



Holistic Nutrition  
FOR THE WHOLE YOU

# Take Back Control of Your Health with Dynamic Foods



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Millions of North Americans are taking a hard look at their health and the connection with foods consumed. Each day individuals are coming to the realization their health challenges are the byproduct of industrial foods overflowing with calories and chemicals with no real nutritional value. It doesn't have to be that way, you can gain control and with it vitality.

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## ***DEDICATION***

As with all the writings of the last three decades, this work would not be possible without the support of my husband, who has spent tireless hours reading, proofing, commenting, and editing my work.

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Thank You All my Clients for believing in me and in the mission of

Holistic Nutrition for the Whole You.

## **Introduction.....**

You have made a decision to make some changes in your life; you're tired of waking up in the mornings feeling tired, worn down and bla. You may feel as though your youth has flown out the window and all your energy with it. This book has been written for you, take heart it isn't too late, and your energy is ready for you to take back with a few modifications to your diet with dynamic foods.

My journey with foods has been one encompassing my whole life. I have had the opportunity to learn about simple peasant foods through early childhood adventures with local Irish sheepherder's, Basque's who opened their homes and shared wonderful meals, ranch cooks who had to put a lot of hearty foods on the table in a hurry for hungry workers, and my family who preferred homemade to store bought.

I was blessed with living in remote and rural areas where you had to be self-sufficient, gardens, greenhouses, canning and freezing, hunting, fishing and the hard facts of life when it was time to take your pet to market to feed the family. All of this opened my eyes to a love for food, and it's remarkable ability to promote health, heal and energize.

Your journey with food will be very different from mine, however as you look back over your family history and years you will begin to recognize times when your food choices provided you with more vitality than at others. If by chance you are more like my husband than me, you may be just now realizing your food is about more than simple sustenance, it is about health, maintaining physical stamina and mental acuity.

And for all of us food is above all about JOY, throughout history food has been at the center of monumental events, in our lives it has been present at births, christenings, graduations, celebrations, weddings, moments of sadness and joy. Food and it's healing, nourishing properties have traveled a very long journey with us, and it is far from over.

## Broccoli.....

In the spring of 2010, I headed off to a conference required for my certifications. It is expected that they will talk about food and nutrients for the duration of the conference, but this year one food took over the presentations and programs.... Broccoli is still today's most talked about super food.

Now it seems your mom was right when she told you to eat your broccoli because it was good for you. The whole Brassica family contains key ingredients for fighting cancer, how these ingredients works is still a mystery in large part to researchers. What they have learned is there are over 2000 different nutrients and co-factors in any one food, 200 of those they can identify. All of these health agents interact with human genes, turning on and of gene response and expression.



*"Almost all aspects of life are engineered at the molecular level, and without understanding molecules we can only have a very sketchy understanding of life itself."* Francis Crick, PhD (1916-2004) Co-discoverer of DNA double helix

*"...an increasing body of evidence has demonstrated that individual compounds--as well as complex mixtures of chemicals--derived from food alter the expression of genes in the human body" "Studies based on ethno pharmacology and phytotherapy concepts showed that nutrients and botanicals can interact with the genome causing marked changes in gene expression." "Phenolics, inflammation and nutrigenomics" J Sci Food Agric, 2006, Vol 86(15): 2503-1509*

Broccoli is a type of green cruciferous vegetable, and is a member of the italic cultivar group, there are two main types of broccoli, heading and sprouting. This green food has been around for over 2000 years and was first seen in Turkey. The Italian immigrants of the early nineteenth century carried broccoli to North America. It took another century for broccoli to become popular outside the Italian communities and develop into a commercial crop. Ninety percent of the broccoli grown in the United States comes from California's Salinas Valley, the winter months Arizona, Texas, Florida and Washington take over production.

So why should I eat Broccoli?

Broccoli contains vitamin B1,B2, A, C, E and K, folic acid, calcium, chromium, indoles, isothiocyanates (heavy duty cancer fighters), and sulforaphane glucosinolate. The best means of obtaining the health benefits of broccoli is to consume fresh broccoli in the diet. A handful of three day old sprouts contain 50 times the sulforaphane glucosinolate as 114 pounds of regular broccoli. For those utilizing broccoli as a cancer protective food, I'd go with broccoli sprouts in my juice or salads every day. Bladder cancer is the 7th most common cancer worldwide, accounting for 3.2% of all cancers. There were an estimated 260,000 new cases in 2000 in men and 76,000 in women (Ferlay et al., 2001).

***Here are just a few of the many benefits from increasing the broccoli servings in your daily life.***

- Cancer preventive  
Breast, bladder, stomach, colon and prostate cancer
- “Antioxidant”  
Prevention of ophthalmic disorders (AMDR)
- Anti-aging
- Anti-inflammatory
- Prevention of cardiovascular disease
- Lowers LDL cholesterol
- Lowers blood pressure
- Help prevent headaches and cramps
- Repairs damaged gastrointestinal mucosa
- Enhances detoxification of  
Heavy metals (arsenic)
- Balances Endogenous estrogens &  
Xenoestrogens
- Neuro-Protective  
Parkinson’s disease  
Alzheimer’s disease
- Antibiotic  
Kills Helicobacter pylori  
Sinus problems  
Herpes outbreaks (due to the indol-3-carbonal)

Remember to buy from a reputable local farm, farm market or organic from your produce section at your favorite grocery store. The best way to cook broccoli is to slightly steam, this increases broccoli’s cancer fighting properties – tender but still crisp and bright green in color. You can also stir-fry or wrap in foil with other vegetables like peppers, tomatoes, onion, garlic add a pinch of thyme, basil and oregano - place on your grill to steam in natural juices, and enjoy with your chicken or other meats.

#### How to Produce Broccoli Sprouts from Broccoli Seeds

Place up to one cup of broccoli seeds into a clear glass jar and cover with water.

