ANTI-INFLAMMATORY DIET

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ACUTE VS. CHRONIC INFLAMMATION

Acute inflammation:
Positive signal that the body is working to heal itself
Symptoms include redness, swelling and pain
Happens quickly and subsides as the tissue heals

Chronic Inflammation:
Happens over days, months, years
Signs are less obvious
Persistent and leads to severe and progressive tissue damage and inflammatory diseases
SYMPTOMS OF CHRONIC INFLAMMATION

- Digestive problems
- Chronic fatigue
- Moodiness/depression
- Food cravings
- Insulin resistance/blood sugar issues
- Rashes/skin issues
- Weight gain
- Headaches
- Allergies
DISEASES LINKED TO INFLAMMATION

- Cancer
- Cardiovascular
- Neurological diseases
- Autoimmune diseases
- Arthritis
- Pulmonary diseases
- Diabetes
Gut: Intestinal permeability/leaky gut

Digestive system contains immune cells that prevent toxins and pathogens from entering the bloodstream. Modern invaders—smoking, lack of exercise, high fat meals, high calorie meals, sugar, trans fats—irritate the innate immune system.

Digestive lining should be woven tightly. If it becomes too permeable, undigested nutrient particles, toxins or bacteria can get into your bloodstream. This triggers the immune system and lead to inflammation.

Even “healthy” food not digested properly can be a cause of inflammation.
REPAIRING THE GUT

- Elimination diet—common inflammatory foods that activate the immune system: gluten, dairy, sugar, and alcohol

- Proper nutrients

- Probiotics

- L Glutamine—healing for lining of digestive tract

- Fish Oil or Flax Oil (Omega 3 source)

- Vitamin D-5000 works like a hormone in the body regulating calcium absorption and inflammation levels
MINDFUL EATING

- Chewing food really well can aid in the digestive process and make nutrients more available.

- Body can attack food as a foreign invader if it is not digested properly and enters the blood stream.

- Fights fatigue and leads to eating less and enjoying food more.

- Mindless eating disrupts our digestive abilities by eliciting stress hormones. This can cause inflammation and weight gain.
PRACTICE MINDFUL EATING

Pay attention: make an active choice about what you are eating
Plan ahead and prepare
Make a choice that prioritizes your health goals: traveling/guest, etc.

Questions to ask:
- Why? am I eating now: Am I hungry?
- What? Will this choice serve my wellness in the long run. Is this treat worth how I will feel later. Nothing tastes as good as healthy feels.
- How? Am I fully present eating or am I doing other things?

Try expressing gratitude: for food and farmers

Chew, chew, chew and then chew some more...

Digestion begins in the mouth. Chewing helps enzymes in saliva do their job so we can effectively absorb nutrients.
Mindful Eating

Mindful Eating
www.eatingmindfully.com

Aware
Tasting vs. mindless munching

Observe
Notice your body, (rumbling stomach, low energy, stressed out, satisfied, full, empty)

Savor
Notice the texture, aroma, and flavor. (Is it crunchy, sweet, salty, smooth, spicy?)

In-the-Moment
Be fully present. Turn off the T.V. Sit down. When you eat, just eat.

Nonjudgment
Speak mindfully and compassionately. Notice when "shoulds," rigid rules or guilt pop into your mind.

Susan Albers PsyD 2012 Eat, Drink & Be Mindful
PRO-INFLAMMATORY FOODS

- S.A.D. Diet
- Refined and Processed Food
- Grain Fed meats and eggs
- Refined grains/over consumption of whole grains
- Sugars
- Inflammatory fats/cooking oils: vegetable oil, canola oil, soy oil or corn oil (high omega-6 content and very low omega-3 content)
- Sodas and alcohol
- Artificial sweeteners
- Additives
- Food Dye
- Anything your body may not recognize as food (chemicals)
Crucial for proper cellular function. Dehydration slows down nutrients absorption and metabolism. Affects the operation of every organ in the body.

Signs of dehydration: fatigue, foggy thinking, depression, joint pain, hunger, cravings, and weight gain.

Formula for hydration: $\frac{1}{2}$ body weight in ounces per day.
HYDRATION

WATER IN THE BODY

- **BRAIN**: Is 75% water
  - Water moistens oxygen for breathing and helps carry nutrients and oxygen to cells
- **LUNGS**: Water helps convert food into energy
- **BLOOD**: Is made up of 83% water
  - Water helps regulate body temperature
- **BODY**: Water protects and cushions vital organs
- **KIDNEY**: Water is necessary for removing waste
- **STOMACH**: Water helps convert food into energy
- **BONES**: Are 22% water
  - Water helps to transport glucose and oxygen to the muscles
- **MUSCLES**: Are 75% water
  - Water aids in cushioning joints
- **CARTILAGE**: Water aids in cushioning joints

[Source: www.bodybuilding.com/waterinthebody]
Addiction: hard to address, but important to remove

Increases inflammation—when blood sugar is high, the body produces more free radicals that trigger the immune system and damage cells and cause inflammation in the blood vessels.

