LET YOUR FOOD BE YOUR MEDICINE

“LET FOOD BE THY MEDICINE, and your medicine be your food”
(Hippocrates, father of medicine)

CONTEMPT PRIOR TO COMPLETE INVESTIGATION SHALL ENSLAVE A MAN TO IGNORANCE.

It is very possible that humankind is in for a rough ride over the next millennia.

We have been very fortunate here in North America to have had an abundance of good food, drugs, lots of clean water, jobs, education for the last hundred years. If everything that we have been told, and are beginning to see, happens, that utopian lifestyle may vanish over the next several years.

It may come down to survival of the fittest and those that can adapt to the new changes will have a better chance of survival.

- ***War has not been happening on our turf, that may change.***
- ***Viruses are being developed, and let loose onto the public and the solution is taking toxic vaccines which seem to be ready before the virus has even been released.***
- ***Our foods are chemicalized, contaminated and denatured.***
- ***Many species are leaving this toxic planet, nature is fragile.***
- ***We have poisoned the planet and now it is poisoning us.***
- ***Weather patterns are becoming more unpredictable, more violent as the ice caps continue to melt from the last ice age.***
- ***The poles are changing, moving.***
- ***It is becoming difficult to know if what you are eating is synthesized meat or real meat.***
- ***Children are given up to 70 inoculations of toxins within the first few years of life.***
- ***Children and adults now have the right to 'maid' to end their life when wanted.***
- ***Most seniors are taking 5-10 different medical drugs.***
- ***More and more foods are genetically modified without really knowing what they will do to our body, and by law they don't have to tell us which ones they are modifying. Apparently bees cannot live on genetically altered or sprayed plants and we need those bees.***
- ***Glyphosate is deeply imbedded in our foods and culture, around the whole world. Round up is in everything, even when we try to eat organic.***
- ***We live in a plastic world.***
- ***We are being bombarded with energies all around us: from computers, electricity, cellphones, satellites, radio, television, street lights, G5, microwave ovens, microwave stations.***
- ***What or who can we trust now? – our history books, governments, parents, teachers, science, medicine, churches? It is up to us as individuals to find***

out the truth in what affects our lives.

- ***Life is Seriously Unsafe***

55% of our population has heart disease
53% of our population has cancer
40% of our population has diabetes
75% of people over the age 60 will have arteriosclerosis (hardening of the arteries)
All of these can be attributed as being caused by our lifestyle, especially our diets.

It appears that we are going to have a major political restructuring over the next several years, and Canada is in the middle of it. Combine that with the massive solar flares, the change in magnetic poles, melting of the icecaps and global warming causing all sorts of weather anomalies, we are in for an exciting adventure and it is starting now.

You may not be able to control everything about your environment, but you can control what you put in your mouth and that is a big, big plus when it comes to survival. You can also control what products you use to clean your homes, clothes, brush your teeth, wash your hair etc.

There is strong evidence that our health supplements will one day disappear from the shelves. But you can learn to make your own medicines from foods and herbs.

What follows are the foods and herbs that you can obtain your vitamins and minerals from and which foods can be used for health and healing, which ones to avoid, problems that can come from even healthy foods.

VITAMINS

VITAMIN A (beta carotene)

Foods	Herbs
Carrots	Spirulina
Parsley	Chlorella
Mint	Barley grass
Spinach	Peppermint
Cod Liver oil	Dandelion rt
Halibut liver oil	Nettles
Kohlrabi	Red Raspberry
Apricots	Yellowdock rt
Peaches	Parsley lf/rt
Cherries	Eyebright
Beet greens	Uva Ursi
Broccoli	Senna
Egg yolk	Alfalfa
Butter	Capsicum

Note: Vit A is destroyed by Heat, acid, oxygen, light, using mineral oil, canning & processing, cooking, nitrates in fertilizers, estrogen in birth control pills, florescent lights, baking soda. Retinol Palmatate is the synthetic version of Vitamin A often put into nutritional supplements, harder to process in the elderly.

B VITAMIN SOURCES Herbs

Most Effective	Also
Royal Jelly	Dandelion rt.
Ginseng	Parsley rt. & lf
Kelp/sea veg	Red raspberry
Burdock rt.	Watercress
Dong Quai	Fenugreek seed
Black Cohosh	

VITAMIN B SOURCES – herbs for the brain

Most Effective:	Also:
Royal Jelly	Thyme
Dandelion Rt	Parsley rt/lf
Kelp/sea veg	Burdock rt
Red Raspberry	Dong Quai
Watercress	
Alfalfa	
Fenugreek seed	

B VITAMIN HERBS – for your nails

Most Effective	Also
Alfalfa	Bee Pollen
Dandelion Rt.	Spirulina
Barley Grass	Sarsaparilla
Chlorella	Dong Quai
Kelp	
Parsley leaf	

B VITAMINS (hair)

Most Effective	Also
Bee Pollen	Sarsaparilla
Spirulina	Dong Quai
Alfalfa	Barley grass
Dandelion Rt.	Chlorella
Kelp	Parsley leaf

B1(Thiamine) SOURCES

Foods	Herbs
Whole grains	Spirulina
Legumes	Ephedra
Nuts	Gotu Kola
Organ meats	Fenugreek seed
Asparagus	Barley grass
Brewer's yeast	Peppermint
Wheat germ	Acerola fruit
Bran	Burdock rt
Pork	Elecampane
Salmon	Grapevine
Green peas	Barberry rt
Sunflower seeds	Blue cohosh rt
Macadamia nuts	Sage
Acorn squash	Yellowdock
Cabbage	Bilberry
Flaxseeds	
Blackstrap molasses	
Soybean flour	
Rice	
Rice bran syrup	

Note: B1 is destroyed by storage, heating in liquid, alkaline solutions (baking soda), copper as in copper pots ultra violet light, nitrates, sulfite

B2 (Riboflavin) SOURCES

Foods	Herbs
Brewer's yeast	Spirulina
organ meats	Peppermint
shellfish	Barley grass
wheat germ	Horseradish rt
cheese	Eyebright
Asparagus	Ephedra
Broccoli	Yellowdock
Cauliflower	Hops
eggs	Barberry rt
dried chili peppers	Blue cohosh rt
green leaf veggie	Capsicum
polishings	
avocados	
legumes	
nuts	

Note: B2 is destroyed by light, especially when cooking, heat in an alkaline solution (baking soda). Ultra violet light, also some is lost by cooking

B3 (Niacin) SOURCES

Foods	Herbs
Beef liver	Hops flower
Grass fed red meat	Feverfew herb
Brewers Yeast	Red raspberry lf
Rice bran and	Ginkgo lf
Torfula yeast	Eyebright
Wheat germ	Slippery Elm
Rice bran and	Spirulina
Rice polishings	Red clover fl
Nuts	Black cohosh rt
Sunflower seeds	Peppermint
Peanuts	Gotu kola
Green veggies	Barley grass
Asparagus	Damiana lf
Cabbage	White willow bk
Chicken	Alfalfa
	Mullein

Note:
B3 Can be synthesized in the colon if there is enough B1, B2 and B6 present.
B3 is water soluble, lost if the cooking water is disposed of.

B5 (Pantothenic acid) SOURCES

Foods	Herbs
Brewer's yeast	Paprika
wheat germ	Spearmint
wheat bran	Black pepper
royal jelly	Curry
whole grains	Parsley
green veggies	Oregano
peas and beans	Chili powder
peanuts	Basil
liver	Mustard seed
kidney	Rosemary
crude molasses	Garlic
avocados	Ginger
mushrooms	Cloves

Note: B5 is destroyed by food processing, freezing, heat, acids, bases.

B6 (Pyridoxine) SOURCES

Foods	Herbs/Spices
Brewer's yeast	Sage
desiccated liver	Tarragon
wheat germ	Chili powder
bananas	Savory
avocados	Bayleaf
wheat bran	Marjoram
chickpeas, soy beans	Oregano
walnuts	Saffron
cabbage	Chervil
egg yolks	Celery seed
blackstrap molasses	Anise seed
green leaf veggies	Ground ginger
liver	Fenugreek seed
green peppers	Fennel seed

pecans	**Cumin seed**
carrots	**Mustard seed**
peanuts	**Clove**

Note: B6 is destroyed 50% by cooking and processing. Also sensitive to light.
You shouldn't take more than 100mg a day but seniors should stay under 10mg daily. Taking supplements can lead to toxicity showing as nerve toxicity, fatigue, tingling toes, loss of coordination. Get the B6 from food, it is safe and easy for the body to use.

B7 (BIOTIN) SOURCES

Foods	Herbs
Brewer's yeast	**Basil**
Unpolished rice	**Mustard powder**
Eggs	**Nettle**
Bananas	**Garlic**
Milk	**Elder flowers**

Liver (beef, chicken)
Kidneys
Tempeh
Flours: Buckwheat flour, Rye, Amaranth, Sorghum
Veggies: Eggplant, Broccoli, Spinach, Sweet Potato
Seeds: Sunflower
Nuts: Almonds, walnuts
Fruit: strawberries, bananas
Beans: Soy,
Pork chop
Fava beans
Peanuts
Pink salmon, canned
***Note: Biotin is destroyed by acids and alkalines. It is synthesized in the intestines if there is enough healthy flora*.**

B8 INOSITOL

Foods	Herbs
Whole grains	**Fenugreek**
Citrus fruits	**Dandelion leaf**

Brewers yeast
Molasses
Liver
Lecithin
Cantaloupe
Beans, peas
Brown rice
Note: coffee may deplete body's storage.

B9 (FOLIC ACID)

Foods	Herbs
Brewer's yeast	**Matcha (green tea)**
Wheat germ	**Spearmint, dried**
Dk green leafy veg.	**Basil dried**
Broccoli	**Rosemary, dried**
Asparagus	**Sage, ground**
Orange juice	**Tarragon, dried**
Peas	**Marjoram, dried**
Beans	**Chervil**
Spinach	**Bay leaf**

Lettuce
Nuts
Mushrooms
Peanuts
Liver

Parsley, dried
Coriander
Paprika
Mustard seed
Horseradish
Oregano
Fenugreek seed

Note: Destroyed by heat, acid, oxygen, normal cooking causes up to 65% loss

B12 (Cobalamin) SOURCES

Foods	Herbs
Fortified brewer's yeast	Kelp/sea veggies
Sunflower seeds	Spirulina
Spirulina, chlorella	Bee pollen
Eggs	Brewer's yeast
Kelp	Comfrey leaf
Bananas	Alfalfa
Peanuts	Dong Quai
Raw wheat germ	Siberian Ginseng
Pollen	
Concord grapes	

Note: B12 in tablet form can only be utilized if healthy stomach juice is present.
Acid reflux drugs (PPIs) – long term use can interfere with B12 absorption. Metformin can reduce the amount of B12 in the body.

B15 (Pangamic acid) SOURCES

Foods	Herbs
Nutritional yeast	Apricot seeds
Brown rice	Milk thistle
Sesame seeds	Dandelion rt
Pumpkin seeds	Licorice
Sunflower seeds	Apricot kernels
Whole grains	
Apricot kernels	
Cantaloupe	
Beef blood	
Rice bran	
Brewers yeast	

Note: B15 is destroyed by akalines Stable in heat to 212F.

B17 (Laetrile) SOURCES

Foods	Herbs
Raw nuts	Apricot seeds
Sorghum, barley	Apple seeds
Spinach leaves	Cherry seeds
Alfalfa	Peach seeds
Beet greens	Plum seeds
Watercress	Plum seeds
Bamboo shoots	Pear seeds
Sprouts: fava, alfalfa, mung	Grape seeds
Garbanzo beans	
Beans, peas, lentils	
Sweet potato, yam	
Carrots, celery	
Seeds: barley, flax	

BETA CAROTENE (plant Vit. A)

Foods	Herbs
Spirulina algae	Gotu kola
Sweet potatoes	Peppermint leaf
Dark leafy greens	Senna leaf
Cabbage	Yellowdock root
Carrots	Uva ursi herb
Broccoli	Parsley
Butternut Squash	Horseradish
Parsley	Alfalfa
Barley grass	Chaparral
Cantaloupe	Red raspberry leaf
Romaine lettuce	Blessed thistle herb
Red bell peppers	Yerba santa
Apricots	Capsicum
Pink Grapefruit	Nettle
Mangoes	Safflower
Guavas	Dandelion rt
Peas	Stevia leaf
	Eyebright herb

VITAMIN C & BIOFLAVONOID SOURCES

Foods	Herbs
All fresh fruits	Bilberry
All fresh veggies	Hawthorne lf/bry
Acerola cherries	Gingko
Black currants	Capsicum
Strawberries	Rosehips
Apples	Kelp/dulse
Potatoes	Chlorella
Cabbage	Catnip
Broccoli	Parsley
Tomato	Aloe vera
Green peppers	Royal Jelly
Broccoli	Red Clover
Cauliflower herb	Red Raspberry
Pumpkin seeds	Yellowdock
	Lemon/citrus peel
	Papaya
	Horseradish root

Note: Vitamin C is destroyed by heat, alkalines and light.

BIOFLAVONOIDS, part of Vit. C family

Foods	Herbs
Skin of fruits	Chamomile
Green tea	Peppermint
Oolong tea	
Black tea	
Red wine	
Onions	
Kale	
Peaches, berries	
Tomatoes	
Lettuce	
Broccoli	

Cocoa
Dk Chocolate
Apples
Parsley, celery
Red pepper
Lemons, limes
Oranges, grapefruit
Cranberries

CHOLINE

Foods	Herbs
Meat	Mustard seed
Fish	Coriander leaf
Almonds, nuts	Parsley
Navy beans	Garlic
Eggs	Chili powder
Lecithin	Curry powder
Tofu/soy	Basil
Liver	Paprika
Cauliflower, broccoli,	Turmeric
brussel sprouts	Thyme, Marjoram
	Sage, Ginger, Cloves
	Cumin, caraway seed

Note: Similar to B vitamins. Choline can be made in the liver.

VITAMIN D

Foods	Herbs
Fish liver oil	
Egg Yolks	
Butter	
Salmon, tuna	

Note: depleted by showering or swimming after sunbathing.
Other: sunshine

VITAMIN E

Foods	Herbs
Cold pressed oils	Alfalfa
esp. Wheat germ oil	Rosehips
Barley	Paprika
Soybean	Chili powder
Peanuts	Cayenne
Cabbage	Curry
Spinach	Oregano
Broccoli	Turmeric
Asparagus	Mustard seed
	Dried basil
	Cumin seed
	Cinnamon

Note: alkalis, oxygen, freezing, ultra violet light all destroy, and heat to some degree

VITAMIN K1 (phylloquinone)

Foods	Herbs
Cooked: kale, chard, collard greens, broccoli, mustard greens	Dried coriander
Raw spinach	Poultry seasoning
Some plant oils	Basil
Alfalfa sprouts	Ground sage
Avocado	Parsley, oregano
	Alfalfa herb
	Black pepper
	Dried marjoram

VITAMIN K2 (menaquinone)

Foods	Herbs
Dairy eg. Cheese	Alfalfa
Animal products	
Fermented foods: kefir, sauerkraut, yogurt	
Eggs, Grass fed butter & cheese	
Organ meats eg. Liver	
Chicken breast	
Kefir	
Sauerkraut	
Natto (fermented soy)	

Other: Gouda, blue cheese, egg yolks, chicken liver, butter, salami, ground beef

NOTE: Vitamin A, D, E and K are fat soluble vitamins. If you eat foods that have these, your body won't absorb the vitamins unless fat is present. That could be a little coconut oil, olive oil, a few walnuts, a tsp of butter, a few slices of avocado, a tsp of peanut butter etc.

MINERALS

BONE MINERALS

CALCIUM (bone mineral) *see special information regarding calcium*

Foods	Herbs
Seaweeds	Comfrey rt/lf
Bok Choy	Oatstraw
Sesame seeds, esp. Black	Horsetail herb
Agar Agar	White oak
Kale	Nettles
Turnip green	Dandelion rt
Hazelnuts	Lobelia
Parsley	
Dandelion greens	
Brazil nuts	
Spirulina	
Soy Milk	
Chickpeas	
Black olives	
Walnuts, almonds, peanuts	
Spinach	
Raisins	
Parsnips	
Pumpkin seeds	
Canned sardines (with bones)	
Canned Tuna (with bones)	
Sunflower seeds	
Egg yolk	
Broccoli	
Tofu	
Lima beans	
Halibut, Mackerel, Salmon	

Calcium alone doesn't build strong bones after 60 years old. When taken without K2, D3, and magnesium it can hurt. Get less than total of 2,000mg a day to avoid artery calcification. Getting natural calcium from foods and herbs are easier on the body.

CALCIUM & MAGNESIUM SOURCES

Foods	Herbs
Tomato	Most effective:
Spinach	Horsetail
Lettuce	Dandelion rt
Bran	Kelp/sea veg
Celery	Nettles
Beans	Oats/Oatstraw
Cucumber	Also
Figs	Burdock rt
Carrot	Mullein
Walnuts	Gotu Kola
Oranges	Thyme
Grapefruit	Ginger

MAGNESIUM SOURCES (bone mineral) see special information regarding magnesium

Foods	Herbs
Pumpkin seeds	Irish moaa
Tomato	Oatstraw
Salmon	Turmeric
Spinach	Kelp, Dulse
Lettuce	Nettle
Bran	Licorice rt
Celery	Elecampagne
Beans	Peppermint
Cucumber	Boneset
Figs	White willow
Carrot	Pennyroyal
Walnuts	Devil's claw
Oranges	Burdock rt
Grapefruit	Chickweed
Cacao	Marshmallow rt
	Pumpkin seed
	Siberian ginseng
	Carrot leaves
	Mullein leaves
	Meadowsweet

***NOTE: doing a** diet low in carbs and high in protein, more magnesium required. You need for more magnesium when blood cholesterol is high, protein intake is high, or carbohydrate intake high*.