Alternatively, place broccoli seeds into a moist linen or muslin bag. Rinse or spray the broccoli seeds two to four times per day. Once rootlets and two leaves have formed, the seeds have become broccoli sprouts.

## More on Green Things.....

Whenever I do a public presentation, invariably the topic of green foods and their appeal comes up. I have learned over the years that my husband was not the only childhood victim of scary green things. One of the very first meals I made for him was ham and steamed asparagus in crepes drizzled with cheese sauce; the look on his face when I served it said volumes...uggghggggaggg. This was my first of many lessons that it takes more than cheese and butter to camouflage greens.

Now for many of us we grew up in a generation that a meal consisted of a green vegetable, starch and meat; ya know meat loaf with mashed potatoes, green beans, bread and real butter, unlike many of today's diners whose food groups consist of fat, sugar, wheat, corn, chemicals and mystery meat. Am I being harsh?... Convenience and calories do not make for good nutrition. As an early teen, my mom had a large garden, from that we ate and canned all summer long. When we went to the store it wasn't to buy processed foods or even fresh foods, we rarely ate out... No I didn't live on "little house on the prairie", I grew up in rural Oregon and I wasn't born in the 30's, 40's, or 50's.

I never cared much for greens – they tasted bitter to me as a child, and the standard ranch or blue cheese dressing was just not my thing. But nothing tasted better on a summer day than fresh snap peas, carrots and radishes with the dirt, rhubarb and berries foraged from the garden. It is still true today - watch children in a garden, it's not long till they are nibbling and mowing through fresh foods they wouldn't touch on the table.

So why should we eat those greens? Let's start with your eyes; your eyes use more anti-oxidants than any other organ in your body, the ones needed most by your eyes are found in green leafy vegetables and fruits like tomatoes. These anti-oxidants protect you from cataracts and macular degeneration. What about cancer? Research is all a-twitter about the cancer fighting properties of Broccoli and the cruciferous family. When lightly steamed or stir fried these veggies contain potent cancer fighters called sulforaphane and Indole-3-Carbinol.

Those dark leafy lettuces like red sail, oak leaf, endive, romaine, arugula and dandelion all have nutrients beneficial to the liver and gall bladder. They help the liver to detoxify and to keep bile from becoming thick and sluggish. This in-turn keeps you from having indigestion, gas and bloating; did you know that breaking wind below the table in public was against the law in 6th century China.

Many of our common herbs throughout the centuries have been part and parcel with mixed greens and meat dishes. Dill, fennel, rosemary, thyme, basil, parsley and oregano are just a few that improve digestion, have anti-bacterial properties and break down hard to digest proteins, starches and fats; freeing them up so we are able to extract the vital nutrients they contain. All of these foods/herbs also contain bioavailable vitamin C and B's, which means your body doesn't have to work extra time just to absorb the nutrients.

Food safety is another concern... How many summer gardeners do you know who have gotten food poisoning from the produce locally



grown or in their garden? When we hear news stories about botulism, salmonella or e. coli contamination of greens we stop buying those foods from the store. Every incident of contamination has involved produce farmed and harvested in other countries or from Mega farms here in the United States, not our local farmers markets and fruit stands. Green foods contain all the vitamins to counteract these deadly food poisons, local gardens are treated different, and the soil the food is coming from is less likely to be drained of nutrients, making the food healthier and those who eat the produce too.

In our household we have found when it comes to greens, our moms weren't the best at cooking them, so we have explored combinations and cooking ideas from Europe, South America and the Orient. Believe it or not my husband isn't afraid of green things anymore, all of us are eating green things... well, most of them...

## Zucchini....

With summer comes the backyard garden and the county and state fairs where one can view countless jars of zucchini relish, pickles, breads and fresh picks. But with this comes the ever



present barrage of zucchini jokes from viewers, friends and family. I wonder if there is any single other summer vegetable so maligned simply because of its abundance and ease to grow.

Many may not think of the zuc as a particularly nutritious food, so in defense of all those who love zucchini I went in search of information.

Scientists have found squash seeds preserved in Mexican caves dating back 10,000 years. Cultivation of squashes in Mexico and Central America (including summer squash) quickly became popular in North, Central, and South America, and Native Americans often referred to squashes as one of the "three sisters" alongside corn (maize) and beans. Squashes were one of the foods Columbus brought back to Spain from North American, and from that Portuguese and Spanish explorers introduced squashes to many parts of the world. The green juicy vegetable (it is really a fruit but we all think of it as a vegetable) we are all familiar with today made it's first appearance in Italy in the nineteenth century. This vegetable is an essential element of traditional French, Italian, Spanish, British, as well as modern Australian, American and Mexican cuisines.

Summer squashes include zucchini, crookneck, cushaws, scallop (pattypan) and yellow have a delicate flavor, soft shell and creamy white flesh. They are members of the Cucurbitaceae family and relatives of both the melon and the cucumber, and come in many different varieties. While each variety may have a distinct shape, color, size and flavor, all varieties share some common characteristics. Regardless of variety, all parts of summer squash are edible, including the flesh, seeds and skin. Some varieties of squash also produce edible flowers.



When purchasing summer squash, look for ones that are heavy for their size and have shiny, unblemished rinds, the rinds should not be hard - this indicates the squash are over-mature and will have hard seeds and stringy flesh. Purchase summer squash of average size for best texture and flavor.

Summer squash is fragile and should be handled with care - small punctures will lead to decay. Store your zucchini unwashed in an air-tight container in the refrigerator, where it will keep for about seven days.

Zucchini is widely used in culinary: an ingredient for vegetable salads and stews, for soups, lasagnas and casserole, as well as for cookies, cakes and muffins. Many people like grilled or fried zucchinis, with a special yogurt sauce containing garlic and mint. Baking a moist and delicious zucchini bread is the latest trend in Europe. This amazing vegetable is a key element for many healthy snacks, including a special sandwich with a slice of young zucchini and a zucchini salad dressed with lemon juice and olive oil.

