Iodine Remedies: Secrets From The Sea

Mary Jo Fahey

Iodine Remedies: Secrets From the Sea

1st Edition

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WARNING...

The information about iodine that you will read in this book contradicts the information that is contained in medical text books, medical Web sites and most health books published for consumers.

In an article titled, "The Wolff-Chaikoff Effect: Crying Wolf?," Dr. Guy Abraham explains that the misinformation about iodine can be traced to the Wolff-Chaikoff study at University of California at Berkeley in 1948 that resulted in the removal of iodine from the food supply. The study, that was later referred to as the Wolff-Chaikoff (W-C) Effect, says that iodine intake of 2 milligrams or more is *excessive* and potentially harmful.

The Iodine Project that you'll learn about in this book, is now in its tenth year.

For people who accept the new ideas about iodine, one of most important benefits is iodine's ability to detox heavy metals (See: Talking Point #39). There are several heavy metal pollutants in the environment and the most dangerous metal is mercury. Through the air, water and food, it is estimated that we're all receiving a microgram of mercury a day that contains 3,000 trillion atoms.

About This Book...

The information in this book is based on research done for a series of presentations given by the local Weston A. Price Foundation (www.westonaprice.org) chapter leaders in Madison, Wisconsin. Because the content represents contributions from more than one person, Dr. Chris Robin is a pen name (one of the researchers has a doctorate).

Dr. Weston A. Price

Dr. Weston Price of Cleveland, Ohio, was a dentist who spent nine years in the 1930s traveling to investigate the diets of traditional societies, and found that native diets contained ten times more fat-soluble and four times more water-soluble vitamins than Western diets at that time. Price's book, titled, *Nutritional and Physical Degeneration*, chronicles his journeys around the world.

Dr. DeForest Jarvis

Price's discoveries about kelp, a seaweed that contains high amounts of iodine, showed up in the written work of his friend Dr. DeForest Jarvis, whose book, *Folk Medicine*, about Vermont folk remedies, became a best-selling book in the 1960s. When Price returned from Peru, Price went to meet Jarvis in Vermont where he spoke about his

encounters with the mountain Indians in the Andes. Price noticed the Indians wore small bags and discovered that they contained kelp that they took to protect the heart. Remarkably, the Andean Indians traveled to the ocean to gather kelp and the trip took two months!

Dr. Jarvis' work may have disappeared into obscurity if it were not for a dedicated New Hampshire farmer named Jeff Krouk. Jeff sells Jarvis' book through his mail order business called J. Crows (www.jcrows.com). Jeff has been selling Lugol's iodine solution for fifteen years and he worked closely with the Drug Enforcement Agency's (DEA) Doug Snyder when the department enacted a policy in 2007 to restrict the sale of iodine due to problems with drug traffickers.

The Book's Talking Points

Chapter 1 contains background information about iodine that is organized into talking points. Talking points are a communication tool for presenting the nuances of a complicated subject. Each of the points employs formatting that is designed to help readers process and remember factual information that they can use for discussion (e.g. highlighted headlines and bullets). Each talking point is also preceeded by the source of the information.

Iodine Remedies for Humans as Well as Cows
Talking points one through forty-five refer to humans and the last five points refer to cows. Weston Price chapters exist to help people find farmers who are interested in human as well as animal nutrition.

Iodine Solutions: Lugol's Iodine and Saturated Solution of Potassium Iodide (SSKI)
The doctors who are leading a recent iodine revival have discovered that Lugol's iodine solution, formulated by a French physician in 1829, contains a perfect balance of iodine and potassium iodide. This obscure solution has created a buzz. A tablet form has been created, but the solution, important for animals as well as humans, is more economical, and still available for sale, thanks to Dr. David Brownstein and others (See: Chapter 3 - Buying and Using Iodine).

SSKI is another obscure iodine solution, the details of which, have been preserved by ki4u, a licensed radiological laboratory that sells potassium iodide tablets for nuclear emergencies. Their Web site, www.ki4u.com, provides step-by-step instructions for making SSKI, with quotes from the Department of Energy's *Nuclear War Survival Skills* created for the Oak Ridge National Laboratory in 1979 (See: Iodine Recipes, Appendix B).

News...

The Foundation for Care Management and The Institute for Healthy Aging sponsored a medical education seminar about iodine for physicians in San Diego, California from October 4th through 6th (2007), titled:

The Safe and Effective Implementation of Orthoiodosupplementation in Medical Practice

Speakers included, Dr. Guy Abraham, Dr. David Brownstein, Dr. Bernard Eskin, Dr. William Shevin and Dr. Jorge Flechas.

One of the most important developments discussed at the conference concerns bromide toxicity. A relative iodine deficiency may be, in part, due to bromide, an element that causes iodine depletion.

Bromide is found in beverages (as bromated vegetable oil in Mountain Dew, AMP Energy Drink and Gatorade), commercial bread (as potassium bromate), ozonated water, toothpaste, mouthwash, flame retardants, permanent wave solution, hair dye, textile dye and pesticides.

For more details, see Bromide Dominance Theory on the breastcancerchoices.org Web site.

Introduction

Iodine Revival

The doctors who are leading an iodine revival have noticed that iodine causes breast tumors to shrink. They believe that the mechanism is apoptosis, a mechanism that can remove diseased or malfunctioning cells.

Although iodine may be used to prevent and treat many forms of cancer, much of the information about iodine in this chapter relates to breast cancer. This is because many of the doctors who are leading an iodine revival have noticed that iodine causes breast tumors to shrink. They believe that the mechanism is apoptosis, a mechanism, that among other things, removes diseased or malfunctioning cells (See: Talking Point #12: Iodine Initiates Apoptosis in Chapter 2).

As this book was being assembled, seven-time Tour de France winner and cancer survivor, Lance Amstrong, is preparing to speak to the 2008 presidential candidates about the cancer question, the disease that kills 560,000 Americans every year. Cancer is now considered to be the number one killer of Americans under the age of 85—and it is unlikely that any of the presidential candidates know about iodine.

Iodine in the 19th and Early 20th Century

The iodine revival is an underground movement that is led by a handful of physician-researchers who have found iodine research that has been buried for decades. Iodine has not been embraced as a cancer treatment by the medical establishment. Much of the early iodine research was accomplished with animal studies, but three of the new pioneer researchers have started their own clinical trials that they are calling The Iodine Project.

Ideally, the news about iodine will spread to conventional medical doctors, but if that does not happen for some time, you, the reader, can educate yourself, your family and your friends about the element that 19th century physicians considered to be a panacea for many different illnesses.

If ye don't know where, what and why,
prescribe ye then K and I

- *19th century aphorism describing the most frequently prescribed drug of medical physicians.*

What is KI?

When combined with potassium, iodine becomes a salt that is soluble in water (potassium iodide). K and I are chemical symbols for Potassium and Iodine.

The Iodine Doctors

Working both independently, and in collaboration with one another, the new iodine physcian-researchers have been piecing together the connection that exists between endocrine-related illnesses and iodine supplies in the body (illnesses that include cancer). While there are a handful of doctors in the front line writing articles and books about what they have learned, there are also other researchers accumulating information. Notice that the Resources section of this book contains dozens of articles about iodine that have been written by doctors who are joining the iodine revival. The doctors who are leading the revival include:

- Dr. Guy Abraham
- Dr. Bernard A. Eskin
- Dr. David Brownstein
- Dr. Jorge Flechas
- Dr. William Shevin
- Dr. Jonathan Wright
- Dr. Donald W. Miller
- Dr. David Derry

The New Iodine Research

Dr. Guy Abraham has initiated much of the new iodine research. Look for his articles at www.optimox.com.

Dr. DeForest Clinton Jarvis, M.D.

Dr. Jarvis' book, *Folk Medicine*, contains remedies for humans as well as animals.

Breast Cancer List Serv and Web Site

There is a very large grass-roots educational movement that supports the iodine doctors, and the movement is using the Internet as a platform for disseminating information.

Breastcancerchoices.org is a Web site that was founded by a non-profit patient advocacy organization and it is a important resource for iodine information. The Web site evolved out of the Amazon E-mail Discussion Group, also called the Amazon-L listserv, that was founded in 1996 by Bonnie Bedford in Canada.

> Note: The word listserv is an abbreviation for list server or an Internet-based discussion that takes place via e-mail.

Since 1996, the women who have joined this discussion group have been determined to find the truth about breast cancer treatments. Their mission, as described on the site:

> *We are united in research, we see our mission as supporting each other and guiding newly diagnosed women through the minefield of the medical system.*

Dr. Albert Szent Gyorgi

Nobel Laureate Dr. Albert Szent Gyorgi, the physician who discovered Vitamin C, called potassium iodide the *universal medicine*, and took 770 milligrams per day as a preventative dose.

Highlights of the Breastcancerchoices.org Site

There are many features on the breastcancerchoices.org site that are helpful for people who are researching iodine including (Note: The people and topics in this list are explained throughout this book):

- Audio Interview with Dr. Jorge Flechas
  (See: www.breastcancerchoices.org/iodine.html)
- Dr. David Brownstein's Iodine Video
  (See: www.breastcancerchoices.org/iodineindex.html)
- The Iodine Index
  (See: www.breastcancerchoices.org/iodineindex.html)
- The Iodine Investigation Project
  (See: www.breastcancerchoices.org/IodineInvestigation.html)
- Resources (Books and Web Sites)

The Iodine E-Group at Yahoo

The iodine e-group at Yahoo is also a popular iodine discussion group. Founded in January, 2006 by Zoe Alexander and now owned by thyroid cancer survivor Stephanie Buist, the iodine group has over 1,300 members. To subscribe to the group, you must first sign up with Yahoo. Once you are a member of Yahoo, go to the iodine group's Web page to sign up:

http://health.groups.yahoo.com/group/iodine

Stephanie also owns an iodine research e-group for posting high-level information:

http://tech.groups.yahoo.com/group/IodineResearch

Stephanie Buist's Story

Stephanie's unusual history with thyroid cancer makes her an ideal owner of the iodine group that she has been managing for Zoe Alexander since April, 2006.

After three unsuccessful doses of radioactive iodine (RAI), Stephanie started using high doses of iodine to heal her cancer, and refers to herself as a "thyroid cancer conqueror." She spoke about her experience with iodine at a recent iodine conference in California (See: page 12) and helped Dr. David Brownstein edit the 3rd edition of his iodine book (See: page 127). Stephanie is also working on her Doctorate of Naturopathy and maintains (or helps maintain) the following Web sites:

- The iodine group's Web site (iodine4health.com)
- A personal blog about her thyroid cancer (http://ds-ladybugsandbees.blogspot.com)
- A thyroid cancer site (www.naturalthyroidchoices.com)

Chapter 1

Talking Points About Iodine

Malcolm Gladwell, the bestselling author of Tipping Point: How Little Things Can Make a Big Difference, says that tipping points trigger social epidemics—and that epidemics must be based on the idea that change is possible.

The job of spreading the news is in your hands, and to help you trigger a social epidemic, this chapter is organized into talking points. Talking points will help messengers communicate ideas about iodine to other people.

You'll notice that the source of each talking point appears in brackets and some of the talking points are supplemented with sidebars that provide additional background information.

#1: Iodine Suppresses Tumor Growth

[**Funahashi et al.**] Japanese researchers have found that iodine suppresses tumor growth in experimental animals and they have demonstrated that seaweed, that is high in iodine, induces apoptosis in human breast cancer cells (Funahashi, H., Imaj, T., Tanaka, Y., et al, "Suppressive Effect of Iodine on DMBA-Induced Breast Tumor Growth in the Rat," *Journal of Surgical Oncology,* 61:209-213, 1996, Funahashi,

"Wakame Seaweed Suppresses the Proliferation of 7,12-Dimethylbenz(a)-anthracene-induced Mammary Tumors in Rats," *Japanese Journal of Cancer Research*, 90 (1999), 992–997).

Potassium Iodide Is a Major Component in Harry Hoxsey's Cancer Formula

People who have followed stories about alternative cancer therapies may know about Harry Hoxsey, who ran 17 cancer clinics across the United States in the 1950s. A clip from a video documentary about Harry Hoxsey is available at YouTube.com:

www.youtube.com/watch?v=Na_ZOnWqWeI

If you watch the clip, you'll learn that Harry's treatment and clinics were endorsed by senators, judges and many doctors.

Harry's story, that began on an Illinois horse farm in 1840, has been compiled as text on a private Web site. The site also contains an list of ingredients in the Hoxsey tonic (http://www.industryinet.com/~ruby/hoxseycancer.html).

The June 12, 1954 issue of the *Journal of The American Medical Association* published an analysis of the Hoxsey tonic. As you read the Hoxsey doses on the next page, *remember the dose of potassium iodide as you read about the U.S. RDA for iodine in Talking Point #2.*

From the 1954 issue of JAMA
Each 5cc. of the Hoxsey Tonic contains:

Potassium Iodide	*150 mg.*	*7.7%*
Licorice	*20 mg.*	*7.7%*
Red Clover	*20 mg.*	*7.7%*
Burdock Root	*10 mg.*	*3.8%*
Stillingia Root	*10 mg.*	*3.8%*
Berberis Root	*10 mg.*	*3.8%*
Poke Root	*10 mg.*	*3.8%*
Cascara Amarga	*5 mg.*	*1.9%*
Prickly Ash Bark	*5 mg.*	*1.9%*
Buckthorn Bark	*20 mg.*	*7.7%*

Maximum does: 1 teaspoonful 4 times per day.

Hoxsey Tablets #100 (black) which are essentially the same as the liquid:

Potassium Iodide	*75 mg.*
Licorice	*10 mg.*
Red Clover	*10 mg.*
Burdock Root	*5 mg.*
Stillingia Root	*5 mg.*
Berberis(barberry) root	*5 mg.*
Poke root	*5 mg.*
Cascara Segrada	*2.5 mg.*
Prickly Ash Bark	*2.5 mg.*
Buckthorn bark	*2.5 mg.*

Maximum dose: 2 tablets 4 times a day.

#2: Japanese Iodine Consumption Averages 13.8 Mg/Day

[Dr. Guy Abraham] In Japan, where the incidence of breast cancer and infant death (infant mortality) is very low, people consume about 13.8 *milligrams* of iodine per day.

In the United States, the government's Recommended Daily Allowance (RDA) for iodine is 150 *micrograms* per day. If the Japanese average daily intake of iodine is converted to micrograms, the number would be 13,800 micrograms.

How Many Micrograms Are In A Milligram?
150 micrograms is a deceptive number that is actually very small. A microgram is 1/1000th of a milligram.

This quantity is 1/100th or 1/400th the amount that the iodine doctors say that we need (Note: Micrograms per day is abbreviated mcg/d or µg/d).

How Much Iodine Do You Eat Each Day?
To understand how much iodine is in the food that you eat, the following chart contains a list of foods that are the highest in iodine (Note: A microgram is abbreviated mcg.)

Mussels, 1 cup	180 mcg.
Yogurt, 1 cup	87.2 mcg.
Buttermilk, 1 cup	60 mcg.
Whole milk, 1 cup	56.1 mcg.
Cottage cheese, 1 cup	54 mcg.
1 Egg	27 mcg.
Filberts, 1 cup	19.3 mcg.
Strawberries, 1 cup	13 mcg.
Banana	9.12 mcg.

Compare these quantities to the 13,800 micrograms that the Japanese consume (in seaweed) each day.

Dr. Jorge Flechas points out in an audio interview available on the www.breastcancerchoices.org site that the U.S. dropped two nuclear bombs on Japan (a horrific event) and yet they have the lowest rates of gynecological cancers in the world. In contrast, the Russian population around Chernobyl have very high rates of cancer.

Dr. Flechas' comment refers to the fact that an adequate amount of healthy iodine in the human body will block an uptake of radioactive iodine (Note: Japan and Iceland have the highest intake of iodine and the lowest incidence of goiter and breast cancer).

To listen to the interview with Dr. Flechas, go to: http://iodine4health.com/research/flechas_2007_iodine2.mp3).

#3: Iodine Deficiency Can Cause Goiter

The *American Heritage Dictionary* defines goiter as a noncancerous enlargement of the thyroid gland, visible as a swelling at the front of the neck, that is often associated with iodine deficiency.

Even though doctors know that iodine is necessary to make thyroid hormones, they usually treat a thyroid hormone deficiency by prescribing supplemental hormones instead of iodine.

One hundred years ago, medical doctors used Lugol's solution (potassium iodide, iodine and water) for thyroid-related health problems as well as many other illnesses. Today, the National Institutes of Health Web site lists Lugol's Solution last in a list of options for treating goiter. Radioactive iodine to shrink the gland and surgery (thyroidectomy) to remove all or part of the gland are listed first.