PHOSPHOROUS (bone mineral)

Foods	Herbs
Seafood	Garlic
Liver	Blue cohosh rt
Meat	Bilberry
Milk	Pumpkin seed
Kale, cabbage	Yerba santa
Broccoli	Horseradish
Bran	Peppermint
Nuts	Yellowdock
Seeds	Milk Thistle seed
Chickpeas	Siberian ginseng
Lentils	Buchu
Radish	Ginkgo
Pumpkin	Fennel seed
Cucumber	Barley grass
Lettuce	
Spinach	
Eggs	
Popcorn	
Cheese	
Wheat	
Grains	
Kelp	*Note: intake should be linked with calcium.*
Bonemeal	
Cranberry	
Soybean	
Asparagus	

POTASSIUM (bone mineral)

Foods	Herbs
Spinach	Nettle
Salmon	Dandelion lf
Yogurt	Sage
Avocado	Peppermint
Sweet Potato	Basil
White Beans	Saffron
Cayenne	Garlic powder
Apricots	Paprika
Bananas	Chervil
Pears	Coriander
Prunes	Turmeric
Lentils	Garlic powder
Swiss Chard	Seeds: dill, cumin,
Celery, Cabbage	fennel, celery,
Parsley, broccoli	caraway
Asparagus, Cauliflower	Horseradish
Carrots	Blessed thistle
	Barley grass
	Hops
	Catnip
	Lemongrass
	Feverfew
	Scullcap

SODIUM (blood mineral)

Foods	Herbs
Celery	Dulse, kelp
Seafoods	Irish moss
Kelp	Rosehips
Poultry	Goru kola
Romaine lettuce	Licorice rt
Grapefruit	Parsley
Beets	Oatstraw
Cabbage	Comfrey rt
Watermelon	Buchu lf
Carrots	Chamomile
Asparagus	Barley grass
Chard	Peppermint
	Wild yam rt

Note: Sodium is a blood mineral and works with potassium and chlorine to maintain acid base balance.

BORON

Foods	Herbs
Leafy veggies	n/a
Fruit	
Veggies	
Grain	

Note: needed for calcium uptake

CHROMIUM

Foods	Herbs
Whole grains (not rye)	Garlic
Veg. Oils	Chamomile
Nutritional yeast (not tortula)	Rosemary
Oysters	Melissa
Clams	Licorice rt
Meat	
Broccoli	
Oats	
Dk chocolate	
Potatoes, onion, radish, avocado, lettuce, gr. bean	
Pears, apples, bananas	

***Note: absorption rate low (1% from food sources, and only 10% from supplemental* forms)**

CHLORIDE

Foods	Herbs
Salt	n/a
Soy sauce	
Seaweeds	
Celery	
Olives	
Watercress	
Rye bread	
Tomatoes	
Lettuce	
Cucumber	
Bell peppers	
Green beans	
Broccoli, kale, mustard greens Collard greens, Chard	
Arugula	
Sauerkraut	
Pickles	
Salt water fish, seafood	
Coconut water, milk, beer	
Cheeses	
Pork, chicken, turkey, duck, venison	
Quinoa, lentils, beans	
Tofu, tempeh	
Nuts and seeds	
Grains	

Note: Chlorine stimulates production of acid in stomach for digestion.

IODINE

Foods	Herbs
Seaweeds	Kelp, dulse
Sea fish	Black Walnut
Swiss chard	Garlic
Turnip greens	Irish Moss
Fish liver oils	Sarsaparilla rt
Egg yolks	White Oak bark
Parsley	Thyme
Pineapple	Horsetail
Pears	Watercress
Citrus	Ginger
	Echinacea
	Burdock rt
	Spearmint
	Peppermint

Note: this is a common deficiency. Soil in Alberta is depleted. Iodine is used up by the body to detox radioactive residue from the thousands of nuclear bombs that have been activated.

IRON

Foods	Herbs
Dessicated liver	Dandelion rt
Nutritional yeast	Nettle
Molasses	Yellowdock
Kelp	Dulse
Organ meats	Parsley rt/lf
Prunes	Alfalfa
Apricots	Burdock
Lima beans	Mullein
Shellfish	Barley grass
Wheat bran	Chlorella
Soybeans	Seabuckthorn
Whole wheat bread	
Beet root	
Leafy veggies	
Tofu	
Beans	
Wheat germ	
Spinach	

It is important to take Vit. C with the iron rich foods to help them to be better absorbed.
These provide 75 milligrams of Vit. C or more per serving:

- **half cantaloupe**
- **1/2 cup diced peppers**
- **1 cup orange juice**
- **1 cup strawberries**
- **1 cup grapefruit juice**

These provide 25-75 mg Vit. C per serving:

- **1/2 cup cooked cabbage**
- **1 large tomato**
- **1 cup tomato juice**
- **1 baked sweet potato**
- **1/2 cup brussel sprouts**

1/2 cup cooked cauliflower
1/2 cup cooked spinach or mustard greens

Iron oxidizes in the organs, easy to flush out when young, but after menopause (60 for men), iron can overload causing joint pain, stiffness, fatigue, irregular heartbeats, dementia. Very few seniors actually need iron supplements – don't take unless you are deficient.

MANGANESE

Foods	Herbs
Nuts	Red raspberry lf
leafy veg.	Grapevine herb
Tea	Bilberry
Whole grains	Yerba santa
Beets	Buchu lf
Turnip greens	Catnip
Spinach	Ginger
Rhubarb	Gotu kola
Cod liver oil	White oak bk
Brewers yeast	Blue cohosh
	Wood betony
	Uva ursi
	Spirulina
	Mistletoe
	Chickweed
	Milk thistle

Note: carbs and fat production. Most needed for bones and tendons.

MOLYBDENUM

Foods	Herbs
Organ meats	
Brown rice	
Millet	
Buckwheat	
Brewers yeast	
Cereal grains	
Legumes	
Dark leafy veg.	

Note: a component of an essential enzyme, zanthine dehydrogenasee.

NICKEL

Foods	Herbs
Shellfish	Cilantro
Veg. Oils	Mint
Wheat germ	Oregano
Sunflower seeds	Sage, thyme
Sesame seeds	
Alfalfa seeds	
Lettuce, cabbage	
Spinach, kale, leeks	
Bean sprouts	

Note: found in body bound to the protein nickel-plasmin.

SELENIUM

Foods	Herbs
Seafood	Hibiscus fl.
Meat	Catnip
Grains (grown in selenium rich soil)	Yerba santa
Brazil nuts	Milk thistle seed
Wheat germ	Buchu
Brewers yet	Lemongrass
Bran	Yarrow fl
Garlic	Valerian rt
Tomatoes	Blue cohosh rt
Broccoli	Barberry rt
Pumpkin seeds	Blessed thistle
Cabbage	Bayberry rt
	Marshmallow rt
	Dulse
	Black cohosh
	Sarsaparilla

Note: antioxidant works with vit E

SILICA/SILICON

Foods	Herbs
Soya bean	Horsetail
Green beans	Oatstraw
Bananas	Dulse, kelp
Leafy greens	Borage seed
Brown rice	Eyebright
Beer	Echinacea
Oats	Goldenseal
Barley	Cornsilk
Rice & wheat bran	Thyme
Avocado	Licorice rt
Cucumber	Eyebright
Asparagus	Lemongrass
Spinach	Burdock rt
Root veggies	Ginger rt
	Alfalfa
	White Willow
	Marshmallow rt
	Slippery Elm
	Comfrey rt
	Goldenseal
	Echinacea
	Pau de arco
	Marshmallow rt
	Slippery Elm
	Lungwort
	Red clover
	Buckwheat

VANADIUM

Foods	Herbs
Fish	Dill
Veg. Oils	Black pepper
Olives	Parsley
Snap beans	Cumin
Meat	Nettle
Radishes	Valerian rt
Grains	
Skim milk	
Lobster	
Beer, wine	
Skim milk	
Mushrooms	
Chickpea	

Note: Tobacco decreases uptake. Not easily absorbed.

ZINC

Foods	Herbs
Wheat bran/germ	Alfalfa
Raw pumpkin seeds	Dandelion rt
Eggs	Bilberry
Onions	Sage
Nuts	Pumpkin seed
sunflower seeds	Wild Yam rt
brewers yeast	Nettles
oysters	Bee pollen
herring	Spirulina, Chlorella
green leafy	Sarsaparilla
fermented veggies	Kelp
Cheese	Scullcap
Shrimp	Dulse
Dark chocolate	Capsicum
Pumpkin	Echinacea
Asparagus	Parsley leaf
Sunflower seeds	Barley grass
Meat	Mistletoe herb

Note: not easily assimilated in grains and seeds because it is locked in by phytin, unlocked with sprouting.

ENZYME SOURCES *note cooking destroys enzymes*

Foods	Herbs
Pineapple	Most effective:
Papaya	Barley grass, other
Mango	green sources
Honey	Dandelion rt
Bananas	Licorice rt
Avocados	Chickweed
Kefir	Also:
Sauerkraut	Alfalfa
Kim chi	Comfrey rt

Miso	**Fennel seed**
Kiwi fruit	**Red Clover**
Ginger	**Plantain**

PROTEIN SOURCES

Foods	Herbs
Meats	**Bee Pollen**
Fish	**Royal jelly**
Poultry	**Kelp/sea veggies**
Eggs	**Alfalfa**
Quinoa	**Brewer's yeast**
Wild Rice	**Chlorella, spirulina**
Chia seeds	**Fennel**
Edamame	**Fenugreek seed**
Lentils	
Beans	
Miso	
Chickpeas	
Mung beans	
Lima beans	
Green peas	
Nuts, peanuts	
Corn, potatoes	
Asparagus, broccoli	
Avocado	
Root veggies	
Rice + beans	

ESSENTIAL FATTY ACIDS

Foods	Herbs
Omega 3's:	**Evening Primrose**
Shellfish & Fish oils	**Royal Jelly**
(eg salmon, mackerel, cod liver)	**Parsley leaf**
Omega 6:	**Sage**
Flaxseed oil	**Ginger**
Borage Oil	**Borage seed**
Evening Primrose oil	**Flaxseed**
Black currant seed oil	**Pumpkin seed**
Chicken	
Walnuts	
Tofu	
Eggs	
Mayonnaise	
Almonds	

CHLOROPHYLL SOURCES

Foods	Herbs
Chlorella	**Alfalfa**
Spirulina	**Chlorella**
Wheatgrass	**Barley grass**

Mustard greens
Celery
Alfalfa
Parsley
Dill
Spinach
Broccoli
Kale
Collard green
Nettles
Turnip greens
Nettles
Spirulina
Watercress
Parsley leaf/rt

Med. Amounts: green cabbage, green peas, gr. pepper, leeks, lettuce, green beans, endive, cress

AMINO ACID PRECURSERS

There are nine essential amino acids. Essential amino acids can't be made by your body, so you have to get them from your foods. The nine essential amino acids are:

- **Histidine**
- **Isoleucine**
- **Leucine**
- **Lysine**
- **Methionine**
- **Phenylalanine**
- **Threonine**
- **Tryptophan**
- **Valine**

Foods:
Animal-Derived Complete Proteins: Fish, Poultry, Eggs, Dairy, Pork, Beef

Plant-Based Complete Proteins: Tofu, Edamame, Tempeh, Quinoa, Miso, Hemp, Buckwheat, Chia seeds

The foods in the following list are the most common sources of amino acids:

- **Arginine: carob, chocolate, coconut, dairy, gelatin, meat, oats, peanuts, soybeans, walnuts, white flour. Wheat and wheat germ**
- **Histidine: Meat, fish, poultry, nuts, seeds, and whole grains.**
- **Isoleucine is plentiful in meat, fish, poultry, eggs, cheese, lentils, nuts, and seeds.**
- **Leucine: Dairy, soy, beans, and legumes.**
- **Lysine is in red meat, eggs, soy, cheese, lima beans, milk, potatoes, soy, yeast, black beans, quinoa, and pumpkin seeds.**
- **Methionine is in eggs, grains, nuts, and seeds.**
- **Phenylalanine is in dairy, meat, poultry, soy, fish, beans, and nuts.**
- **Taurine: eggs, fish, meat, milk, not in veg proteins. Can be synthesized from cysteine in the liver as long a enough B6 present.**
- **Threonine: Cottage cheese and wheat germ.**
- **Tryptophan is in most high-protein foods, including wheat germ, cottage cheese, chicken, and turkey.**
- **Tyrosine: almonds, avocados, sesame seeds, dairy, bananas, lima beans, pumpkin seeds.**
- **Valine: dairy, cheese, whole grains, meat, mushrooms, peanuts, soy, vegetables**

Herbal Help for Amino acids:

Chlorella
Spirulina
Alfalfa
Bee Pollen
Yellowdock
Gotu Kola
Fenugreek
Pumpkin seed
Garlic
Chickweed
Watercress
Ephedra/Ma Huang
Panax Ginseng
Barley Grass
Brewer's yeast

COLLAGEN SOURCES

Collagen declines after age 40, muscle wasting. Collagen makes protein useful. Do resistance exercise also. Seniors need 15g a day.

Best Sources:

- **Fish skin, bones, scales, and cartilage.**
- **Fish skin broth (slow simmer for 4 hr fish skin and bones of wild caught salmon, cod or snapper; add a splash of vinegar to pull out calcium) 10g per cup**
- **Next highest source:**
- **Egg membrane from hard boiled eggs (comes in capsule form, or gently simmer eggs in broth)**

Also good sources:

- **Bone Broth made from poultry. Bone broth has 2-3 g collagen per cup.**
- **Eating the skin on poultry and bone in meat.**
- **Take collagen with Vit. C (foods high in Vitamin C) for better impact. - add a squeeze of lemon to the broth, or eat a salad.**
- **Shellfish like oysters and shrimp contain zinc, a mineral that the body needs to produce collagen.**
- **Organ meats like beef tripe, beef and pork skin, pig ears, oxtail, chicken feet. Other organ meats like liver and kidney do not contain as much collage but can provide some protein for the natural production of collagen.**
- **Dairy like cheese, milk, eggs does not contain connective tissue, therefore has no collage but it is a complete protein and contains all the essential amino acids you body needs and can use to naturally produce collagen.**
- **Legumes (beans, peas, lentils) do not contain collagen but have zinc and iron, necessary for collage production. Soy is also a legume and contains isoflavones that promote collagen production.**

PREBIOTICS and PROBIOTICS

PREBIOTICS (non-digestible fibers and antioxidant polyphenols that feed friendly gut bacteria)

Foods	Herbs
Garlic, Onions, Leeks	Burdock rt
Fruit: Banana Apple, Berries	Chicory rt
Veggies: Asparagus, Jerusalem artichoke, Dandelion greens, mushrooms, peas, sweet potatoes, tomatoes, broccoli cauliflower, cassava potatoes	Green tea Licorice rt Marshmallow rt Psyllium Slippery Elm Dandelion rt Matcha
Grains: Barley, Oats, Quinoa, Buckwheat, Amaranth,	
Nuts: Almonds, Walnuts	
Seeds: Chia seeds, flaxseeds	
Konjac root	
All beans, legumes	
Cocao	
Fermented Seaweed	
Honey	

PROBIOTICS (contain live microorganisms)

Probiotic Foods	Herbs to take with Probiotics
Greek yogurt, plain	Spirulina
Kefir	Chlorella
Sauerkraut	Ginger
Kimchi	Turmeric
Miso	Cinnamon
Kombucha	Slippery Elm
Pickles (dill, beets, olives etc)	Fennel
Some cheeses (Swiss, gouda, edam, raw cheddar, gruyere)	Peppermint
Tempeh	
Umeboshi	
Buttermilk	
Dark Chocolate	
Apple cider vinegar	
Cultured cottage cheese	
Natto (fermented soy beans)	
Tofu, Fermented veggies	

HORMONES

ESTROGEN (increases)

Foods

- **Flaxseed, sesame seeds (tahini), Chickpeas/garbanzo beans, beans (not green beans), alfalfa, bran cereals, barley**
- **Cucumbers, Dairy Foods, Eggs, and Eggplant all have estrogen in them.**
- **Foods that have been sprayed with pesticides or other chemicals.**
- **Coffee (even 1 cup a day can increase estrogen levels, 4 cups raised the level 70% higher than the 1 cup)**
- **Avoid refined sugars, fatty and processed foods.**
- **Dried fruits contain phytoestrogens eg. dates**
- **Commercially raised meats and poultry because they are fed on a diet of hormones, antibiotics and other chemicals mixed in. Their feed is grain which the animal is not able to metabolize.**
- **Alcohol increases estrogen levels in men and women. However, Sardinian and Spanish wines are rich in antioxidants that help remove estrogens. Other good choices: pinot and merlot.**

Herbs

- **Licorice rt., Ginseng, Dong Quai, Damiana, Blessed Thistle, Saw Palmetto, Sarsaparilla rt, Black Cohosh, Blue Cohosh, Red Clover Blossom, Milk thistle, Raspberry leaf, Alfalfa, Widl Yam**

If you want to help Estrogen Dominance see handout

TESTOSTERONE

Foods	Herbs
Oysters	Ashwagandha
Shellfish, tuna, fatty fish	Fenugreek
Egg yolk	Tribulus terrestris
Dairy	Panax Ginseng
Onions, greens	Nettle (urtica dioica)
Beef	Ginger
Olive oil	Pine bark extract
Avocado	Horny goat weed
Berries, cherries	Garlic
Mushrooms, kale, spinach	Maca root
Beans	Yohimbe
Pumpkin seeds	Rhodiola Rosea
Pomegranate seeds	Passiflora incarnata
	Saw Palmetto

PROGESTERONE

Foods	Herbs
Magnesium rich foods (leafy greens, almonds, cashews, pumpkin seeds, brown rice, quinoa, legumes, fish, dark chocolate, avocado,	Vitex (chasteberry)
B6 sources: poultry, salmon, tuna, bananas, potatoes chickpeas, fortified cereals walnuts, hazelnuts. Spinach	Maca rt
Zinc rich: beef, pork, lamb, shellfish, legumes, pumpkin seeds, cashews, almonds, milk, cheese, quinoa, oatmeal, eggs	Ashwagandha
Omega 3 fatty acid rich: fatty fish, flaxseeds, chia seeds, walnuts	Wild Yam
Vit. C rich: citrus fruits, berries, kiwi, bell peppers, broccoli	Rhodiola Rosea
	Dill
	Red sage
	Lovage
	Fenugreek seed
	Green leaf tea
	Tumeric
	Black cohosh
	Red raspberry leaf
	Cinnamon
	Thyme
	Chamomile, oregano, basil, rosemary

MELATONIN (hormone made by the pineal gland, helps you sleep)

Foods	Herbs
Tart cherries/juice (if worried about blood sugar, take right after supper)	Valerian rt
Pistachios (660 nograms per gram)	Lemon balm
Almonds	Passion flower
Walnuts, also has magnesium	Chamomile
Eggs	St. John's wort
Milk and yogurt, also have tryptophan	Feverfew
Pineapple, has serotonin & tryptophan	Black pepper
Bananas not high in melatonin but support its production	

If you are making a snack at bedtime to help promote sleep, try 1 cup warm milk, with a 1/2 teaspoon of turmeric (helps build muscle as you sleep), 1 Tbsp natural almond butter, a couple of walnuts and 1/2 banana. Blend all together and drink.