Summer squash contains alpha-carotene and beta-carotene. For lutein, zeaxanthin, and beta-cryptoxanthin (three other health-supportive carotenoids) summer squash also comes out among the top three food sources studies. No category of health benefits from summer squash is better researched than the category of antioxidant benefits. As an excellent source of manganese and vitamin C, a good source of beta-carotene, and a good source of zinc, summer squash provides us with a great combination of conventional antioxidant nutrients. All of these antioxidants are especially helpful in protection of the eye, including protection against age-related macular degeneration and cataracts.

New evidence shows summer squash can retain a large amount of its antioxidant activity after steaming. Using zucchini as their summer squash, researchers found steaming was a better way to preserve zucchini's antioxidant activity than boiling or microwaving. Even previously frozen zucchini held on to its antioxidant activity fairly after steaming.

A mainstay of dietary protection from type 2 diabetes - is optimal intake of fiber. Summer squash contains 2.5 grams per cup of dietary fiber; additionally zucchini provides polysaccharide fibers like pectin that have special benefits for blood sugar regulation. The pectin polysaccharides in summer squash often include chains of D-galacturonic acid called homogalacturonan. An increasing number of studies show these components in summer squash help keep insulin metabolism and blood sugar levels in balance, and protect against the onset of type 2 diabetes.

Metabolism of sugar in the body requires B-complex vitamins, and many of these B vitamins are found in summer squash. Included are folate, B6, B1, B2, B3, and choline. Also important in blood sugar metabolism are the minerals zinc and magnesium, as well as omega-3 fatty acids.

So lay off the zucchini bashing and increase the zucchini chewing for your health.

## **Asparagus....**

Asparagus is a member of the Lily family like onions, and garlic. The spears grow from a crown planted about a foot deep in sandy soils, and under ideal conditions, an asparagus spear can grow 10" in a 24-hour period. Each crown will send spears up for about 6-7 weeks during the spring and early summer.

This nutrient-dense food is high in folic acid and is a good source of potassium, fiber, vitamin B6, vitamins A and C, and thiamin. Asparagus has no fat, contains no cholesterol and is low in sodium. Asparagus is the leading whole food supplier among vegetables of folic acid.

A 5.3 ounce serving provides 60% of the recommended daily allowance for folacin which is necessary for blood cell formation, growth, and prevention of liver disease. Folacin has been shown to play a significant role in the prevention of neural tube defects, such as spina bifida, that cause paralysis and death in 2,500 babies each year. Its wealth of nutrients, fiber and very low sodium and calorie content make asparagus a nutritionally wise choice.

### ***Why Does Asparagus Make Your Urine Smell When You Eat?***

Asparagus contains a sulfur compound called mercaptan. It is also found in onions, garlic, broccoli, rotten eggs, and in the secretions of skunks. The signature smell occurs when this substance is broken down in your digestive system.

Not everyone has the gene for the enzyme that breaks down mercaptan, so some can eat all the asparagus they want without the distinctive smell. One study published in the *British Journal of Clinical Pharmacology* found only 46 percent of British people tested produced the odor while 100 percent of French people did. (*Another one of those government funded studies?*)

### ***Now let me get this right?***

California leads the nation in asparagus production with more than 50,000 metric tons harvested annually. Most of this is marketed as fresh green asparagus. And there are 100 asparagus farmers left in Washington State. Before the *Andean Trade Preferences Act of 1990* took effect 20 years ago, there were 250 growers.

According to the *Capital Press* an Agricultural news publication May 19, 2011; By eliminating tariffs, the act, later replaced by the Peruvian Free Trade Agreement, was intended to wean Peru, Bolivia, Columbia and Ecuador away from cocoa leaf production for cocaine and toward asparagus. (did it work?)

U.S. aid and agricultural expertise helped establish asparagus farms, irrigation and roads in Peru. Asparagus is a seasonal crop in the U.S., Peru is able to produce and export year round for lower cost. "Now we have record imports of drugs and asparagus. The U.S. asparagus industry, some 500 growers, bore the cost of a drug control policy that failed, said " Alan Schreiber, administrator of the Washington Asparagus Commission.

"Sharply increased asparagus exports from Peru to the rest of the world have all but destroyed the U.S. export market for asparagus products," the National Asparagus Council said in 2006. Peruvian asparagus exports to the U.S. went from 4 million pounds in 1990 to 200 million pounds in 2008", Schreiber said.

Meanwhile, U.S. production went from 244 million pounds in 1990 to 79.9 million pounds in 2010, according the National Agricultural Statistics Service. Washington State lost 82 percent of its production, falling from 102 million pounds in 1990 to 18 million in 2010.

My question is - why are we still supporting this welfare to South American countries, that has clearly done little to stop the drug trade, but has decimated local economies in the United States? The U.S. government is now reportedly taking applications from American asparagus growers for compensation up to \$100,000 from lost market shares. Many feel this is a Band-Aid® on what is gangrene. When we fail to support our local farmers, we become dependent on other countries to feed us; often times feeding us the chemicals and carcinogens banned in the United States, but freely sold to developing countries. On top of that is the ever increasing trade deficit. Instead of handing moneys out to foreign countries, maybe we should work to become the best producers of quality whole foods.



#### ***How to Select and Purchase Asparagus:***

Select bright green asparagus with closed, compact, and firm tips. Also look for cut ends that are not dry.

Select asparagus stalks that are about the same thickness so cooking will be uniform. Thickness does not influence quality.

If the tips are slightly wilted, freshen them up by soaking them in cold water.

#### ***How to Store Fresh Asparagus:***

Storage of fresh asparagus is important. Fresh asparagus must be kept refrigerated at all times.

Wrap a moist paper towel around the stem ends and place in the refrigerator.

Keep fresh asparagus moist until you intend to use it.