A goiter that is associated with a geographic area that has a low level of iodine in the soil (usually away from a sea coast) is defined as an endemic goiter. As a result of low iodine in the soil, there is an insufficient amount of iodine in the diet. Because iodine is required to produce the thyroid hormone, thyroxine, the thyroid gland tries to make up for a thyroxine deficiency by increasing in size.

Photographer: Martin Finborud (1861-1930)

Goiter Symptoms

Besides a swelling in the neck, other symptoms of goiter include:

- Breathing difficulties, cough, or wheezing due to compression of the windpipe
- Swallowing difficulties due to compression of the esophagus
- Dizziness when the arms are raised above the head

In the early 1900s, goiter was very prevalent in the states around the Great Lakes and this area was nicknamed the goiter belt. Other goiter belts include parts of New York, New Hampshire, the Blue Ridge Mountains of West Virginia, and Edmonton, Canada. Public health studies that were conducted to determine the prevalence of goiter include:

- **Michigan State Department of Health**
  From 1923 to 1924, the Michigan State Department of Health conducted a large survey of goiter in school children. Of the approximate 66,000 children who were examined, about 39% had visible enlargement of their thyroid.

- **Ohio State Department of Health**
  A study conducted in Ohio between 1924 and 1936 showed that 31% of school children had goiter.

- **West Virginia**
  A study conducted in 1922 showed that 60% of school girls surveyed in Charleston and Huntington had enlarged thyroids.

In the 1920s, local public health departments promoted the use of iodized salt to eliminate goiter (potassium iodate or iodide was added to table salt in the form of a liquid drip or spray at an estimated cost of .05 cents per person per year).

Commercial Salt is Missing Minerals

Although iodized salt has reduced the incidence of goiter in areas of the world that are iodine deficient, commercial table salt is missing a long list of important minerals that are removed and sold when the salt is manufactured.

Grain and Salt Society founder Jacques de Langre helps readers understand how few minerals there are in commercial salt by comparing it to natural sea salt. In his book, *Seasalt's Hidden Powers,* de Langre explains that commercial salt has been processed to contain 99% sodium chloride (NaCl) as well as chemical additives to make it bright-white and free-flowing. In contrast, sea salt contains the following minerals:

Mineral	Percentage in Sea Salt
Sodium & Chlorine	84%
Sulphur, Magnesium, Calcium, Potassium	14%
Carbon, Bromine, Silicon, Nitrogen, Ammonium, Fluorine, Phosphorus, Iodine, Boron, Lithium	1.9997%

Mineral	Percentage in Sea Salt
Argon, rubidium, Copper, Barium, Helium, Indium, Molybdenum, Nickel, Asenic, Uranium, Manganese, Vanadium, Aluminum, Cobalt, Antimony, Silver, Zinc, Krypton, Chromium, Mercury, Meon, Cadmium, Erbium, Germanium, Xenon, Scandium, Gallium, Zirconium, Lead, Bismuth, Niobium, Thulium, Thallium, Lanthanum, Gold, Neodymium, Thorium, Cerium, Cesium, Terbium, Ytterbium, Yttrium, Dysprosium, Selenium, Lutetium, Hafnium, Gadolinium, Praseodymium, Tin, Berylium, Samarium, Holmium, Tantalum, Europium	.0003%

Although visible thyroid problems have disappeared in the United States, there is other evidence of low iodine in this country and other countries of the world:

- **Iodine Levels Have Dropped By 50% in the U.S.** As Dr. David Brownstein points out in his book, *Iodine, Why You Need It, Why You Can't Live Without It*, there is sufficient iodine in iodized salt to prevent goiter, but not enough to prevent thyroid illness or to provide for the body's iodine need.

  Brownstein explains that studies by the National Health and Nutrition Examination Survey I (NHANES, 1971-to-1974) and NHANES 2000 show that iodine levels have dropped 50% in the United States. He says that this drop has been seen in all demographic categories across the United States and that the percentage of pregnant women with low iodine concentration increased 690% in this time period. He further explains that low concentrations of iodine in pregnant women have been shown to increase the risk for cretinism, mental retardation, and possibly attention deficit disorder and other health issues in children.

- **Goiter is Still a Problem in Other Areas of the World** Internationally, the International Council for Control of Iodine Deficiency Disorders (ICCIDD) reports that goiter is still a health problem in many countries. Although many countries of the world have introduced iodized salt to prevent goiter, many communities do not even consume the 0.006-0.01% of potassium iodide present

in iodized salt. A 2004 issue of the ICCIDD newsletter contains the following estimates of the percent of households using iodized salt:

Country	Percent of Households
South Asia	
Bhutan	95
Bangladesh	70
Nepal	63
India	50
Pakistan	17
Afghanistan	15
East Asia and Pacific	
China	93
Vietnam	77
Laos (Lao PDR)	75
Thailand	74
Indonesia	65
Myanmar	48
Mongolia	45
Philippines	24
Cambodia	14

Forms of Iodine

There are several different forms of iodine and it is helpful to understand how they differ.

- **Iodine** (or di-atomic iodine) refers to two iodine molecules that are chemically bound together (I_2).
- **Iodine salts** are formed when iodine combines with another element, most commonly, potassium or sodium:

  KI (potassium iodide) and NaI (sodium iodide)
- **SSKI** refers to Saturated Solution of Potassium Iodide. This colorless solution contains potassium iodide but no iodine.
- **Lugol's Solution** is a solution of iodine, potassium iodide and water, developed in 1829 by a French physician named Jean Lugol.
- **Povidone-iodine (Betadine)** is a solution of poly-vinylpyrrolidone and iodine used as an topical anti-bacterial agent (e.g. as a surgical scrub).

#4: Iodine Deficiency Can Cause Hypothyroidism

[**Dr. David Brownstein**] In his book, *Salt Your Way To Health*, Dr. Brownstein says, "Thyroid illnesses, from hypothyroid-ism to autoimmune (hyperthyroid) disorders, have been increasing at near epidemic rates over the last 30 years." Thyroid illness is occurring at the same time that researchers

have noticed a 50% drop in iodine levels (NHANES studies). Brownstein sees the following reasons for this drop in iodine levels:

- Low bioavailability of the iodine that is added to table salt (Brownstein explains that only 10% of the iodide added to iodized salt is available for absorption).
- The stigma of salt causing high blood pressure, that has convinced many people to eat a low-salt diet, thus decreasing intake from iodized salt.

  Brownstein notes that high dietary sodium was not associated with high blood pressure (hypertension) in the U.S. government's National Health and Nutrition Examination Survey (NHANES I, 1971-to-1974). Instead, the survey found that low-salt diets were associated with higher blood pressure as compared to a high-salt diet. The NHANES survey found that inadequate levels of minerals potassium and calcium were the best predictors of high blood pressure.
- The addition of bromide (an inhibitor of iodine) to our food supply (Note: bromide has been added to bread and soft drinks such as Mountain Dew and AMP Energy Drink and some Gatorade products).
- Exposure to fluoride and chlorine, two elements that inhibit the uptake of iodine.

What Does Hypo- and Hyper- Mean?

Hypothyroidism refers to an underactive thyroid and hyperthyroidism refers to an overactive thyroid.

#5: Iodine Deficiency Can Cause Cretinism

When a pregnant woman is hypothyroid, she risks giving birth to a baby that is neurologically and cognitively impaired. Cretinism refers to severe mental retardation that occurs at birth due to a low thyroid condition and can be caused by an iodine deficiency.

Iodine deficiency in pregnant women can cause miscarriage, stillbirth and mentally retarded children. Endemic cretinism is still found in southern and eastern Europe, and it is also common in Asia, Africa, and Latin America, where the incidence may reach 10 percent in some communities. According to the International Council for the Control of Iodine Deficiency Disorders, iodine deficiency affects fifty million children. Of these:

1- to - 10% are born cretins
5 - to - 30% have some brain damage
30 - to - 70% have a loss of energy due to hypothyroidism

The *New England Journal of Medicine* has called iodine deficiency, the "most preventable cause of mental deficits in the world."

Goiter and Cretinism Are Related

Whenever endemic goiter is present, endemic cretinism is also present. Researchers have observed that when a family moves to a goiter district, goiter appears first, and then cretinism.

#6: An Iodine Deficiency Will Be Influenced By a Selenium Deficiency

[**John, ithyroid.com**] Iodine and selenium should be taken together if they are both deficient. Scientists have recently discovered that there is a relationship between iodine and selenium. Although selenium has many important functions in the body, its role in thyroid health has been the key that has helped researchers understand that these two minerals interact.

In areas of the world where iodine and selenium are both very scarce (e.g. African Zaire), a high percentage of the population has goiters and hypothyroidism. When selenium was given to iodine deficient patients who were hypothyroid, their hypothyroidism not only became worse, selenium supplementation also produced hypothyroidism in people who had normal thyroid function. This outcome caused researchers to realize that these minerals should both be taken together (Note: Numerous studies have shown that 200-400 mcg. per day is a safe dose of selenium showing no side effects).

IQ Is Influenced By Iodine

The human IQ is heavily influenced by the presence of iodine, and a lack of iodine in early pregnancy produces children with attention deficit disorder (Flechas interview, breastcancerchoices.org).

#7: Every Tumor Suppressing Gene in the Human Body Requires Iodine and Selenium For Expression

[**Dr. Richard Olree/Charles Walters**] Dr. Richard Olree, who co-authored *Minerals for the Genetic Code* with Charles Walters, founder of *Acres U.S.A.*, explains that iodine and selenium are required by genes that express the enzymes that suppress tumors (For details, listen to Dr. Olree's audio presentation on the Web at www.eminerals.info/drrichpasa07 .mp3 or see the Resources section for more information about this book).

Seaweed Recommendation From a Madison WAPF Chapter Member

Richard Dolan, our farmer from Dodgeville, WI (prodigy@rjd4.com), recommends Larch Hanson's Family Pack of sea vegetables (See: p. 104).

Selenium's Role in the Body

Thyroid Functions

Scientists have studied the interaction between iodine and selenium since the 1990s, and it is now known that the deiodinase enzymes that convert thyroid hormone T4 (thyroxine) to the more active thyroid hormone T3 (triiodothyronine) and then T3 to T2, are requiring or dependent on selenium.

Selenium also plays a role in thyroid metabolism as part of a detoxifier known as glutathione peroxidase (GPX) that limits the excessive production of T4 by degrading hydrogen peroxide (H_2O_2) that is produced during the production of thyroid hormone. If GPX were not present to degrade H_2O_2, the levels of T4 would be excessively high. The degradation of H_2O_2 also protects the cells of the thyroid gland.

Non-thyroid Functions

Selenium has several non-thyroidal functions in the body that may have a connection to iodine:

- **Selenium Protects Fats From Peroxidation**
  Peroxidation is the oxidation of fats in cellular membranes that causes fats to turn rancid.

Selenium is an important component of glutathione peroxidase (GPX) that protects fats from oxididation.

When cellular membranes are damaged by peroxidation, nutrients cannot pass through. In skin cells, peroxidation causes age spots that also occur in the liver (Note: Dr. David Derry says iodine protects polyunsaturated fats. See: Talking Point #15).

- **Selenium Helps Break Down Estrogen**
  Selenium is an important part of an enzyme called sulfotransferase that breaks down estrogen (See: Talking Point #9).

#8: Lugol's Iodine in Water and Apple Cider Vinegar is a Vermont Folk Remedy

[**Dr. DeForest Clinton Jarvis**] In his book, *Folk Medicine*, Dr. Jarvis recommends the following recipes for every healthy adult (as a supplement the body needs twice-per-week and as a preventative measure three times-a-week during cold and flu season):

For those weighing more than 150 lbs. (sip during a meal)

- 2 drops of Lugol's iodine (5% solution)
- glass of water
- one teaspoon of apple cider vinegar

For those weighing less than 150 lbs. (sip during a meal)

- 1 drop of Lugol's iodine (5% solution)
- glass of water
- one teaspoon of apple cider vinegar

Jarvis calls this remedy a blood wash and says that in a person with a fever, this mixture will cause a temperature to drop when its taken morning, noon and evening (See: Talking Point #46 for Jarvis' story about how the remedy worked for cows sick with mastitis and a temperature of 107 degrees).

Jarvis believed that iodine gives the body an ability to resist disease and explained that the stored iodine in the thyroid gland plays a role in this function. In *Folk Medicine*, he writes:

> *All the blood in the body passes though the thyroid every seventeen minutes. Because the cells making up this gland have an affinity for iodine, during this seventeen-minute passage the gland's secretion of iodine kills weak germs that may have gained entry into the blood through an injury to the skin, the lining of nose or throat, or through absorption of food from the digestive tract. Strong, virulent germs are rendered weaker during their passage through the thyroid gland. With each seventeen minutes that rolls around they are made still weaker until finally they are killed if the gland has its normal supply of iodine. If it does not, it cannot kill harmful germs circulating in the blood as Nature intended it should.*

#9: Lugol's Iodine, Apple Cider Vinegar, Honey and Water Has a Calming Effect on Adults and Children

[**Dr. DeForest Clinton Jarvis**] In his book, *Arthritis and Folk Medicine*, Dr. Jarvis explains that Lugol's iodine added to a mixture of apple cider vinegar, honey and water, has a calming effect on children that have a race horse disposition (i.e. tantrums and high-strung behavior) and adults whose problems make it diffiicult to sleep at night.

The recipe for children:

- glass of water
- one teaspoon of apple cider vinegar
- 2 drops of Lugol's

Jarvis notes that this may be given at any time during the day—at meals or between meals and says that parents reported that their children quieted down within 2 hours. The mixture was given every day if needed and then at intervals if tantrums and high-strung behavior returned.

The recipe for adults:

- glass of water
- two teaspoons of apple cider vinegar
- two teaspoons of honey
- 2 drops of Lugol's

Note: New Zealand scientists who have studied iodine chemistry say that sugar can make iodine less effective. See: "Foods to Avoid When You Are Taking Iodine" in Chapter 4.

#10: Vitamin C Helps Improve Defective Iodine Retention

[**Drs. Guy Abraham and David Brownstein**] In an article titled, "Evidence That the Administration of Vitamin C Improves a Defective Cellular Transport Mechanism for Iodine: A Case Report," Drs. Abraham and Brownstein describe a case of woman with cellular iodide transport damage who responded to three months of Vitamin C therapy (3 grams per day) that was alternated with iodine supplementation every other day (Note: The box titled, Vitamin C Powder Makes Iodine Stains Disappear explains why Vitamin C and iodine should not be taken together).

#11: Iodine Reduces Fibrocystic Breast Disease

[**Dr. Jorge Flechas**] Fibrocystic breast disease is the presence of cysts, nodules and scar tissue in the breast that is often accompanied by pain. In an audio interview with Dr. Jorge Flechas on the Breastcancerchoices.org site, Dr. Flechas mentions that 84% of the women in the United States have fibrocystic breast disease. To listen to the audio interview with Dr. Flechas, go to: www.breastcancerchoices.org/iodine.html.

Dr. Jonathan Wright explains that iodine helps eliminate fibrocystic disease and ovarian cysts, in part, because of iodine's interaction with estrogen. There are three estrogens in the human body and iodine helps to metabolize the two dangerous estrogens (estrone and 16-alpha-hydroxyestrone) into a neutral estrogen (estriol).

Vitamin C Powder Makes Iodine Stains Disappear

Dr. Hulda Clark has been recommending Lugol's iodine solution for many years. In her book, *The Cure for All Diseases*, she recommends using Vitamin C crystals to remove an iodine stain if you spill a few drops.

The dark iodine stain will instantly disappear due to an oxidation-reduction reaction. Reactions that involve a transfer of electrons from one atom to another are called oxidation-reduction reactions or redox for short. Vitamin C is considered a univeral donor and reduces iodine while iodine oxidizes Vitamin C. This oxidation-reduction reaction is the reason that iodine and Vitamin C should not be taken together.

#12: Iodine Reduces Ovarian Cysts

[**Dr. Jonathan Wright**] In an article about iodine on his Tahoma Clinic Web site, Dr. Wright relays a story about iodine's ability to reduce ovarian cysts:

> *One of our daughters and at least thirty other women I've worked with in nearly 30 years have helped ovarian cysts disappear within two to three months with SSKI (6 to 8 drops of SSKI taken in a few ounces of water daily).*

#13: Iodine Improves Fertility in PCOS Patients

[**Dr. Jorge Flechas**] Dr. Flechas has had six patients with Polycystic Ovarian Syndrome (PCOS) resume normal periods and four have had children.

