Inflammation

The Match That Lights All Disease

What is Inflammation?
Inflammation is the body's initial response to irritation, tissue damage or infection

Symptoms of Inflammation

• Heat
• Swelling
• Redness
• Pain

• Heat is caused by increased cellular activity and oxidation at site of damage
• Swelling is caused by dilation of capillary pores which allows fluid and protein into tissues spaces in increased quantities; this also allows white blood cells into the area

• Redness is caused by increased blood flow to the area; blood vessels are dilated above the affected area and constricted below the affected area
• Pain is due to tissue swelling putting pressure on nerves and lack of oxygen to tissues

“itis” is Latin for Inflammation

• Arthritis
• Bronchitis
• Appendicitis
• Laryngitis
• Sinusitis
• Tonsillitis

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In addition to all “itis” diseases, inflammation is involved in...

- Heart Disease
- Aging
- Cancer
- Allergies
- Autoimmune Disorders
- And many, many others...

Dealing with Acute Inflammation

Healthy Inflammation

- Represents the body's attempt to:
  - Fight Infection
  - Repair Itself
  - Fight Cancer
  - Process Toxins (Including Heavy Metals)

Healthy Cells

Initial Phase of Inflammation

- Tissue Damage from:
  - Bacterial or microbial toxins
  - Heat or radiation
  - Trauma
  - Allergens
  - Proteolytic enzymes released from invading or damaged cells

Initial Phase of Inflammation

- Tissue damage causes the release of histamine, which is followed by a release of bradykinin, serotonin and other chemical mediators
- These dilate capillary pores and initiate inflammation
Second Phase of Inflammation

- Eicosanoids are released to open the blood vessels so white blood cells can get to the damaged area
- Eicosanoids (leukotrienes) increase permeability of blood vessels to create more swelling

Third Phase of Inflammation

- More eicosanoids (cytokines) signal white blood cells (macrophages and neutrophils)
- White blood cells use free radicals to destroy microbes and cellular debris, this can damage healthy cells

Healing Phase

- Cortisol is secreted to shut down eicosanoid production and mediate the inflammatory response
- Macrophages clean up remaining debris

Second Phase of Inflammation

- Histamine and leukotrienes cause bronchial constriction and increased mucus production to flush irritants from mucus membranes
- Eicosanoids also sensitize pain receptors in the nerves

Third Phase of Inflammation

- Antioxidants help protect healthy cells from immune damage, if antioxidant levels are too high, it will suppress immune activity

Healing Phase

- Regeneration (tissue repair begins) under the influence of other eicosanoids (lipoxins and resolvins)
Sick Cells

The Lymphatic System

Primary Pain Relief Techniques
- Pressure
- Massage
- Rapid-Light Stroking

Other Pain Relief Techniques
- Deep Breathing
- Stretching
- Electrical Stimulation
- Energy Healing Work

Remedies For Acute Inflammation
- Zambroza
- Dandelion & Purslane Combination (VS-C)
- Aloe Vera
- Tei Fu Oil
- Deep Relief Oil
- Marshmallow & Chamomile Combination (Intestinal Soothe and Build)

Dealing with Chronic Inflammation
Four Stages of Disease

• Acute Inflammation (Irritation)
• Subacute Inflammation (Congestion and Stagnation)
• Chronic Inflammation (Low Grade Inflammation) and Tissue Depression
• Degeneration and Tissue Breakdown

Possible Symptoms of Chronic Inflammation

• Excess weight
• Carbohydrate cravings
• Constant hunger
• Fatigue, especially after exercise
• Brittle fingernails
• Limp hair
• Constipation
• Sleepiness
• Groggy upon waking

More Symptoms of Chronic Inflammation

• Lack of mental concentration
• Just don’t feel well
• Headaches
• Dry skin
• Dark red tongue
• Fluid retention
• Chronic, low grade aches and pains
• Gum disease

Remedies for Chronic Inflammation

• Zambroza
• Omega-3 EPA
• Super Antioxidant
• Grapine (High Potency)
• Grapine with Protectors
• Proactazyme enzymes between meals

The Intestinal System is Your First Line of Immune Defense

Remedies for Intestinal Inflammation

• Aloe Vera Juice
• Marshmallow & Chamomile Combination (Intestinal Soothe and Build)
• Una De Gato (Cat’s Claw) Combination
• Fiber (Psyllium Hulls Combination)

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The Liver is Your Second Line of Immune Defense

Antioxidants
- Zambroza
- Super Antioxidant
- Milk Thistle

Aids to Liver Detox
- MSM
- Folic Acid Plus
- Vitamin B-Complex
- Peony & Cinnamon Combination (Liver Balance)
- Red Clover Blend

The Glands Are The Third Line of Defense

Cortisol and Stress
Cortisol

• Is produced by the adrenals
• Is an inflammatory mediator
• Corticosteroid drugs are synthetic mimics of cortisol
• Adrenal exhaustion may cause what the Chinese call yin-deficient heat (inflammation)

Excessive Cortisol Production

• Increases fat deposition and insulin resistance
• Dampens your immune response
• Kills brain cells
• Causes rapid aging

Herbal Remedies With a Cortisol-Like Action

• Licorice
• Wild Yam

Eicosanoids & Chronic Inflammation

Omega-6 Essential Fatty Acids

Linoleic acid
Gamma-linolenic acid (GLA)
Di-homo-gamma-linolenic acid
Arachidonic acid

Type 1 Prostaglandins
Type 2 Prostaglandins

Fatty Acid Pathways

Omega-6
GLA
DGLA
Type 1 Prostaglandins & Thromboxanes (series 1)
Type 2 Prostaglandins

Omega-3
EPA
DHA
Arachidonic Acid
Leukotrienes (series 5)
Prostaglandins & Thromboxanes (series 3)
Prostaglandins & Thromboxanes (series 2)
Essential Fatty Acids

Prostaglandin Inhibitors

- Omega-3 Essential Fatty Acids
- Low Glycemic (Zone) Diet
- Salicylates (Natural Aspirin)
  - Willow Bark (White Willow & Valerian Combination)
  - Black Cohosh
  - Wintergreen (Toi Fu)
  - Stimulate production of lipoxins and resolvins which reduce inflammation and promote healing