The Iodine Solution
An Important Key to Restoring and Maintaining Your Health

Iodine
- Rare chemical element (ranks 62nd in abundance)
- Found primarily in seawater and foods from the sea

Therapeutic Actions of Iodine
- Antibacterial
- Anticancerous
- Antiparasitic
- Antiviral
- Mucolytic Agent
- Nutritive

Every Cell Needs Iodine!
- The Highest Concentration of Iodine is in the Thyroid Gland
- Other Organs with High Levels:
  - Breast Tissue
  - Salivary Glands and Gastric Mucosa
  - Ciliary Body of the Eye
  - Cerebrospinal Fluid and Brain

Functions of Iodine
- Iodine acts as an emulsifier of fats, oils and waxes
- Iodine loosens the fatty substance from its adherent surface
- Iodine accomplishes this by activating lecithin

Diseases Associated With Iodine Deficiency
- Thyroid Disorders
- Breast, Prostate and Uterine Cancer
- Fibrocystic Breast Disease
- Increased Risk of Infections and Parasites

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**Iodine Disruptors**
- Halogens (Fluorine/Fluorides, Chlorine/Chlorides, Bromine/Bromides)
- Mercury
- Aspirin and other salicyclates
- Steroids
- Unfermented Soy

**Bromine and Bromides**
- Toxic substance with no therapeutic (nutritional) value
- Interferes with iodine utilization in the thyroid as well as other areas of the body (breast, prostate, etc)

**Bromine Facts**
- The amount of bromine in human breast milk has increased 10 fold over the last decade (EPA 2003)
- Cholesterol binds to bromine so it doesn't compete with iodine.
- By lowering cholesterol with statin drugs, bromine builds up a toxicity in the body and drives iodine out.

**Sources of Bromine**
- Antibacterial agent for pools and hot tubs
- Fumigant for agriculture (sprayed on fruits and vegetables) and for termites and other pests
- Food additive in bread and beverages
- Certain drug medications

**Bromine in Food**
- Bromine added to many soft drinks as brominated vegetable oil (BVO)
  - Mountain Dew
  - Amp Energy Drink
  - Some Gatorade products
Bromides and Bread

• Until the early 1980's iodine added to the bakery products as a conditioning agent
• One slice of bread used to contain the RDA for iodine: 150 mcg
• Bromine replaced iodine in the early 1980's

Bromine in Medicine

• Atrovent inhaler: Breathing problems
• Atrovent nasal spray: Breathing difficulties
• Ipratropium nasal spray: Breathing difficulties
• Pro-Panthe: Bladder dysfunction
• Pyridostigmine bromide: Antidote for nerve gas

* Gulf war soldiers received this as a nerve gas antidote and the number of autoimmune disorders in this group is significantly elevated

Fluorine and Fluorides

• Evidence that fluorine is an essential nutrient is based on animal studies.
• No deficiency symptoms have ever been observed.
• Small amounts of naturally-occurring fluorine may be present in some foods, but fluorides are toxic.

Fluoride Toxicity

• Increased Bone Cancer
• Dental Fluorosis: Mottling, pitting and dulling of teeth
• Increased Risk of Hip Fractures
• Lowers Intelligence and Increases Depression

Fluoride and Medications

• Fluoride inhibits the thyroid glands ability to concentrate iodine
• Goitrogenic agent (increases goiter)
• More toxic when iodine deficiency is present
• Has Never Been Shown to Prevent Dental Cavities!

• Prozac and Paxil (Reports of increased breast cancer with SSRI's)
• Baycol
• Propulsid (stomach ulcers)
• Posicor (anti-arrhythmic)
• Astemizole (anti-allergy)
• Flonase (allergies)
• Flovent (asthma)
• Fen-Phen (weight loss)
Chlorine and Chlorides
- Chlorine is used as a nutrient in large amounts (100 gm in the average person)
- Chlorine is the oxidized form of chloride and is toxic

Chlorine Facts
- Toxic agent
- Used as a disinfectant and whitener
- By-product of dioxin (One of the most carcinogenic agents known)
- Linked to birth defects, cancer, reproductive disorders including still birth and immune system breakdown

When chlorine mixes with organic matter in the water it form carcinogenic compounds like trihalomethanes
- The rise in coronary heart disease paralleled the chlorination of water supplies worldwide