## **Beets.....**

Fall and early winter are the time of year root crops like carrots, turnips and beets come into their own. I never have thought much about beets... the only thing I found appealing about them was their exquisite crimson red color. This year however I decided to look at this root food a little closer and here is some of what I found.

Beets, are native to the Mediterranean. Although the leaves have been eaten since before written history, the beet root was generally used medicinally and did not become a popular food until French chefs recognized their potential in the 1800's.

Beet powder is used as a coloring agent for many foods. Some frozen pizzas use beet powder to color the tomato sauce, as well as jams, jellies, juices and soups. It is estimated that about two-thirds of commercial beet crops end up canned.

There are four main beet types: the garden beet, whose root and leaves are eaten as a vegetable; the sugar beet; the mangel-wurzel, which is stored and used for livestock feed; and Swiss chard, which is cultivated for its edible leaves. About thirty percent of the world's sugar production comes from sugar beets.

Beet remains have been excavated in the Third Dynasty Saqqara pyramid at Memphis, Egypt, and four charred beet fruits were found in the Neolithic site of Aartswoud in the Netherlands. The earliest known written mention of the beet comes from eighth century B.C.E. Mesopotamia. Roman and Jewish literary sources indicate domestication by 1st century B.C.E.. The domestic beet was represented in the Mediterranean basin by leafy forms (chard) and very probably also by beetroot cultivars.

The Romans used beetroot as a treatment for fevers and constipation, and considered beetroot juice to be an aphrodisiac. Beets are a rich source of the mineral boron, which plays an important role in the production of human sex hormones. Apicius in *De re coquinaria*, gives five recipes for soups to be given as a laxative, three of which feature the root of beet. Hippocrates advocated the use of beet leaves as binding for wounds. From the Middle Ages, beetroot was used as a treatment for illnesses relating to digestion and the blood.

In 1747, German chemist Andreas Marggraf identified sucrose in beet root and eventually his student Franz Achard built a sugar beet processing factory at Cunern in Silesia. This plant operated from 1801 until it was destroyed during the Napoleonic Wars. Napoleon, banned sugar imports in 1813. This cut off supplies of sugar produced from sugar cane to much of Europe. The beet sugar industry emerged and thrived.

Today the beetroot is championed as a universal panacea. One of the most controversial examples is the official position of the South African Health Minister on the treatment of AIDS. Dr Manto Tshabalala-Msimang, Health Minister under Thabo Mbeki, had been nicknamed "Dr Beetroot" for promoting beets and other vegetables over antiretroviral AIDS medicines, which she considers toxic.

Beets contain vitamin C, while the leaves are an excellent source of vitamin A. Beets are among the sweetest of vegetables, containing more sugar than carrots or sweet corn. The content of sugar in garden beet is 10 percent, in the sugar beet it is typically 15 to 20 percent.

Another nutrient in beets is betaine, named after its discovery in sugar beets in the nineteenth century. This nutrient is beneficial for the cardiovascular system. Betaine supplements, manufactured as a byproduct of sugar beet processing, are prescribed to lower potentially toxic levels of homocysteine, a naturally occurring amino acid that can be harmful to blood vessels thereby contributing to the development of heart disease, stroke, and peripheral vascular disease.

**Blood Pressure:** An American Heart Association study indicates that drinking 500 milliliters of beet juice can measurably reduce blood pressure within one hour after drinking it. This effect is measurable for 24 hours.

**Cancer:** In Europe, beets are commonly used to treat cancer. They contain an antioxidant, betacyanin, which both inhibits tumor growth and prevents the formation of cancer-causing nitrosamines.

**Digestion:** Beet root is high in both soluble and insoluble fiber, which aid in the proper function of the digestive system. Because of the high levels of fiber, beet root is used as a treatment for constipation.

An average sized cup (225.8 grams) of sliced beets will contain:

31 Calories - Carbohydrate 8.5 g

Dietary fiber 1.5 g

Folate 53.2 µg

Phosphorus 32 mg - Potassium 259 mg

Protein 1.5 g



Beets, like kale, spinach, carrots, and turnips, can be a source of nitrates and should not be fed to infants under 6 months of age. All parts of the beet plant contain oxalic acid. Beet greens and Swiss chard are both considered high oxalate foods which have been implicated on the formation of kidney stones.

The color of red beetroot is due to a purple pigment betacyanin and a yellow pigment betaxanthin, known collectively as betalins. Beetroot cells are quite unstable and will "leak" when cut, heated, or when in contact with air or sunlight. Leaving the skin on when cooking, will maintain the integrity

of the cells and minimize leakage. Betacyanin in beetroot may cause red urine and feces in some people who are unable to break it down.

So all in all we find natural foods like beets are not only loaded with nutrients and provide health benefits in the forms of vitamins, minerals and antioxidants – just don't let the government know or they will ban them as unlicensed drugs. I don't encourage diabetics to consume beets because of the high sugar content. But if you love this food, eat it in moderation with lots of other healthy foods. Then get up and go for a walk to burn the sugar off.

## **Strawberries.....**

With the summers sun comes the rich sweetness of berries, strawberries and cream, shortcake, ice-cream, sundays, jam and with rhubarb – strawberries are just plain good and now we know they carry with them a surprising number of health benefits.



Strawberries have a history that dates back over 2,200 years. Strawberries grew wild in Italy as long ago as 234 B.C. and were discovered in Virginia by the first Europeans when their ships landed there in 1588.

Early settlers in Massachusetts enjoyed eating strawberries grown by local American Indians who cultivated strawberries. The American Indians were already eating strawberries when the Colonists arrived. The crushed berries were mixed with cornmeal and baked into strawberry bread. After trying this bread, Colonists developed their own version of the recipe and strawberry shortcake was created. After 1860 strawberries were widely grown in many parts of the country.

Strawberries have been grown in California since the early 1900's. Today, over 25,000 acres of strawberries are planted each year in California and the state produces over 80% of the strawberries grown in the United States. On average, each acre produces about 21 tons of strawberries and the state produces one billion pounds of strawberries a year.