PCOS was first described as an infertility problem in 1935, but it is now recognized as a complex endocrine disorder that affects six to ten percent of women. Complications include insulin resistance as well as increased risk of cardiovascular disease and breast cancer. Symptoms include irregular or absent menstrual cycles, high blood pressure, acne, elevated insulin levels, insulin resistance or diabetes, infertility, excess hair on the face and body, thinning of scalp hair (alopecia) and weight problems, or obesity that is centered around a woman's waist.

#14: Iodine Initiates Apoptosis

[**Dr. David Derry**] Derry suggests that iodine initiates apoptosis, a programmed cell death that eliminates malfunctioning cells such as cancer cells. And, that the cellular changes that occur in apoptosis in the presence of iodine, are similar to the cellular changes that occur when iodine is used as an antisepic against single celled organisms such as bacteria, viruses and protozoa. Derry explains that in areas of the body where many cells die—there is a large supply of iodine.

Through biochemical reactions in the body, an estimated 50 to 70 billion cells die in an average adult each day. Cell

death through apoptosis is part of a larger mechanism that maintains a balance between cell replacement (cell division) and cell death (removal of diseased or malfunctioning cells).

Apoptosis in Malfunctioning Cells and in the Developing Embryo

Apoptosis or cellular suicide was not understood until the late 1960s. The process was first studied by an Australian researcher named John Foxton Ross Kerr, Emeritus Professor of Pathology at the University of Queensland. His study was first published in 1965 and he subsequently received the Paul Ehrlich and Ludwig Darmstaedter Prize in 2000 that he shared with Boston biologist Robert Horvitz.

There are now over 35,500 papers on apoptosis in scientific journals that include some of the most prestigious scientific publications.

Cellular biology is complex and it is now known that cells receive instructions from nearby cells signaling them what to do next, including when to die.

Cell Death of Malfunctioning Cells

Although the apoptosis mechanism evolves out of a complex signaling process, David Derry suggests

that the actual cell death is accomplished when iodine combines with tyrosine and histidine in cell membrane proteins. These two amino acids are also found in the cell membranes of single celled organisms such as bacteria, viruses, fungi and protozoa making iodine an extremely effective antiseptic. Derry theorizes that iodine is involved in apoptosis due to the following:

- the iodization of amino acids in the cell membranes of single-celled organisms denatures proteins causing shrinkage and cell death.
- the large supplies of iodine in areas of the body where there is high cell turnover. Examples include nasal passages and the lumen of the stomach.

Cell Suicide in the Embryo

Natural cell death is also important to the developing organism. In the human embryo for example, apoptosis sculpts mitten-like hands into separate fingers.

Derry explains that during pregnancy, the level of iodine in the placenta is five times the mother's level and suggests that this is due to iodine's role in apoptosis during fetal growth. He says apoptosis in the brain is higher than other organs and may explain why low iodine would cause abnormal brain development.

#15: Iodine Prevents Allergic Responses

[**Dr. David Derry**] Derry says that this function occurs when iodine coats foreign proteins. He says this discovery, made by Brazilian researchers, seems to explain why the thoracic duct (main duct of the lymphatic system) of dogs has a concentration of iodine that is five times the level found in their blood. Researchers noticed that when milk was fed to dogs, the level of iodine in the thoracic duct goes up 20-30 times implying that iodine coats foreign proteins in milk allowing them to enter circulation without an attack from the immune system.

#16: Iodine Inactivates the Autoimmune Mechanism

[**Dr. David Derry**] Derry explains that autoimmune diseases are related to damage to the cells of the thyroid gland, pancreas and other glands. He says that when dead cells enter the blood stream, the proteins are foreign to the body, causing the body's immune system to manufacture antibodies that are capable of attacking normal tissue. With enough iodine in the blood stream, the discarded cells are made non-allergic by a coating of iodine.

#17: Iodine Protects Double Bonds in Fats

[**Dr. David Derry**] Derry suggests that iodine protects double bonds in *unsaturated fats* for delivery to the cardiovascular system and to synaptic membranes in the brain and retina. He says experiments in the first half of the century showed puppies fed a high fat diet developed goiters,

Iodine Allergy is Usually a Seafood Allergy

A very small number of people are sensitive to iodine and may break out with hives when they consume iodine. In his 30 years of practice, Dr. Jonathan Wright says he's only seen an iodine allergy a few times. He says that it causes a red, bumpy skin rash that goes away when iodine is discontinued, and that a topical (on the skin's surface) iodine allergy is almost never a serious emergency. He says that SSKI or iodine can occasionally cause acne, that also goes away once the source of iodine is discontinued.

Wright explains that an iodine allergy, that can interfere with breathing and occasionally send people to the emergency room, is usually not allergy to iodine or iodine molecules, but instead to a much larger, possibly iodine-containing molecule found in lobster, crab, clams and other shellfish. These molecules are not present in SSKI or iodine. However, if there's any suspicion at all of iodine allergy, it's best not to swallow any without testing for allergy or sensitivity.

suggesting that fat removes iodine from the diet. He also says that double bonds in fat use up iodine and explains that researchers measure the number of bonds with an iodine number—or the amount of iodine taken up by 100 grams of fat. *Polyunsaturated fats* have the most double

bonds and also have the highest iodine number (Note: Butter, cream, coconut oil, palm oil, and cocoa butter are predominantly saturated fats that do not have double bonds that need to be protected).

#18: Iodine is a Germicide

[**Dr. Jonathan Wright**] Dr. Wright relays a story about iodine's ability to kill germs:

> *When we're forced to travel by air [referring to he and his wife Holly], we drink a few ounces of water with 10 drops of SSKI, and prevent any airline sinusitis or other respiratory infection that so often follows several hours spent breathing re-cycled, germ laden air (SSKI rapidly accumulates in any and all body secretions, including in the sinuses, where it inhibits or kills bacteria, viruses, and fungi before they can cause an infection).*

#19: Iodine is a Potent Water Purifier

[**Dr. Jonathan Wright**] Dr. Wright also relays a story about iodine's ability to purify water:

> *Some years ago, a retired Indian physician told me about his use of SSKI during more than 30 years traveling from village to village in rural Africa. Most usually, the only drinking water available was from a local stream or river, muddy and contaminated. After removing sediment and debris by straining the dirty water through cheesecloth, he'd add several drops of SSKI, and wait two to three min-*

utes. He and his team could then drink the water. In over 30 years, he never got an infection from contaminated water. The SSKI killed any micro-organisms present.

The health service at Tufts University (http://ase.tufts.edu/healthservice/travelDuring.htm) recommends using iodine as a chemical treatment of water while traveling as a protection against viral and waterborne disease:

Use a 2% tincture of iodine solution, add 5 drops per quart or liter of clear water, double the dosage for cloudy water and let stand for 30 minutes. Cloudy water should be strained through a clean cloth to remove sediment and then treated with heat or iodine. Very cold water also requires a double dosage and needs prolonged contact time. Let stand for up to several hours before use.

Note: Iodine (and other halogens) are not effective against a protozoan called cryptosporidium in its cyst stages.

#20: Iodine Protects the Body From Radiation

[**U.S. Government Centers For Disease Control and Prevention (CDC)**] The following recommendation about daily dosing of iodine after a nuclear radiation emergency appears on the government's Centers for Disease Control Web site:

The FDA has approved two different forms of potassium iodide (KI)—tablets and liquid—that people can take by mouth after a nuclear radiation emergency. Tablets come in two strengths, 130 milligram (mg.) and 65 mg. The

Thyroid Hormones Double Breast Cancer Risk

According to a study in the *Journal of the American Medical Association* (Ghandrakant, C., Kapdim M.D., Wolfe, J.N., "Breast Cancer. Relationship to Thyroid Supplements for Hypothyroidism," JAMA, 238:1124, 1976), women who take thyroid hormones double their risk of breast cancer. Supplemental thyroid hormone inhibits the ability of the body to absorb iodine.

tablets are scored so they may be cut into smaller pieces for lower doses. Each milliliter (ml.) of the oral liquid solution contains 65 mg. of KI.

According to the FDA, the following doses are appropriate to take after internal contamination with (or likely internal contamination with) radioactive iodine:

- *Adults should take 130 mg. (one 130 mg. tablet or two 65 mg. tablets or two ml. of solution).*
- *Women who are breastfeeding should take the adult dose of 130 mg.*
- *Children between 3 and 18 years of age should take 65 mg. (one 65 mg tablet or 1 ml. of solution). Children who are adult size (greater than or equal to 150 pounds) should take the full adult dose, regardless of their age.*

- *Infants and children between one month and three years of age should take 32 mg. (½ of a 65 mg tablet or ½ ml. of solution). This dose is for both nursing and non-nursing infants and children.*
- *Newborns from birth to one month of age should be given 16 mg (¼ of a 65 mg. tablet or ¼ ml. of solution). This dose is for both nursing and non-nursing newborn infants.*

#21: Iodine Prevents Conjunctivitis in Infants

[**Drs. Sherwin J. Isenberg, M.D., Leonard Apt, M.D., and Mark Wood, M.D.**] When infants pass through the birth canal, they have ophthalmic bacteria that are similar to that in the mother's birth canal. An aqueous solution of povidone-iodine prevents conjunctivitis caused by aerobic and anaerobic bacteria, richettsia, viruses and fungi. The solution also prevents conjunctivitis caused by gonococus and chlamydia microorganisms. Povidone-iodine is a non-irritating form of iodine that has a broad spectrum of antimicrobial action and has a low possibility of micoorganisms developing resistance.

#22: Iodine Inactivates the Herpes Virus

[**Dr. Jonathan Wright**] In his iodine article on his Tahoma Clinic Web site, Dr. Wright relays a story about iodine's ability to inactivate the herpes virus:

> *Herpes simplex (herpes) outbreaks can be stopped cold, but it often takes longer for the sore to heal itself over.*

He explains that using SSKI mixed 50-50 with Dimethyl sulfoxide (DMSO) works better, as the DMSO enables SSKI to penetrate much more deeply into the tissues and kill germs.

#23: Organs Use Different Forms of Iodine

[**Dr. Jorge Flechas**] In an audio interview with Dr. Flechas, available on breastcancerchoices.org, he explains that the organs of the body prefer different forms of iodine:

- Stomach tissue prefers iodine
- Thyroid tissue prefers iodide
- Breast tissue needs both iodine and iodide
- Brain tissue prefers iodide

Bromide Detox Symptoms

Iodine supplementation, if it is done too quickly, and/or in the presence of bromide in the body, can cause detox symptoms (constipation, acne or rash) that occur mostly from bromide (Note: For a list of 29 possible symptoms, see: www.breastcancerchoices.org/bromidedetoxsymptomsandstrategies.html). Dr. William Shevin has developed a salt protocol to clear these detox symptoms if they occur (See: Shevin's Remedy for Clearing Bromide Symptoms on page 93).

#24: Iodine Heals Dupuytrens Contracture

[**Dr. Jonathan Wright**] In his iodine article on his Tahoma Clinic Web site, Dr. Wright relays a story about iodine's ability to heal Dupuytrens Contracture and a similar condition called Peyronie's disease:

> *Dupuytren's contracture and Peyronie's disease are two fibrotic conditions that can be helped considerably by SSKI. In Dupuytren's contracture, thickening (fibrosis) occurs along one of the tendons in the palm in the hand, pulling the related finger down towards the palm. As the problem progresses, the finger often can't be straightened.*
>
> *In Peyronie's disease, a very similar thickening occurs along the shaft of the penis, making erections increasing curved and painful. In both cases, rubbing SSKI into the thickened tissue at least twice daily softens and lessens the fibrotic area over a period of several months.*
>
> *For these conditions, it's additionally helpful to take 2 grams of para-aminobenzoic acid (PABA) (three times daily), and to rub a mixture of Vitamin E and DMSO into the thickened areas. However, if caught early, SSKI alone will often do the job (It is also advisable to have glucose-insulin tolerance test done, as there's an unusually high incidence of insulin resistance in people with Dupuytren's contracture or Peyronie's disease).*

Drug Store Iodine

The iodine sold in drug stores cannot be used for internal use (e.g. Walgreen's Iodine Tincture, 2% U.S.P). This type of solution contains an alcohol that is toxic to the body when taken orally. When applied to the skin, the alcohol evaporates leaving whatever iodine it is to be absorbed.

#25: Iodine Flattens Keloid Scars

[**Dr. Jonathan Wright**] Dr. Wright's solution for flattening keloid scars is another iodine/DMSO remedy:

> *Keloids are abnormally thick scars, sometimes as much as an inch thick, that can form after injury. Although anyone can get a keloid, they're more common among blacks than other ethnic groups. Rubbing SSKI into a keloid at least twice daily will ultimately flatten them down to a normal scar, but it can take many months to a year for particularly bad ones. The treatment goes faster if SSKI is mixed 50-50 with DMSO.*

#26: Iodine Improves the Endocrine System

[**Dr. Jorge Flechas**] Dr. Flechas has discovered that diabetics who have insulin resistance diabetes (Type II diabetics who

take insulin), and who take iodine, need less insulin. He feels this is because every hormone receptor in the body needs iodine to function normally.

#27: Iodine Heals Fistulas

[**Dr. Jonathan Wright**] Dr. Wright explains that iodine and DMSO will also heal fistulas:

> *Fistulas are abnormal tunnels through tissues, tunnels prevented from healing by chronic infection. Two not-unusual types are peri-anal fistulas (a tunnel from outside the anus to the inside of the rectum) and recto-vaginal fistulas. Although these fistulas can be treated successfully by surgery, they can often be healed by frequent swabbing inside and out with an SSKI-soaked Q-tip. Patience is required. Complete healing often takes several months. The treatment appears to work better if the SSKI is mixed with DMSO, which enhances penetrance.*

DMSO is Sold in Health Food Stores

Dimethyl sulfoxide (DMSO) is a solvent that has been used as an agent to increase the penetrability of other substances (Note: A solution of 99% DMSO liquid is sold at health food stores and pharmacies).

#28: Iodine Removes Toxins

[**Dr. David Derry**] In his book, *Iodine: How to Prevent and How to Survive Breast Cancer,* Dr. David Derry, M.D., Ph.D, cites the work of researchers I.F. Heniene and L.G. Heniene as the source of this iodine function and explains that iodination of amino acids tyrosine and histidine in protein cell membranes deactivates biological poisons such as snake venom. Derry proposes that this may be an important function of iodine in the lumen (cavity) of the stomach. He says this may explain why Lugol's solution in a glass of water is a good antidote for food poisoning.

#29: Iodine is an Antidote for Food Poisoning

[**Atlanta Georgia's Earth Clinic**] Earthclinic.com is a site that contains information about natural remedies. The site contains several iodine cures including the following instructions for food poisoning (Note: the site warns not to try this if you have a known allergy to iodine):

> *The following remedy is useful for Salmonella poisoning and Giardia. If you have gas and bloating you most likely have Salmonella poisoning. Here's the recipe:*
>
> *Add 6 drops of Lugol's iodine solution to half glass of water. Stir and drink immediately. You will feel better within an hour. Take this 4 times a day, after meals and at bedtime, for 3 days in a row, then as needed.*

#30: Iodine Heals Hemorrhoids

[**Dr. Jonathan Wright**] According to Dr. Wright's article on his Tahoma Clinic Web site, hemorrhoids respond to iodine:

> *My colleague Richard Kunin, M.D. of San Francisco, is a world class expert on the use of SSKI and other forms of iodine. He has found that hemorrhoids will sometimes disappear literally overnight, when SSKI (20 drops) mixed with flaxseed oil (one ounce) is rubbed in them at bedtime. He's also found that SSKI alone will do the same job, although it really stings when applied to a hemorrhoid by itself.*

From the Diagnose-Me Web site (www.diagnose-me.com):

> *Some doctors are using different forms of iodine (SSKI or Lugol's) to help shrink and relieve the pain of hemorrhoids. A drop, placed on a finger and massaged into the affected area, can be very effective, though it may sting temporarily. Consider mixing 20 drops with an ounce of flax oil and storing it in the refrigerator. Apply twice per day; rapid relief should be on the way.*

Are You Wondering How Lugol's Compares to SSKI?

Chapter 3 provides details about the potency of these two iodine solutions and details about a recent ruling that will affect your ability to buy Lugol's.