The Thyroid
- Larynx (Voice Box)
- Thyroid
- Trachea (Throat)

Thyroid Function
- It increases the basal metabolic rate by increasing the rate of protein, fat and carbohydrate metabolism
- This will then decrease abnormal cholesterol, triglycerides and phospholipids in the body

Hypothyroidism
- Hypothyroidism may be the most commonly missed diagnosis today
- 40% of the population may have undiagnosed hypothyroidism
### Other Organs Affected By the Thyroid
- Sinuses
- Lungs
- Kidneys
- Liver
- Lymphatic system (including the spleen)

### Diseases That May Involve Thyroid Dysfunction and Iodine Deficiency
- Allergies
- Arthritis
- Cancer
- Candida
- Chronic Fatigue
- Coronary Artery Disease
- Cystic Breasts

### Thyroid-Related Hormones
- TRH (Thyroid Releasing Hormone)
- TSH (Thyroid Stimulating Hormone)
- T4 (Thyroxin)
- T3 (Triiodothyronine)

### Thyroid Hormones
- T4 is the inactive, storage form of the hormone
- T3 is the active form
- T4 is converted to T3 as needed by the body
- Liver is the primary site of conversion

### T4 to T3 Inhibitors

#### Deficiencies
- Iodine
- Iron
- Selenium
- Zinc
- Vitamin A
- B2, B6 & B12

#### Medications
- Beta Blockers
- Birth Control Pills
- Estrogen
- Iodinated Contrast Agents
- Lithium
- Phenytoin
- Theophylline

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Other Factors
• Fluoride
• Lead
• Mercury
• Stress
• Pesticides
• Aging
• Diabetes
• Surgery
• Cigarette smoke
• Radiation
• Alcohol
• Soy
• Cruciferous Vegetables
• Fasting
• Low Adrenal State
• GH deficiency
• ALA
• Hemochromatosis

Disorders Related to Hypothyroidism
• Arteriosclerosis
• Arthritis
• Cancer
• Chronic Fatigue
• Cold Extremities
• Constipation
• Fatigue
• Fibromyalgia
• Headaches
• Hypercholesterol
• Menstrual Disorders (infertility, PMS)

Other Factors
• Ovarian Cysts
• Poor memory
• Recurrent Infections
• Skin Disorders
  – Psoriasis
  – Eczema
  – Acne

Relationship Between Thyroid Function and Cancer
• 38 patients with recurrent breast cancer
• Lower T3 levels in progressive disease patients
• TSH higher in progressive disease patients
• Tumors of patients with increased TSH levels were resistant to all subsequent therapies

“\textit{It is concluded that thyroid and pituitary function...are predictive indicators of therapeutic response and the prognosis of patients with recurrent breast cancer}”

\textit{Journal of Endocrinology (1998) 158 319-325}

Hypothyroidism and Atherosclerosis
• 2550 Subjects
• Subclinical hypothyroidism associated with a 260% increase in the prevalence of heart disease

\textit{Journal of Clinical Endocrinology 2004;89 3365-3370}
Thyroid Testing

• 90% are iodine deficient
• You can still be in range and have the symptoms of a thyroid issue
• The blood tests aren’t always right

Basal Body Temperature

• This test tells the amount of energy your body burns at rest
• Basal metabolism is largely determined by hormones secreted from the thyroid and adrenal glands
• Measure by observing fluctuations of the basal body temperature over a period of five days

Testing Basal Temperature

1. Use an ordinary oral or rectal thermometer.
2. Shake down the thermometer the night before and place it on your nightstand.
3. First thing in the morning BEFORE you get out of bed, place the thermometer under your arm for TEN minutes.

Physical Exam Signs For Low Thyroid

• Anemia
• Dry skin
• Edema
• Fatigue
• Goiter
• Hair loss
• Hypertension
• Hypotension
• Periorbital edema
• Poor eyebrow growth
• Puffy face
• Sluggish reflexes

Overcoming Thyroid Disorders

• Diet and Supplementation
• Natural hormones
• Detoxification
• Natural Sea Salt and Sea Vegetables

Thyroid Testing

• 90% are iodine deficient
• You can still be in range and have the symptoms of a thyroid issue
• The blood tests aren’t always right
Natural Sources of Iodine

- Black Walnut
- Kelp & Hops Combination (TS II)