THYROID HORMONES

Thyroxin (T4)
Triiodothyronine (T3)
Thyroid Stimulating Hormone (TSH)
Thyroid Releasing Hormone (TRH)
You need foods rich in iodine, selenium, zinc, antioxidants, and the amino acid tyrosine

- **Iodine is a building block: The body cannot produce iodine, so it must be consumed through foods like seaweed, fish, dairy, eggs and iodized salt .**
- **Selenium activates hormones: Selenium is crucial for converting the inactive T4 hormone into the more active T3 form. Brazil nuts, tuna, sardines, eggs, sunflower seeds, legumes.**
- **Tyrosine, an amino acid that is the core bilding block of thyroxine. Meat, poultry, dairy, and eggs, soy, seeds and nuts provide ample tyrosine.**

- **Zinc aids metabolism: Zinc is another mineral that supports the thyroid's hormone metabolism. Oysters, beef, and pumpkin seeds are good sources.**
- **Suggest cooking cruciferous vegetables to reduce goitrogens that interfere with iodine.**

FOODS TO AVOID (*more so after 60 years old)*

- **Scallops are filter feeders, loaded with cadmium which stays in your system for years, can affect kidneys causing fatigue, swelling. This is a slow toxicity.**
- **Imitation crab – one serving can contain over 700 mg sodium, this also spikes your blood sugar. This is factory made food of cheap fish, sugar and additives.**
- **Squid is very high in cholesterol, 8 oz has 200 mg cholesterol (more than 65% of recommended dosage of older adults). Also contains high amount of purines which becomes uric acid (may cause gout).**
- **Shrimp is a very popular seafood but 3 oz contain 180 mg cholesterol – not good for the aged. Contains a muscle protein called tropomyosin, a common trigger for shellfish allergies. You might have bloating, rashes or fatigue after eating shrimp. Chitin if the fibrous material in the shrimp's shell and if bits of it get into the digestive system, the elderly may have reactions of gut lining inflammation, bloating or increased digestive problems. Where the shrimp comes from and perhaps the antibiotics used are also of concern.**
- **Avoid eating eggs with swiss chard, spinach, beet greens are high in oxalates, and the oxalates bind with the minerals in the eggs making insoluble compounds the body can't absorb. The calcium, iron, and zinc that should be utilized by the body pass through unused.**

TO HELP MUSCLE REBUILDING

Muscles heal and rebuild at night while you sleep so taking a nice combination of rebuilding foods before bedtime is smart

Foods	Herbs
Whey	Turmeric
Tart Cherry juice	Ashwagandha
Eggs	Rhodiola
Oats	Anabolic herbs:
Tuna packed in oil (leucine)	tribulus, fenugreek,
High protein foods (chicken, turkey, bison, Greek yogurt, legumes, tofu, edamame)	maca
Nuts, nut butters	
Salmon (Omega 3)	
Lean beef, shellfish, lean pork	

Protein rich drink at bedtime: 1 cup organic warm milk(or oat milk or almond milk); 1 – 1/5 tsp ground turmeric; pinch of black pepper; 1/4 tsp honey. Optional is 1 tsp almond butter.

TO HELP NERVE REBUILDING

Foods:	Herbs:
Calming: oats	Oatstraw
Borage oil, Eve. Primrose	Scullcap
Oil, Black currant seed	Valerian
oil all protect nerve sheath	Hops
B complex vitamins	Black Cohosh
Magnesium minerals	Wild Yam
Blueberries	St. Johns Wort
Almonds	Catnip
Salmon	Passion flower
Dark chocolate	

Spinach
Oranges
Green tea
Avocado

TO HELP BONE REBUILDING

Foods	Herbs
Calcium rich foods	Comfrey
Magnesium rich foods	White Oak bark
Boron rich foods	Walnut leaf/bk
Silica rich foods	Marshmallow rt
Vitamin D rich foods	Mullein
Vitamin K rich foods	Horsetail
	Red Sage
	Turmeric
	Red Clover Blossom
	Alfalfa
	Nettle leaf
	Dandelion leaf

FOOD AND HERBS FOR THE EYES

Foods	Herbs
Vit. A rich foods eg. carrots, sweet potato, cantaloupe, apricots	Eyebright
Vit. C rich foods eg. oranges, grapefruit, lemons, peaches, tomato, strawberry	Red Raspberry
Vit. E rich – avocado, almond, sunflower seeds, nuts	Bayberry
Lutein and zeaxanthin rich: leafy greens, eggs, egg yolks, orange fruits/veg.	Lambs Quarter
Zinc & Selenium rich (oysters, lean red meat, poultry, fish, eggs, pumpkin seeds)	Aloe Vera
Omega 3 fatty acids (fatty fish flaxseed, chia, enriched eggs, algae)	Elder flower
Flavonoids (tea, citrus, berries, leafy greens)	Euphrasia
	Goldenseal
	Hawthorne lf/bry
	Bilberry

For oxidative damage: antioxidants, Vit. C, E
Night vision/light sensitive: Vit. A and zinc
Macula: Lutein and zeaxanthin
Inflammation: omega 3 fatty acids
Blood vessels: flavonoids, Vit. C
Dry eyes: Vit. A, beta carotene

FIBER SOURCES

Most Effective	Also
Aloe Vera	Psyllium husk
Slippery Elm	Burdock rt
Kelp/sea veg	Guar gum
Flaxseed	Fenugreek seed
Irish moss	Alfalfa

ALKALIZING AGENTS

Most Effective	Also
Chlorella/other chlorophyll	Red raspberry
Brewer's yeast	Catnip
Aloe Vera	
Peppermint	
Ginger rt.	
Fennel seed	
Papaya	

HERBS FOR CONNECTIVE TISSUE

Most Effective	Also
Bee Pollen/R. Jelly	Alfalfa
Horsetail	Comfrey rt.
Rose hips	Oatstraw
	Irish Moss
	Lobelia
	Dulse

BILE STIMULANTS

Most Effective	Also
Barberry bark	Wild Yam
Dandelion rt	Goldenseal
Oregon Grape rt	Senna
Gentian rt	Cardamon seed
Turmeric	Milk Thistle Seed

CHLOROPHYLL SOURCES

Most Effective	Also
Alfalfa	Spirulina
Nettles	Chlorella
Dulse	Barley Grass
Watercress	Comfrey lf
	Parsley lf

FRIENDLY BACTERIA SOURCES

Most Effective	Also
Garlic	Bee Pollen
Acidolphilus pwdr	Pau de arco
Lemon/citrus peel	Barley Grass/other
Miso	chlorophyll herbs
	Alfalfa

ENZYME PRODUCING HERBS

Most Effective	Also
Barley Grass/other green sources	Alfalfa
Dandelion rt.	Comfrey rt.
Red Clover	Fennel seed
Plantain	Chickweed

AMINO ACID RICH HERBS

Most Effective	Also
Chlorella	Yellowdock
Gotu Kola	Ephedra/Ma Huang
Alfalfa	Panax Ginseng
Spirulina	
Barley Grass	
Brewer's yeast	
Garlic	

AMINO ACID PROTEIN HERBS (hair)

Most Effective	Also
Chlorella/	Fenugreek
chlorophyll	Chickweed
Bee Pollen	Yellowdock
Garlic	Fennel
Ginseng	
Kelp/sea veg	

PHOSPHATIDYLSERINE (for brain)

Phosphatidylserine is a natural fatty substance, an amino acid derivative, known as a phospholipid, that plays an important role in cell function, particularly in the brain, especially memory and attention. It is found in foods and is also available as a dietary supplement.

Foods
Soy lecithin
Beef : brain, liver, veal, milk
Fish: Salmon, Atlantic mackerel, Atlantic herring, Eel, Tuna, Cod, Hake, Sardlne, trout
Chicken: heart, leg with skin, liver
Turkey leg, breast no skin,
Pork: spleen, kidney, liver
Seafood: Soft shell clam, crayfish, cuttlefish, anchovy
Veg: carrot, white beans
Grain: unpolished rice, potato

PHOSPHATIDYLCHLOLINE (for brain, ulcerative colitis)

Phosphatidylcholine is a phospholipid, a form of choline. It supports brain health, liver health and fat digestion.

- **Beef liver**
- **Eggs, esp. egg yolk**
- **Soybeans (lecithin)**
- **Chicken liver**
- **Shrimp, Salmon**
- **Peanut butter**

A WORD ABOUT VITAMIN B12

There are 4 common forms of Vitamin B12:

1. **Methylcobalamin, which is biologically active without conversion; naturally occurring it is found in meat, fish, milk and eggs. It is the most active form of Vitamin B12 and used mainly in the liver, brain and nervous system.**
2. **Hydroxocobalamin is a naturally produced by bacteria in the digestive tract when food sources are broken down and it is developed in laboratory by extracting it from microorganism and often used in injections**
3. **Cyanocobalamin which requires conversion in the body to become active. Cyanocobalamin is a synthetic form of Vitamin B12, not found in nature and is more frequently used in supplements, is considered more stable than other forms. Cyanocobalamin requires conversion in the body; when cyanocobalamin enters the body it is converted into either methylcobalamin and/or adenosylcobalamin (active mitochondrial form) for use.**
4. **Adenosylcobalamin is also a naturally occurring, co-enzyme form of Vitamin B12. Consider it a 'partner in crime' with Methylcobalamin, as they work in synergy to give pretty much 100% 'B12 cover' for your body. Adenosylcobalamin is particularly important to supporting and protecting the mitochondria in your cells (which the Methylcobalamin can't do). The mitochondria are like 'powerhouses' in each cell and Adenosylcobalamin helps them burn food efficiently to produce energy and boost metabolism**

Vitamin B12 protects your nerves, maintaining the myelin sheath down your spine which is the insulation around nerve cells that keeps information running smoothly. When B12 runs so low that insulation starts to fray, leading to numbness or weakness. It also supports the production of healthy red blood cells, preventing anemia and the fatigue that comes with it. It fuels your metabolism and brain, keeps your mind sharp and energy steady throughout the day.

Wikipedia reports the most common cause of deficiency in developed countries is impaired absorption due to loss of gastric intrinsic factor that is required for absorption. It is a common deficiency in the elderly (over 65) and many have no idea they are suffering from this. The reason is often reduced stomach acid production with age or from long term use of proton pump inhibitors, H2 blockers or other antacids and interaction with metformin that is prescribed for diabetes. Deficiency in the elderly is related to dementia so it is important to address this issue. Elderly people, due to impaired intestinal absorption, and children, premenopausal women, and pregnant women whose diets are low in animal foods are all at increased risk.

Deficient can lead to neuropathy, megaloblastic anemia, pernicious anemia, increased risk of miscarriage, neural tube defects and delayed development in offspring. Symptoms of low B12 might be fatigue, memory slipping, tingling in your hands and feet. You might lose your balance more easily or your legs feel weak for no particular reason. Some people have mood changes or depression. It is sometimes diagnosed as neuropathy or early cognitive decline.

The daily dose recommended is between 500-1000 mcg per day. Folate levels may modify the symptoms and you will often see B12 coupled with folate (folic acid) on labels of supplements.

Poor absorption from the stomach and small intestine can hinder B12 for a number of reasons:

1. **your are aging – over 60 years old, things are changing.**
2. **you have had stomach stapling or by-pass surgery to lose weight**
3. **the stomach and small intestine have been compromised due to improper eating, or taking certain medical drugs.**
4. **you are celiac or have similar problem with your digestion.**
5. **your upper GI is compromised or damaged due to intake of poor foods, medical drugs etc.**

Deficiency is mostly seen as pernicious anemia, an anemia with bone marrow promegaloblastosis. Gastro problems show as constipation or diarrhea, loss of bladder or bowel control. There can be other reasons for these problems. Neurological symptoms present as reflex weakness, spinal cord degeneration. There can also be an autoimmune attack on the parietal cells of the stomach causing

pernicious anemia.

Although Vitamin B12 deficiency is most commonly caused by malabsorption, it can also result from low intake, immune gastritis, low presence of binding proteins, or use of certain medications. Vegans —people who choose to not consume any animal-sourced foods—are at risk because plant-sourced foods do not contain the vitamin in sufficient amounts to prevent vitamin deficiency. Vegetarians— people who consume animal byproducts such as milk and eggs, but not meat or organs—are also at risk. Vitamin B12 deficiency has been observed in between 40% and 80% of the vegetarian population who do not also take a vitamin B12 supplement or consume vitamin-fortified food. In Hong Kong and India, vitamin B12 deficiency has been found in roughly 80% of the vegan population. As with vegetarians, vegans can avoid this by consuming a dietary supplement or eating B12 fortified food such as cereal, plant-based milks, and nutritional yeast as a regular part of their diet. The elderly are at increased risk because they tend to produce less stomach acid as they age, a condition known as achlorhydria, thereby increasing their probability of B12 deficiency due to reduced absorption.

The best way to get B12 into your body is by eating foods high in B12, but if you have to take supplementation because of inability to absorb B12, then B12 spray into the mucosal lining of the mouth is the most effective way which by-passes the need for a digestive system. The next best way is by taking it sublingually (dissolving under the tongue). Best ones to look for are Methycobalamin or Cynocobalamin both of which are easily absorbed by the body. Medical doctors usually suggest injections, but we understand the sprays are equally effective (or so say the physician's manual). Don't ignore this problem, it can be corrected easily but we have also heard people dying from lack of B12 so it is a serious problem. Hydroxocobalamin can be injected intramuscularly.

B12 is water soluble which means the body flushes out any excess therefore toxicity is extremely rare.

How Does Plant Based/Vegetarian/Vegan Eating Get Enough Vitamin B12

Many of the plant milks (soy, oat, almond) are now fortified with Vitamin B12. Make sure they don't contain sugars when buying them.
Some breakfast cereals are also fortified with Vitamin B12, especially if you use the fortified plant milk with them.
Plant based meat alternatives often include B12. Tofu and Tempeh are a good source of protein and some have B12.
Certain gut bacteria (e.g., Lactobacillus reuteri, Propionibacterium freudenreichii) can synthesize B12. However, absorption happens in the ileum, while it is synthesized in the colon, too far downstream for effective uptake.
A vegan diet is most recommended to help heal the body naturally for many disorders such as cancer. The vegan diet takes all the pressure off the digestive tract as well as chemical ingestions that can tax the body's ability to heal. If you are going to do this diet, you should take B12 supplements. Most people return to eating small amounts of animal protein within a year or so after doing the diet.

IMPORTANT INFORMATION CONCERNING CALCIUM

Most of the supplements on the market are ground up shells, rocks, or coral. These are not normal foods for our digestive tracts to deal with. "Tums" contains calcium carbonate, very difficult to digest; it also contains aluminum. Calcium needs acid to help its digestion - usually this in the form of hydrochloric acid or vitamin C. Our best sources of calcium comes from plants which have absorbed calcium from the soil. Other natural sources are bones (eg. sardines, canned salmon, meat or poultry bones used in soup to which acid such as tomatoes have been added). Our forefathers used to eat greens high in calcium, and they made soup from beef or chicken bones to which they added tomato - the natural acid of the tomato would pull the calcium out of the bones into the soup, making it very nutritious.

Taking natural sources of calcium into the body as our ancestory has acclimatized to, ensures a slow and natural release of calcium for use into our body's system.

Many people experience problems taking calcium supplements:

- constipation/diarrhea - stones forming in organs - finger nodules forming

This may be an indication that your body, most likely the kidney and perhaps the parathyroids, **are not functioning well and the calcium is not being processed correctly. The answer of course is to help cleanse and strengthen these organs, but also to look for other sources of receiving calcium into the body. Foods and herbs are the easiest way for the body to accept calcium. Here is a list of the best foods and herbs to consume for high calcium content:**

FOODS:	**Seaweeds**	**Bok Choy**	**Sesame Seeds**	**Hazelnuts**	**Parsley**	**Soy Milk**
	Chick peas	**Spinach**	**Raisins**	**Peanuts**	**Lentils**	**Parsnips**
	Egg Yolk	**Broccoli**	**Lima beans**	**Walnuts**	**Halibut**	**Salmon**
	Almonds	**Pumpkin seeds**	**Sardines or Tuna with bones**			

HERBS:	**Comfrey**	**Horsetail**	**Oat straw**
also:	**Dandelion**	**Cleavers**	**Chamomile**

<u>If you wish to take calcium supplements here is how they absorb:</u>
Carbonate is difficult to absorb unless you have high stomach acid.
Lactate, Citrate, Acetate, Gluconate absorption is about 27-32%
Choose chelated forms of calcium as well as a mixed variety (more like what nature produces). Many come bundled with hydrochloric acid (HCl), Vitamin C, and Vitamin D to help with the assimilation.
The easiest way to absorb calcium is from your diet – foods and herbs.

LESSON ABOUT CALCIUM, BONE LOSS and MALABSORPTION

Loss of calcium from your bones leads to the thin, porous bones of osteoporosis. Osteoporosis is caused by hormonal imbalance, hypothyroidism, enzyme and other nutritional deficiencies, and bone calcium loss and calcium malabsorption due to dietary factors. Other factors that induce bone loss are exposure to heavy metals (especially aluminum in baking powder/cookware/antacids and cadmium in cigarette smoke; conditions such as hyper-parathyroidism (too much parathyroid hormone), malabsorption and colon problems, the inability to convert Vitamin D to its hormonal form due to low magnesium or inadequate HCl (hydrochloric acid), lactose intolerance, low phosphorus levels (which leads to the deposit of calcium in soft tissue), excess phosphorus (which leads to the loss of calcium from hard tissue, too much or too little exercise, and stress.
A proper hormonal balance is essential in preventing and reversing osteoporosis. Adequate progesterone is of importance because this hormone is necessary for building new bone. The thyroid gland fills several vital functions regarding bone health. Thyroid hormone promotes both bone resorption and new bone formation, and is needed for the manufacture of progesterone from cholesterol. Thus, hypothyroid has serious detrimental effect on the bones.
Environmental estrogens and estrogen replacement therapy contribute to estrogen dominance (excess estrogen in relation to progesterone) which, without the adequate balance of progesterone's bone-building function, promotes bone loss.

Loss of calcium from bones leads to the thin, porous bones of osteoporosis, however, lack of dietary calcium is not the usual source of increase in incidence of osteoporosis. In addition to the causal factors mentioned above, the standard American diet of refined, processed foods, high phosphorus soft drinks, and high protein, sugar and salt consumption is the dietary culprit. Other dietary practices that increase the likelihood of calcium excretion and bone loss include excess intake of sugar, coffee and alcohol.

The effect of a nutrient-depleted diet is twofold. Without proper nutrients, the body can't absorb the calcium ingested in food or supplement form and is forced to draw it out of the bones to remedy the deficit. Further, inadequate nutrition fails to supply the body with the range of nutrients needed for bone rebuilding. Thus, poor diet both contributes to bone loss and prevents bone formation.