#31: Iodine Reverses Atherosclerosis

[**Dr. Jonathan Wright**] Dr. Wright's research concerning iodo-niacin may be the reason that niacin was recommended at a recent iodine conference:

> *Over 30 years ago, two ophthalmologists observed that a combination tablet called Iodo-niacin (iodide 120 milligrams, niacin 15 milligrams) taken for several months could actually reverse atherosclerotic clogging of arteries. They proved this effect by taking pictures of clogged arteries in the backs of the eyes (retinal photomicrographs) before and after treatment. The published photographs showed a significant lessening of the artery clogging in the after pictures.*

#32: Iodine Heals Sebaceous Cysts

[**Dr. Jonathan Wright**] In his iodine article on his Tahoma Clinic Web site, Dr. Wright relays a story about iodine's ability to heal sebaceous cysts:

> *Sebaceous cysts are cysts which contain oily, fatty material. They usually appear rather suddenly on the face or in the groin or labia. Rubbing in SSKI mixed 50-50 with DMSO will almost always persuade these cysts to go away in a week or two; it appears that the iodide dissolves the fatty, oily material contained in the cysts, allowing your body to slowly re-absorb and dispose of it.*

Thyroid Function Surge

Thyroid function may surge briefly as you add iodine to a gland that has been iodine deficient for a long time (See: Tracking Your TSH Value in Chapter 3).

#33: Iodine Heals Infected Hangnails

[**Dr. Jonathan Wright**] Dr. Wright also relays a story about iodine's ability to heal infected hangnails:

Infected hangnails are easy to clear up, as are nagging bacterial infections around the edges of the toenails. Rub in a mixture of 50-50 iodine and DMSO several times daily, and the problem is usually gone in a few days.

#34: Iodine Dissolves Parotid Duct Stones

[**Dr. Jonathan Wright**] In his iodine article on his Tahoma Clinic Web site, Dr. Wright relays a story about iodine's ability to dissolve parotid duct stones:

> *Although it's not a common condition, from time to time someone will come to my office at Tahoma Clinic inquiring about alternatives to surgery for parotid duct stone. These are stones which can form in the saliva-carrying duct(s) from the major salivary glands (parotid glands, located at the angle of the jaw). Three to four drops of SSKI taken in water daily will almost always dissolve parotid duct stones within four to eight months.*

Link Between Iodine and Selenium

Scientists have discovered that there is a relationship between iodine and selenium. Iodine and selenium should be taken together if they are both deficient.

#35: Iodine Loosens Mucous Secretions

[**Thomson Healthcare, PDRHealth.com**] Thomson Healthcare, the company that publishes the 3,000-page *Physician's Desk Reference* (PDR), the source of FDA-approved information on prescription drugs, has this to say about iodine's use as an expectorant:

> *Apart from its use in iodine-deficiency disorders and for certain hyperthyroid conditions and thyroid storm, iodine is used as an expectorant.*

Note: An expectorant helps bring up mucus and other material from the lungs, bronchi, and trachea.

#36: Iodine Heals Swollen Glands

[**Dr. Jonathan Wright**] In his iodine article on his Tahoma Clinic Web site, Dr. Wright relays a story about iodine's ability to heal swollen glands:

> *If you have persistent swollen glands in the throat or groin areas, see a doctor first! These can very rarely be signs of leukemia, lymphoma, or another cancer, especially in older people. But if all tests and studies are negative, and the*

doctor says it's just swollen glands, rub in the SSKI with DMSO. In a large majority of cases, the swollen glands will gradually fade away.

#37: Iodine Heals Onychomycosis

[**Dr. Jonathan Wright**] In his iodine article on his Tahoma Clinic Web site, Dr. Wright relays a story about iodine's ability to heal onychomycosis:

Fungus under the toenails (onychomycosis) is a difficult problem to treat. Even conventional anti-fungal drug treatment takes months to work, and (for safety) monthly liver function tests are necessary. SSKI and DMSO rubbed on, around, and under the affected toenails doesn't work any faster, but it's just as effective, and definitely safer. Make sure to wear old socks, because SSKI and other forms of iodine leave an orange-brown stain (Note: traditional SSKI is clear. The SSKI sold at the Tahoma Clinic is a unique form that contains iodine).

Other safe and effective alternatives include geranium oil, oregano oil, and tea tree oil. These and other anti-fungal oils also require help from DMSO to penetrate the toenail and soak the fungus underneath.

#38: Iodine Heals Vaginal Infections

[**Dr. Jonathan Wright**] Dr. Wright's reference to iodine stains in this remedy for vaginal infections refers to the Tri-Quench form of SSKI that he sells at his clinic (See: Other Forms of Iodine in Chapter 3):

SSKI can also help clear up vaginal infections. Twenty to thirty drops in water, used in a small douche once daily for five to ten days will usually do the job. (There's actually a prescription-only iodine preparation available for vaginal infections, too.) However, iodine preparations of any sort for vaginal infections are often not popular because of the inevitable orange-brown stains they leave on clothing.

#39: Iodine Heals Bladder Infections

[**Dr. Jonathan Wright**] During their trips, Dr. Wright's wife has helped women heal bladder infections with SSKI:

Although Holly (Dr. Wright's wife) has never had the experience, occasionally another woman at one of the conferences they attend has developed a bladder infection when far away from home and her own physician. Holly gives her our back-up small bottle of SSKI with instructions to take ten to fifteen drops in water or juice every three to four hours (while awake) until the infection is gone.

[**Michael, from Peoria Arizona**] Michael posted this on the Iodine Group Web site (http://iodine4health.com):

I have used Lugol's internally for years. My wife had a major bladder infection and tried all kinds of drugs. Finally, she wanted to try Lugol's and within two weeks she began to walk without pain. I also placed it in the water containers of my two dogs and my ten year-old dog came alive again. I feel it killed all the worms in her that were bleeding her of energy. I believe in Lugol's for everything.

#40: Iodine Reduces Gas From Eating Beans

[**Dr. Jonathan Wright**] Thanks to Sally Fallon, author of *Nourishing Traditions* cookbook, and founder of the Weston A. Price Foundation, WAPF members know about Dr. Wright's tip for soaking beans, nuts, grains and seeds to inactivate enzyme inhibitors (WAPF members use salt):

> *There's a gastronomic use for SSKI: reducing the gas we all get from eating beans! If you're soaking beans before cooking them, add one or two drops of SSKI, and let them soak for an hour or more. (Pour off that water before cooking, and add fresh water.) You'll be surprised at the reduction in resulting intestinal gas! (For those who want a technical explanation: there's a naturally occurring enzyme inhibitor in beans which interferes with starch digestion, producing gas. SSKI inactivates this enzyme inhibitor.)*

#41: Iodine Detoxes Heavy Metals

[Dr. Jorge Flechas] When taking iodine, there is an increased excretion in the urine of arsenic, mercury, lead, aluminum, and other toxic metals. Iodine is selective in that it leaves the essential metals (e.g., iron) and removes the toxic ones.

#42: Iodine Prevents Baldness

[**Barb from Auckland, New Zealand**] Barb posted this on the Iodine Group Web site (http://iodine4health.com):

Alopecia Areata is bald spots that occur all of a sudden on your scalp. I dab iodine on once a day on bald spots for a week to a fortnight - and then forget about it. So far, it seems to start the growth of hair again. It changes the scalp texture from red and irritable back to normal scalp. Within six weeks to eight weeks the spot is usually covered with little hairs.

#43: Iodine Regenerates the Skin

[Dr. Craig Kraffert, dermstore.com] The Dermstore.com, founded by dermatologist Dr. Craig Kraffert, has an article that contains information about iodine's role in skin health:

Iodine aids in healing skin infections by increasing oxygen consumption and the metabolic rate of the skin. Iodine also prevents rough skin from developing, and prevents premature aging.

Twenty First Century Iodophobia

Dr. Guy Abraham uses the word iodophobia to describe the medical estbalishment's fear of iodine. In the 19th Century, iodine was used to treat many illnesses and patients were sent home with bottles of Lugol's Solution, a liquid iodine solution created by French physian Jean Lugol. Medicine's transition to the state of iodophobia is described in Chapter 2.

#44: Iodine Fights Colds

[The Bastyr Center for Natural Health] BCNH, www.bastyrcenter.org, is part of Bastyr University. Their Web site has this to say about iodine and the prevention of upper respiratory infection (URI):

> *In Japanese society, gargling with water or medicines containing iodine is a common practice for preventing URIs. In one preliminary study, school children who gargled daily with an iodine solution were found to be 28% less likely to get colds than children who did not gargle.*

#45: Iodine Replaces Dangerous Halogens

[Dr. Brice Vickery] In an article called "Iodine and the Halogen Revolution," Dr. Vickery has this to say about iodine's ability to replace toxic halogens:

> *There are four halogens: iodine, bromine, fluorine and chlorine. Only iodine and chlorine are necessary to the body. We need chlorine in the stomach for secretion of hydrochloric acid. Chloride is also an important part of the blood's regulation of its acid-base balance. We also need chlorine to breathe.*
>
> *All these halogens use the same receptors in the body. If a person's diet is deficient in iodine, the iodine receptors in the thyroid and stomach, for example, may fill up with bromine that is common in grains, bleached flour, sodas, nuts and oils as well as several plant foods. This will cause*

Iodine Detox Symptoms

People who are iodine deficient will often experience detox symptoms when they begin taking iodine. For details, see, Detox Symptoms From Iodine Supplementation in Chapter 3.

a thyroid deficiency and the iodide-pump in the stomach will not work efficiently. […] Fluorine from sources such as toothpaste, certain teas, and fluoridated water will also take up receptor space.

Once this receptor space is taken up, my research shows me that it takes a certain level of iodine loading to replace the unwanted halogens with iodine, this seems to be especially so of bromine.

#46: Lugol's Iodine, Vinegar and Water is a Remedy for Acute Mastitis in Cows

[Dr. DeForest Clinton Jarvis] In *Arthritis and Folk Medicine*, Dr. Jarvis explains how he administered a Lugol's iodine, apple cider vinegar and water remedy to his friend's cows that had acute mastitis of the udders. Jarvis' friend called him after the veterinarian had used sulfa drugs without success. Four of the farmer's best cows, that were running a temperatures as high as 107 degrees, were very sick and the vet had told him the cows were going to die.

Jarvis instructed the farmer to give the cows the following mixture by mouth from a bottle three times a day (morning, noon and night):

- 4 ounces of apple cider vinegar
- 4 ounces of water
- one teaspoon of Lugol's solution (5%)

The cows' temperatures began to drop immediately and by the end of the one week, all four cows had recovered from their infection. Three of the cows returned to milk production, and the fourth did not produce milk until her next calf was born and the new lactation period was started.

#47: Lugol's Iodine and Apple Cider Vinegar, Added to a Dairy Ration, Will Decrease the Bacteria Count of Milk

[Dr. DeForest Clinton Jarvis] Dr. Jarvis' bestselling book about Vermont folk medicine explains how he decreased the bacteria count of milk markedly by adding three drops of iodine to two ounces of apple cider vinegar and pouring this mixture over the ration of each cow at every feeding twice a day.

#48: Lugol's Iodine and Apple Cider Vinegar Cures Bang's Disease in Dairy Cows

[Dr. DeForest Clinton Jarvis] In *Arthritis and Fold Medicine*, Dr. Jarvis explains that Bang's disease, caused by a germ called Brucella abortus, was promptly stopped when a

How To Learn About Heavy Metal Poisoning

Heavy metals such as mercury, lead and cadmium are now pervasive in our environment due to auto and industrial exhaust, pesticides and dental fillings.

As mentioned in Talking Point #41, iodine causes an excretion of heavy metals.

Dr. Hal Huggins and Dr. Andy Cutler have both written about heavy metal poisoning and their books are listed in the Resources section in the back of this book.

mixture of three drops of iodine and two ounces of apple cider vinegar were poured over a cow's ration at every feeding twice a day.

Note: Bang's Disease causes conditions other than abortions and it is possible for cows to be affected with the disease and not abort during pregnancy, Bang's is considered to be contagious and can cause:

Abortions
Retained afterbirths
Breeding difficulties
Udder disease
Pneumonia in calves
Scours (diarrhea)

#49: Lugol's Iodine and Apple Cider Vinegar Reduces Cattle Grubs

[Dr. DeForest Clinton Jarvis] In his work with cattle, Dr. Jarvis discovered that Lugol's and iodine helped reduce cattle grubs. He explained that larvae of the heel fly, called grubs, burrow through the skin, on leg-hair, or the animal's underside, and cause rashes and sore spots that get infected. If they're not deterred, young grubs will burrow between the muscles and work their way into the animal's inner organs. As the grubs mature, they cut holes through the cow's hide to get access to air in preparation for an escape that usually takes place during February or March.

Jarvis said his goal was to use the apple cider vinegar and iodine mixture to:

> *…Make the cow's body an unsuitable soil for the development and continuing existence of microorganisms, viruses, insects and other parasites.*

Although the vinegar and iodine did not completely eliminate the problem, the grubs had hard going in the cow's bodies:

> *During one year's time only ten grubs were discovered on the backs of a herd of 45 registered Jersey cows. Usually these grubs are a little larger round than a pencil, but these ten grubs has such hard going in the cows' bodies against the vinegar and iodine that they were no larger round than toothpicks.*

#50: Lugol's Iodine and Apple Cider Vinegar Cures Lice and Repels Flies in Pastured Dairy Cows

[Dr. DeForest Clinton Jarvis] In his work with dairy cows and young cattle, Dr. Jarvis observed that:

> *Lice will leave the hide of a cow that receives apple cider vinegar and iodine […]. Flies will bite young cattle not receiving apple cider vinegar and iodine.*

The Dairy Cow

Although a dairy cow can live to be 25 years, most dairy cows raised in factory farms live an average of 42 months.

Notes

Chapter 2

Iodophobia: Fear of Iodine

Iodophobia is a term that was coined by Dr. Guy Abraham. It describes the establishment's view of iodine that is summarized in this section.

In his article, "The Wolff-Chaikoff Effect: Crying Wolf?," Dr. Guy Abraham explains that the misinformation about iodine can be traced to the Wolff-Chaikoff study at University of California at Berkeley in 1948 that resulted in the removal of iodine from the food supply. The study, that was later referred to as the Wolff-Chaikoff (W-C) Effect, says that iodine intake of 2 milligrams or more is *excessive* and potentially harmful.

Abraham says that the Wolff-Chaikoff Effect states that when the peripheral tissue concentration of iodine reaches a level equal to or greater than .2 mg/L, hypothyroidism results. This was *never established* because the hormones were never measured. He says, "The study most likely caused a lot of misery and death in the U.S. due to the negative impact on iodine consumption."

Abraham explains that the rats never became hypothyroid, and that thyroid hormone levels were never measured in their blood plasma. He uses the word forgery in his paper and says that the unfortunate outcome of the Wolff-Chaikoff effect was that it was extrapolated to humans. Other studies have since concluded that the Berkeley researchers incorrectly extrapolated that the thyroid gland could be suppressed if more than 2 milligrams (mg.) of iodine was taken by humans. The correct interpretation of the W-C effect is that the thyroid takes up iodide to make thyroxine.

Mainstream Medical's View

Mainstream medical doctors consider iodine to be:

- an antiseptic
- a water disinfectant
- a disinfectant for surgical wounds
- an important element for the synthesis of tyrosine, a thyroid hormone (medicine's view is that the body needs 70 micrograms/day—an amount that does not take whole body sufficiency into consideration).

Commercial Bakeries Substitute Bromate for Iodate

For nearly 80 years, commercial bakeries added potassium iodate to bread as a dough conditioner but stopped using potassium iodate in the early 1970s due to the iodophobia that Guy Abraham says can be traced to the Wolf-Chaikoff paper. Bakers began using potassium bromate instead of potassium iodate.

Potassium bromate is toxic and every effort should be made to avoid bromated bread. When commercial bakeries reacted to the Wolff-Chaikoff study and replaced potassium iodate with potassium bromate, the daily intake of iodine not only dropped, but the new oxidizing agent that was used in its place is extremely toxic (See: The Toxicity of Bromide).

What is a Dough Conditioner?

Most people are not aware that breads contain dough conditioners, or that bread was once a source of iodine.

Although a minimal recipe for bread includes flour, water, salt, yeast or sourdough starter, bakers say that it is impossible to obtain consistent-looking bread with just these ingredients.

Dough conditioners were first introduced around 1900 by chemists working for Fleishmann. A dough conditioner is an oxidizing agent that:

- strengthens or softens dough
- improves taste
- compensates for low flour protein
- allows for faster mixing
- provides nutrients for yeast to increase the loaf volume
- reduces the staling of a finished bread

…continued

FFP Laboratories has a bromide toxicity test that detects toxic levels of bromide in the body (See: page 81). If you suspect that you have been eating bread made with bromated flour, you may need to use iodine to detox bromide in your body.

