing
- 1-2 sweet potatoes (about 1.5 lbs)
- 1 large bundle of broccoli (about 1 lb)
- 1-2 tbsp olive oil
- Kosher salt
- Freshly ground black pepper
- 2 tsp sesame seeds

For the sesame-miso dressing

- 1 tbsp minced fresh ginger
- 1 small garlic clove, minced
- 2 tbsp white miso
- 2 tbsp tahini
- 1 tbsp honey
- ½ cup rice vinegar
- 2 tbsp sesame oil
- 2 tbsp olive oil

Directions

1. Heat the oven to 400 degrees



2. Cook rice according to directions
3. Peel sweet potatoes and cut into 1-inch cubes.
4. Cut tops off broccoli and separate into bite-sized florets (you can also cut the stems into ½ to 1 inch pieces and include them).
5. Coat one large or two smaller trays with a thin slick of olive oil. Layer sweet potatoes on tray(s) and sprinkle with salt and pepper. Roast for 20 minutes. Remove from oven and flip chunks around, then add broccoli to the tray(s). Roast for another 10 to 20 minutes, until broccoli is lightly charred at edges and sweet potato is fully bronzed and tender.
6. While vegetables roast, prepare sesame-miso dressing. combine everything in a blender and run until smooth. Taste and adjust ingredients if needed. (Should taste slightly salty to offset the sweetness in the sweet potatoes)
7. Assemble bowls: Scoop ½ cup of rice/grains into bowl, then pile on the roasted sweet potatoes and broccoli. Dress lightly with sesame-miso dressing, and top with sesame seeds.

Tuscan Farro Soup

15 Ingredients, 75 Minutes, 6 Servings

Ingredients:

- 1 cup farro, dry
- 1 cup white beans, dry, soaked for several hours or overnight
- 2 tablespoons olive oil
- 1 onion, diced
- 3 carrots, peeled and diced
- 2 stalks celery, diced
- 4 cloves garlic, minced
- 1/2 tablespoon dried parsley
- 1/2 tablespoon dried basil
- 1/4 teaspoon red pepper flakes (optional)
- 1/2 teaspoon salt
- 1 can (14 ounces) diced tomatoes
- 6 cups vegetable broth or chicken broth
- 1 rind parmesan cheese
- 2 cups kale, finely chopped

Instructions

1. Before making the soup, soak the beans. Place the dry white beans in a medium bowl, cover with cold water by 2 inches, and let them soak for at least 4 hours or up to 12 hours. Drain and rinse them before adding them to the soup.
2. Before getting started, rinse the farro. Place the farro in a fine-mesh strainer, rinse thoroughly under cold water, moving it around with your hand to ensure it's all well rinsed, then drain off



- the excess water, and set aside.
3. In a large pot on medium-high heat, warm the olive oil, then add onion, carrots, and celery, and cook until the vegetables are tender, about 4-5 minutes, then add garlic and cook for 1 additional minute.
 4. Add dried parsley, dried basil, chili flakes, and salt, and cook for another 30 seconds until fragrant.
 5. Add the rinsed farro and soaked and strained white beans, and stir to coat with the vegetable mixture. Then add diced tomatoes, broth, and parmesan cheese rind, and stir until well combined.
 6. Bring the soup to a boil and then reduce it to a simmer and cook for 1 hour or until the farro and beans are tender.
 7. Once the farro and beans are tender, add chopped kale, stir to combine, and cook for additional 5-10 minutes until the kale has wilted into the soup and is bright green in color.
 8. Once the soup is cooked, remove and discard the parmesan cheese rind. Taste the soup and adjust the seasoning with a pinch of salt and pepper needed.
 9. The soup can be served immediately or cooled and stored in the fridge for up to 3 days or in the freezer for up to 3 months.

Roasted cauliflower salad with lemon tahini dressing

15 ingredients, 35 Minutes, 4 Servings

Ingredients:

- 1 head cauliflower
- 1/2 red onion
- 2 Tbsp olive oil
- Salt and Pepper to taste
- 1/2 bunch parsley

LEMON TAHINI DRESSING

- 1/3 cup tahini
- 1/3 cup water
- 1/4 cup lemon juice
- 2 cloves garlic, minced
- 1/2 tsp cumin
- 1/4 tsp cayenne
- 1/4 tsp salt

SPICED CHICKPEAS

- 1 15oz. can chickpeas
- 1 Tbsp olive oil



- 1/2 tsp smoked paprika
- 1/4 tsp garlic powder
- 1/8 tsp cayenne
- Salt and Pepper to taste

Instructions:

1. Preheat the oven to 400°F. Chop the cauliflower into small florets and place them on a large baking sheet. Slice the red onion into 1/4-inch strips and place them on the baking sheet. Drizzle the cauliflower and onions with olive oil and season with a pinch or two of salt and pepper. Toss the cauliflower and onions until coated in oil, salt, and pepper.
2. Roast the cauliflower and onions in the preheated oven for 20 minutes, then stir, return them to the oven, and roast for an additional 10-15 minutes, or until the cauliflower is tender and browned on the edges. Let the cauliflower cool slightly.
3. While the cauliflower and onions are roasting, make the lemon tahini dressing. Add the tahini, water, lemon juice, garlic, cumin, cayenne, and salt to a blender. Blend until smooth, then refrigerate until ready to serve.
4. Drain and rinse the can of chickpeas. Add them to a skillet along with the olive oil, smoked paprika, cayenne, and a pinch of salt and pepper. Stir and cook the chickpeas over medium heat for about five minutes, or until they sizzle and become slightly crispy. Remove the chickpeas from the heat.
5. Pull the parsley leaves from their stems and roughly chop the leaves into small pieces (about 1.5 cups loosely packed, once chopped).
6. To build the salad, combine the roasted cauliflower and onions in a bowl with the spiced chickpeas and chopped parsley. Drizzle the lemon tahini dressing over top, and toss to combine. Serve warm or cold.

Feel free to adjust recipes and meal plans according to your personal preferences and dietary needs. Enjoy the journey to better health with anti-inflammatory foods!