The high phosphorus content of red meat (and high phosphorus soft drinks such as colas) contributes to bone loss. Consuming large amounts of phosphorus can raise the levels in the blood, skewing the normal calcium to phosphorus ratio. This causes the parathyroid glands (endocrine glands close to the thyroid)) which help regulate calcium and phosphorus metabolism, to pull calcium from the bones to supplement blood calcium levels. Most of the body's calcium is (or should be) in the bones and teeth, with some in the tissues and blood. The small percentage in the blood is essential to the function of vitamin D and the parathyroid hormones (and to the blood-clotting mechanism and muscle and nerve function), therefore it is also vital to bone health as well as calcium metabolism.

Along with these factors, the proper metabolism of calcium depends on adequate digestion of protein, sufficient hydrochloric acid (HCl) for digestion, proper blood pH levels, the proper ratios of both phosphorus and magnesium to calcium and the presence of many nutrients. These nutrients include appropriate levels of vitamin D (which the body must be able to convert to its hormonal form), vitamins A, C, E and K, and minerals such as boron, sodium, zinc, copper, silicon and strontium. Adequate fatty acids and the proper hormonal balance are also required.

Ultraviolet from the sun is important in calcium metabolism too. It converts skin oil to Vitamin D, which transports calcium from the stomach into the blood. Certain fatty acids, especially oleic acid (present in milk, butter, extra virgin olive oil) are vital in the transport of calcium from the blood to tissue. If you have vitamin D, but not enough essential fatty acids to provide transport, your blood calcium level will increase at the expense of your tissue calcium level. If your skin itches or you get hives, welts, or cold and canker sores when exposed to the sun, you may have tissue calcium starvation due to an essential fatty acid deficiency.

Sometimes calcium is deposited in the soft tissue rather than in the bones where it is needed. There are several causes for this. One important factor is the pH of the blood which is normal in the narrow, slightly alkaline pH range of 7.35 to 7.45. To maintain this range, the blood must be keep an adequate level of acidity in the form of hydrogen ions and chloride ions, plus just the right amount of alkalinity in the form of bicarbonate ions. To accomplish this, it is important to ensure optimum digestion of foods either by eating lots of raw foods and/or by taking a multiple digestive enzyme supplement with meals. For example, inadequate digestion of protein, lowers your pH (makes it more acidic) and your body will not be able to properly utilize calcium.

Common over the counter supplements also upset the pH balance, leading to digestive disturbances which in turn result in further calcium metabolism problems. For instance, calcium carbonate supplements, such as Tums, exert an alkaline influence on the blood and cause calcium to precipitate in the urine, the stool, and, in the worse case scenario, in the soft tissues. When the blood is too alkaline, adequate HCl is not available for digestion in the stomach.

The natural way to raise acid to an optimum level is to digest protein with protease, which supplies the necessary hydrogen ions, and to increase chlorides with lipase. Chloride and other minerals are carried in the blood by lipase, so if you are low in lipase, you will not be able to maintain an adequate chloride level.

On the other hand, acidifying supplements such as betaine HCl, used by people who think it will help with digestion, cause excess acid reserves in the blood. This has far-reaching digestive

consequences because pancreatic enzymes are activated in the duodenum (upper end of the small intestines, beginning at the connection to the stomach) only at an alkaline pH. Once again, be careful of random supplementation, as it can throw off your body chemistry, compounding the problems you thought you were treating.

You cannot get all of the nutrients required for bone health in pill form. If simply taking vitamin and calcium supplements prevented bone loss, osteoporosis would not be so widespread in the North America today. Many people are calcium deficient even though they take calcium supplements. These people cannot absorb or utilize the calcium supplements for any combination of the reasons discussed above.

REASONS WHY YOU MAY NOT BE GETTING ENOUGH CALCIUM OR HAVING BONE LOSS:

- **Low Stomach acid prevents proper absorption of calcium. Taking hydrochloric acid or a little apple cider vinegar helps low stomach acid. Also need Iodine, Salt, and Vit. B1.**
- **Lack of Magnesium. Calcium works better for the body if magnesium is taken with it.**
- **Not enough Vitamin D present. Sunshine or Vitamin D help calcium work also. Vitamin C also needs to be present.**
- **Boron deficiency accentuates Vitamin D deficiency and helps prevent osteoporosis. Boron is found in apples, carrots, grapes, leafy vegetables, nuts, pears, grains - maximum dosage is 3 mg daily if in supplement form.**
- **Low phosphorus levels**
- **Ingestion of excessive phosphorus and magnesium hinders the uptake of calcium. Both are needed however for the proper utilization of calcium - just not excessive. Don't exceed the amount of magnesium or phosphorus to calcium.**
- **The worst community for osteoporosis: the Eskimos whose diet is mostly protein which is high in phosphorus - also they eat very little vegetable matter which is a better quality of calcium.**
- **Amino acid Lysine is needed to absorb calcium. It is found in cheese, eggs, fish, lima beans, potatoes, soy products and yeast.**
- **Hypo thyroid (Low functioning thyroid)**
- **Hyper-parathyroids (Excessive functioning parathyroids)**
- **Inadequate amount of progesterone**
- **Presence of aluminum or cadmium in the body**
- **Malabsorption and/or colon problems**
- **Lack of enzymes protease and/or lipase**
- **Heavy exercising hinders calcium uptake. Moderate exercise however is helpful.**
- **Taking iron at the same time as taking calcium reduces the effect of both.**
- **Soft drinks are lethal (esp. to menopausal women). They are high in phosphorus (and sugar). Too much phosphorus leaches calcium out of the bones.**
- **Caffeine contributes to calcium loss.**
- **Taking diuretics leaches out calcium unnecessarily. Use homeopathic supplements instead.**
- **Consuming too much salt causes kidneys to excrete more calcium. If you crave salt, take Nat Mur 6x homeopathic once a day for a week and you should return to moderation.**
- **Solanum in vegetables contain calcium inhibitors. Tomatoes are the worst, then potatoes, eggplant, bell peppers.**
- **Other calcium leachers: marijuana, concentrated sweeteners, sweet foods, too little exercise.**
- **Fluoride shows it doesn't add bone mass to the spongy inner layer of bone. Black tea has 1-4 mg fluoride per cup. Fluoride may increase density in the spine but does not do so for arms and legs.**
- **Large amounts of phytic acid which is found in whole grains and cereals may inhibit the absorption of calcium - especially we notice when bran is taken with calcium.**
- **Too much oxalic acid may interfere with calcium absorption: as in almonds, chocolate, beet greens, cashews, chard, cocoa, rhubarb, soybeans, spinach.**
- **If your body is in an acid state you need an alkaline type calcium (eg. lactate). If in an alkaline state, it is better to take an acid type calcium or to add hydrochloric acid supplement when**

taking calcium if it is not already in the supplement.

- Taking channel blockers and high blood pressure medication interferes with calcium absorption.

TO HELP CALCIUM ABSORPTION:

- Adding a little boron, Vit. D and Vit. C as food or in supplement form may help absorption.
- Make sure you are taking some magnesium with the calcium.
- Take calcium throughout the afternoon and evening and before bedtime in divided doses for maximum effectiveness.
- Do weight bearing exercises. Lifting weights increases bone density, helps calcium get to the bone area.
- Drink herbal teas that are high in natural calcium: horsetail grass, oat straw, comfrey root, lobelia helps get the calcium more easily into the body. It is said the calcium derived from vegetables is much easier for the body to absorb.
- Avoid those things listed in the previous list.
- Adding K2 to the calcium improves the absorption. However K2 usually comes from Alfalfa, and does thicken the blood so if you are on blood thinners, it is counter-productive.
- Using foods instead of supplements is often more effective. An example is to add acid to soups made with bones (like tomato, lemon, vinegar) which pulls the calcium out of the bones, into the soup. See the list following for the best foods to eat for calcium.

ENZYMES TO HELP

Many women subject to osteoporosis benefit from taking extra protease and/or lipase enzymes. Protease, the enzyme that digests protein, is required to carry calcium in the blood. Without proper digestion of protein, both protein-bound and ionic calcium levels in the blood will not be adequate. Lipase is required to carry calcium across the intestinal wall and for the production of female hormones. Thus a deficiency in either of these enzymes could contribute to osteoporosis.

MILK SUBSTITUTES

Note Milk (100g) contains only 188 mg calcium and .5 mg iron!

Food (100 g)	Calcium	Iron	Food	Calcium	Iron
Hijiki seaweed	1400	n/a	Spirulina	131	n/a
Wakame seaweed	1300	n/a	Soy Milk	123	.4
Kelp	1100	100.	Chick peas	92	7.1
Bok choy	1093	100.	Black olives	87	1.6
Kombu	800	n/a	Walnuts	83	2.1
Sesame Seed	580	5.2	Okra	82	.7
Agar Agar	400	n/a	Spinach	81	3.0
Nori seaweed (sushi wrap)	260	n/a	Raisins	78	3.3
Kale	225	2.4	Peanuts	74	1.9
Turnip greens	191	2.4	Lentils	59	7.4
Hazelnuts	195	2.0	Parsnips	57	.7
Parsley	203	.2	Pumpkin seeds	51	11.2
Dandelion greens	187	3.1			
Brazil nuts	186	3.4	n/a = data not available		

Did you notice something? Bok choy is very high in calcium and also iron! Perhaps this is why the oriental people have good bones even though they are mostly lactose intolerant. You can eat bok choy raw chopped up in salads, stir fried, or tossed into soup.

OTHER FOODS HIGH IN CALCIUM: Sardines with bones, Tuna with bones, Sunflower seeds, Egg yolk, Broccoli, Tofu, Lima Beans, Walnuts, Halibut, Mackerel, Salmon, Okra, Almonds.

WHAT CALCIUM CAN DO FOR YOU

- helps you sleep better
- helps blood to clot
- for muscle growth and contractions
- for iron utilization
- regulates heartbeat
- balances acid/alkalinity in the blood
- for nerve transmission
- helps activate several enzymes for nutrient digestion

SPECIAL INFORMATION CONCERNING MAGNESIUM

Notes:

- Magnesium may be the most deficient mineral in our foods today
- the body contains 20-28 grams
- it is found in bones, soft tissues, spinal fluid, blood
- it is known as tranquilizing mineral, it calms, relaxes the muscle tissue (including the heart)
- all forms of oral magnesium are better absorbed when taken with food.

Types:

- Magnesium glycinate (chelated magnesium) – formed by attaching magnesium to the amino acid glycine (and lysine), transports the mineral across cell membranes
- better. Absorbed into the blood stream quickly. The magnesium (elemental) content per tablet or capsule is usually 100 mg. After 60 years old, kidney filitration tends to decline so minerals clear more slowly, and glycinate may leave you feeling groggy after sleeping, you may feel tired, may have slower reflexes, not as co-ordinated; especially happens when you take this at night.
- Magnesium oxide is often recommended. This is a salt that combines salt with oxygen. It is the most dense magnesium compound and often used in mineral supplements; it is bound to oratic acid. It contains 300 mg of elemental magnesium per 500mg tablet but is not well absorbed. Only about 4% of its elemental magnesium is absorbed or about 12 mg out of a 500 mg tablet. It isn't used to treat magnesium deficiencies, instead used for heartburn, indigestion, constipation, preventing migraines.
- Magnesium carbonate contains 125mg of elemental magnesium per 500 mg tablet, poorly absorbed. Magnesium carbonate is also the powder used by gymnasts and weightlifters to improve the grip on objects such as the apparatus or lifting bar.
- Magnesium gluconate contains 27 mg elemental magnesium per 500mg tablet. it is easily absorbed and quick acting. Helps elasticity of bones and muscles, regulates blood pressure and insulin levels.
- Magnesium citrate contains 80 mg of elemental magnesium per 500 mg tablet. It is far better absorbed than magnesium oxide. The water soluble form (eg. Natural Calm) contains 205 mg elemental magnesium per teaspoon, is totally soluble in hot water and is highly bioavailable. Magnesium citrate is found naturally in citrus fruits. This is often marketed as a calming agent.
- Magnesium chloride is a magnesium salt that includes chlorine, an unstable element that binds well with other elements incl. Sodium and magnesium to form salts. It is well absorbed in the digestive tract and can be used to treat low magnesium levels. Usually in capsule or tablet form, but can be found in topical products like lotions and ointments to help relax sore muscles.
- Magnesium lactate is the salt formed with magnesium binds with lactic acid. It is produced by the muscle and blood cells, manufactured as a preservative and flavouring agent, food additive, less popular as a dietary supplement.
- Magnesium malate (aka malate) contains 56 mg elemental magnesium per 500mg tablet. Magnesium malate naturally is found in fruit (esp. apples) and wine, has a sour taste, often added to foods for flavour and acidity. As a supplement it is often used for fibromyalgia, chronic fatigue syndrome. It combines magnesium and malic acid. Easy to absorb. Soothes and energizes muscle cells. May have less laxative effect than other forms.
- Magnesium Sulfate combines magnesium, sulfur and oxygen, aka Epsom salt. It is usually used in a bath soak for sore muscles. Magnesium sulfate is also used to correct

magnesium deficiency in the soil since magnesium is an essential element in the chlorophyll molecule.

- **Magnesium taurate, contains the amino acid taurine. Helps regulate blood sugar, supports healthy blood pressure.**
- **Magnesium orotate. Orotic acid from whey is changed into orotate form which is then bonded to the magnesium. Tablet is coated to prevent breakdown by stomach acid. The magnesium orotate is easily absorbed and the magnesium is not released from the orotate until it reaches the liver. This form used for treating liver disease, high cholesterol, heart disease and blood clots. It contains only 31 mg of elemental magnesium per 500mg tablet, it is well absorbed and has been effective in daily intakes of 3000mg (186 mg elemental).**
- **Magnesium L-threonate is the salt formed from mixing magnesium and threonic acid, a water soluble substance derived from the metabolic breakdown of Vit. C. Easily absorbed, effective for increasing magnesium concentrations in brain cells.**
- **Magnesium citrate and magnesium sulphate (epsom salts) are often used for their laxative action.**
- **Magnesium hydroxide (antacid) has a leaching effect on magnesium, calcium, phosphorus. Magnesium hydroxide is used in milk of magnesia. Magnesium hydroxide is not well absorbed.**
- **Magnesium in chlorophyll form is used successfully as deodorant**
- **Bonemeal also contains some magnesium. Absorption is low and phosphorus levels are too high.**
- **Magnesium stearate is used as filler in supplements. It is known for its lubricative properties which helps prevent tablets from sticking to equipment in processing.**
- **Dolomite (type of limestone) high in calcium and magnesium. This type is difficult to digest. If used, take hydrochloric acid or glutamic acid with to help break down. Absorption is low.**

Note: Magnesium gluconate is utilized well by nerves. Nerve involvement eg. fear, nerve twitching, muscle twitching, bed wetting, restlessness, grief apprehension and so on
Magnesium phosphate is indicated by cramp-like contraction of muscles
Magnesium oxide when muscles ache; pain and twisting becomes stiff. It is a counter player to calcium.
Magnesium glycinate for muscles, sleep problems.
Magnesium malate is well absorbed, works on muscle function, carbohydrate, fats & protein metabolism, often used for fibromyalgia.
Magnesium aspartate absorbs easily for muscle function
Magnesium orotate is often used to help people sleep. and for cardiovascular health

Sources of Magnesium:

- **Best source of magnesium is SEEDS.**

100mg Hemp seeds has 700mg magnesium
100mg Flaxseeds has 400mg magnesium
100mg Chia seeds has 335 mg magnesium
100mg Sunflower seeds has 325 mg magnesium
100mg Pumpkin seeds has 262 mg magnesium
Seeds also provide Omega 3 source, zinc and protein from plant source. Even though their effectiveness can be reduced by 35% because of anti-nutrients, it is still the best source of magnesium. HEMP is a complete protein – very hard to find in the plant kingdom.

- **Next highest source is NUTS**

100mg Brazil Nuts has 376 mg magnesium (careful not to eat too many, high in selenium)
100mg Cashew Nuts has 292 mg magnesium
100mg Walnuts has approx. 150Mg magnesium
Nuts contain phytates but the absorption is 60-70%. To increase absorption lightly roast the nuts to break down the phytates which increases the absorption by 20%

- **Next highest is FISH**

100mg Mackerel has 60mg magnesiumis100mg Sardines has 40mg magnesium
100mg Halibut has 27mg Magnesium

100mg Salmon has 25 mg magnesium
There is no blockage, pure absorption and you also get Omega 3 as a bonus.

- **Next highest is DARK CHOCOLATE**

100mg dark chocolate gives 500mg (1 oz gives 50mg usable magnesium and also provides some iron and copper). Get the 85% cacao with no hydrogenated oils or sugar.

- **Next highest is LEGUMES**

100mg chickpeas gives 115mg magnesium
100mg blackbeans gives 70mg magnesium
100mg lentils gives 36mg magnesium
Legumes contain phytates which do block absorption so soak them overnight, then pressure cook them. Pressure cooking removes lectins if you are concerned. If you don't have a pressure cooker, no problem, plain canned beans are soaked overnight and then pressure cooked.

- **Next highest is WHOLE GRAINS (not refined)**

100mg Oats gives 125g magnesium
100mg whole wheat gives 76 mg magnesium
100mg brown rice gives 25mg magnesium
The North American whole wheat has been degraded. Choose European wheat flour, or the ancient grains of Red Fife or Einkorn that originated in Turkey some 50,000 years ago, still grown in Canada today.

- **Next highest is MILK/YOGURT/CHEESE**

100mg Cheese has 28mg magnesium
100mg Milk has 24 mg magnesium
Milk has magnesium but the synthetic Vit D they add can bind to magnesium, reducing absorption. Synthetic form of Vit D binds mag. 10 times more than does the natural.

- **Next highest is NON-STARCHY VEGETABLES**

100mg brussels sprouts has 23mg magnesium
100mg broccoli has 21mg magnesium
100mg cauliflower has 15mg magnesium
These are easy to absorb, no problem. Drizzle olive oil over them to help transport even more.

- **Next highest is FRUITS/BERRIES**

100mg avocados has 29 mg magnesium
100mg bananas has 27mg magnesium
100mg blackberries has 22 mg magnesium.
There is also blueberries, raspberries etc. All are great. These are easy to absorb, no problem.

- **Next highest is SPINACH and leafy green type veggies**

100mg spinach gives 79mg magnesium.
However it is high in oxalates, blocking up to 50% of the absorption of magnesium. To get around this, use Vitamin C which helps neutralize oxalates. Combine with bell peppers, or use lemon juice or sliced orange in salads.