### **How Strawberries Got Their Name**

There are many explanations, some believe that the name came from the practice of placing straw around the growing plants for protection, others believe the name originated over 1000 years ago because of the runners which spread outward from the plant. The English "strawberry" comes from the Anglo-Saxon "streoberie" not spelled in the modern fashion until 1538. ,

### **Medical Uses**

The strawberry, a member of the rose family, is unique in that it is the only fruit with seeds on the outside rather than the inside. Many medicinal uses were claimed for the wild strawberry, its leaves and root.

The ancient Romans believed that the berries alleviated symptoms of melancholy, fainting, all inflammations, fevers, throat infections, kidney stones, halitosis, attacks of gout, and diseases of the blood, liver and spleen.

Today scientists at the University of Warwick, England; have been studying the beneficial effects of strawberries on our cardiovascular health, particularly around how they prevent the development of heart disease and diabetes.

The Warwick medical School team has discovered extracts from strawberries positively activate a protein in our bodies which is shown to increase antioxidant and other protective activities. This protein works to decrease blood lipids and cholesterol, the very things when out of control that lead to cardiovascular problems.

Eating strawberries has previously been found to counter post-meal blood glucose and low density lipoprotein, or 'bad' cholesterol and therefore decrease risk of diabetes and heart disease, but this is the first time that strawberry extracts have been proved to actively stimulate proteins that offer us protection against disease.

### **What about other benefits?**

Now with summer comes the back yard parties and get together and whether we like it or not the political campaign gatherings. At some or all of these events there is the likelihood alcohol will be present, some individuals would enjoy a small glass of wine or a light cocktail but they find their stomachs react badly to these adult beverages.

A team of Italian, Serbian and Spanish researchers has confirmed the protecting effect of strawberries for the stomach damaged by alcohol. According to the study published researchers have proven the stomach mucous membrane of those that had previously eaten strawberry extract suffered less damage than those who did not consume the fruit.

Sara Tulipani, researcher at the University of Barcelona and co-author of the study explains "the positive effects of strawberries are not only linked to their antioxidant capacity and high content of phenolic compounds (anthocyanins) but also to the fact that they activate the antioxidant defenses and enzymes of the body."

The conclusions of the study state a diet rich in strawberries can have a beneficial effect when it comes to preventing gastric illnesses. This fruit could slow down the formation of stomach ulcers in humans.

- Gastritis or inflammation of the stomach mucous membrane is related to alcohol consumption but can also be caused by viral infections or by nonsteroidal anti-inflammatory medication (such as aspirin) or medication used to treat against the *Helicobacter pylori* bacteria.

So what else are Strawberries good for?

- Strawberries have been shown beneficial in the fight against the following cancers;
- Cervical Cancer
- Colon Cancer
- Esophageal Cancer
- Lung Cancer
- Mouth Cancer
- Prostate Cancer

Strawberries may inhibit *Helicobacter pylori*, and inactivate Polio Viruses.

Strawberries (when mashed and brushed topically onto the teeth) whiten the teeth. Now that has to be better for you than all the fluoride and bleaching agents available on the market.

Strawberries contain vitamin C, Iron, potassium and Ellagic Acid. They are low glycemic and perfect for those with blood sugar problems to consume. Without added sugar or sweeteners.



#### **More on Berries....**

The Willamette valley is known for its berries,; the Mount Hood area for apples, apricots and Cherries, one of my personal favorites. It doesn't matter if you are a diabetic, cancer survivor, peri-menopausal women or hard working man – there are hands down no better foods for you to be eating all you want of than

Berries and especially cherries.

Many clients have the misconception that fruit especially cherries are bad for diabetics because of how sweet they taste. And it always so much fun for me to look them in the eye and say “oh no, you're quite wrong – there is no correlation between how sweet a fresh whole food like cherries taste and how they affect blood sugars.”

In fact it is all the tropical fruits like bananas and those melons that come on later in the summer that are disastrous for blood sugars.

All of these berries are low glycemic meaning they are perfect for diabetics to eat; they also contain heart healthy ingredients and help in fighting off cancer and protecting your eyes. Strawberries help to curb your appetite; they contain vitamin C and iron so they can be a perfect food for those who struggle with anemia.

**Cherries** along with blueberries hold the distinction of being named by the FDA as “unauthorized drugs”, this came about when the berries and cherry farm associations posted on their websites research showing the valuable benefits to one's health by eating blueberries and cherries. Cherries have been long known as beneficial for anyone suffering from gout or joint inflammation. I have many clients who buy pure black cherry juice that they use daily for pain.

Most folks might think of cranberries being the fruit for urinary tract infections, but cherries hold prominence here as well as benefiting the liver, eyes, colon, preventing tartar or plaque buildup on



your teeth, muscle pain, osteoarthritis and enhancing collagen production making you look and feel younger.

**Strawberries** have been labeled by “The Fat Resistance Diet (FRD)” as the fruit that can increase a hormone that stimulates metabolism, suppresses appetite, and controls blood sugar after starchy meals while inhibiting inflammation. This craved hormone that strawberries trigger, adiponectin, is the fat burning hormone that works with the hormone leptin, the hormone responsible for weight loss and gain. Having high levels of adiponectin in the blood stream has been shown to lower the risk of heart attack while lower levels of adiponectin are indicative of obesity.

**Blackberries** have been found to have the highest antioxidant capacity. They are rich in vitamin C, fiber, phytochemicals tannins, flavonoids, catachins to name just a few. Blackberries are also known to help with allergies as they stop the action of histamine. If you are out camping and you get burned try gently rubbing a blackberry leaves on the area to sooth the skin. Blackberries have been found in human cell studies to prevent lung, esophageal, liver and colon damage – cancer.