The Toxicity of Bromide

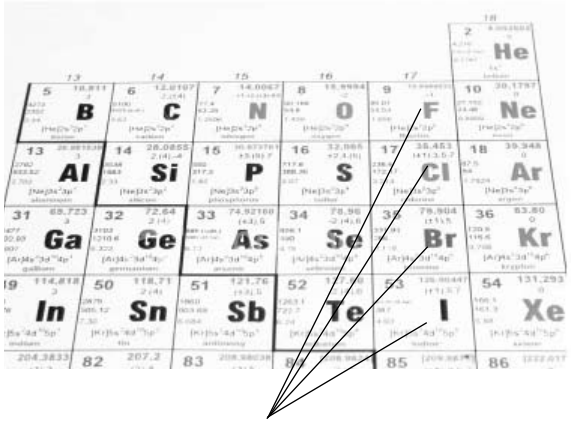
In *Iodine: Why You Need It Why You Can't Live Without It*, author David Brownstein, M.D. explains that iodine is part of a class of elements known as halogens that include bromine, chlorine, fluorine, iodine and astatine.

Bromine has a weight that is very similar to iodine and competes for binding in the body. It binds to iodine receptors in the thyroid gland. Brownstein writes:

> *Bromine intoxication has been shown to cause delirium, psychomotor retardation, schizophrenia and hallucination. Subjects who ingest enough bromine feel dull and apathetic and have difficulty concentrating. Bromide can also cause severe depression, headache and irritability. Is is unclear how much bromide must be absorbed before symptoms of bromism become apparent, but recent research has demonstrated that some symptoms of bromide toxicity can be present with low levels of bromide in the diet.*

> *Bromine (or its reduced form—bromide) is used as an antibacterial agent for pools and hot tubs. It is still used as a fumigant for agriculture. Crops sprayed with bromide have been found to have elevated bromide levels. Bromide is also used as a fumigant for termites and other pests. In 1981, 6.3 million pounds of bromide were used in California. Toxicity of bromide has been reported from the ingestion of some carbonated drinks (e.g., Mountain Dew, AMP Energy Drink, some Gatorade products), that contain bromated vegetable oils.*

Brownstein also describes bromide-containing medications that are currently in use. Examples include Atrovent inhaler, Atrovent Nasal spray, Ipratopium Nasal spray, Pro-Pantine and Pyridostigmine bromide. His research also describes how iodine is crowded out by the halogens fluoride and chloride.



The Halogen family of elements on the Periodic Table of Elements

Early 20th century Bromide Poisoning

In an audio interview available on breastcancerchoices.org, Dr. Jorge Flechas explains that bromide causes abdominal pain, cardiac arrhythmia and acute paranoid psychosis. He says that Bromo Seltzer was responsible for 20% of all paranoid schizophrenia admissions in psychiatric hospitals between 1920 and 1960.

Bromide salts (sodium and potassium) were widely used in the United States from the late 1800's to the mid-1900s. They possessed a sedating, calming effect, and were inexpensive. In 1888, a chemist named Isaac Emerson, formulated Bromo Seltzer, an fizzy form of sodium bromide. Bromide became a public health problem when thousands of people developed bromism—a condition characterized by sedation, confusion, unsteady gait, skin rashes and skin discoloration. In the early 20th century, bromism was one of the most common diagnoses in people entering mental health institutions.

Chapter 3

Buying Iodine

The U.S. government's Drug Enforcenment Agency (DEA) passed a ruling on August 1, 2007 restricting the sale of chemical mixtures containing over 2.2 percent iodine. The ruling exempts transactions of up to one fluid ounce (30 ml.) of Lugol's 5% Solution in single sale transactions.

The Drug Enforcement Agency (DEA) is limiting the sale of iodine because drug traffickers are using iodine (in the form of iodine crystals and iodine tincture) for the illegal production of methamphetamine, a psychostimulant nicknamed, meth.

Understanding the DEA Ruling

The Drug Enforcement Agency's new ruling limits the sale of iodine solution and crystals. Jeff Krouk, who sells Lugol's iodine through his mail-order business called J. Crows (www.jcrows.com), has posted the DEA ruling on his Web site at www.jcrows.com/iodinealert.html#limit.

The word limit means that resellers must register with the DEA and keep records of all transactions if the iodine solution is greater than a 2.2% solution (Lugol's iodine is usually a 5% solution) and the quantity is more than one ounce. One ounce bottles of Lugol's 5% solution are exempt if they are sold in single-sale transactions (See: Buying Lugol's Solution).

Recipes for Iodine Solutions

The recipes for the two most popular iodine solutions are provided in Appendix B:

- Lugol's iodine
- SSKI

At the present time, Lugol's iodine solution is more tightly regulated than SSKI because Lugol's contains elemental iodine. If you belong to a group that has a legitimate use for iodine, it is possible to purchase the ingredients to make Lugol's (e.g. for your farm animals). Spectrum Chemical, in Gardenia, California, is an example of a company that is:

- Registered with the DEA
- Willing to keep a detailed record of the transaction

A farmer who is interested in purchasing iodine would need to supply personal identification, some business document that proves that he/she is in the business of farming, and a letter of intent describing how the iodine will be used. Once a sale is approved, Spectrum arranges for a satellite photograph of the farm and a $20 to $50 hazardous chemical delivery fee is added to the sale.

Buying Lugol's Iodine Solution

Lugol's iodine solution is available in one ounce bottles from the following sources:

- Dr. David Brownstein
  The Center for Holistic Medicine
  5821 W. Maple Rd., Ste. 192
  West Bloomfield, MI 48322
  (248) 851-1600

  One ounce bottles are $10 and shipping is $5.

- J. Crow Company
  P.O. Box 172
  105 Emerson Hill Road
  New Ipswich, New Hampshire 03071
  800-878-1965
  www.jcrow.com
  jcrow@jcrow.mv.com

  Jeff Krouk's J. Crow Company, in New Hampshire, is a farm-based mail-order business that has been selling Lugol's solution for many years.

  As this book was being assembled (11/15), Jeff Krouk listed the following prices for Lugol's iodine on his Web site:

✓ **Lugol's Bundle (J.Crows #EX99)**	**Price**
5% Lugol's Solution (1 oz, #EX102)	
Dr. DeForest Jarvis' *Folk Medicine (book)*	
Bundle Price (includes free shipping)	$29.95

✓ **5% Lugol's Solution (J.Crows #EX102)**	**Price**
5% Lugol's Solution One ounce (shipping, $5.95)	$19.95

Note: As per the DEA rule, this dilution must be sold one bottle per sale or transaction. Additional bottles may be sold as separate single transactions.

✓ **2% Lugol's Solution (J.Crows #EX103B)**	**Price**
16 ounces (shipping, $9.95)	$39.95

Notes: As per the DEA rule, there is no sales limit for this dilution. Shipping for two or three bottles is $12.95.

If you have instructions for a Lugol's remedy that refers to the 5% solution, simply multiply the quantity by 2.5.

Jeff also sells one-ounce amber round dropper bottles for $2 that won't effect the shipping cost if the bottle is combined with an order (Item # DB100).

Lugol's Tablets

Dr. Guy Abraham has created a tablet form of Lugol's called Iodoral. Each tablet contains 5 mg. iodine and 7.5 mg. of potassium iodide (each tablet is equivalent to 2 drops of Lugol's solution). The suggested daily amount is one to four tablets/day as recommended by your physician.

How Much Iodine is in a One Ounce Bottle?

Two drops of 5% Lugol's Solution contains 12.5 milligams of iodine that is very close to the daily intake of 13.8 milligrams by the Japanese.

Although droppers come in various sizes with various size openings, a drop is usually exactly the same amount of liquid no matter what size the dropper. The following information may help you determine what type of iodine to buy:

20 drops = 1 ml. (cc)
1 ounce = 29.57 ml.
1 ounce = 591.4 drops

Iodoral, 90 tablets (11/07)	**Price**
www.belmarpharmacy.com (no shipping charge)	$24.50
Breastcancerchoices.org (add $4.95 shipping)	$22.95

Iodoral, 180 tablets (11/07)	**Price**
Breastcancerchoices.org (add $4.95 shipping)	$37.95
www.belmarpharmacy.com (no shipping charge)	$49

SSKI (Saturated Solution Potassium Iodide)

SSKI is a colorless and odorless liquid that is made from potassium iodide (KI) and water.

Although a prescription is required to buy SSKI from a pharmacy, anyone can buy the crystals and make this solution with water for about half the price (See: Iodine Recipes, Appendix B).

Seaweed for Cattle

Midwestern Bio-Ag (www.midwesternbioag.com), in Blue Mounds, Wisconsin, sells 55 lbs. of ground kelp (ascophyllum nodosom) for $43.

Midwestern Bio-Ag (MBA)
10955 Blackhawk Dr., Blue Mounds, WI 53517
1-800-327-6012

Are Lugol's Iodine and SSKI Interchangeable?

To understand this question, it is helpful to review the forms of iodine present in each of these iodines:

- **Lugol's Iodine (solution or tablet)**
  Lugol's contains potassium iodide, elemental iodine and water.
- **SSKI**
  SSKI contains potassium iodide and water.

While the ideal iodine seems to be a form that contains both iodine and potassium iodide (See: Organ preferences for iodine, Talking Point #23), there is some evidence that selenium will help the body to oxidize the iodide in SSKI to iodine. This would provide the body with the two forms of iodine that are present in Lugol's solution. Because the ingredients for making SSKI are not regulated, this form of iodine may be appropriate for people who:

- Have trouble buying Lugol's solution
- Are careful to take a selenium supplement

Clues That Selenium Plays a Role in Oxidizing Iodide to Iodine

In their patent applications (first filed in 1986), Drs. Ghent and Eskin state that the potassium iodide

present in SSKI can be "*oxidized to iodine in the thyroid in the presence of peroxidase.*" However, they note that the peroxidase required for this transition may be lacking or inactivated in breast tissue.

In this book's box titled, "Selenium's Role in the Body," intended to supplement Talking Point #6 (See: page 36), selenium is described as a component that is needed to make glutathione peroxidase.

Scientists have only recently discovered a connection between iodine and selenium (1996) and the information that has been published does not include details about selenium's role in the body's iodine pathways. Modern scientists now recognize that selenium is a necessary for maintaining a healthy thyroid, a gland that the iodine doctors have said prefers iodide.

We can only speculate that selenium plays a role in the oxidation of iodide to iodine in body tissues that need iodine (the stomach prefers iodine and breast tissue needs both iodine and iodide).

If selenium does oxidize iodide to iodine, then the body would need this mineral for this oxidation to take place.

Other Forms of Iodine

Although the following forms of iodine are not as well-known as Lugol's and SSKI, they have unique characteristics:

Atomidine

Atomidine is a dilute (1% solution) iodine solution that has gained a reputation as Edgar Cayce's iodine. This is because the sleeping prophet is said to have recommended it in thousands of medical trance readings. The Atomidine in Cayce's day was prepared in an herbal solution to make the iodine easy-to-assimilate. Today's Atomidine (and versions known as detoxified iodine and nascent iodine) are electrified solutions. The electrical process is described as a homolytic cleavage causing the iodine to exist in an ionic state with an electromagnetic charge.

Company/Product	Price
Heritage Products 2 ounces, www.vitacost.com	$8.99
Magnascent, one ounce www.magnascent.com	$35.00

SSKI, Tahome Clinic (Tri-Quench)

Dr. Jonathan Wright's Tahoma Clinic (www.tahoma-clinic.com), sells an SSKI solution called Tri-Quench

that contains, potassium iodide and iodine (the two forms of iodine that are also in Lugol's solution), as well as saffron extract (Note: The elemental iodine in this form of SSKI give it an orange-brown color that caused him to warn about staining in some of his remedies).

SSKI (Tri-Quench)	**Price**
One-ounce bottle www.tahoma-clinic.com	$23.95

Note: A prescription is not required to buy SSKI solution in the state of Washington where the Tahoma Clinic is located.

Seaweed

Seaweed is an important source of iodine for humans, animals and plants. Chapter 6 contains information about the iodine content in several different forms of seaweed.

Note: If you're interested in adding seaweed to your diet as a source of iodine, you will find resources for buying seaweed in Chapter 6.

Chapter 4

Using Iodine

Many iodine literate doctors suggest selenium, Vitamin C, and magnesium to enhance the therapeutic value of iodine. Niacin was also recommended at the February 07 Iodine Conference.

- breastcancerchoices.org

Today's iodine doctors are inventing ways to determine if iodine is being used in the body and they're also learning that iodine can be used to detox toxins.

Toxicity is a health issue that did not exist a century ago or even fifty years ago when doctors such as Jarvis and Gerson were using iodine. Industrialized society is polluting the planet at a rapid rate and no one is immune. Pollutants include:

- Halogens that intefere with iodine metabolism including bromide and fluoride
- Heavy metals that concentrate in endocrine tissue and in the central nervous system

Dr. Abraham on Applying Iodine to the Skin

In an article called the "Bioavailability of Iodine Applied to the Skin," Dr. Guy Abraham addresses two frequently asked qustions (FAQs) that relate to painting liquid iodine on the skin:

1. Painting as a means of supplementing iodine.
2. Painting as a means of assessing the body's overall need for iodine (via the iodine patch test).

Let's look at what Dr. Abraham had to say about these two topics:

- **Is Skin Application an Acceptable Means of Taking an Iodine Supplement?**
  In his article, Abraham explains why a skin application is not the most ideal method of taking iodine. He refers to a study performed at the College of Pharmacy of Rutgers University in 1932 ("About the Fate of Free Iodine Upon Application to the Unbroken Animal Skin. An Experimental Study," *Journal of Pharmacology and Experimental Therapeutics*, 45:85-107, 1932). In this article, researchers Nyiri and Janitti looked at iodine applications made on the skin of six dogs and forty-four rabbits. The authors of the research study concluded that iodine in a skin application penetrates and forms an 'iodine depot' (an accumulation) in the skin for several days.

  Conclusion: The Nyiri and Janitti study concluded that 12% of the iodine applied to skin was available for utilization by the whole body.

Abraham says the best study of iodine applied to skin in human subjects was reported by K.L. Miller and colleagues in 1989. The study was done on 24 adult males and measured iodine levels in the blood and urine

Conclusion: The Miller et al. study concluded that the percent of bioavailable iodine applied to human skin is 6.5 %.

- **Is the Iodine Patch Test a Valid Method to Assess the Body's Overall Need for Iodine?**
  The iodine patch test is a do-it-yourself test that involves painting a 2 inch X 2 inch square on the skin. This test is thought to identify an iodine deficiency in people who see their iodine patch disappear or lighten after 10 hours.

  Although the patch test for iodine deficieny is a simple test that you can perform at home, Abraham says it does not provide a reliable means to assess your whole body need for iodine for the following reasons:

  - If iodine in Lugol's or another liquid is reduced to iodide, the yellow color of iodine will disappear because iodide is white. The yellow color can be regenerated with an oxidant such as hydrogen peroxide, but this complicates the test.
  - Also, iodine evaporation increases with ambient temperature and atmospheric pressure. Abraham explains that the yellow color of iodine will disappear much faster in Denver, Colorado at 5,000 feet above sea level than in Los Angeles at sea level.

Reactions to Iodine

In an online paper about iodine, Dr. Janet Lang (www.drjlang.com), explains that magnesium and selenium are two keys to minimizing reactions to iodine. Similar to Dr. Jonathan Wright, she emphasizes that an allergy to iodine is often an allergy to seafood, and not iodine. The iodine reactions that she lists in her paper include:

- **Hyperthyroid Response**
  Hyper or over reactive thyroid is characterized by trembling of the hands, fast heart rate, and nervousness. Dr. Lang explains that this condition can occur in people with thyroid nodules (diagnosed with ultrasound). This group can take iodine, but slowly, and should be monitored.

- **Hashimoto's Thyroiditis**
  This condition is considered to be an autoimmune disease where the body's own antibodies attack the cells of the thyroid. Dr. Lang explains that these patients are usually iodine deficient, and that the iodine can intensify the thyroid gland dysfunction. This group should be monitored with frequent thyroid tests (a thyroid panel).

- **Iodism**
  This rare condition is considered to be iodine poisoning that includes increased salivation, fever, swelling and tenderness of the salivary glands, and a skin rash.

- **Detoxification**
  Detoxification symptoms that occur from iodine supplementation include fatigue, aches, pains and headaches that are often from halogen excretion.

Signs and Symptoms of Detox From Iodine

In reviewing the possible signs and symptoms of detox, it is helpful to understand the difference between a sign and a symptom:

Sign
A sign is something abnormal, and relevant to disease, that is discovered by a medical test.

A temporary elevation of TSH, when beginning iodine therapy, is a sign that can be misinterpreted by physicians as a sign of decreased thyroid function.

Dr. Jorge Flechas has observed that TSH, that stimulates the thyroid to make thyroxine, may temporarily become elevated (possibly as long as six months) as the body begins to incorporate iodine. This elevation is not uncommon, and when it does occur, thyroid function usually returns to normal once the body produces enough thyroid hormone for all its needs.