THIEVES OF MAGNESIUM

- **Farming methods rarely put back the magnesium that has been taken from the soil and crops**
- **polishing rice, milling corn, cooking vegetables in water, all depletes the magnesium to some extent**
- **white sugar releases insulin which helps to lose magnesium**
- **white flour strips magnesium**
- **seed oils (soybean, corn, canola)**
- **Coffee does contain about 7mg magnesium per cup, but caffeine's diuretic action can lower magnesium levels**

Some principal containing foods (parts per 1000 parts of food)

Tomato	**13**	**Celery**	**6**	**Carrots**	**3**
Spinach	**11**	**Beans**	**6**	**Walnuts**	**2**

Lettuce	**11**	**Cucumber**	**4**	**Oranges**	**2**
Bran	**9**	**Figs**	**3**	**Grapefruit**	**1**

Function of Magnesium:

- **involved in metabolism of carbohydrates and amino acids, synthesis of ATP and bone metabolism**
- **essential to nervous activity and muscle contraction**
- **activates over 30 enzymes, particularly those to do with carbohydrate, fat and protein metabolism**
- **often called the circulatory mineral because of its vast regulating effect on muscle contraction. It also helps in the utilization of Bit. B6, C and E**
- **necessary for proper functioning of pituitary gland (master gland of endocrine system)**
- **Synthetic Vitamin D (calciferol) binds magnesium and is 10 times more active than natural Vit. D.**
- **aids absorption and metabolism of calcium, phosphorus, sodium, potassium**
- **treating neuromuscular conditions. If deficient can have effect of stimulating instead of calming**
- **has been linked to strengthening bones and teeth when present in water, decreasing dental cavities, bones healed faster**
- **regulates heartbeat, helps control inflow/outflow of calcium from heart cells**
- **useful in reducing high blood pressure**
- **relax muscles surrounding arteries**
- **reduces blood cholesterol**
- **keeps calcium and phosphorus in solution in urine**
- **optimum magnesium serum and cellular levels help to regulate so many body functions that renal magnesium excretion is quickly stopped when either magnesium or calcium intake drops very much.**

Absorption of Magnesium:

- **kidney disease, diabetes, pancreatitis, digestive disorders, radiation exposure, chronic alcoholism interfere with magnesium absorption**
- **diuretic drugs can lower magnesium levels by increasing excretion**
- **aldosterone, hormone produced by adrenal glands, controls mag. excretion**
- **cortisone affects distribution of mag. in body, increasing the uptake by the appendix and heart muscle**
- **fluoride bonds to magnesium forming insoluble salt**
- **tetracycline interferes with magnesium metabolism; testosterone, thyroxine and digitoxin suppress magnesium activity**
- **assisted by Vit D, C, B6, calcium and phosphorus, controlled by parathyroid**
- **35-40% absorbed through small intestine by active transport**
- **as magnesium intake increases, absorption falls.**
- **when mag. intake low, 73% absorbed. When high, 25% absorbed.**
- **many antacids contain magnesium in form of magnesium hydroxide, unabsorbable form which tends to bind up some dietary magnesium, calcium and phosphorus and carry them out of the body.**

Dosage of Magnesium:

- **if diet is low in carbs and high in protein, more magnesium required**
- **RDA 300 mg females and 350 males**
- **nutritionists suggest 600-1000 mg daily**
- **when calcium and phosphorous intake is high, magnesium intake should be a 2:1 ratio. If diet is low in magnesium, a supplement of 1:1 magnesium to calcium is recommended.**
- **too much magnesium in diet reduces calcium absorption**
- **need for more magnesium when blood cholesterol is high, protein intake is high, or carbohydrate intake high**

Magnesium Deficiency Symptoms:

- **deficiencies are widespread. Even the type of water we drink can determine whether we**

maintain magnesium reserves. Populations consuming magnesium rich hard water have less cardiovascular disease than those who drink soft water.

- **deficiency can lead to kwashiorkor (a form of malnutrition occurring when there is not enough protein in the diet), thrombosis (blood vessel clotting), calcium oxalate kidney stone formation, uncontrollable muscle tics and premenstrual syndrome symptoms such as nervousness and a craving for sweets.**
- **deficiency can experience anxiety attacks, heart palpitations, breathing**
- **due to under consumption of green vegetables, alcoholism**
- **diet high in carbo, the concentration of magnesium containing enzymes needed to break carbohydrates down is high and deficiency may result**
- **deficiency interferes with pituitary control of adrenal glands and can result in overproduction of adrenalin. some think this has effect upon hypoglycemia and diabetes**
- **many feel lack of mag. has effect on thyroid gland function through the pituitary gland**
- **elderly vulnerable to deficiency as they may have less mag. in their diets, have decreased absorption, and may use prescription drugs that interfere with metabolism and storage**
- **pregnant women at risk, linked to toxemia, high blood pressure, vasospasm, premature birth, regarded fetal growth, muscle cramping, coagulation disorders.**
- **individuals consuming processed foods in the form of fast food or packaged goods have a higher risk of magnesium deficiency because this mineral is easily lost during food processing. 59% of magnesium present in whole wheat is lost during processing. Regular use of diuretics or caffeinated beverages may also induce magnesium.**
- **can be the result of a number of risk factors including long term use of diuretics,**
- **digitalis, antibiotics, chemotherapy, alcohol and excessive fats or protein intake. Even living in a hot**
- **climate is a risk factor since humans do not acclimatize to magnesium loss through perspiration as we do for potassium and sodium excretion.**
- **the way we react to stress can also deplete magnesium levels. Type A individuals release more fatty acids into their blood under equal stress than do Type B individuals. This results in net loss of serum magnesium.**
- **Oral contraceptives or estrogen replacement therapy may deplete body stores of magnesium by increasing its uptake and utilization by soft tissues and bone.**
- **fibromyalgia sufferers, diabetics, and alcoholics are more likely to develop long term magnesium deficiencies.**
- **variation of mag. level in spinal fluid can cause convulsions**
- **linked to blood clots in heart and brain and calcium deposits in blood vessels, kidneys, heart**
- **Aching neck muscles should muscles**
- **allergy to wool**
- **burning sensation in mouth**
- **bedwetting**
- **chilly after retiring**
- **fear**
- **insomnia**
- **depression**
- **grief-apprehension**
- **gas and wind in intestine**
- **inflated intestine**
- **nervous heart palpitation**
- **muscle jerk spasms. muscle twitching**
- **constipation**
- **restless movements of eyes, fingers**
- **yellowish whites of eyes**
- **sensitivity to noise**
- **sleep with eyes half open**
- **teeth sensitive to cold water**
- **tooth ache when nothing is wrong**
- **tremors or twitching of body**
- **winding motion of body**

Synergists:

- **Vit B6, C,D, Calcium (2 calcium to 1 magnesium), phosphorus, protein**
- **no single nutrient is as important in the absorption and metabolism of magnesium as Vit. D is to calcium. Magnesium behaves much the same as calcium in its relation to other nutrients (see calcium info).**

Antagonists:

- **alcohol, corticosteroid drugs, diuretics, caffeine**
- **calcium and magnesium are mutually antagonistic and compete for absorption sites, but calcium and vitamin D increase magnesium absorption. (2:1 ratio of cal to mag is best)**

Toxicity:

- **rare since most of its salts are cathartic eg. epsom salts and milk of magnesia are two of our modern day laxatives. Magnesium salts also have a diuretic effect and act as depressants. Excessive use of magnesium glycinate may lead to diarrhea, vomiting, fatigue, sleeplessness, nausea, muscle cramps.**

Magnesium in Herbs: per 100 mg

Irish moss herb	1960 mg	White willow bark	560 mg
Oatstraw herb	1200 mg	Pennyroyal herb	550 mg
Tumeric seed	980 mg	Devil's claw rt	544 mg
Licorice root	965 mg	Burdock root	537 mg
Kelp	867 mg	Chickweed herb	529 mg
Nettle leaf	860 mg	Althea root	518 mg
Senna leaf	777 mg	Pumpkin seed	514 mg
Elecampane root	750 mg	Bupleurum root	500 mg
Peppermint leaf	661 mg	Astragalus root	500 mg
Boneset herb	600 mg	Siberian ginseng root	500 mg
Dulse	590 mg		

Other herbs that contain magnesium (specific mg unavailable)

Carrot leaves	Mullein leaves	Broom tops
Meadowsweet	Primrose	Walnut leaves

NITRIC OXIDE aka Nitrogen Oxide

Nitric Oxide acts as a signalling molecule (one atom of nitrogen, one atom of oxygen: NO). It is a gas, not a liquid or solid. When it is created and released, the gas easily and quickly penetrates nearby membranes and cells, sending its signals. In less than a second, it signals:

- **arteries to relax and expand**
- **immune cells to kill bacteria and cancer cells**
- **brain cells to communicate with each other**

Many people get Nitric oxide confused with nitrous oxide which is used as an anaesthetic (laughing gas), or with nitrogen dioxide which is a brown toxic gas and major air pollutant. Nitric oxide is rapidly oxidized in air to nitrogen dioxide.

To really get to know Nitric Oxide well, read the book called "The NItric Oxide (NO) Solution by Nathan S. Bryan, PhD and Janet Zand, OMD. They look at this little molecule as being able to reverse heart disease. They claim it can prevent high blood pressure; keep our arteries young and flexible; prevent, slow or reverse the build up of artery-clogging arterial plaques; help stop the formation of artery-clogging blood clots (result of plaques bursting and spilling into the blood stream); lower cholesterol, and therefore reduce our risk of heart attacks and strokes.

They also claim it can reduce the risk of diabetes, limit the swelling and pain of arthritis, and boost the power of pain-relieving drugs; reverse erectile dysfunction; calm the choking inflammation of asthma; protect our bones from osteoporosis; help provide the mood lifting power behind antidepressant medications; assist the immune system in killing bacteria; and limit skin damage

from the sun.

How does Nitric Oxide work to correct Coronary Vascular Disease?

The said thing is: the older you are, the weaker your endothelium is. The endothelium is the thin layer of cells (endothelial cells) lining the inside surface of blood and lymph vessels. Vascular endothelial cells line the entire circulatory system, from the heart to the smallest capillaries. In the heart chambers, the endothelium is called 'endocardium'. Low levels of nitric oxide impair the function of these cells.
Endothelial cells age. Damage from oxidative stress builds up. The aging immune system can't keep cell-damaging compounds (cytokines) under control. The genes of aging kick in. Because of these changes boosting your NO. Diet and exercise may become less effective over the age of 40.

Supplements

Nitric Oxide opens up the blood vessels for up to 24 hours therefore you will need to take supplements on a daily basis.. Do not take Ephedrine while using this vasodilator. Do not exceed the dosage or you will overload the enzyme involved in nitric oxide production and can cause gastro-intestinal distress. Taking antioxidants like Vitamin C, E, Selenium and ALA increases the effectiveness of it. Eating less saturated fat helps avoid heart disease because a high fat meal decreases your nitric oxide.

Food Therapy To Help Nitric Oxide Production

Food therapy has been found to be substantially helpful for coronary vascular disease. The famous Mediterranean Diet seemed to fit the bill by lowering death rates and increasing longevity.
When they dissected the diet they were surprised to find that red wine had the greatest effect - a whopping 24%. Next they found that 17% lower death rate was awarded to what people were not eating: meat. They were eating mostly fish and chicken. But the food that had the most effect wasn't the lovely olive oil, or the fish or seafood, or the beans or nuts or seeds, and not even the fruits - it was the vegetables which lowered the death rate by 16%.

The wild greens of the Mediterranean are horta, which would be similar to our dandelion greens, mustard greens, collards, spinach, and beet greens). Dark leafy greens are among the foods richest in nitrate and nitrites, two dietary compounds that create nitric oxide in the body. A typical Mediterranean diet rich in leafy greens may contain up to 20 times more nitrate and nitrite than a typical Western diet. Leafy greens lower heart disease risk by 18% and a risk of stroke by 21%.

It is suggested when we buy greens, buy the best looking ones we can, nothing wilted or soggy, and when you bring them home to refrigerate, keep them moist but not wet - perhaps roll them lightly in damp paper towels and store the bundle in a plastic bag with a few holes punched in the back so the humidity doesn't promote spoilage. Don't wash the greens until you use them. Adding some lemon on cooked greens or salads helps increase the conversion of nitrate and nitrite to nitric oxide. The parts highest in nitrites in order from best to least are:

stalk of leaf leaf stem root flower bulb fruit seed

Watermelon is high in citrulline, an amino acid that helps the body make nitric oxide. For a NO smoothie combine zucchini, celery, kale, lemon juice, seasonings and tomato juice or water to taste.

Instead of using pop or soda, use pomegranate juice, apple juice or green or black tea. Drink lots of water, the body makes more NO when hydrated. Drinking 5 or more glasses of water a day lowered the risk of dying from heart disease by 46%. Drinking lots of water helps prevent cataracts, helps stop kidney stones, bladder infections, soothes aching joints and helps prevent colon cancer.

They also found that eating dark chocolate twice or more a week helped reduce the risk of heart attack by 66%! Dark chocolate increases NO. Make sure you get the good kind say organic, or from Europe. American common chocolate often contains wax which can damage the stomach.

Black and Green tea are also listed as good sources that trigger the NO. Fish oil boosts NO. If you can't eat fish twice a week, take 1,000 mg of EPA and DHA a day. The best fish are herring, mackerel, salmon, albacore tuna, sardines, oysters).

Antioxidants not only generate NO, they preserve NO so the body can use it.

Here is the Nitric Oxide Index to help you decide on the best foods to eat:

HIGH		MEDIUM		LOW	
*Kale	6825	Coleslaw	84	String beans	9
Swiss chard	2055	Asparagus	82	Sausage	8
Arugula	1452	Celery	80	Figs	7
Spinach	1123	Watercress	73	Prunes	6
Chicory	938	Artichoke	63	Sweet potato	5
Wild radish	814	Eggplant	39	Raspberries	5
Bok choy	775	Strawberry	34	Raisins	4
Beet	632	Potato	26	Banana	4
Chinese cabbage	499	Garlic	19	Cherries	3
Beet root juice	482	Tomato	14	Onion	3
Lettuce	388	Veg. juice	11	Red wine	3
Cabbage	312	Veg. soup	10	Bean sprouts	2
Mustard greens	226	Cereal	10	Hot dog	1
Cauliflower, raw	167	Melon	10	Bacon	1
Parsley	150			Chickpeas	1
Kohlrabi	136			French fries	0
Carrot	127			Ham	0
Broccoli	122			Ketchup	0

- **careful with kale as it can adversely affect the thyroid**

L ARGININE

This amino acid is a building block of protein and it is mostly found in protein foods such as red meat, fish, chicken, bean and nuts, dairy products. L Arginine does play a key role in the formation of NO: enzymes called nitric oxide synthaste spark the oxidation of L Arginine to produce NO.

In 1998, the scientists won the Nobel Prize for discovering nitric oxide was a signalling molecule in the lining of arteries that was necessary in the prevention of high blood pressure, heart disease and stroke. They then thought that taking the amino acid L Arginine would be a way of getting more nitric oxide into the system because it triggers the enzyme endothelial nitric oxide synthase to make nitric oxide. Studies however didn't bring the expected results. One study showed that those who have actually had a heart attack didn't benefit and should not take L Arginine. Other studies revealed that L Arginine worsened peripheral arterial disease over the long term (over 2 months).

Jerry Tenant says if you don't have the co-factors to make Nitric Oxide from L-Arginine, it can increase the amount of cytotoxic compounds ade by the immune system pathway. This is similar to converting the thyroid hormone T4 to T3. If you don't have the vitamins and minerals necessary for the conversion, you make the fake hormone RT3 that keeps your cells from working correctly. If you don't have the cofactors necessary to convert L-Arginine, it can be harmful to you. Taking citulline instead of L-Arginine helps solve this.

AVOID

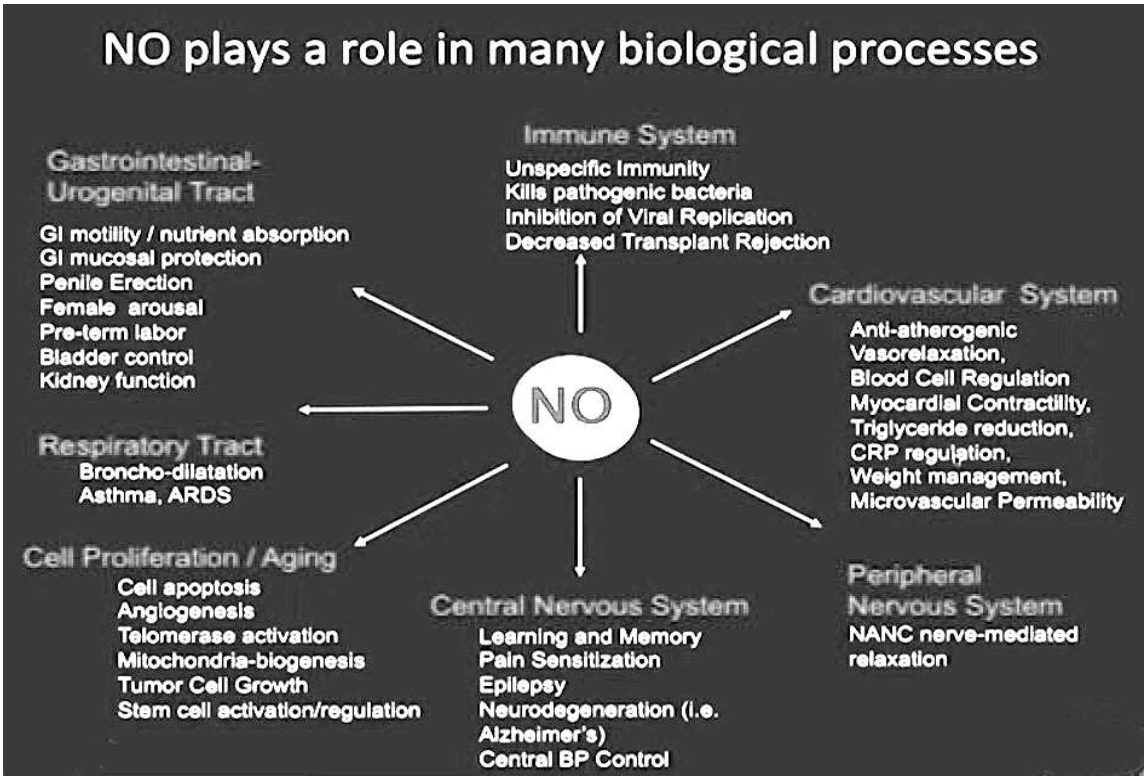
- **Fluoride (as in toothpaste, some city waters)**
- **Mouthwash, antiseptic mouth cleansers**
- **Products that reduce stomach acid eg. proton pump inhibitors**
- **NSAIDs such as aspirin, aleve, advil**
- **Antibiotics**

EXERCISE

Exercising helps stop the decline of NO as you age. And NO improves your ability to exercise. Do what you can at your level. At 90 years old you won't be able to do what you can at 40 years old. Walking, swimming, tennis, jogging, riding a bike, gardening, pushing a lawn mower, rigorous house cleaning - everything helps. Start slowly if you are not used to activity, and build up each week to increase the strength of the muscles and heart. Best time to exercise is: anytime.