**Blueberries** have been held in high regard by Native Americans for centuries, they believe they have magical powers and were sent by the “Great Spirit” to feed children during times of famine. They are native to North America as are three other berries, cranberry and Concord grape. Blueberries are rich in antioxidants, phytochemicals, Ellagic acid, a natural chemical that may inhibit tumor growth. Fresh or frozen blueberries contain the highest levels of Anthocyanins, were dried contains almost none. Blueberries have been found to be useful in brain health, cognition and memory. They are antibacterial and are beneficial for the urinary tract system. As with other berries they have strong cancer fighting properties. Blueberries have also been found to be good for the heart and circulatory system.

**Elderberries** contain more vitamin C than any other fruit except rosehips and black currents. They also contain vitamin A and carotenoids, flavonoids, tannins, Polyphenols and Anthocyanins, All of these chemicals fight cancer, heart disease, diabetes, infection and inflammation. Since the time of Hippocrates, healers have been using elderberries for inflammation as a diuretic, stomach ailments, urinary tract health and as a laxative. Studies have shown the effectiveness of elderberries in the prevention of influenza and the common cold. They are also recommended for those with colitis, in one study there was a 50% reduction in colon damage after one month.

**Raspberries** have similarities to both its cousins blackberries and strawberries, there are over two hundred known species of raspberries. The sugar substitute Xylitol is made from raspberries. Blackberries and raspberries are known as bramble fruits which are fruits formed by aggregation of several smaller fruits called drupelets. Raspberries are a good source of vitamin C, fiber, selenium, phosphorus, rich in a variety of antioxidants and phytochemicals associated with cancer and diabetes prevention, and they have been found effective in preventing fatty liver disease and reduce obesity. Freezing destroys much of the vitamin C in raspberries so enjoy them fresh.

If you love berries buy a flat and pig out or let you kids scarf them, a flat of berries is worth it for your health.

## Beans....

There are over one thousand varieties of beans, which are also known as pulses and legumes dependent on the culture. Beans can be broken down into three groups; snap, shell and dry. Many of us as children may have not only eaten beans but we may have earned summer money by picking pole or snap beans. No doubt you participated in bean fights as the season wore on with your fellow pickers.



The first evidence of beans dates back to 20,000 years. The lima and pinto were cultivated by Mexican and Peruvian civilizations more than 7,000 years ago. As people migrated they brought their foods with them north into North America, Spanish explorers introduced beans to Europe in the 1500s. From there the Spanish and Portuguese traders carried beans with them to Africa and Asia. The United States is the sixth largest producer of dry beans after Brazil, India, China, Burma and Mexico. The top producing states

are North Dakota and Michigan.

No matter if your favorite bean is a great northern, pinto, garbanzo or peas and lentils they all have benefits for your health. Beans count nutritionally both as a vegetable and a protein source. They are rich in fiber both soluble and insoluble promoting regularity, lower cholesterol and blood pressure and reduce cancer risk. Beans are an excellent source of potassium, folate magnesium, manganese, molybdenum and the B vitamin thiamine.

The dark beans like black beans are rich in anti-oxidants called Anthocyanins also found in grapes, blueberries, cherries and cranberries. Of the twenty top anti-oxidant foods, four of them are beans. Beans have been a remedy for constipation for centuries. But if you are one of the unfortunate ones who suffer from flatulence, you may have avoided this healthy food group. In our family we have found that soaking dry beans for twenty four hours then running them through a pressure canner in handy pint or quart jars make them a fast food and a gas free food. To help your digestive system adjust to beans and reduce flatulence start slow with small amounts such as  $\frac{1}{4}$  to  $\frac{1}{2}$  cup serving. Gas is often the result of the introduction of fiber the gut is not used to working with. Products like Beano and digestive enzymes are also useful in breaking down the fiber and protein reducing gas.

Refried beans are fast to make with pre-canned beans; we use 1 stick organic salted butter in a cast iron skillet, add 1 quart canned pinto or black beans, warm and mash with a potato masher add Celtic sea salt to taste at the table.

Beans are great in stews and soups as well as side dishes with rice and quinoa.

Research shows that those who eat beans regularly, more so than other foods, seem to live longer no matter what their ethnicity, In fact Europeans have been eating beans for a millennia and there are many diverse and tasty dishes reflecting various cultures. According to the 1999-2002 national health survey, bean eaters were less likely to be obese. There is also conclusive data linking bean consumption and heart health. One study of 16,000 middle-aged men, followed for 25 years; the higher the bean consumption the lower the risk for heart disease by an astounding 82%.

The consumption of beans is also associated with the reduction of breast cancer in postmenopausal women. For those with type 2 diabetes beans, due to their fiber content are beneficial for lowering and controlling blood sugars. The daily recommendation of fiber intake for a diabetic is 50 grams, beans make it easy to get fiber without drinking sludge.

## Onions, Garlic and more....

The thickness of the onion skin has been used to predict how severe the next winter may be, thin skins mean a mild winter and thick skins indicate a rough winter ahead. Onions along with garlic, chives, shallots, leeks, green onions (scallions) are in the *Amaryllis* family-often incorrectly referred to as the Lily family. There are two basic types; the bulb-forming favorites like Walla Walla, Vidalia and Spanish red onions and the perennials that produce clusters of onions that can be replanted. Cluster onions include shallots, Egyptian onions and garlic. This family is cultivated worldwide and has been in use for health care as well as culinary for a millennium.



Onions originated in Central Asia, from Iran to Pakistan and northward to the Slavic countries. Onion gardens have been excavated dating back 5,000 years; Pharaohs were buried with onions as a sign of eternity. Documents dating back to the sixth century show onions being used medicinally in India. The Romans believed that onions could cure them of whatever ailed them. Even though the onion itself was not spicy enough for the Greeks and Romans they were heavily used for their pungency and their availability to the poorer populations throughout the world. Christopher Columbus and other explorers have brought onions to the Americas. The three main vegetables of European cuisine from the middle ages to present are beans, cabbage and onions. Onions have been used as currency and given as wedding gifts.