Thyroid function may be measured with a home TSH self test (See: "Tracking Your Thyroid Gland's TSH Value," page 92).

Symptom
A symptom is subjective. It is what a patient experiences about an illness, injury or disease. Symptoms can include

fever, fatigue, aches, pains and headaches. Because iodine can help the body excrete halogens and heavy metals, the symptoms of iodine supplementation are most often associated with the detox of these toxic elements (especially bromine).

Tracking Your Thyroid Gland's TSH Value

If you would like to track what should be a temporary elevation of TSH when you start taking iodine, Biosafe's home self-test provides a means to measure thyroid stimulating hormone (TSH). The normal reference range used by many laboratories is 0.2-5.5 mU/L. Many published findings indicate that a value larger than 5.5 is considered to be a low thyroid condition—meaning too little thyroid hormone output. A greater TSH level is usually indicative of a hypothyroidism (Note: the Biosafe self-test is available at www.checkmyhealth.com).

Why Does a High TSH Number Reflect a Low Thyroid?

This apparent discrepancy is related to the fact that TSH is secreted from the pituitary gland through feedback loops that involve thyroid hormone T4 (thyroxin) and thyroid hormone T3 (triiodothyronine). As these thyroid hormones circulate in the blood, the feedback mechanisms in the body can be simplistically described as follows:

Positive Feedback Mechanism
When thyroid hormones T3 and T4 are low (presumably in hypothyroidism), the production of TSH is increased.

Negative Feedback Mechanism
When the levels of T3 and T4 are high (presumably in hyperthyroidism), TSH production is decreased.

Shevin's Remedy For Clearing Bromide Symptoms

Dr. William Shevin has developed a salt loading protocol to clear bromide detox symptoms that may occur while taking iodine:

Take 1/4 teaspoon of salt in 1/2 cup of warm water and follow immediately with 12-16 ounces of water. Repeat this twice in 30 to 45 minute intervals until urination begins.

Race Horses and Iodine

Race horses that are fed an iodine-rich diet have increased energy and endurance.

The Iodine Loading Test is a Reliable Method For Assessing Full Body Iodine Requirements

The Iodine Loading Test is a reliable test that is available through the following sources:

- FFP Laboratories
  80 Doctors Dr., Ste. 3, Hendersonville, NC 28292
  877-900-5556 (Note: FFP Laboratories is owned by Dr. Jorge Flechas)
- Doctor's Data, Inc. (a practitioner's resource)
  3755 Illinois Ave., St. Charles, Illinois 60174
  800-323-2784
- Vitamin Research Products (VRP)
  4610 Arrowhead Dr., Carson City, NV 89706
  (800) 877-2447, www.vrp.com

Notes:

- The VRP fee for the test is $100 that includes lab results postage. If you do not have a referring doctor, VRP's physician, Dr. Ward Dean, M.D., will order the test that may then be reviewed by your doctor.
- Laws in New York and New Jersey prohibit state residents from purchasing this kit.
- FFP Laboratories also has a bromide and toxic metals test. For further details, see Chapter 4.

Heavy Metal Detox

Dr. Jorge Flechas has noted that when taking iodine, there is an increased excretion in the urine of arsenic, mercury, lead, aluminum, and other toxic metals. He explains that iodine is selective in that it leaves the essential metals (e.g., iron) and removes the toxic ones.

Dr. Andy Cutler, who has written extensively on the subject of mercury poisoning, explains that there are no definitive symptoms of mercury poisoning—only a set of abnormalities that manifest differently in different people (See the Resources section for a list of Dr. Cutler's books).

Mercury Accumulates in the Pituitary

Mercury is considered to be the most dangerous heavy metal due to the fact that it concentrates in the pituitary and hypothalamus. Together, these glands control nearly every metabolic function in the body. Silver fillings contain 50% mercury and the most startling research on the metabolic effects of mercury was done in Sweden. In February 1986, a respected scientific journal called *The Lancet,* published a study showing mercury in the pituitary glands of a group of Swedish dentists at levels 800 times greater than controls (Nylander M., Mercury in pituitary glands of dentists, *Lancet*, 442, Feb 26, 1986). This article, published twenty years ago, provides some important clues concerning the danger of mercury poisoning.

Although the subject of mercury poisoning is beyond the scope of this book, several important books and videos are listed in the Resources section at the back of this book. Look for books by Dr. Hal Huggins and Dr. Andy Cutler as well as a video of a presentation by Dr. David Brownstein and two mercury-related videos at The International Academy of Oral Medicine & Toxicology Web site.

Bromide and Transitory Schizophrenia

The consequences of bromide toxicity are a serious concern given that so many young people are drinking beverages that contain brominated vegetables oils. Bromide is also used as a fumigant in agriculture to kill and other pests. In 1981, 6.3 million pounds of bromide were used in California. By 1991, 18.7 million pounds were used in California. Methyl bromide is an example of a fumigant that is sprayed on cocoa beans (See: The Toxicity of Bromide page 62).

Bromine intoxication (i.e. bromism) has been shown to cause delirium, psychomotor retardation, schizophrenia, and hallucination. People with bromine intoxication feel dull and apathetic and have difficulty concentrating. Bromide can also cause severe depression, headaches, and irritability.

In 1946, Dr. Max Levin described transitory schizophrenia produced by bromide intoxication in an article published in the *American Journal of Psychiatry* (American Journal of Psychiatry 103:229-237, September 1946). Levin's article describes four types of bromide psychosis. He says the first two varieties are well known and the next two are not:

1. Simple Intoxication - marked by dullness and mental sluggishness (no delusions or hallucinations).
2. Delirium - marked by disorientation, mood disturbances (usually fear), delusions, and hallucinations.
3. Hallucinosis - persistent hallucinations.
4. Schizophrenia - psychosis that appears to be an ordinary paranoid schizophrenia. It differs in that it is transient during bromide intoxication.

Levin feels that bromide intoxication has the power to bring latent schizophrenia to the surface, and when bromide intoxication clears up, the schizophrenia may go into hiding. Levin recommends blood testing for bromide in every case of acute psychosis.

Bromide Levels in Women With Breast Cancer

In *Iodine: Why You Need It and Why You Can't Live Without It*, Dr. David Brownstein says that he was shocked by the results of a study he did in his own office to look at the difference in iodide, bromine and fluoride levels in eight women with breast cancer versus ten women without breast cancer. Urinary levels of bromine and fluoride were measured one day after taking 50 mg. of iodine/iodide (Iodoral tablets) and 30 days after taking 50 mg. per day of iodine/iodide (Iodoral tablets).

Bromide levels were significantly higher in the breast cancer verus the non-breast cancer women and the fluroide results were similar.

He explains that the way to reduce toxic halides (bromine and fluoride) from the body is to increase the body's iodine levels.

Some Foods Can Cause Iodine to Disappear

A 2005 paper on iodine, written for the New Zealand Food Safety Authority, contains some important clues about foods that would cause iodine to be lost in the body. The concept is related to the box in this book titled, "Vitamin C Powder Makes Iodine Stains Disappear," that describes how Vitamin C crystals will reduce iodine in an oxidation-reduction (redox) reaction.

In Talking Point #10 (Vitamin C Helps Improve Defective Iodine Retention), Drs. Abraham and Brownstein alternated Vitamin C and iodine on different days—most likely because Vitamin C is a reducing agent that could potentially make iodine disappear in the body.

The New Zealand scientists who wrote a paper on iodine chemistry explain that oxidation-reduction reactions are complex processes that can be affected by many factors such as catalysts, reducing and oxidizing agents, pH and temperature (Note: iodine is an intermediary in the conversion of iodate to iodide and back).

Foods To Limit When You Are Taking Iodine

The following foods are reducing agents and should be limited when you're taking iodine (Note: Vitamin C is the most potent reducing agent in this list and the others appear to be mild reducing agents):

- Ascorbic acid (Vitamin C)
- Sodium Ascorbate (non-acidic Vitamin C used in drips)

- Sugar (glucose, dextrose and lactose)
- Aldehydes and Ketones (carbohydrates are aldehydes or ketones with many hydroxyl groups added)
- Sodium metabisulfite (a preservative)
- Ferrous sulfate (used to fortify snacks and in water purification)
- Cysteine (an amino acid found in high-protein foods such as cheese, yogurt, chicken, turkey, duck, luncheon meat, wheat germ, granola, and oat flakes)
- Sulfur foods that have sulhydryl and disulphide groups (See: "Foods That Contain Sulfur").

Foods That Contain Sulfur

Sulfur is a component in four amino acids (methionine, cystine, cysteine and taurine). It is also present in two B Vitamins (thiamine and biotin) and in various sulfates and sulfides.

The four sulfur-containing amino acids are plentiful in protein foods including meats, fish, poultry, eggs, milk and legumes. Of these, egg yolks are particularly high in sulfur.

Other foods that contain sulfur include onions, garlic, shallots, mustard, watercress, leeks, cabbage, brussel sprouts, rutabagas, asparagus turnips, broccoli, bok choy, cauliflower, nuts, kale, lettuce, seaweed, raspberries, coconut, avocado, watermelon, Swiss Chard, parsley, spinach, sweet potatoes and "yams" (American yams, Genus Ipomoea), tomatoes, tea, coffee, cows' milk and whey protein.

Chapter 5

The Iodine Loading Test

Iodine consumption in the U.S. has dropped 50% since the 1970s as breast cancer rates have risen. In the U.S. Goiter Belt, where iodine in the soil is lower, breast cancer is higher.

This chapter includes information about an iodine loading lab (urinalysis) test that is available as a kit that you can purchase and use at home. The organizations that sell the kits will assign a nurse-practitioner to work with anyone who is working on their own without a physician (Note: For a list of companies that sell the iodine loading test kits, see page 81).

A Urine Analysis To Assess Full Body Need For Iodine

This test measures how much of a 50 mg. iodine dose (called an iodine load) is excreted in the urine over a 24 hour period and the test is accomplished in two parts:

- An optional urine spot test or a first urine sample of the morning. From this first void, the level of iodine is measured in the urine, to establish a baseline.

- The second half of the test involves a 24-hour urine collection after taking 50 mg. of iodine. The lab then measures the percentage of the 50 mg. that is excreted in the urine. If 90 percent or more of the 50 mg. is excreted, the body's supply of iodine is considered to be sufficient. However, in an article titled, "The Iodine/Iodide Loading Test," Dr. Jorge Flechas describes the data that has been collected from the U.S. population. He says, Out of 4,065 tests, less than one percent of patients excreted 90 percent or more of the load.

Costs (FFP Laboratories, September 2007)

The fees for the urine spot test, the iodine loading test and other tests are as follows:

Urine Spot Test	$80
Iodine Loading Test	$80
Cost for both tests	$110
Bromide and toxic metals test, both tests	$150
Toxic metals test (single test)	$110

Chapter 6

Iodine From Seaweed

Bladderwrack is a valuable manure for potatoes and other crops.

- Botanical.com

If you have a taste for seaweed, sea vegetables can be a valuable source of iodine (not a small task for Americans who eat pizza, burgers and fries).

The Seaweed Used to Wrap Sushi is Low In Iodine

If you choose to eat seaweed as your source of iodine, it will be helpful to learn which seaweeds are high in this mineral. For example, the paper thin seaweed (Nori) that is used to wrap sushi does not contain very much iodine. According to Larch Hanson, founder of the Maine Seaweed Company (www.alcasoft.com, 207-546-2875), brown seaweeds (digitata kelp, longicruris kelp, alaria esculenta and laminaria) have higher levels of iodine than red seaweeds (dulse, irish moss, and some types of nori).

Cancer Researcher Jane Teas

Larch Hanson posts copies of his *Circle of Friends* newsletter on his Web site, and his July, 2005 issue contains details about

his friend Jane Teas who is a cancer researcher. Jane has studied the diets of Japanese people who have a lower incidence of cancer and has noted that they eat kombu and wakame, that are cousins of the kelp and alaria that Larch sells.

A Seaweed Cookbook

Shep and Linnette Erhart founded Maine Coast Sea Vegetables (MCSV, www.seaveg.com, 207-565-2907) in their home in the 1980s. In the preface to a MCSV cookbook called *Sea Vegetable Celebration* that Shep co-authored with gourmet cook Leslie Cerier, Shep mentions macrobiotic mentors Herman Aihara and Michio Kushi, who inspired him to use sea vegetables, and helped him appreciate them as healing foods.

If you have no previous experience with seaweed and you would like to try sea vegetables, MCSV is a helpful resource for both seaweed and seaweed recipes. Their *Sea Vegetable Celebration* is much more than a cookbook. It contains a vast amount of information about the history of seaweed, and nutritional information including vitamin and mineral analysis of alaria, dulse, kelp, laver, hiziki, arame, kombu, wakame, nori, rockweed and bladderwrack (Note: For more details about this book, see the Resources section).

How Much Iodine is In Kelp?

If you would like to obtain your daily dose of iodine from seaweed, it is helpful to know approximately how much seaweed you would need to eat in order to obtain the dose that the iodine doctors are recommending that we

eat on a daily basis (12.5 mg. is considered to be an appropriate maintenance dose).

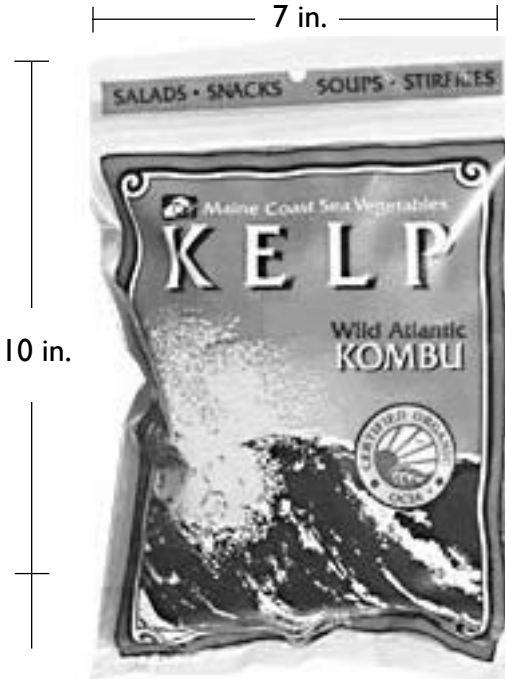
The nutitional analysis chart in the back of *Sea Vegetable Celebration* contains the following values for iodine:

Seaweed	**Amount of Iodine (mg. per 100 gm.)**
Alaria	16.6
Dulse	5.2
Kelp	45.3
Laver	1.4
Hiziki	40
Arame	98-564
Kombu	193-471
Wakame	18-35
Nori	.5
Rockweed	153.7
Bladderwrack	65

Shep's chart above contains a footnote that says that iodine content can vary widely by season, drying method and storage method. The chart's legend also tells us that 100 grams is equal to 3.5 ounces.

Even if these values are approximate, it can be concluded that Arame, Kombu and Rockweed contain the highest amount of iodine. To give you an idea of how much seaweed is in 3.5 ounces, look for a package of one of the Maine Coast Sea Vegetables of dry seaweed at your local health food or natural food store. The bag that you see pictured here contains one ounce. One ounce contains

approximately the amount of iodine that the iodine doctors say that we need each day (Note: Seaweed must be eaten in large quantities to obtain an adequate daily maintenance dose of iodine).



Maine Seaweed Company's Family Pack

Larch Hanson's Family Pack ($60.00 / 3+ lbs.) is the most popular item that he sells and it contains the most seaweed for the money. The pack includes a mix of kelp, alaria, dulse, nori, and digitata as well as recipes and a forager's handbook.

Dried Seaweed

According to Larch Hanson, ten pounds of wet seaweed dries out to one pound.

Maine Seaweed Company's Seaweed Fertilizer

Gardeners may be interested in Maine Seaweed Company's Ascophyllum Nodosum ($60.00/25 lbs.), a quantity that is packaged for a 200 square-foot garden. Larch recommends applying Ascophyllum flakes as mulch for help with yield, drought resistance and stress recovery. Ascophyllum contains concentrated trace minerals, micronutrients, amino acids and vitamins as well as cytokinins, auxins, and gibberellins (growth hormones that stimulate cell division and larger root systems).

Blood Type O Benefits From Iodine

According to Canadian naturopathic doctor and author Dr. Peter D'Adamo, who wrote *Eat Right For Your Typ*e, blood type O tends to have low thyroid and sluggish metabolisms. They benefit from iodine that stimulates the thyroid gland.

Donna Gates, author of *The Body Ecology Diet*, has also correlated blood types and diet but does not always agree with D'Adamo. The Japanese are her source of inspiration as they have been studying blood types for over 60 years. Gates feels all blood types have sluggish thyroids and would benefit from ocean vegatables.