Alters the hormone insulin (responsible for fat storage)—increase in insulin = inflammation.
ANTI-INFLAMMATORY DIET

- Not a diet, but a lifestyle change
- Avoid super food and nutrient isolation
- Real/Whole Foods that exist in nature and have not been chemically altered
- 85/15 or 90/10 way of eating
Plant Based Whole Foods Diet
Fats Mostly from Whole Foods

- Vegetables
- Fruits
- Nuts and Seeds
- Meats and Eggs
- Healthy Fats
- Water
- Spices and Herbs
- Herbal Teas
- Whole grains
- Spices
- Mushrooms
- Antioxidants
- Phytonutrients
Supports the body by providing the proper vitamins, minerals, essential fatty acids, dietary fiber, protective antioxidants and phytonutrients. Provides steady energy by stabilizing blood sugar.

People do tend to lose weight on it, but it is not intended as a weight loss plan.

Choosing and preparing foods based on how those foods will support optimal health.

Eating to thrive, not survive.
Bison
Beef
Chicken
Duck
Lamb
Turkey
Venison
Elk

Eggs (pastured)

Tempeh-Fermented Soy
GRASSFED VS GRAINFED

BEEF

Grassfed vs "Grainfed"
Most beef sold in stores & restaurants

- Cattle eat 90% corn
- Cattle eat 10% other forage, and cheap high-energy feeds like candy, starch, bakery waste, potato waste, pasta, chicken litter, meat processing waste...

- Antibiotics
- 29 million pounds used on American livestock in 2009 for illnesses & growth promotion

- Hormones
- Implants or injections are used to increase growth rate by 10-15%

- Cattle roam open pasture to feed.
- Confined Feedlots
- Restricting movement prevents cattle from using energy so that they fatten quicker.

- Cattle naturally take 1.5-2 years to mature.
- 1 Year to Maturity
- The combination of high-energy foods, drugs, and confinement turns cows into cheap meat in half the time.

Meat Composition of grassfed cows is significantly healthier when analyzed for fat and nutrient content:

- 2-4x more Omega 3
- 5x more CLA
- More Vitamins
- More Minerals

www.mcMichaelChiro.com

CLA is a chemical that has been linked to increased fat loss and increased muscle growth. It is a trans fatty acid that is found naturally in dairy products, meat, and poultry. CLA has been shown to decrease body fat and increase muscle mass in humans. It is a natural source of antioxidants that can help protect the body from free radicals. CLA is also found in meats that are grassfed, which means that the cows are allowed to roam freely and graze on grasses.

4X MORE FAT
per 3 oz. serving
Fish (Wild Caught is Best)
Canned Fish Should be in water and Mercury and BPA Free
Trout
Salmon
Sardines
Cod
Tilapia
Haddock
Halibut
Tuna
Grouper
Sea Bass
Mackerel
Mahi Mahi
Red Snapper
Walleye
DAIRY AND “DAIRY PRODUCTS”

Dairy (Organic or Raw is Best)
- Almond Milk (unsweetened)
- Coconut Milk (unsweetened)
- Organic Cow’s Milk (raw)
- Organic Cow’s Cheese (raw)
- Organic Greek Yogurt (plain)
- Goat Milk
- Goat Cheese
- Goat Yogurt (plain)
- Kefir
- Sheep Cheese
- Sheep Yogurt (plain)

Nutritional differences of raw milk vs. processed “Raw Milk is Whole”

<table>
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<tr>
<th>raw milk has:</th>
<th>benefit:</th>
<th>in pasteurized milk:</th>
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<tbody>
<tr>
<td>phosphatase</td>
<td>essential for the absorption of calcium</td>
<td>destroyed</td>
</tr>
<tr>
<td>lipase</td>
<td>enzyme that aids in the digestion of fats</td>
<td>destroyed</td>
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<tr>
<td>immunoglobulin</td>
<td>helps improve asthma</td>
<td>destroyed</td>
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<tr>
<td>lactase producing bacteria</td>
<td>enzyme that helps digest lactose</td>
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<tr>
<td>probiotic bacteria</td>
<td>strengthens immune system</td>
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<tr>
<td>delicate proteins</td>
<td>tissue repair; muscle/bone strength</td>
<td>denatured</td>
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<tr>
<td>vitamins A, D &amp; B-12</td>
<td>improve health</td>
<td>diminished</td>
</tr>
<tr>
<td>calcium</td>
<td>prevents osteoporosis; strengthens bones; helps weight loss</td>
<td>inhibited</td>
</tr>
<tr>
<td>phosphorus</td>
<td>healthy teeth/bones</td>
<td>diminished</td>
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</tbody>
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## CARBOHYDRATES

Whole Grains in moderation
Whole grain products instead of whole wheat
Quinoa
Brown Rice
Wild Rice
Beans (protein and carb)
Whole Oats
CARBOHYDRATES

Fruits

Preferred: lower on the glycemic index

All Berries
Apple
Orange
Pears
Lemon
Lime

Moderation: higher on the glycemic Index

Apricot
Banana
Cantaloupe
Cherries
Coconut
Figs
Grapefruit
Grapes
Mango
Nectarine