And don't forget to do some deep breathing daily.

Eating sulphur (eg. garlic) and getting 15+ minutes of sunshine daily helps increase NO.



The 1970s found that elevated levels of nitric oxide leads to cancer in the body; however, this study has since been proven wrong. Reports of nitric oxide causing cancer are erroneous. The greatest risk it provides is methemoglobinemia, or nitrites causing the oxidation of hemoglobin, resulting in the blood becoming incapable of carrying oxygen throughout the bloodstream. This condition only exists when exposed to 150 times the amount of nitric oxide used for therapy. So the average person consuming a standard amount of nitrates, comes nowhere near the risk of consuming enough to cause methemoglobinemia [Dr. Bryan].
Ultimately, the main concerns for nitric oxide toxicity are low blood pressure, dizziness, shortness of breath, and so on. And if an individual does experience these symptoms, he or she should cut back on nitrate consumption and the conditions should resolve.

So what does it all mean? Nitric oxide has incredible health benefits. It can literally save lives and prevent disease if we can get enough of it into our system. Americans are generally nitric oxide deficient, and the amount we get in an average diet is far below the levels needed to cause any toxic harm, so there is always room to improve.
Nitrate from our diet is broken down into nitrite and nitric oxide, but the environment in the body must be just right to allow this process to occur. We need the healthy bacteria at the back of our tongue as well as an appropriate stomach pH level to allow for the breakdown of nitrate. People in their 20s generally have no problem producing nitrate, but natural production tends to decrease the older we get. So individuals who are 40 years or older should enhance their diets with nitric oxide supplements, or at least be sure to include nitrate-rich foods to ensure they are consuming appropriate levels. As we maintain sufficient levels of nitric oxide in our bodies, we have better vasodilation, blood flow, and cellular function.

EXAMPLES OF USING FOODS AS MEDICINE

- **Blood Sugar: Beans. Cinnamon Lowers Blood Sugar Levels. Fenugreek.**
- **Cholesterol help: Oatmeal**
- **Sage can improve brain function and memory. Sage gets its name from the Latin word Salvere, which means "to save." It had a strong reputation for its healing properties during the middle ages, and was even used to help prevent the plague.**
- **Coconut oil is powerful for alzheimers, dementia.**
- **Peppermint Relieves IBS Pain and may reduce nausea. It is used in folk medicine and aromatherapy. It's oily component contains the agents responsible for the health effects.**
- **Turmeric Contains Curcumin, a Substance With Powerful Anti-Inflammatory Effects. Turmeric is the spice that gives curry its yellow color. It contains several compounds with medicinal properties, the most important of which is curcumin.**
- **Holy Basil Helps Fight Infections and Boosts Immunity**
- **Cayenne Pepper contains Capsaicin, Which Helps Reduce Appetite and May Have Anti-Cancer Properties, can even be used for emergency help during heart attack.**
- **Ginger Can Treat Nausea and Has Anti-Inflammatory Properties**
- **Rosemary Can Help Prevent Allergies and Nasal Congestion, improves mental health.**
- **Garlic combats sickness, improves Heart Health**
- **Most effective for lead, arsenic, platinum, gold, mercury: Sulphur baths in natural springs or via granules, tablets or powders added to the bath water.**
- **Grated potato a poultice on burns, draws out the heat and helps itching. Can also be used for skin itching and sties.**
- **Honey is often used on burns and wounds. It is sterile, protects the hive, and will protect against infection and promote healing. Can also wrap burns in bandages soaked in apple cider vinegar. The apple cider vinegar is similar to the acid mantle of the skin pH.**
- **Parsley tea is a powerful diuretic. Carrots are also a diuretic.**
- **Celery juice for hayfever.**
- **Cabbage juice for digestive ulcers. Potato juice is also for ulcers. Some combine cabbage juice with potato juice. Eating the food is also beneficial.**
- **Cherries and cherry juice for gout.**
- **Citrus is good liver cleanser (1/2 lemon juiced in 1 cup water first in morning).**
- **Onions for respiratory problems. Cough syrup: chop onion into a jar, cover with sugar or honey and it will turn into a syrup – keep in the fridge. Take 1 tsp at a time.**
- **Soak 5 cloves garlic in oil for an hour. Strain, the oil can be dropped into the ear for ear infections Massage into feet, then put sock on and go to sleep to help fight colds.**
- **Hawthorn berries, the best heart tonic we have in Canada. Dry and ground up, or use in tea.**
- **Asparagus was used by Kroeger to kill cancer fungus (2 oz daily for 45 days), also it is combined with Coke to make remedy for kidney stones.**
- **Bathing with 1 pd each of seasalt and baking soda, soak 20 min to pull out harmful effects of environmental poisons, radiation, chemotherapy residue.**
- **Charcoal tablets for food poisoning.**

SOME EASY GUIDELINES TO FOLLOW:

1. **Eat something raw with each meal. Raw food contains natural enzymes; all cooked food is dead food. Raw veggies are not the only thing you can eat raw. Use raw honey, eggs, fruits, nuts. But do cook dried beans, lentils. Seeds can be eaten raw or soaked and sprouted.**
2. **Avoid foods that are bottled, refined, canned, salted, frozen, preserved, smoked, sulphured.**
3. **Eat whole fruits instead of fruit juice.**
4. **In general avoid cooking with oils, but if you must, use coconut oil, avocado oil, or olive oil and avoid very high cooking temperatures.**
5. **Use honey or pure maple sugar instead of white/brown sugars. If you can get – monk fruit, stevia are also good and won't hurt the blood sugar.**
6. **Make your own jams, breads, and any thing else you can do on your own.**

7. **Avoid meats that come from the feedlots. Use Deluxe Meats, Deerview Meats or buy directly from the ranch/farm.**
8. **Don't eat the same food every day – get lots of variety. Example, don't have oatmeal for breakfast every morning. Try avocado on toast, omlettes, blueberry pancakes.**
9. **Don't deep fry anything – use an airfryer.**

USING FOOD TO DETOX CHEMICALS AND HEAVY METALS

Aflatoxins

- **Derived mostly from peanuts. Also many other grains and nuts including corn, wheat, rice, cottonseeds, barley, soybeans, brazil nuts, pistachios. Peanuts and others named are susceptible to contamination by a particular mold that produces a cancer causing by-product known as aflatoxin.**
- **The moulds that produce aflatoxin are most likely to grow in warm, humid climates like the southeastern U.S., but warm moist conditions favouring aflatoxin producing mold can also be created in the field when rain falls on crops like corn and wheat that are left to dry in the field. This mold can also grow on plants damaged by insects or drought. The mold is often difficult to see. It is therefore important that these products be treated and stored with care, allowing quick drying.**
- **Cottonseed meal is a product often contaminated with high levels of aflatoxin and is banned for use as animal feed to protect the animals and consumers. Powdered nonfat milk can contain 8 times more aflatoxin than the original liquid product because the aflatoxin sticks to the milk proteins. Watch for baby foods that incorporate dry milk to boost the protein content. Pasteurization and sterilization and spray dry processing techniques reduce contamination of dried milk. Meat is less of a problem because little aflatoxin is carried over into the animal flesh with the exceptions of pig liver and kidney tissue.**
- **Aflatoxin has been called the most potent natural carcinogen known, causing liver cancer. Men are more sensitive to this than women.**
- **Protection: don't eat mouldy food especially corn, peanuts, brazil nuts, pistachio nuts, wheat, rice. Be cautious about unroasted nuts, esp. Peanut butter. People who work handling these products are especially at risk.**

Aluminum

- **Alumina 6x or 12x**
- **Herbal: pumpkin seeds, okra, rhubarb rt., cayenne, red cabbage**

Arsenic

- **Squash and Strawberries remove arsenic poisons. Extra good for smokers. Also removes other metallic poisons.**
- **Arsenicum 6X or Harpagophytum tea (Devil's claw), or tea with equal portions of grassia, white oak bark, and golden rod. Drink 2 cups daily.**
- **Homeopathic Arsenicum is excellent**
- **Raw Mexican Sugar called Piloncillo (1 tsp 3X/day, break up into small pieces to eat easier)**
- **Mexican raw sugar ("poncillio") removes Arsenic poisons. Take 1 tsp several times a day until symptoms subside.**
- **Squash and Strawberries removes arsenic poisons. Extra good for smokers. Also removes other metallic poisons.**
- **Sulphur baths.**
- **Arsenic poison likes to settle in the muscles of the back, pulling the muscles when in spasms, and the spine out of place. Yellow dock and Bugleweed in equal parts made into a tea is an antidote to arsenic poisoning. The iron of Yellow dock and tannic acid of Bugleweed pick up arsenic by forming iron arsenic which the body can eliminate very early**
- **Protect with: iodine, selenium, sulfur bath, amino acids, Vitamin C.**
- **Arsenic and selenium are antagonistic toxins: exposure to one reduces the adverse effects of the other. Avoid eating commercial animal meats, avoid first or second hand smoke.**

Cadmium

- **Zinc and zinc rich foods (pumpkin seeds, sunflower seed, other raw seeds, nuts, whole**

grains) prevents assimilation of cadmium.

- Vegetables from cabbage family also help remove cadmium. Veggies from the cabbage family help remove cadmium.
- Chlorella pulls out of body through urine,, take for 1 month.
- Can use homeopathic cadmium, one bottle usually enough, help with also doing zinc and paprika.
- Help with calcium, sulfur bath, amino acids, paprika
- 3,000 mg Vit. C a day gives protection. Take more in acute poisoning.
- Do not drink tap water.
- Avoid tobacco smoke.
- Careful handling art materials containing cadmium.
- Avoid using enameled utensils.
- Avoid white flour.

Carbon Monoxide

- 2 tsp liquid Chlorophyll in 6 oz water. Take 500-1000 mg Vit. C with it. Do 3 times daily for 2 week.
- Foods high in Vitamin E increase oxygenation to the blood, brain.
- Foods high in Vitamin B15 or pangamic acid increases body's tolerance to oxygen deficiency.
- Foods high in Vitamin A increases permeability of blood capillaries and helps better delivery of oxygen to cells.

Chemotherapy

- 1 pd sea salt, 1 pd baking soda. Add to bath water, soak 20 minutes. Shower after. Use after each Chemo. treatment.

Chlorox bath for chemical removal:

- Add 7 oz (6 tbsp) liquid CLOROX to warm bath in good sized bathtub. Bathe 10-15 minutes. NOTE: not everyone can take Clorox baths, so check by soaking feet in a weak solution (1 tsp to one gallon of water).

Cobalt

- Oysters eaten uncooked. Also bathe hands and feet in cold water containing sodium bicarbonate(baking soda).

Copper

- Homeopathic Cuprum
- Zinc plus B6
- Sulphur baths
- L cysteine amino acid removes excess copper from the body

DDT

- * Yogurt, soured milks neutralizes DDT in intestines, making safer for body. Use daily.
- * Whey powder or tablets. It feeds and encourages beneficial bacteria in intestines which
- help to neutralize DDT.
- * Foods high in Vitamin C helps neutralize all poisons including DDT and protects body
- tissues from its harmful effects.
- Homeopathic 'Dioxin"
- Eat 15 yellow mustard seeds daily for protection from this (15 for men, 10 for women, 5 for children). Take on empty stomach in morning with a tiny bit of water. Will will remove just the dioxin. Also creates a gas that AIDS can't live in.
- Clean out 'whipworm' with vibropathic.

Dioxin

- Eat 15 yellow mustard seeds daily for protection from this poison(for men) (10 for women, 8 for children). Take on empty stomach in morning with a tiny bit of water. This will remove just the dioxin. This also creates a gas that AIDS can't live in.

Drug Residues

- **Very difficult with just foods. You need up to 10,000 mg Vit. C a day when exposed to heavy doses of drugs.**
- **you need a high amount of all B vitamins after taking antibiotics as will as probiotics. If probiotics are not available eat lots of organic plain yogurt. Whey also helps.**
- **Foods high in Vitamin C and E are protective agents against damaging side effects of aspirin.**

E.L.F. waves.

- **Take two aluminum pie tins. First one is filled with sea salt, placed on ceiling in middle of your home. Second one is hung on northwest corner of house facing towards center of house.**

Environmental Poisons

- **10,000 mg Vit C (high dose), Algae helps.**
- **3 Day Diet: Boil 3 tsp of green beans in water until done. Add 2 lbs finely chopped celery and 4 lbs coarsely cut zucchini. Boil another 5 min or until zucchini is done. Remove from heat and add 3 bunches finely chopped parsley. Season with spice. Eat only this for 3 days. Make more if finished before three days. When reheating, take only a portion from the refrigerator. Eat as often as you want. Drink parsley tea or willow leaf tea as a beverage.**

Fluoride aka Sodium Fluoride

- **Tea made of Calendula, Dandelion leaf, Elder,, Nettle, Red Root, St. Johnswort, Yarrow.**
- **Rebuild thyroid and parathyroid with "metabolizer" - combo of Yellowdock, Uva ursi, Cleavers, Goldenseal, Willowbark, Club moss.**
- **Manganese**

Food Dyes

- **Avoid packaged foods, candies, jello etc.**

Blue No.1 causes Chromosomal damage
Blue No. 2 causes Brain tumors
Red No. 3 causes Thyroid tumors, chromosomal damage
Red No. 40 causing Lymphatic tumors (this is most used dye)
Green No. 3 causes Bladder tumors
Yellow No. 5 causes Thyroid and lymphatic tumors, allergy (2nd most used)
Yellow No. 6 causes Kidney tumors, chromosomal damage, allergy

Formaldehyde

- **found in cheese, milk, cigarettes, foam mattresses, panelling, foam, chairs, molded plastic, telephones, dinnerware, particle board, building insulation, toothpaste, vaccines, paper, shampoo, permanent press fabrics, cosmetics, drugs, embalming fluid, wood sm,oke, auto exhaust, incinerator emission.**
- **2,000 mg Vit. C, 1 tsp baking soda, 100 mg B15. Take this combination twice daily for 2 weeks.**

Graphite

- **Homeopathic "graphite"**
- **breathe in steam of poppyseeds, drink poppyseed tea**

Heavy Metals Lodged in Glands and Nerves

- **Boil 3 tsp of green beans in water until done. Add 2 lbs finely chopped celery and 4 lbs coarsely cut zucchini. Boil another 5 min or until zucchini is done. Remove from heat and add 3 bunches finely chopped parsley. Season with spice. Eat only this for 3 days. Make more if finished before three days. When reheating, take only a portion from the refrigerator. Eat as often as you want. Drink parsley tea or willow leaf tea as a beverage.**

Lead

- **To help remove lead from the body: Eat grated red cabbage, 1 tsp three times a day. To remove lead, eat zucchini and green beans eaten exclusively for 3 days. This will also help get rid of metallic poisons.**
- **Legumes and beans help excrete lead from system.**

- **Algin (brown pacific kelp) helps excrete lead from body.**
- **Homeopathic "plumbum" or vibropathic remedy.**
- **Boil 3 tsp whole cloves in 1 qt cranberry juice for 20 min, sir and add 3 qt more cranberry juice. Add 1 tsp cream of tartar. Stir, drink 5 oz 3 times daily. If children, drink 3 oz 3 times daily for 12-15 days. Then do once a week. You can also add 2 tsp ground cinnamon if you wish.**
- **Make tea of 6 oz basil, 1 oz rosemary, 1 oz hyssop, 1 oz boneset. Drink 1 cup 3x/day.**
- **Tea using mixture of cloves and Vit. C or red cabbage. Red cabbage has been found to help remove lead. Take 1 Tbsp red cabbage grated, 3x/day**
- **Camomile tea helps rebuild calcium after removing lead.**
- **Vit. B1 (thiamine) 20-200mg helps removal of lead**
- **Grated red cabbage – 1 tsp 3x/day**
- **Vit. D in acute cases with calcium. Calcium prevents and has curative effect. 5-10 tablets of bone meal or calcium lactate daily.**
- **1,000-3,000 mg Vit. C daily (take hourly if acute problem)**
- **Lecithin neutralizes poisons in body, protects myelin sheaths (1-2 Tbsp)**
- **Mineral and trace minerals help resist harm caused by heavy metal contamination**
- **Potassium iodide combine with lead, promotes excretion**
- **Avoid smoking, increases daily intake of lead by 25%**
- **Legumes and beans help excrete lead. Brown pacific kelp or sodium alginate helps. Algin is a chelating agent, moving through intestinal tract without being absorbed, attaching to lead, carries it out.**
- **Eat zucchini and green beans exclusively for 3 days to remove metallic poisons and lead**

LSD

- **Chapparal is useful for removing damage done. Take for 1 month, break for 3 weeks, start again.**

Mercury

- **Fresh or oil of cilantro detoxes mercury from the body.**
- **Selenium binds with mercury, allows body to detoxify**
- **Taking garlic every day to pull mercury out of body.**
- **Green algae helps bind Mercury and calcium poison**
- **Homeopathics and vibropathics: Merc Pro, Mercury, Mercury VIV, Merc Corr, Merc Bin. Merc in tailbone, Merc in kidneys.**
- **Avoid tap water**
- **Chlorella is a fresh water seaweed, similar to spirulina. It binds mercury and removes it.**

Nickel

- **Poppy seed removes nickel deposits in 2 months without side effects. Make it into rolls, cake, and take with honey. Take 1 tsp poppyseed with honey on top by mouth 2X a day for 3 months. Or take 1 tbsp poppyseed in juice or water. Let sit overnight, drink in the next morning. Soak another tbsp in juice or water and drink in the evening. Note if randomly drug tested, poppy seed will test positive as a drug.**
- **Homeopathic 'nickel'**
- **Homeopathic Argentum**

Nitrates, Nitrites

- **Sources: sausage, bacon, meat, liquid smoke, hot dogs, nitrate fertilizer.**
- **It may be difficult to get enough food for this. It requires large doses (5,000 mg) Vit. C.**
- **In acute case of poisoning take 2,000 mg everyday 1 1/2 hours for one day then reduce to 5,000 mg a day. Vit. C can effectively neutralize and destroy nitrites in the stomach, prevent their conversion into nitrosamines.**
- **Foods high in the B vitamins or taking Vit. B complex, Vit. A, E and Lecithin help neutralize.**

Nitrogen Dioxide and Ozone

- **50,000 IU Vit A daily for damage by ozone, nitrogen dioxide. Also 1200 IU Vit., E daily.**
- **Eat foods extremely high in Vitamin A such as Lambs Quarter.**
- ***Foods high in Vitamin E such as Sunflower or Safflower oil or fresh wheat germ.**