Arame Sauté (Serves 2-3 People)

If you would like to try a seaweed recipe to see if you enjoy the taste, an arame sauté is a famous macrobiotic dish that you could make with a small package of Arame from your local health food store.

Ingredients

1/2 package of dried arame

Spring water

2 Tablespoons of Tamari

1 Tablespoon of toasted sesame oil

1 Cup thinly sliced (match-sized) carrots

1/2 Medium red onion, chopped

1. To reconstitute the dried seaweed, place the dried arame in a bowl and cover with spring water (drain the seaweed after a ten-minute soak).
2. Add the sesame oil to a skillet and saute the onions until soft.
3. Add the carrot sticks, drained arame and one tablespoon of Tamari. Cook over a low heat until the carrots are tender.
4. Add the remaining tablespoon of Tamari to the vegetables before serving.

Appendix A

The Iodine Doctors

The iodine doctors are teaching their patients and other doctors about the universal medicine that has had safe, effective and widespread applications for more than 100 years.

As mentioned in the beginning of this book, five of the iodine doctors spoke at a medical continuing education conference in San Diego, California titled:

The Safe and Effective Implementation of Orthoiodosupplementation in Medical Practice

This conference was jointly sponsored by The Foundation for Care Management and The Institute for Healthy Aging (www.theiha.org). The doctors who spoke at the conference are at the forefront of the iodine revival:

Doctor	**Topic**
Dr. Guy Abraham	Orthoiodosupplemntation: Theoretical and Practical Aspects
Dr. David Brownstein	The Clinical Applications of Iodine Therapy

Doctor	Topic
Dr. Bernard Eskin	The Role of Iodine in Breast Disease - Estrogen Receptors and Genomics
Dr. William Shevin	Clinical Experience with Orthoiodosupplementation
Dr. Jorge Flechas	Assessing Urinary Stable Halides in Clinical Practice - Laboratory and Clinical Aspects

Although there are now dozens of doctors writing articles about iodine (See: Resources), the doctors who are scheduled to speak in San Diego are at the forefront of the iodine revival. Their profiles are included here.

- **Dr. Guy Abraham**
  It could be said that Dr. Abraham is leading the iodine revival. In 1997, he noticed a 1993 paper in the *Canadian Journal of Surgery* titled, "Iodine replacement in fibrocystic disease of the breast," published by Ghent, Eskin, Low and Hill. Eskin's work on iodine and breast cancer had been published since the 60s but was eclipsed by the Wolff-Chaikoff (W-C) Effect, that says, iodine intake of 2 milligrams or more is excessive and potentially harmful. In a paper titled, "The Wolff-Chaikoff Effect: Crying Wolf?," Guy Abraham explains that the W-C Effect, that

originated at UC Berkeley in 1948, and resulted in the removal of iodine from the food supply, most likely caused a lot of misery and death in the U.S., due to the decrease in iodine consumption.

Abraham explains that the hypothyroidism and goiter in the Wolff-Chaikoff rats never happened. He says the rats never became hypothyroid and thyroid hormones were never measured in their blood plasma. Abraham uses the word forgery in his paper and says that the unfortunate outcome of the Wolff-Chaikoff Effect was that it was extrapolated to humans. Instead, the correct interpretation of the W-C Effect is that the iodide sufficiency of the thyroid gland is achieved when serum inorganic iodide levels reaches 10^{-6}M concentration.

Abraham's paper explains that the W-C effect has caused an iodophobic mentality that prevented further research on the need for inorganic, non-radioactive iodine by the whole human body, which turns out to be 100-400 times the established Recommended Daily Allowance (RDA).

When Dr. Abraham realized the truth about iodine, he organized clinical studies with Dr. Jorge Flechas in North Carolina and Dr. David Brownstein in Michigan. He is the author of a several papers on iodine, a former professor of obstetrics, gynecology and endocrinology at UCLA School of Medicine, and his current research interests include an analysis of the role of iodide and the other halides (e.g. bromide and fluoride) in biological fluids.

- **Dr. Bernard A. Eskin**
  Dr. Bernard Eskin, professor of Obstetrics and Gynecology at Drexel University, and his colleague Dr. William R. Ghent, pioneered an investigation that correlated iodine deficiency and increased thyroid volume (goiter) in women with breast cancer. Eskin's own research showed that iodine concentrates in the ducts of the breast, the area most affected by breast cancer. He showed that iodine deficiency induces dysplasia, an early form of malignancy of the breast, and also found that iodine deficiency increases the size of tumors while iodine replacement reduces the size of tumors.

- **Dr. David Brownstein**
  Dr. Brownstein, based in West Bloomfield, Michigan, is the author of *Iodine: Why You Need It; Why You Can't Live Without It.* Dr. Brownstein has a family practice and gives lectures about iodine across the United States.

  Women who are doing their own research on iodine are using the expression Iodine Literate Doctors (ILDs) to describe doctors who are willing to read Dr. Brownstein's book and listen to his lectures. The women who run the breastcancerchoioces.org Web site are an example of a group who are helping spread the word about iodine. The site's page of annotated references describes research between iodine and breast cancer.

- **Dr. Jorge Flechas**
  Dr. Flechas, based in Hendersonville, North Carolina, specializes in iodine therapy for hypothyroidism and

fibrocystic breast disease. Dr. Flechas' FFP lab in Flat Rock, North Carolina is a resource for an iodine loading test as well as tests for bromide and fluoride (toxins that interfere with iodine uptake in the body).

- **Dr. William Shevin**
  Dr. Shevin has the following quote on his Web site: "The healing power of human beings is immense. Disease results when this healing power is impaired, and health is attained by facilitating the body's natural healing processes." He has been in private practice since 1974 with board certification in both family medicine and classical homeopathy. He became interested in iodine deficiency in 2005 and currently has approximately 300 patients in treatment (Note: Look for Dr. Shevin's remedy for clearing bromide toxicity symptoms that may result from iodine supplementation on page 93).

- **Dr. Jonathan Wright**
  Dr. Wright is the author of eleven books and medical director of the Tahoma Clinic in Renton, Washington. Dr. Brownstein refers to Dr. Wright's work in his *Iodine: Why You Need It; Why You Can't Live Without It.* Dr. Wright, who has developed a reputation for helping women balance their hormones with natural estrogens, has discovered that liquid iodine can help maintain the correct balance of the three estrogens in a woman's body (the three estrogens are estrone, estradiol and estriol). Jonathan Wright has also found that liquid iodine helps the body metabolize estrogens to form estriol, the safest estrogen.

- **Dr. Donald W. Miller**
  In his article titled, "Extrathyroidal Benefits of Iodine," published in the *Journal of American Physicians and Surgeons (*2006;11, 4-Winter:106-110), Dr. Donald Miller, professor of surgery at the University of Washington School of Medicine, presents a thorough summary of the scientific reasearch that substantiates iodine's many biological functions.

  Miller explains that the medical establishment's limited view of iodine as an antiseptic, a drinking water disinfectant and an element that is required by the thyroid gland, is due to the fact that thyroidologists are considered to be the iodine experts. Thyroidologists, who cite an insignificant Wolff-Chaikoff effect, consider an iodine intake of more than 1 to 2 milligrams to be potentially harmful even though Japanese consumption averages 13.8 milligams with consumption as high as 200 miligrams in some areas. Health statistics that compare the U.S. to Japan provide insightful facts that introduce Miller's extrathyroidal benefits:

  - The average daily intake of iodine in the U.S. is a small fraction of what is consumed in Japan (240 micrograms vs. 13.8 milligrams, See: "How Many Micrograms Are in A Milligram?" on page 22).
  - The incidence of breast cancer in the U.S. is the highest in the world, and in Japan, until recently, it was the lowest. Japanese women who eat a Western-style diet have higher rates of breast cancer than those who eat seaweed.

- Life expectancy in Japan is higher than the U.S.,
- Infant mortality in Japan is lower than the U.S.

Dr. Miller's article, available as a PDF file at his Web site (www.donaldmiller.com), includes sixty-five references that backup the therapeutic benefits of inorganic iodine.

- **Dr. David Derry**
  Dr. David Derry, author of *Breast Cancer and Iodine: Startling Ground-Breaking New Research Shows How to Prevent and How to Survive Breast Cancer*, lost his medical license in Canada for his radical cancer treatment (that includes iodine and thyroid hormones). Derry synthesized several decades of iodine research to help us understand iodine's critical role in the human body.

One in Seven Breast Cancer Statistic

The incidence of cancer in women has increased (from one in twenty in 1960 to one in seven). The one-in-seven statistic for breast cancer refers to a female who is born today and lives to be 85. Her lifetime risk of developing breast cancer is one in seven (or approximately 13.4%).

Notes

Appendix B

Iodine Recipes

In her book, The Cure for All Diseases, Hulda Clark warns that commercially prepared Lugol's solutions may be polluted with propyl alcohol or wood alcohol.

If you go to the trouble of making an iodine solution yourself, be sure to use pure water. The contamination that Hulda speaks about is most likely from the water used to make the Lugol's solution. In her book's section on commercial beverages, she mentions that she has found solvents such as benzene, propyl alcohol and wood alcohol in store-bought drinking water (including distilled).

Note: Look for a pure water that is sold in glass bottles. Mountain Valley Spring water is mentioned here because it has a reputation as a high-quality water.

Mountain Valley Spring Water

Mountain Valley Spring Company (www.mountainvalleyspring.com) has been bottling spring water in dark green glass bottles since 1871.

A case of this spring water can be ordered from the Mountain Valley Spring visitor center at 150 Central Avenue in

Hot Springs, Arkansas ($17.25 for 10 one-liter bottles plus the cost of shipping).

Note: Mountain Valley Spring water is also available at Whole Foods Markets in Canada.

Recipe For Making Lugol's Solution

The iodine that is used to make Lugol's must be obtained from a company that is registered with the DEA (See: Buying Iodine). The recipe to make one liter includes the following ingredients:

44 gm. (1 1/2 ounces) iodine, granular
88 gm. (3 ounces) potassium iodide, granular

Dissolve the potassium iodide in about a pint of water. Then add the iodine crystals and fill to the liter mark with water. It takes about a day to dissolve completely. Shake it from time to time. Keep out of sight and reach of children. Do not use if allergic to iodine. Be careful to avoid bottled water for preparation.

Recipes For Making SSKI Solution

This section contains two recipes: one for a liter-sized quantity and one for a 2-ounce bottle-sized quantity:

- **One Liter of SSKI**
  The recipe for making one liter of SSKI is as follows:

  1000 grams (1 kilograms) potassium iodide (KI)
  680 milliter (ml.) hot, purified water
  Additional purified water to make one liter

Mix the potassium iodide in the hot water and allow it to cool to about 25° degrees Celsius (77° Fahrenheit) and add sufficient purified water to make 1000 ml. (one liter).

The resulting solution should be clear, colorless, and odorless and have a very salty taste. Store the liquid in a brown glass bottle.

- **2-Ounces of SSKI**

  The recipe for making two ounces of SSKI is as follows:

  2 ounces KI (4 tablespoons or 56.7g.)
  Purified water

  From Cresson H. Kearny's *Nuclear War Survival Skills* by Oak Ridge National Laboratory (from www.ki4u.com):

  To prepare a saturated solution of potassium iodide, fill a bottle about 60% full of crystalline or granular potassium iodide. (A 2-fluid-ounce bottle, made of dark glass and having a solid, non-metallic, screwcap top, is a good size for a family. About 2 ounces of crystalline or granular potassium iodide is needed to fill a 2-fluid-ounce bottle about 60% full.) Next, pour safe, room-temperature water into the bottle until it is about 90% full. Then close the bottle tightly and shake it vigorously for at least 2 minutes. Some of the solid potassium iodide should remain permanently undissolved at the bottom of the bottle; this is proof that the solution is saturated.

Frequently Asked Questions (FAQ)

Because most people have never heard of SSKI, the following points may clear up a few questions:

- **Why Does Potassium Iodide Provide Protection in a Radiation Emergency?**
  Radioactive Iodine (Radioactive iodine-131) is a radioisotope that is released in a nuclear power plant accident and a nuclear bomb explosion. If the thyroid gland is saturated with non-radioactive iodine, the gland will be prevented from taking up the radioisotope.

  Although radiation protection is included in Talking Point #20, the subject of radiation emergencies is beyond the scope of this book. For more details about this subject, visit the KI4U Web site at www.ki4u.com (Note: KI4U founder Shane Connor was interviewed on CNN. The October 2006 interview is available on YouTube at: www.youtube.com/watch?v=25JhQU3S4zo).

- **What Does Saturated Solution Mean?**
  SSKI is a mixture of potassium iodide salt and water. It becomes saturated when the water dissolves all of the granules and will not take up any more crystals. This point is reached when you see crystals or granules at the bottom of the solution.

Source For Potassium Iodide

Potassium iodide is not presently regulated. A grade that is suited for making SSKI is available from:

NASCO
901 Janesville Avenue
Fort Atkinson, Wisconsin 53538
1-800-558-9595
www.enasco.com

Potassium iodide
Product Number: SA09683M
Reagent grade
500 grams, $41

Brown Glass Bottles for Iodine Solutions

Iodine solutions should be stored in brown glass bottles to protect them from the light. Freund Container sells brown glass bottles:

- wide-mouth 32-oz. bottle (for making large quantities)
- 2 oz. dropper bottle

Freund Container
Corporate Center II
4200 Commerce Court, Suite 206
Lisle, IL 60532
800.363.9822
www.freundcontainer.com

Appendix C

Resources

Much like the cubists, impressionists and surrealists of the 20th century, the innovative physician-researchers of the 21st century are offering their patients important ideas about iodine that contradict the accepted views.

The following list of resources will help you realiize how many people and organizations are joining the new iodine revival.

Web Radio, Iodine

Dr. Stan Monteith's Radio Liberty Show
Dr. Monteith is an orthopedic surgeon who retired in 1993. In the introduction to his shows, he says the Radio Liberty show is dedicated to "bringing you the story behind the story and the news behind the news." Dr. Monteith's shows on iodine are compelling and they provide an interesting means to become acquainted with some of the pioneers who are leading the iodine revival.

Radio Liberty
P.O. Box 969
Soquel, CA 95073

800-544-8927
http://www.radioliberty.com
radiolib@aol.com

Guests who have been interviewed about iodine:

Dr. Jorge Flechas, M.D.:
http://iodine4health.com/research/flechas_2007_iodine2.mp3

Dr. Donald Miller, M.D.:
http://iodine4health.com/research/miller_2007_iodine_metabolism.mp3

Dr. Russell Blaylock, M.D.:
http://iodine4health.com/research/blaylock_2007_iodine_deficiency.mp3

Iodine Audio Tapes and CDs
A 4-tape set of the Radio Liberty interviews
$22.95 (Shipping $4.50)
P.O. Box 969
Soquel, CA 95073
800-544-8927
http://www.radioliberty.com
radiolib@aol.com

Note: Dr. Monteith's audio tapes are valuable for people who do not have an Internet connection. The tapes are also available on Amazon.com (search iodine audio).

Web Radio, Iodine and Selenium

Dr. Richard Olree
www.eminerals.info/drrichpasa07.mp3
Dr. Richard Olree is a chiropractic doctor who teamed up with Charles Walters, founder of Acres U.S.A, to write *Minerals for the Genetic Code:* An *Exposition and Analysis of the Dr. Olree Standard Genetic Periodic Chart and the Physical, Chemical and Biological Connection* (www.acresusa.org). This Web radio recording contains a talk that Dr. Olree gave to a group of farmers in Michigan. His talk describes the minerals that we need on a sub-atomic level (Olree's talk is complex and you may need to listen to this Web recording a few times). Although Dr. Olree is not introduced as a speaker and the tape has a slow start, you'll eventually hear his references to *Minerals for the Genetic Code*. As of this writing, Charles Walters and Dr. Olree are collaborating on a book about how to prevent cancer.

Web Video, Iodine

The Vitamin C Foundation
The Foundation is a consortium of physicians and other practitioners, healthcare activists, and other concerned Individuals, in addition to health and nutrition oriented organizations and nutrient suppliers—all of whom are dedicated to promoting the extraordinary therapeutic value of vitamin C.

The Vitamin C Foundation
P. O. Box 73172
Houston, Texas 77273

1-888-443-3634 Tollfree in USA
1-281-443-3634 EveryWhere
Owen R. Fonorow, co-founder
M. S. Till, Sr., co-founder

To view the Web videos on iodine, you will need to download a free copy of the Real Player. Note: CNET's download site (www.download.com) is a safe place to download the Real Player.