Wild onions have been growing in North America since well before the pilgrims' arrival. The Native Americans used wild onions for cooking, seasoning in syrups and for dyes. Official onion cultivation began in America in 1629 and is now one of the top ten vegetable crops grown in the United States. The world's leading producers of onions are China, India, the United States, Turkey, and Pakistan. In the United States, Idaho, Oregon, Washington, California and Texas are the largest producers.

Vitamin C, fiber, biotin, folate, chromium, vitamin K, and thiamin are found in members of the onion family along with potent anti-cancer phytochemicals like quercetin, phenolic acid, sterols, pectin, volatile-oils, sulfur compounds and the enzyme alliinase. It is the enzyme release and its conversion to trans-S-cystine that stimulates crying by the cook.

While not as highly valued as a medicinal as garlic, onions have been widely used because they possess the same properties. Like garlic, studies have shown onion extracts decrease blood sugar and, lipid levels, prevent clots, lower blood pressure, reduce inflammation (onions are one of the only foods that contain prostaglandin E1), improve asthma and allergies and retard viruses by improving the immune system. The blood sugar lowering effects of onions have been clinically found to be comparable to that of prescription drugs *tolbutamide* and *phenformin*, commonly given

to type 2 diabetics. Onions have been found to help the liver process glucose more efficiently by increasing the life span of insulin and increasing the natural secretion of insulin.

Historically, onions have been used in the treatment of asthma due to its ability to inhibit the production of compounds that cause bronchial spasms and mucus production. Onion extracts have been found to inhibit the formation of tumor cells and shallots exhibit significant activity against leukemia.

***Beneficial For***

Cancer of the lung, breast, ovarian, kidney, prostate, skin, mouth, esophageal, stomach, colon, and liver.

Diabetes, hypoglycemia, metabolic syndrome, insulin resistance.

Heart Health: lower cholesterol, reduces risk of atherosclerosis, cardiovascular disease, heart attack and stroke.

Bone health: increases bone density and possibly decreases the risk of osteoporosis.

Onions are available in fresh, frozen, canned and dehydrated forms; my preference is fresh as this form will have the most nutritional benefit. Store your onions in a cool (55 degrees), dry location; this will help them retain their vitamin C content for as long as six months.

Onions are prone to contamination by *aflatoxin* produced from *aspergillus parasiticus* if incorrectly stored. Onions are often subjected to food irradiation in order to inhibit their sprouting potential - food irradiation has various toxic effects. Onions may cause food allergies and trigger migraines in some people.

No matter how you fix them, the onion family is just plain good for you and a food that your cells will know what to do with.

## Heirloom foods.....

For those brave enough to try new or different, you might find those heirloom purple potatoes are richer tasting; others might enjoy the spicier or bitter taste of greens like nasturtium, radicchio, or arugula. The months of August and September also give gardeners a chance to show off their spectacular carrots, beets, tomatoes, peppers and more at the county fair or farmers market. We encounter not only a cornucopia of foods and colors but the names transport you to exotic lands or whimsical fancy. You see names like: blackjack, Oak leaf, Batavian, and Fire Mountain in the salad greens, honey crisp, Melrose, Queen Victoria and Ozark apples. And some of my favorites are the berries: Cape fear, Brunswick, Wild Treasure, Summit and Jewel. Yuhum yum

This week I read "Eating on the Wild Side" by Jo Robinson. The author has an easy manner with her writing, not loading you down with Latin names, and complexity, making for an enjoyable read. Yes I purchase this as an electronic book...I'm into brain energy conservation, it is summer after all.

Here are a few of the interesting tidbits from her book.

*"The wild greens that hunter-gathers consumed were so rich in phytonutrients that they used them as medicine. The leaves of wild lambs-quarter were consumed by hunter-gathers from North America to Africa, the greens were eaten raw, fried in fat, dried, added to soups, or mixed with meat. Native Americans used this green to cure a condition we now know as scurvy. Americans are now eating seeds of domesticated varieties of lambs-quarter, which are high in protein. They go by the name "Quinoa"."*

*"Most berries, for example, increase their anti-oxidant activity when cooked. Believe it or not canned blueberries have more phytonutrients than fresh providing you consume the liquid."*

*"Cooking carrots whole and slicing or dicing them after they've been cooked makes them taste sweeter and increase their ability to fight cancer."*

*"When we stopped eating locally grown produce and abandoned our home gardens, we lost at least half the protective properties of our fruits and vegetables as well as much of their flavor."*

*"Watermelons become more nutritious if you leave them out on the counter for several days before you eat them."*

*Researchers discovered "the golden delicious apple was so low in phytonutrients and high in sugar that it made the study participants triglycerides rise. The Liberty apple released seventy five years after the golden delicious apple, has twice the anti-oxidant value."*

*"one species of wild tomato has fifteen times more lycopene than the typical supermarket tomato."*

*"White fleshed peaches and nectarines have twice as many phytonutrients as yellow fleshed varieties."*

Above all these great little trivial pursuit questions was the information on lettuce and how to keep it fresh in your fridge. You have to get the book to get this cost effective and useful tip.

So are all new or modern varieties poorer nutrition than heirloom varieties? It would appear the answer is no. There have been some truly remarkable advances in horticulture and plant sciences.

Nevertheless, we innately crave sweeter easier to eat foods, this has led to the selective breeding for centuries that has brought us to today's foods. The downside is by developing sweeter, nicer looking foods we have also left behind those nutrients that made them medicine.

So to "Heirloom or not, that is the Question?" Aahh go for it, you just might find the purple potatoes, dark greens and quinoa are to your liking, and your health. But make sure you have a side of crabapples just to be sure, they can have between sixty and one hundred times the phytonutrients of today's modern varieties!