Plutonium

- **Red algae (dulse) binds plutonium poison.**

Radiation Burns

- **Take lunch bag, use hands to rub it first, fill with borax, calcium lactate and B15. Gently run it over the body away from the heart.**

Radiation/X-trays

- **Use 1 pd seasalt, 1 pd baking soda in bath. Soak 20 minutes. Shower well after.**
- **Inositol (mostly found in lecithin but also in tablet form) prevents damage from x-rays and radiation exposure.**
- **Lemon or lemon peel concentrate. Enables body to withstand heavier therapeutic radiation without damage to healthy tissues if given lemon compound (because bioflavonoids are present in large amounts in lemon and peel).**
- **Lecithin. 2-3 tbsp a day to help counteract the effects.**

Radioactive fallout

- **Use 1 tsp baking soda, 1 tsp sea salt, 1/2 tsp cream of tartar, 1 qt water. Mix and drink 8 oz every 2 hours.**
- **Willow leaf tea will help remove symptoms.**
- **Take 1 piece of bread, toast it dark, burn it. Spread butter over it, sprinkle well with cinnamon. Children will enjoy with a little honey added. The combination of cinnamon and charcoal (burnt toast) removes fallout.**
- **Take 3 tbsp baking soda, 1 tbsp borax. Mix, take 1/2 tsp before meals in 4 oz water.**
- **Combination of Willow leaves, Milksugar, Thyme and Cinnamon.**
- **Sea salt and Soda bath. Use 1 pd each in bath, soak in it for 20 minutes.**
- **There is a product called Pol-X which combines Willow leaves, milk sugar, thyme and cinnamon.**
- **Combination of Lysine, Cystine, Methionine.**
- **B15 was given to population in Russia to help with fallout.**
- **Ginseng, Valerian rt., Passiflora have all been found to help. Also Vit. A, B complexe and C.**
- **Calcium lactate (325 mg)-3 tabs and 1/2 tsp borax/20 Mule Team, put in 6-7 oz warm water to dissolve. Then drink 3-5 times a day.**

Radioactive Iodine (iodine 131)

- **Kelp (easily assimilable organic iodine). Dose 1-2 tsp granules daily or 5-10 tablets.**
- **See Strontium 90 protection.**

Radon

- **2 tsp liquid Chlorophyll in 6 oz water. Take 500 mg Vit. C with it. Do 3 times daily for 1 week.**

Silver

- **Homeopathic Argentum**
- **Barley water.**

Sodium Fluoride

- **tea made of calendula, dandelion leaf, elder, nettle, red root, St. johns wort, and yarrow.**

Strontium 90

- **Kelp/Brown algae. Take 1-2 tsp daily or 5-10 tablets.**
- **Pectin. Only the pectin derived from sunflowers was found effective. Eat plenty of raw**
- **sunflower seeds daily.**
- **Yogurt. Also up to 1 qt a day of soured milk can be consumed.**
- **Brewer's yeast protects.**
- **Homeopathic Argentum**
- **Barley water**

Tin

- **Homeopathic Stannum**

Tobacco

- **Take massive doses of Vit. C. Arsenicum if leaves have been sprayed with arsenic. Other chemicals may need to be addressed: cadmium, radioactive lead, radium 226, lead.**

X-Ray Toxicity:

- **Fill paper bag with 1/2 baking soda and 1/2 seasalt. Rub bag over affected area for a couple of minutes - only needs to be done once, then discard salt and soda.**
- **Lemon or lemon peel concentrate enables you to withstand heavier therapeutic radiation without damage to healthy tissues because of large amounts bioflavonoids present.**
- **Salt and Soda bath for 20 minutes, shower after.**
- **Lecithin 2-3 Tbsp daily**
- **B5 (pantothenic acid) prevents radiation injuries.**
- **Rutin for protection if exposed take 800mg a day or more.**

EXAMPLES OF SPECIFIC FOOD THERAPIES

Acid Reflux	**Apples**
ADD/ADHD	**No chemicals, sugars, gluten, dairy, stimulation. Need lots of healthy oils for the brain. Need lots of minerals. No transfatty acids. Eat zinc rich foods: organ meats, seafood, shellfish, whole grains, legumes, raw pumpkin seeds.**
Adrenal stress	**No alcohol, red meat, white flour products, sugar, caffeine, tobacco, fats, fried foods, ham, pork. Include in the diet: raw and cooked veggies, brown rice, raw nuts, olive oil, avocado oil, coconut oil, whole grains, sea fish, chicken, eggs, goat cheese, omega 6 oils**
Alopecia	**Use onion juice topically. Rinse hair after shampooing with 1/2 water and 1/2 apple cider vinegar. Avoid chemicals in shampoos, lotions. Homemade salve of grapeseed oil with few drops cedarwood oil, rosemary oil, thyme oil.**
Alzheimers	**Coconut oil, Omega 3 and 6, Nettle, Red clover bl., Gingko**
Arthritis	**Need to be alkaline. Absolutely no refined sugars. Avoid preservatives and chemicals in foods including meat. Eat only small amounts of meat. Apple Cider Vinegar.**
Anemia	**Food high in B12, B6, and Iron. Need Vit. C to absorb iron.**
Blood Sugar	**Cinnamon**
Bones	**For Calcium: Horsetail, Nettle, Red Clover, sardines, cheeses, broccoli For Vit. K: Alfalfa, Dandelion rt., parsley Vit. D: cod liver oil, mushrooms, mackerel, eggs, liver Omega 3: fish eg. Salmon, sardines, swordfish, mackerel Nuts, seeds, whole grains, fruits, veg: for magnesium Fruits/veg: for potassium Fruits, fresh veg: Vit. C, Phosphorus, Folic acid Chickpeas, kidney beans, eggs, lean meat, nuts: protein For Iron: Whole grains, leafy greens, organ meats, red meat**
Bone Spurs	**Apple Cider Vinegar.**
Burns	**Grated potato poultice, Honey. Lavender essential oil.**
Cancer	**Baking soda. Vegan diet. Alkaline pH**
Candida	**No sugars, denatured foods.**
Circulation	**Cayenne pepper (cardio); Ginger (peripheral); Rosemary (cerebral). Foods high in Niacin.**
Chemo detox	**1 pd salt and 1 pd soda added to bath, soak for 40 minutes daily**
Colds/flu	**Elder berries, onions, garlic**
Cough	**Onion (chop in jar, cover with honey, keep in fridge and take 1 tsp at a time)**
Constipation	**Increase water intake, grainy foods, beans of all types, prunes, avoid overprocessed foods. Coffee.**
Diarrhea	**Rice, Apples, Charcoal, Toast. Avoid regular foods for a little while.**
Diuretic	**Carrots, parsley/parsley juice**
Gallbladder	**Avoid foods cooked with oil, parsley roots, apples, fiber**
Goiter	**Iodine rich foods eg. Seaweeds, shellfish**
Gout	**Cherries, alkaline foods, apple cider vinegar. Diet low in uric acid foods.**
Headaches	**Chemicals in foods, drinks, medications. Fast with pure vegetables or simple foods for several days.**
Heart	**Garlic, Hawthorn Berries**
Heavy Metal Detox:	
Aluminum	**Combine pumpkin seeds, okra, turkey rhubarb root, cayenne, red cabbage and dulse**
Arsenic	**Squash and strawberries together**
Cadmium	**Zinc and zinc rich foods like pumpkin seeds, sunflower seeds, paprika**
Carbon Monoxide	**2 tsp liquid chlorophyll in 6 oz water 3 x/day (can blend alfalfa, wheatgrass, barleygrass)**
Copper	**Zinc (pumpkin seeds, sunflower seeds)**
Dioxin	**15 yellow mustard seeds eaten daily or protection (10 for women, 8 for children). Take on empty stomach in morning with tinny bit of water.**

Lead	**Mix cloves and red cabbage. Or try 1 Tbsp grated red cabbage 3x/day. Try tea made of 6 oz basil, 1 oz rosemary, 1 oz hyssop, 1 oz boneset, make 1 cup with 1 tsp o this mix to 1 cup boiling water, steep 20 in, strain and drink 3 cups daily.**
Mercury	**Chlorella, Cilantro. Selenium bonds with mercury to detox (brazil nuts are high in selenium, don't eat too many). Garlic pulls mercury out of the body. Green algae helps bind mercury and calcium poison.**
Nickel	**1 tsp poppyseeds with honey on top twice daily for 2-3 months**
Plutonium	**Red algae eg. Dulse**
Radioactive	**Willow leaf tea. Turn a piece of bread, Spread with butter then lots of cinnamon and eat. Take 5-10 tablets of kelp (iodine) a day.**
Silver	**Barley water**
Sodium fluoride	**Tea made of calendula, dandelion leaf, elder, nettle, red root, St. Johns wort, yarrow.**
Strontium 90	**Brown algae, kelp**
Xray toxins	**Fill paper bag with 1/2 baking soda an 1/2 seasalt, rub bag over affected area for a couple of minutes, only need to do once. Another: take lemon or lemon peel concentrate which helps withstand heavier radiation because of large amounts bioflavonoids present. Do Salt and soda bath for 20 min., shower after (1 pd each in the bath)**
	Metals lodged in glands and nerves Boil 3 tsp green beans in water until done. Add 2 lb finely chopped celery and 4 lb coarsely cut zucchini.. Both another 5 min until zucchini done. Remove from heat, and 3 bunches finely chopped parsley, season. Eat only this for 3 days – make more if finished before 3 days. When reheating, take only a portion from the refrigerator. Eat as often as you want. Drink parsley tea or willow leaf tea as a beverage.
Inflammation	**Turmeric mixed with black pepper**
Immune	**Shiitake mushrooms**
Kidney stones	**Asparagus mixed with Coke**
Knee pain	**Gallbladder problem, sugar problem, back/hip alignment problem.**
Liver	**Lemon juice, Apple Cider Vinegar, Dandelion, Burdock rt., Milk thistle, Black cherries, Cranberries, Beets.**
Low Iodine	**Seaweeds, seafish, shellfish**
Low Nitric Oxide	**Spinach, bok choy, broccoli, squash, garlic, green tea, dark chocolate, fish oil, beets, kale, chard, carrots, eggplant, coleslaw**
Low Stomach acid	**Zinc foods, Phosphorus foods, Foods with Vit. B1, Iodine. Salt**
M.S.	**No smoking, alcohol, mouldy environment, chlorine, fried foods, hydrogenated oils, gluten, msg, sugars, transfatty acids, deep fried foods. Only small amounts of animal foods.**
	Strict diet of pure, healthy, foods without preservatives, chemicals. Foods high in flavonoids are good: blueberries, elderberries, green tea, black currants, grapeseeds, grapeskin bilberry, red raspberry, boisenberry, blackberry (a cup a day of berries) – frozen even better than fresh! Blue corn chips.
Neurotransmission:	
Lack Dopamine	**Chicken, cottage, cheese, Duck, Wild game, Luncheon Meat, Pork, Ricotta, Soybeans, Turkey, Eggs, Granola, Oat flakes or rolled oats, Sausage Meat, Low fat/low salt cheese, Wheat germ, Whole milk, Walnuts, Yogurt.**
Lack Acetylcholine	**Beef/chicken/pork liver, Eggs, Pork, Canned shrimp, Salmon, Tilapia fish, Wheat bran, Cod fish, Lean ground beef, Artichokes, Macadamia nuts, Oatbran, Wheat bran, Peanut butter, Pinenuts, Hazelnuts, Soy Protein Powder, Tomato paste, broccoli, brussel sprouts, cabbage, toasted wheat germ, tomatoes, blueberries**
Lack GABA	**Brown rice, Bananas, Broccoli, Spinach, Potato, Oranges, Whole grain oats, Halibut fish, Walnuts, Beef liver, Rice bran, Lentils, Whole wheat or grain, nuts, cantaloupe, organ meats.**
Lack Serotonin	**Pork, Turkey, Wild game, Luncheon Meat, Cottage Cheese, Avocado, Wheat Germ, Sausage meat, Eggs, Ricotta cheese, Duck, Chicken, Whole Milk, Oak flakes, Granola, Chocolate, Yogurt.**
Nerves	**Celery. Oats, Grains**
Parasites	**Garlic, Black Walnut, Cloves**
Prostate	**Tomatoes (cooked and raw), raw veggies, onions, brewers yeast, dark chocolate..**

	Raw pumpkin seeds (high in zinc), foods high in quality protein. Avoid: coffee, alcohol, strong spices, rhubarb, spinach, strawberries, pineapples. Especially avoid foods containing pesticides, food dyes and preservatives because they can affect your hormone balance and adversely affect your prostate and also avoid DES (diethylstilbestrol) which is a hormone found in beef, milk, chicken.
Respiratory	**Mullein, Echinacea, Goldenseal, Turmeric (with black pepper)**
Restless legs	**Calcium and magnesium rich foods, B12 foods, hydrate with water or coconut water**
Sleep	**Turmeric, Ginger, Banana, Coconut water, Magnesium rich foods, low sodium bone broth. Dark Red Cherry Juice. Warm milk or oatmilk.**
Tumors	**Concord grape juice (1 qt a day for 1 1/2 months)**
Itchy skin	**Baking soda mixed with water applied as a paste, drink lots of water to flush out the offending cause.**
Ulcers	**Cabbage/cabbage juice, potatoes/potato juice. Avoid spices, fruits, meats.**
Vomiting	**Ginger, charcoal**

HELPING THE GLANDS:

Hypothalamus

- **controls body temperature, hunger and thirst sensations, mood swings, sex drive, sleep and heart rate. To help, use**
- **Omega 3 (salmon, cod, walnuts, avocados, flaxseed and olive oil)**
- **Vit. B12**
- **Vit. B1**
- **Vit. C**
- **Coffee, tea (can also soak feet/hands in black tea (2 tea bags in bowl) to help with sweating)**
- **Antioxidants (spinach, onions, tomatoes, veggies**

Pineal

Foods: iodine-rich foods like seaweed, citrus fruits for their citric acid, and detoxifying foods such as garlic and apple cider vinegar. A diet rich in fruits, vegetables, and plant-based proteins can also help maintain its health and function.

Herbs: ashwagandha, ginkgo biloba, gotu kola, turmeric, chlorella,, spirulina, reishi mushroom.

Pituitary (Master gland)

Foods:

Needs magnesium to thrive
Needs Vit. D
Antioxidants – green leafy, raw seeds, almonds, plant oils
Vit A and Iodine
Help HGH levels with beef, pork, poultry, fish, soy, nuts, eggs
Manganese, Vit E
Foods to help: Beet juice, chlorella, cod liver oil, oregano oil, Phosphatidylserine

Herbs:

Milk Thistle increases hormone levels
Sagebrush helps the endocrine system

Thyroid

Needs iodine to thrive, sushi, seaweeds all high in iodine
Foods to help: Greek yogurt, fruits, seeds/nuts, green tea, avocado, eggs, chicken, fish,
Herbs to help: Ashwaganda, Siberian ginseng, licorice, turmeric, ginger, guggul, motherwort, lemon balm, tyrosine

Adrenals

Vitamins: lots of Vit. C
Herbs: ashwagands, licorice rt., sib. Ginseng, Maca,

Ovaries

Foods: walnuts,
Herbs: Ashwagandha, cinnamon,, dong quai, evening primrose oil, turmeric, chaste tree berry, green tea, dandelion, inositol, licorice rt., fennel, ginger

Testicles/Male Sex Organs

Foods: Omega 3 and 6 oils, Beta Carotene foods, Vit. E foods, Zinc foods, Pectin (apples). Avoid strawberries, coffee, alcohol, strong spices, pesticides, food dyes, preservatives.
Herbs: Saw Palmetto, Pumpkin seeds, Sarsaparella, Nettle, Passionflower, Kidney/bladder herbs, Ginseng

ALFALFA (aka Lucerne or Medicago sativa)

Most people know this as a food for livestock. I has high content of vitamins and minerals as well as protein compared to other feed sources for livestock.
Alfalfa is part of the legume family. But we also consider it an herb. In its sprouted form, we consider it a vegetable.
It also has a long history of being used medicinally for humans.
Most notable nutrients are Vitamin K, Vitamin C, and minerals: copper, iron, manganese and folate.
Vitamin K helps the blood clot, careful if your blood is already too thick.
Alfalfa is low in calories (1 cup has only 8 calories).
It also contains 1 gram of protein and 1 gram of carbs which comes from the fiber.
Bioactive information: it has saponins, coumarins, flavonoids, phytosterols, phytoestrogens, and alkaloids. The saponins may help decrease cholesterol.

<u>Other Uses:</u>

- **lowering blood pressure**
- **as a diuretic**
- **increase breast milk production**
- **helping arthritis,**
- **getting rid of kidney stones.**
- **good for menopause due to phytoestrogens**
- **In Ayurvedic medicine it is used for inflammation**
- **prevents oxidative damage caused by free radicals; reduces cell death and DNA damage caused by free radicals by lowering production of free radicals and improving body's ability to fight them.**
- **You can get alfalfa supplements in powdered form, or as a tablet or use alfalfa to make tea.**

Warnings:
Because raw sprouts and supplements derived from alfalfa seeds come with potential food safety risks such as serving as a reservoir for foodborne pathogens like I. Coli, salmonella, and listeria), pregnant women should avoid.

If you are taking blood thinners, Alfalfa and alfalfa sprouts are high in Vit. K. Although this benefits most people, it can be dangerous for others. High doses of Vit. K can cause blood thinning medications (like warfarin) to be less effective.

There have been reported cases of alfalfa supplements causing a reactivation of lupus in some people. Possibly due to amino acid L-cavanine in alfalfa.

Be smart with sprouts. The moist conditions needed to sprout alfalfa seeds are ideal for bacterial growth. There have been multiple bacterial outbreaks from sprouts sold in stores. For a healthy person, long term illness is usually not a problem, but if you have a compromised immune system, an infection can be very serious. The FDA says children, pregnant women, older adults, or anyone with a compromised immune system to avoid alfalfa sprouts and supplemental products derived from its seeds.

<u>To make Your Own Sprouts:</u>

1. **Add 2 tablespoons of alfalfa seeds to a bowl, jar, or sprouter and cover them with 2–3 times the amount of cool water.**
2. **Let them soak overnight or for 8–12 hours.**
3. **Drain and rinse the sprouts well with cool water. Drain them again, removing as much water as possible.**
4. **Store the sprouts out of direct sunlight and at room temperature for 3 days. Rinse and drain them thoroughly every 8–12 hours.**

5. **On day 4, relocate the sprouts to an area with indirect sunlight to allow for photosynthesis. Continue to rinse and drain them well every 8–12 hours.**
6. **On day 5 or 6, your sprouts are ready to eat.**

ALGAES FROM THE SEA:
WAKAME, DULSE, KELP, KOMBU, HIJIKI, NORI

WAKAME

Sea water contains about 31% sodium, compared to our blood which is about 34%.
Sea water also has other elements like potassium, calcium, magnesium and chlorine and these are also much the same in seawater as in our blood.
The primary life support system for all of mankind is the plant from land or sea.
Plankton from the sea gives us the very oxygen we breathe, it begins the food chain for animal life.
The sea algaes give us very high quality trace minerals which we now have trouble getting from our depleted land soil. The fresh water algaes give us unusually high amounts of Vitamins and Minerals, especially B12 and iodine which is usually difficult to get from plant life, and also proteins.