Iodine Videos:

- Video 1: Iodine is a Chelator of Mercury
  This video is the first of several short clips of Dr. Brownstein on the value of Iodine supplementation.
  http://www.internetwks.com/clips/bsMercury.rm
- Video 2: Iodine Deficiency and the Link to Breast and Prostate Cancer
  This video discusses Dr. Brownstein's observations on the value of Iodine supplementation with relation to cystic breast disease and to breast and prostate cancer.
  http://www.internetwks.com/clips/bsBCancer.rm
- Video 3: Iodine Detox
  This video is the third of several short clips of Dr. Brownstein on the value of iodine supplementation.
  http://www.internetwks.com/clips/bsDetox.rm

- Video 4: Iodine and Iodide Basics
  This is the fourth and final short clip of Dr. Brownstein on the value of Iodine supplementation.
  http://www.internetwks.com/clips/bsIodine.rm

Book

Breast Cancer and Iodine: Startling Ground-Breaking New Research Shows How to Prevent and How to Survive Breast Cancer
Dr. David M. Derry, M.D. Ph.D.
David Derry's controversial book is one that the medical establishment will not want you to read. His book contains scientific information about the thyroid gland, thyroid hormone, cancer and breast cancer. He describes his book as a prologue to a larger edition and hopes that it will stir up a discussion about breast cancer (Derry's case studies describe people whose cancer disappeared when they took large doses of iodine).

Book

Iodine: Why You Need It Why You Can't Live Without It
3rd Edition (published, October, 2007)
Dr. David Brownstein, M.D.

David Brownstein has written six books (www.drbrownstein.com) and his book about iodine is one of his best. His research helps readers understand how iodine can help breast cancer, detoxification, fatigue, fibrocystic disease, Graves Disease, Hashimoto's Disease, hypothyroidism and the immune system.

Book

Overcoming Thyroid Disorders

Dr. David Brownstein, M.D.

David Brownstein's book on overcoming thyroid disorders is an excellent resource for learning about natural therapites that can be used to treat: Hypothyroidism, Graves' Disease, Hashimoto's Disease, Fibromyalgia, Chronic Fatigue Syndrome and Arthritis.

Book

Salt Your Way To Health

Dr. David Brownstein, M.D.

Salt Your Way To Health challenges the conventional belief that a low-salt diet is a healthy diet and provides scientific details that support this claim. Dr. Brownstein also does a very thorough job of explaining how the minerals in unrefined salt support the thyroid and adrenal glands.

Book

Sea Vegetable Celebration

Shep Erhard and Lesle Cerier

Sea Vegetable Celebration is a cookbook that contains over 100 seaweed recipes. Besides the recipes (for appetizers, spreads, dips, snacks, breakfast, soups, salads, vegetable dishes, bean cookery, main dishes and desserts), the book also contains a detailed history of seaweed, medical uses, anecdotes from people who feed seaweed to cats, dogs, horses, goats and chickens as well as information about seaweed fertilizer and formulas for shampoo, soaps and baths.

Book
Minerals for the Genetic Code
Charles Walters (www.acresusa.org)
This Exposition and Analysis of the Dr. Olree Standard Genetic Periodic Chart and the Physical, Chemical and Biological Connection, provides important information about the minerals that we need to repair our DNA.

Book
It's All In Your Head
Dr. Hal Huggins
Dr. Huggins is considered to be the most controversial dentist who has spoken out against mercury. When asked why dentists continue to use mercury if the dangers have been known for over a hundred years, Huggins explains that mercury toxicity is a very sensitive subject due to the liability implications on the part of large corporations and regulatory agencies. Dentists who speak out against mercury face the threat of losing their license. In each state, dental licenses are controlled by a dental board or a political organization that has ties to the American Dental Association. Huggins says, If a dentist advertises that he/she is a mercury-free dentist, they will put themselves in the 'crosshairs.' In Steve Prussack's radio show interview that's archived on the Web (address below), Huggins mentions that he's had threats on his life. Readers with a Web connection may be interested in hearing Hal Huggins tell his own story in a very provocative talk-show interview.

Even though Hal's interviewed on Raw Vegan Radio, he explains how important it is to eat animal protein and fat to heal the body after mercury is removed.

http://rawveganradio.podomatic.com/enclosure/2006-09-10T15_46_57-07_00.mp3

Book
Amalgam Illness: Diagnosis and Treatment
Dr. Andy Cutler
Web Site: www.noamalgam.com
A self-help book on chronic mercury poisoning that provides information about how to identify mercury poisoning and how to cure it.

Book
Hair Test Interpretation: Finding Hidden Toxicities
Dr. Andy Cutler
Andrew's book is a guide to the use of hair analysis for understanding the confusing world of heavy metal poisoning diagnosis and treatment.

Web Site
Subject: The Dangers of Mercury
Source: Web videos
Location: The International Academy of Oral Medicine & Toxicology
Web Address: www.iaomt.org
Look for links to The Smoking Teeth and How Mercury Causes Brain Neuron Degeneration.

Web Site

Subject: Fluoride Toxicity
Source: The Fluroide Deception
Fluoride Action Network
www.fluoridealert.org
The Fluoride Action Network is an international coalition seeking to broaden public awareness about the toxicity of fluoride compounds and the health impacts of current fluoride exposures.

Web Articles

Subject: Iodine
Authors: Dr. Guy Abraham, Dr. J.D. Flechas, Dr. D. Brownstein,, Roxanne C. Handal, BS & John C. Hakala, RPhA
Source: Optimox Corporation
P.O. Box 3378, Torrance, California 90510-3378
Web Address: http://www.optimox.com

- Pub. #1: Abraham, G.E., Flechas, J.D., Hakala, J.C., "Optimum Levels of Iodine for Greatest Mental and Physical Health," *The Original Internist*, 9:5-20, 200.2

- Pub. #2: Abraham, G.E., Flechas, J.D., Hakala, J.C., "Orthoiodosupplementation: Iodine Sufficiency Of The Whole Human Body," *The Original Internist*, 9:30-41,2002.

- Pub. #3: Abraham, G.E., Flechas, J.D., Hakala, J.C., "Measurement Of Urinary Iodide Levels By Ion-Selective Electrode: Improved Sensitivity And Specificity

By Chromatography On An Ion-Exchange Resin," *The Original Internist*, 11(4):19-32,2004.

- Pub. #4: Abraham, G.E., "The Wolff-Chaikoff Effect: Crying Wolf?," *The Original Internist,* 12(3):112-118,2005.

- Pub. #5: Abraham, G.E., "The safe and effective implementation of orthoiodosupplementation in medical practice," *The Original Internist*, 11:17-36, 2004.

- Pub. #6: Abraham, G.E., "The concept of orthoiodosupplementation and its clinical implications," *The Original Internist,* 11(2):29-38, 2004.

- Pub. #7 Abraham, G.E., "Serum inorganic iodide levels following ingestion of a tablet form of Lugol solution: Evidence for an enterohepatic circulation of iodine," *The Original Internist*, 11(3):112-118, 2005.

- Pub. #8 Abraham, G.E., "The historical background of the iodine project," *The Original Internist*, 12(2):57-66, 2005.

- Pub. #9 Brownstein, D., "Clinical experience with inorganic, non-radioactive iodine/iodide," *The Original Internist*, 12(3):105-108, 2005.

- Pub. #10 Flechas, J.D., "Orthoiodosupplementation in a primary care practice," The *Original Internist*, 12(2):89-96, 2005.

- Pub. #11 Abraham, G.E., Brownstein, D., "Evidence that the administration of Vitamin C improves a defective cellular transport mechanism for iodine: A case report," *The Original Internist,* 12(3): 125-130, 2005.

- Pub. #12 Abraham, G.E., Brownstein, D., "Validation of the orthoiodosupplementation program: A Rebuttal of Dr. Gaby's Editorial on iodine," *The Original Internist*, 12(4): 184-194, 2005.

- Pub. #13 Abraham, G.E., Brownstein, D., Flechas, J.D., "The saliva/serum iodide ratio as an index of sodium/iodide symporter efficiency," *The Original Internist*, 12(4): 152-156, 2005.

- Pub. #14 Guy E. Abraham, MD., "The History of Iodine in Medicine Part I: From Discovery to Essentiality," *The Original Internist*, 13: 29-36, Spring 2006.

- Pub. #15 Abraham, G.E., "The History of Iodine in Medicine Part II: The Search for and the Discovery of Thyroid Hormones," *The Original Internist,* 13: 67-70, June 2006

- Pub. #16 Abraham, G.E.,"The History of Iodine in Medicine Part III: Thyroid Fixation and Medical Iodophobia," *The Original Internist,* 13: 71-78, June 2006.

- Pub. #17 Guy E. Abraham, MD, Roxanne C. Handal, BS & John C. Hakala, RPhA, "Simplified Procedure for the Measurement of Urine Iodide Levels by the Ion-Selec-

tive Electrode Assay in a Clinical Setting," *The Original Internist*, Vol 13, No. 3, 125-135, September 2006.

- Pub. #18 Abraham, G.E., "The Combined Measurement of the Four Stable Halides by the Ion-Selective Electrode Procedure Following Their Chromatographic Separation on a Strong Anion Exchanger Resin: Clinical Applications," *The Original Internist*, 171-195, December 2006.

Web Article
Title: "Suppressive Effect of Iodine on DMBA-Induced Breast Tumor Growth in the Rat"
Authors: Funahashi, H., Imai, T. , Tanaka, Y. , Tobinaga, J., Wada, M., Morita, T., Yamada, F., Tsukamura, K., Oiwa, M., Kikumori, T., Narita, T., Takagi, H.
Source: *Journal of Surgical Oncology*. 1996 Mar; 61(3): 209-13
Web Address: http://grande.nal.usda.gov/ibids/index.php?mode2=detail&origin=ibids_references&therow=56650

An abstract of this article is available on the Web and the full text is available from the publisher for a fee.

Web Article
Title: "Extrathyroidal Benefits of Iodine"
Author: Dr. Donald W. Miller, Jr., M.D.
Web Address: http://www.jpands.org/vol11no4/millerd.pdf

Web Article
Title: "One Mineral Can Help a Myriad of Conditions From Atherosclerosis to Chronic Obstructive Pulmonary

Disease (COPD) to Zits"
Author: Dr. Jonathan Wright, M.D.
Source: Tahoma Clinic Web Site
Web Address: http://www.tahoma-clinic.com/iodide.shtml

Web Article
Title: "Iodine: Bring Back the Universal Nutrient Medicine"
Author: Mark Sircus Ac., OMD
Source: International Medical Veritas Association
Web Address: www.health-science-spirit.com/iodine.html

Web Article
Title: "The Critical Importance of Dietary Iodine"
Author: Dr. Mitch Fleisher, M.D.
Source: *Natural Awakenings* Richmond Edition
Web Address: www.narichmond.com/critical_importance_of_dietary_iodine.htmlWeb Article

Web Article
Title: "Iodine"
Author: Dr. Elson M. Haas, M.D.
Source: *Health World Online*
Web Address: www.healthy.net/scr/Article.asp?Id=2074

Web Article
Title: "Iodine is Vital for Good Health"
Author: Dr. James Howenstine, M.D.
Source: NewsWithViews.com
Web Address: www.newswithviews.com/Howenstine/james37.htm

Web Article
Title: "The Usefulness of Iodine"
Author: Dr. DeForest Clinton Jarvis, M.D.
Source: Excerpt from *Folk Medicine*
J.Crow Company
P.O. Box 172
New Ipswich, New Hampshire 03071
1-800-878-1965 (US & Canada)
603 878 1965 (All Others)
Web Address: http://jcrow.com/iodine.html

Web Article
Title: "Iodine: A General Discussion"
Author: Dr. Winston W. Greene, D.C.
Source: DCNutrition Web Site
Web Address: http://dcnutrition.com/minerals/Detail.CFM?RecordNumber=73

Web Article
Title: "Cancer and Immunity"
Author: Dr. Michael Lam, M.D.
Source: DrLam.com
Web Address: www.drlam.com/A3R_brief_in_doc_format/cancer_and_immunity.cfm

Dr. Lam describes the Hoxsey treatment for cancer, a formula that includes a high concentration of potassium iodide.

Web Article
Title: "Lyme Disease: A Look Beyond Antibiotics"
Author: Dr. Dietrich Klinghardt, M.D.
Source: American Academy of Neural Therapy
Web Address: http://neuraltherapy.com/LymeALookBeyond6.pdf

Dr. Klinghardt explains that iodine is the element that is the most critical element in the Lyme patient.

Web Article
Title: "Natural Treatment of Thyroid Deficiency Syndrome: Are You Thyroid Deficient?"
Author: Dr. Edward Lichten, M.D.
Source: Dr. Lichten's Web site
Web Address: http://www.usdoctor.com/thyroid.htm

Dr. Lichten recommends screening for iodine and selenium deficiency in hair analysis.

Web Article
Title: "Iodine and Trace Elements in the Promotion and Maintenance of Metabolic Excellence"
Author: Dr. John A. Myers, M.D.
Source: iodine4health.com Web Site
Web Address: http://iodine4health.com/research/myers_1977_iodine_trace_elements.pdf

Web Article
Title: "Now There's Even Rocket Fuel in Breast Milk"
Author: Dr. Joseph Mercola, D.O.
Source: Dr. Mercola's Web site
Web Address: http://www.mercola.com/2005/mar/9/breast_milk.htm

Dr. Mercola explains that rocket fuel (perchlorate) knocks an iodine ion off the protein that transports the iodine ion to the thyroid. He says that percholate is now found widely in the U.S. water supply (35 states) and in vegetables such as lettuce.

Web Article
Title: "Chronic Iodine Deficiencies and the Use of Iodoral - an Iodine/Iodate Supplement"
Author: Dr. Robert Rowan, M.D.
Source: iodine4health.com Web Site
Web Address: http://www.dcnutrition.com/Minerals/Detail.CFM?RecordNumber=73

This article is located on Dr. Winston W. Greene's Web site (scroll down the page to see Dr. Rowan's article).

Web Article
Title: "Iodine: Its Role In Health and Disease - Some New Exciting Concepts"
Author: Dr. Michael B. Schachter, M.D
Source: Schachter Center for Complementary Medicine
Web Address: http://www.mbschachter.com/Iodine.htm

Web Article
Title: "Iodine: Critical Nutrient for Everyone"
Author: Dr. C. Norman Shealy, M.D., Ph.D.
Source: *Youthful Aging-Health News*
Web Address: http://normshealy.com/newsletter/newsletterArchivePreview.asp?DBRecordID=63

Web Article
Title: "Iodine: The Once a Century Element"
Author: Phil Thomas
Source: *Townsend Letter for Doctors and Patients*
Issue: June, 2004
Web Address: http://findarticles.com/p/articles/mi_m0ISW/is_251/ai_n6112676/pg_3

In his article, Phil Thomas explains that Edgar Cayce referred to iodine over 4,000 times in his readings. The Iodine Source Web site contains excerpts from Edgar Cayce's readings:
http://www.iodinesource.com/Resources.asp

In this excerpt, Edgar Cayce suggests that iodine is one of four transformative elements:

For remember, while ye give many combinations there are only four elements in your body: water, salt, soda, and iodine. These are the basic elements; they make all the rest. Each vitamin as a component part of an element is simply a combination of these other influences, given a name mostly for confusion to individuals by those who would tell you what to do for a price.

Web Article
Title: "Iodine Deficiency"
Author: Dr. William Shevin, M.D., D.Ht
Source: Dr. Shevin's Web site
Web Address: http://www.drshevin.com

This article is located under "Topics and Disease" and "Iodine."

Web Article
Title: "The Cure of Advanced Cancer by Diet Therapy: A Summary of 30 Years of Clinical Experimentation"
Author: A lecture given by Dr. Max Gerson in Escondido, California in 1956
Source: *Physiology, Chemistry and Physics*, 1978
Web Address: http://www.doctoryourself.com/gerson-speech.html

In his speech, Dr. Max Gerson describes his therapy for advanced cancer that includes iodine.

Web Article
Title: "Mammography Madness"
Author: Dr. William Campbell Douglass, Jr.
Source: Weston A. Price Foundation Web Site
Web Address: http://www.westonaprice.org/women/mammography.html

Dr. Douglass' article includes instructions on how to take Lugol's solution for breast health.

Web Article

Title: "Transitory Schizophrenias Produced By Bromide Intoxication"
Author: Dr. Max Levin, M.D.
Source: *The American Journal of Psychiatry*, 03:229-237, September 1946
Web Address: http://www.ajp.psychiatryonline.org/cgi/content/abstract/103/2/229

Methyl Bromide Residue in Chocolate

Non-organic chocolate can legally contain a pesticide residue called methyl bromide. Bromide is a toxic chemical that displaces iodine and causes neurological effects.

Note: Chocolate is also contaminated with lead (See: www.ehponline.org/members/2005/8009/8009.html)

Notes

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