Papaya
Peaches
Pineapple
Plums
Pomegranate
Watermelon
All other fruits

- Look up the the EWG dirty dozen list for most important foods to buy organic

https://www.ewg.org/foodnews/summary.php
HEALTHY FATS

Almonds
Brazil Nuts
Cashews
Chia Seeds
Hemp Seeds
Hazelnuts
Macadamia Nuts
Pecans
Pumpkin Seeds
Sesame Seeds
Sunflower Seeds
Nut/Seed Butters
Avocado
Olives

I SAID YOU'RE THE GOOD KIND OF FAT!
HEALTHY FATS

Best to get fats from whole foods

Oils to be used in moderation:

Avocado Oil
Almond Oil
Butter (Grass Fed)
Coconut Oil
Ghee
Flax Oil
Macadamia Oil
Olive Oil
Sesame Oil
Walnut Oil
# HERBS AND SPICES

<table>
<thead>
<tr>
<th>Herbs</th>
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<tr>
<td>Basil</td>
<td>Mustard Seed</td>
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<tr>
<td>Black Pepper</td>
<td>Nutmeg</td>
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<tr>
<td>Cayenne Pepper</td>
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<td><strong>Chili Pepper</strong></td>
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<tr>
<td>(capsaicin)</td>
<td>Parsley</td>
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<tr>
<td>Cilantro</td>
<td>Peppermint</td>
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<tr>
<td>Cinnamon</td>
<td>Rosemary</td>
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<tr>
<td><strong>Cloves</strong></td>
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<td>Tarragon</td>
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<td>Dill</td>
<td>Thyme</td>
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<tr>
<td>Fennel</td>
<td>Turmeric</td>
</tr>
<tr>
<td><strong>Garlic</strong></td>
<td>(curcumin)</td>
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<tr>
<td>Thyme</td>
<td></td>
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CONDIMENTS

Apple Cider Vinegar
Guacamole
Hummus
Mustard
Mayo (Olive Oil, Avocado Oil, or Sunflower Oil based)
Organic Salad Dressings made with healthy oils (listed above)
Salsa- no sugar added
Sea Salt
Cultured- yogurt, sauerkraut, kimchi, and other cultured vegetables
**BEVERAGES**

Water (filtered is best)
“Spa” water
Broths- Homemade bone broth or veggie broth
Almond, Cashew, Hemp, Sunflower, Coconut, Pumpkin Seed Milk (best to make at home to avoid the additives)
Organic Low-Acid Coffee
Herbal Teas
Kombucha
Raw Vegetable Juices
Sparkling Water- unsweetened and in moderation
Green Tea- polyphenolic compounds
SWEETENERS AND TREATS

- Honey or Molasses
- Stevia
- Dark Chocolate - 72% or higher
- Dry Wine
- Dry Cider
An important, but overlooked component of nutrition is how food is cooked.

Avoid modified proteins and fats called *advanced glycation end products* (AGEs).

High levels of AGEs fire up inflammation leading to heart disease, obesity and arthritis. AGEs can also contribute to aging.

AGEs develop when food is cooked on high or grilled.

Starchy: consume in moderation.

Preparation techniques:

To avoid lectins, phytic acids and enzyme inhibitors:
Soak for 12 hours, change the water and cook thoroughly on high heat, not low and slow.

Lectins: Proteins that bind to cell membranes and can cause damage to intestinal tissue if consumed in large amounts or in undercooked beans or grains.

Phytic acids bind minerals in the digestive tract, preventing their absorption.

Enzyme inhibitors- block enzymes that help break down food
Refined grains can cause the same inflammatory response as sugar. Use whole grain products: bran, germ and endosperm

Soak grains to get rid of phytic acid

Gluten: The gut can interpret gluten proteins as a threat to the body. The body launches an immune response that attacks the intestines, causes the malabsorption of nutrients.

Eating too many grains = eating less micro nutrients from other foods
Ideally: eating only foods that exist in nature

Realistically: plan to read some labels

Things to focus on:
- Look at ingredients not just nutrients
- Organic does not equal healthy
- Sugar amount: 4 grams = 1 teaspoon
- Sugar goes by many names so look out for any word ending in “ose,” e.g.
- Types of oils
- Additives
- “Natural” terms
- Heart healthy: green washing
EATING OUT

Can stay on healthy eating lifestyle and eat out/not a free pass for “cheating”

Ask about oils: hard to avoid bad quality oils in restaurants

Ask about quality/origin of food

If you would like to see something different at your favorite restaurant ask for it!

Seek out restaurants that support local foods and healthy community. There are plenty in Asheville.
ANTI-INFLAMMATORY IN A NUT SHELL

- Plant fats
- Animal fats
- Low-sugar fruits
- Non-starchy plants
- Properly raised animals
- Non-caloric beverages
RESOURCES

Anti Inflammatory Foods and Food Pyramid:
www.Dr.Weil.com

Glycemic Index
http://www.health.harvard.edu/diseases-and-conditions/glycemic-index-and-glycemic-load-for-100-foods

www.health.harvard.edu

Anti Inflammatory Shopping List-

Dirty Dozen List- https://www.ewg.org/foodnews/dirty_dozen_list.php

General Consumer Information
www.ewg.org