DULSE

Dulse is a red seaweed, usually from the Maritime area of the East coast where it attaches itself to rocks. It is gathered off the eastern coast of Canada from May till August.
Dulse is especially high in vitamin B6 and B12, iron, natural fluoride, potassium, calcium. Some consider dulse superior to kelp. High iodine content feeds the thyroid gland.
In Ireland and Scotland dulse is eaten raw, cooked as a vegetable and added to other dishes. In Scotland it is used to treat fevers by inducing sweating. In Iceland it is used as a remedy for seasickness.
Besides having one of the highest concentrations of iron of any known food source, it is rich in potassium for kidney function and magnesium for RNA and DNA protection. It also contains calcium.
Recently it has been found to be effective in treating gastric ulcers as well as influenza viruses. Used regularly it can ward off hayfever. Some people like to add it to the bathwater for treating rheumatism.

KELP

Kelp is made from seaweed. It can be brown from the cold waters of Pacific coast near California), or red from deep water irish moss, or green from the salty seas. It contains a high concentration of all the minerals found in sea water and is very rich in trace minerals.
Kelp is another seaweed high in iodine which benefits the thyroid.
It is a good source of Vitamins A, B-complex, C, E, D and K and oddly, vitamin B12 which is rare in the vegetable kingdom. It supplies 20 of the amino acids necessary for good health.
It has been used to cleanse arteries, to soothe the intestinal tract, to keep skin youthful, to keep the hair from falling out, to protect the heart against disease, to normalize the reproductive organs and to combat anemia.
Lastly, Kelp gives protection against radioactive iodine which causes thyroid cancer.

NORI, KOMBU, WAKAMI, HIJIKI, ARAME SEAWEEDS

Arame: a crinkly, curly looking seaweed that reconstitutes quickly in water and is delicious in salads or can be thrown into soups. It has a mild flavour, not too salty.

Nori: gathered directly from sea in Bay of Japan. Used in soups, salads after a quick wash in clear water. Also used as breakfast dish with hot rice by the Japanese. Can be dried into sheets, toasted, used to roll up sushi, or a sandwich. Nori is the highest protein compared to other seaweeds

Kombu: is a number of seaweeds called laminaria from the colder waters of the northern bay, fed by clear Arctic currents, they thrive in icy deep water. The plan is dried or pre-cooked. Cooked kombu is a staple with rice, meat, poultry, fish, eggs; dried kombu is usually used for soup stock or it can be powdered and used like salt in a shaker.

Hijiki: is a brown seaweed that grown on rocks not far from the shore line. It is generally used dried as a seasoning. Often seen in packages in health food stores, soak it in water for 10 minutes then throw it into a salad or soups.

Wakame: is a large brown seaweed used dried or fresh. When fresh it is dipped in a rice vinegar sauce and tossed into salad. Dried it is used in the famous miso soup.

ALGAES FROM FRESH WATER:

CHLORELLA, SPIRULINA, BLUE-GREEN ALGAE

CHLORELLA

Chlorella is 58% highly digestible complete vegetarian protein. Broken cell wall chlorella is nearly twice as digestible as plain chlorella. It's biggest benefits aside from the high protein content, is the high amount of chlorophyll (nearly 10 times that found in alfalfa). It is very high in vitamin A, and other vitamins (including B12), as well as calcium, iron, magnesium, phosphorus and zinc.

This fresh water green algae contains over 20 vitamins and minerals (see list). It is a rich source of iron, 3 grams which is only 13 calories and provides a whopping 5 grams of iron (you normally would need to eat 1,000 calories in a regular diet to get that much).

Chlorella is one of the few vegetarian foods that contains lots of B12 (3 grams give you over 100% of the RDS for B12). It also contains 180 mg of Beta Carotene per 100 grams. Three grams of Chlorella gives almost 1/2 of the Vitamin A requirement for the body. Beta Carotene has been shown to destroy cancer cells and help the immune system.

It stimulates the immune system, stimulates the production of interferon which is used to fight cancer. It is used for cancer treatments because of the chlorophyll and Vitamin A contains.

In addition Chlorella is over 60% protein and contains about 1 1/2% chlorophyll (compared to Spirulina at .75% and .2% for Alfalfa). It is a rich source of branched chain amino acids used by athletes for maximum muscle building, repair and energy.

Sardines were the previous "king" of high RNA/DNA foods. However, we now find that Chlorella is at a level 17 times higher than the sardine!

Chlorella has been used to treat pyorrhea, gingivitis, bedsores, ulcerations of toes, skin ulcers, high blood pressure, arthritis and atherosclerosis. Chlorella balances out neopeptides. It is good for chronic fatigue. Stimulates interferon and Glucon 2.

Builds immune system.

When Chlorella was first developed, its cell walls were tough and they resisted the action of digestive enzymes resulting is gastro cramps shortly after it was eaten.

Manufacturers have now developed processes to make sure it is more thoroughly digestible.

Chlorella has powerful detoxification properties. Various polysaccaride compounds in the cell wall fragments combine with a broad range of toxins including toxic heavy metals mercury and cadmium, radioactive uranium, the pesticide chlordecone, the toxic herbicide dioxin and PCB's. Once combined with the cell wall fragments they are rendered non-absorbable by the body and are harmlessly excreted through bowel movements. These cell wall fragments also offer a good source of fiber for intestinal integrity.

Take 5 tablets per meal as maintenance, or up to 30 a meal for disorders.

Sun Chlorella is the most expensive type but not very heat stable, and is affected by light and moisture. Taiwanese type is more heat stable but light and moisture sensitive. Put the dessicated pouch in the container to dry up moisture.

Chlorella Chemical Analysis:

60.5% Protein	60.5% Fat	21.1% Carbohydrate
3.6% Moisture	.2% Fiber	4.6% Ash

421 calories per 100 grams

Vitamins per 100 grams:

55,000 IU Vit.A	180 mg Beta Carotene	15.6mg Vit. C
1.5 mg Vit. B1	4.8 mg Vit. B2	23.8 Vit. B3

1.3 mg Vit. B5	125.9 mcg B12	191.6 mcg Biotin
26.9 mcg Folic acid	.6 mg PABA	600 mg Iodine
71.0 Zinc	315 mg Magnesium	203 mg Calcium
989 mg Phosphorus	167 mg Iron	.08 mg Copper
1,469 mg Chlorophyll A	613 mg Chlorophyll B	

Fatty Acids: 81.8% unsaturated 18.2% saturated
Digestibility: 47% whole cell; 79.5% disrupted cell walls; 50% heated and blanched

SPIRULINA

This blue green type algae, classified as a type of chlorophyll containing bacteria and not as a plant. It is a simple one celled form of algae, thrives in warm, alkaline fresh water. It is being developed as our food of the future because of its high 65-71% complete protein content. It is not scummy, it is clean and naturally sterile.

Under optimum conditions, spirulina multiplies three times a day. Certain desert types survive evaporation in intense sun, drying to a dormant state on rocks as hot as 160F.
In this dormant condition, it turns a frosted white and develops a sweet flavour as it is transformed into polysaccharide sugars by the heat.

The Aztecs used spirulina, calling it "tecuitlat" which means stone excrement (excrement had a different connotation then), Mexican Indians where also harvesting and making use of it. The French did extensive testing on spirulina, found it contained a high quality egg protein, rich in vitamins and minerals and the Mexicans decided to produce it commercially from Lake Texcoco, most of which is imported by the Japanese who use it to improve color of egg yolks and goldfish, improve reproduction of fresh water fish, crustaceans, mollusks and silkworms.

Spirulina multiplies rapidly, flourishes in waters too salty for irrigation or human consumption. All it needs is the right mount of solar radiation and a high level of salinity which it gets in the Valley of Mexico, where the waters of Lake Texococ has a pH of 9-10(high salt). Let's compare how much protein can be produced in a single hectare:

spirulina: 12,000-30,000 kg dried protein per year
soybeans: 780 kg
fish farming: 650 kg cattle: 80 kg
mushrooms: 50,000-80,000 kg (however mushroom protein lacks several amino acids we need for good nutrition and they are expensive to produce).

The taste of Spirulina is not objectionable, it is completely digestible with no known side effects. It differs from Chlorella whose cell walls are tough and which resist the action of the digestive enzymes, often resulting in gastro cramps shortly after chlorella is eaten (which is why you should get the broken cell wall chlorella).

The most amazing fact about Spirulina is that it is the strongest source of Vitamin B12 ever found. It contains twice as much B12 as dried liver! 2 tablespoons contains about 30 mcg of B12 compared to dried liver which has only 16 mcg. Two tablespoons contains about 9,000 IU Beta Carotene. Spirulina is also rich in minerals, and a prime source of calcium, being twenty-six times more than that contained in milk.

SPIRULINA CONTENT:

Vitamins per kg:

55 mg B1	40 mg B2	118 mg B3	11 mg B5
3 mg B6	2 mg B12	.4 mg Biotin	
.5 mg Folic Acid	350 mg Inositol	190 mg Vit. E	

Minerals per kg:

1315 mg Calcium	8942 mg Phosphorus	42 mg Iron
412 mg Sodium	1915 mg Magnesium	25 mg Manganese
39 mg Zinc	15400 mg Potassium	.4 mg Selenium

Chemical Analysis:

71% Protein	.9% Crude Fiber	16.9% Carbohydrates
7% Fat	.05% Cholesterol	7% Moisture

BLUE GREEN ALGAE

Blue green algae is also known as cyanobacteria, blue-green bacteria and it is both a bacteria and algae. It is termed "blue green" because of the green from the chlorophyll and the blue from the presence of phycocyanin.

It is higher in protein than alfalfa and kelp (Algae contains 60% protein) and contains rich vitamins, minerals and enzymes. Blue Green is prized for its high chlorophyll (6%) content which gives protection against cancer and also fortifies the blood. It is high in vitamin B12.

All the freshwater and saltwater seaweeds have high mineral content which is becoming difficult to get from our depleted soils.

ALFALFA

Alfalfa is a perennial plant (meaning it regrows every year). It belongs to the *Fabaceae* family that has long been used in traditional medicine to treat various health conditions. Alfalfa is high in vitamins, calcium, potassium, phosphorus, and iron.

People eat alfalfa fresh in the form of sprouts. It has a sweet, bitter, grassy flavor. It is also available as a supplement.

This plant contains a rich supply of wide spectrum of vitamins and minerals including Vitamins A,B,D,E,K and Minerals potassium, iron, chlorine, sodium, silicon, magnesium and phosphorus. As a bonus, it is low in fat and calories! Alfalfa contains 60% protein and as well as over 65 vital nutrients. Alfalfa contains about 2%-6% chlorophyll which gives protection against cancer and fortifies the blood.

It is a good source of fiber and protein providing the 8 enzymes needed for food assimilation. It has been used to treat bursitis, arthritis and tendonitis.

Alfalfa contains more natural beta carotene than any other plant:

- **Alfalfa: 41,800 IU per 100 grams**
- **Wheatgrass: 5,800 IU per 100 grams**
- **Barley Green/Green Magma: 21,000 IU per 100 grams**

Ancient Chinese records show using alfalfa for treating ulcers (probably due to the Vit. A content which protects the mucous lining of the stomach, the Vit. K which protects against hemorrhages, and Vit. U which is the same substance found in raw cabbage juice).

Both alfalfa and pectin in apples have been found helpful in cholesterol reduction as they apparently bind up cholesterol in the intestinal tract, carrying it right through the system so it cannot be absorbed or reabsorbed.
It is a good source of fiber, soothes the intestines and is good for bad breath.
It is recommended to take alfalfa before a meal. Take anywhere from 15 to 30 tablets three or four times a day. Using alfalfa concentrate of a level teaspoon in water 3 times daily has healed ulcers in 2-3 weeks. Don't forget that alfalfa sprouts are also great.

It is a good source of Vit. A & C. It may help lower cholesterol, may control blood sugar, acts as natural diuretic. It contains

Calcium	**Vitamin K**
Iron	**Copper**
Potassium	**Folate**
Phosphorus	**Magnesium, Manganese**
Vitamin A	**Vitamin B1**
Vitamin C	**Vitamin B2**
Vitamin E	**Bioactive compounds, such as alkaloids, coumarins, flavonoids, and phytoestrogens**

APPLE CIDER VINEGAR

Apple cider vinegar is rich in potassium, as are apples. This is very helpful for anyone deficient in potassium.

Paul Bragg brought this food to the forefront. He was raised as a healthy boy on a farm, then in his teens he was shipped off to a military academy where he ate overcooked, processed food and developed tuberculosis. He was sent to a sanitarium in Switzerland where he was cured in 2 years on a balanced natural diet and where he used correct deep breathing and received clean air and sunshine. He later became quite the health advocate, wrote many books, and made apple cider vinegar an art of his daily life. He said lack of potassium shows as a flabby neck and face, and hooded droopy eyelids.

For clogged arteries, potassium supposedly cleans them out like vinegar removed grime from windows.

Taking 1 tbsp apple cider vinegar with 1 tsp honey in 1/2 cup warm water about 15 minutes before meals will help aid the stomach in digestion, especially in the production of hydrochloric acid which is needed for breaking down proteins and deficient in most people.

Many people have added apple cider vinegar to their diet and found it helped bone spurs, sore throats, arthritis, weight control and constipation.

The heart needs a constant supply of potassium in order to function properly. Taking a little nip of apple cider vinegar (2-3 drops) in 1/2 glass distilled water 3 times daily between meals gives the heart some help. Doing this is especially good before you exercise.

Paul Bragg tells us that when acid crystals harden in the joints and tissues of any animal, the joints become stiff and the tissues harden, the meat becomes tough and tasteless. But when the animals are given apple cider vinegar regularly, the precipitated acid crystals enter into a solution and pass out of the body, making the body tissues healthier and tender. This of course applies to humans also which is why so many people who have arthritis find relief from using apple cider vinegar.

Apple juice is rich in malic acid, potassium, pectins and enzymes and act as solvents to soften and help remove (small stones and slush) from the gallbladder and other areas, and to generally cleanse the body.

To bring down a fever, dilute it half with water and use it as a sponge bath. It is most agreeable with the skin.

APRICOTS

Apparently we have overlooked this little fellow.
Apricots as a food, contain every major category of liver detoxification molecule we know of. Has about 40 flavonoids.
The oldest living people in the world (the Hunzas) eat lots of apricots.

APRICOT SEEDS

The Chinese say the apricot seed can be used for asthma and lung problems.

These seeds contain a small amount of cyanide, however the famous Hunzas used these seeds as the basis for food ground up in their flour, and oil. Until we infiltrated their people with our white flour and sugar, they were considered the healthiest and longest living people on earth.

Many people take apricot seeds as a form of Laetrile or Vitamin B17 which is often used to treat cancer. It is best taken with Vitamin A so eat some apricots (dried or fresh) with them. When you buy them, follow the instructions carefully as to how much a day to consume.

Apple seeds and some other fruit seeds also contain laetrile but are not usually sold on the market.

ASPARAGUS

An excellent food but is also used by Kroeger to kill cancer fungus (2 oz every day for 45 days). It is also combined with Coke to make a remedy for kidney stones:

Asparagus and Coca Cola for Kidney Stone Flush

1. **Do not eat while doing this remedy, it should be done on an empty stomach. Best time to start is mid morning, say about 9 - 10 a.m.**
2. **Within a 2 hour period, drink 6 cans of room temperature Coke (one every 20 minutes).**
3. **Then cook 6 oz asparagus by boiling or steaming. You can use canned asparagus if you wish. Blend the cooked asparagus in a blender to puree.**
4. **Immediately after drinking the last Coke, eat the asparagus puree, mixing it with with your saliva before swallowing.**
5. **It is important after taking the asparagus, to start drinking lots of distilled water over the next day, eg. 64 oz pure distilled water. Continue for several days drinking water to rehydrate the body from the Coke leaching the water from the body.**
   This can work fast.
   Note: it is suggested to wait as long as possible before eliminating, at least until you have eaten the asparagus and longer if possible which will help build up a flushing action.

ASTAXANTHIN

Astaxanthin is suppose to be one of the best, if not the best, anti-oxidants available. It is called "King of Carotenoids). We often use it for the eyes – repair and strengthening. It also supports cognitive health of the brain. Astaxathin is a keto-carotenoid in a group of chemical compounds known as carotenoids, a subclass of the broad group of phytochemicals known as terpenes. It is a metabolite of zeaxanthin and canthaxanthin.

Foods with astaxanthin:
Algae, esp. Red algae (has about 40,000 mcg per gram)
Salmon roe (about 26,000 mcg per 100g)
Arctic Char (no data but it very high)
Arctic Shrimp (about 1200 mcg per 100 grams
Sockeye salmon (26-38 mcg per g)
Krill, krill oil
Shrimp (1-2 mcg per gram)
Lobster (.5 to 1 mcg per gram)
Eel (18-28 mcg per g)
Red Snapper (10-20 mcg per gram)
Red Grouper (1-20mcg per gram)
Trout (.3 – 4 mcg per gram)
Crab (.2 - .6 mcg per gram)
Crayfish, Red Yeast,
Also found in egg yolks if chickens have been fed astaxanthin.

AVOCADOS

One half avocado (100g) provides 160 calories, 2g protein, 8 1/2g carbs, and 147g fat. They are high in magnesium, potassium, Vit. C, Vit. E, and Vit K. Most of the carbohydrates comes from fiber. There is very little sugar in avocado, low glycemic so good for diabetes. The oil of avocado is oleic acid, a heart healthy monosaturated fat.

Avocado contains persin which acts like a shield keeping pests away from the plant – it is in the skin, pit and a little in the flesh. The little amount of persin shouldn't affect you unless your liver is compromised and you are eating large quantities of avocado daily. Avoid the leaves and pits and eat the flesh every other day if you are a big consumer. Avocado is one of those foods that should be eaten in moderation. One half of an avocado a day for a person should be enough. Also, avocados are high in calories so take that into consideration when planning your meal. Eating 1/4 or 1/2 avocado a day will give you the nutrition without the weight gain. If you use them on toast, skip the butter or mayo (unless you are trying to gain weight).