## A Word on Carbohydrate Confusion....

Just what is a carbohydrate (carbs)? Are breads, pastas and rice carbs or are they starches? What are good carbs and what are bad? Questions like these are common and part of the reason there is so much confusion about something so central to a healthy diet and cultural foods.

### The Carbohydrate

Carbohydrates are organic compounds of Carbon, Hydrogen and Oxygen in which (with few exceptions), the ratio of Hydrogen to Oxygen is 2:1. The body uses Carbohydrates as a source of Energy and heat (after conversion to Glucose via Glycogen which subsequently reverts back to Glucose). Dietary Carbohydrates are initially converted to and stored as Glycogen within the body until their subsequent conversion to either Glucose or Adipose Tissue (fat). Carbohydrates account for 1% of the human body's weight. The optimal human diet comprises 60% Carbohydrates: 45% Polysaccharides - 15% Simple Sugars

The optimal total daily intake of Carbohydrates is 75 - 150 grams per day (the present average consumption of carbohydrates by persons living in Western nations is 250 - 400 grams per day). The FDA in the USA recommends a maximum daily intake of 300 -375 grams of dietary Carbohydrates. This number does not distinguish between healthy carbs and those from refined food products, just one of the reasons why obesity in the United States is out of control. A poor mother living in a third world county has a better understanding of real foods to feed her family, than many living in inner cities in America.

Food manufactures and fast food chains know through market research how to present and price their product to insure sales. Often times they purposefully place franchise chains in poor communities, taking advantage of individuals, who have never been exposed to the value of fresh real foods. Remember more carbs and vegetable oils also equal more calories, many of which come from refined #2 field corn products like high fructose corn sweetener.

Ok, you still don't know what a carb is right... It all boils down to - if it isn't a fat or a flesh food - it is a carb. So yes potatoes are carbs, so are breads, cherries, berries, pastas, beans, grains, cereals, sugar..... But the difference in the quality of the carbs, their health benefits in reducing inflammation, fatty liver disease, cancers, heart disease, diabetes, obesity and brain chemistry imbalances are vastly different.



## Feed Your Brain....

Next to cancer the loss of ones faculties and the development of dementia and Alzheimer's is the second largest health concern for Americans. I know in my family that tends to be true, because on my mother's side we have a lot of dementia and Alzheimer's. When everyone gets together you hear about great granddad having to be fenced in because he would wonder off and get lost, we found your grandmother down at the cemetery the other night, Uncle Bob had his pants off and was out in the yard shouting at cars.... While these stories make us shake our heads and laugh about the loons in every family, deep down inside we find ourselves asking the question - will it be me next?

We joke with our middle aged friends about senior moments when we couldn't find our keys or remember someone's name, almost as if it is a forgone conclusion memory loss is to be expected with ageing. Does it?

I think about individuals who have not let age become a barrier to their brains: Dr. Stanley Jacobs who discovered DMSO and MSM, is currently a Gerlinger Distinguished Professor, Department of Surgery, Oregon Health and Science University in his late eighties; Jack Lalanne who was still working out and teaching fitness into his nineties; Dr. Ellsworth Wareham who retired from cardiothoracic surgery at Loma Linda at ninety five and still going strong today; and James D. Watson, Chancellor Emeritus, Ph.D., Indiana University, co-discover of the Double Helix still working on the human genome project at 84; Nelson Mandela, Maya Angelou, Jane Goodall and Maureen O'Hara, to name just a few.

Ok you say that is fine but they obviously have good genes. But do they? Some of these individuals are overweight, have high risk for hypertension, have lived through hard labor, deprivation, live with stress, chosen vegetarian diets, fitness..... the one thing they all have in common is they are still using their brains every day in science, literature and business.

So I spent this last weekend reading a book on my Nook (saves shelf space as the book piles are approaching topple point), which as it turns out requires less brain energy to read from. Neal D. Barnard, MD is a prolific writer, his current book is called "Power Foods for the Brain", Dr. Barnard grew up in North Dakota the grandson of a Cattle Rancher, and like myself has seen dementia and Alzheimer's claim more than one of his close family members. Through his years of work in the fields of Neurology and Psychiatry, he has seen repeatedly that medications never live up to their promise and in the case of dementia medications; he says in his book, "the medications that aim to slow the onslaught of memory problems are all but useless". Dr. Barnard has also been brave enough to put into writing "few doctors and patients have learned about the new research on the power of nutrition, most have no idea their meal time choices make a difference."

Now I will not say I agree with everything in this book, but I will tell you it has me thinking more about what I can do to lower the chances of following in my great grandfathers footsteps around the fence. Unlike Dr. Barnard, I do not advocate a strict vegetarian, low fat diet; One of the

challenges for older clients is muscle loss, to maintain muscle you must have protein along with weight bearing exercise.

There are individuals who require less protein than others to maintain their bodies, but over the years I routinely see elderly clients consuming one or two meals a day, and often times little meat. Part of this is due to the nature of our digestive tracts producing less stomach acid, making it hard to breakdown proteins. Medications and excessive supplement use have an effect on hunger as well, if you are nauseous from a hand full of vitamins, food may not be appealing.

As much as we may want to believe vitamins and mineral pills are the answer to poor diets, they are only somewhat effective. There are countless nutrients yet to be discovered or named that were divinely intended for us to consume through food. Remember the RDA's didn't even exist till 1941, and initially covered only a handful of nutrients. Over the last 70 years a lot has changed when it comes to nutrition sciences, it is also a growing hot bed of debate.

Just like everything else involving government, there are special interests, good intentions, and (I'm going to be blunt here) a measure of incompetence. The nutrition field is ever evolving, no sooner than we learn vitamin P is really bioflavonoids, and plant foods are rich in cancer fighting flavanols, they announce something that seems to be contradictory. This has been the case with calcium supplementation, vitamin E, fish oils and a long list of foods.

The diet craze of the 1960's to present has presented us with mountains of cookbooks, low carb, low fat, meal replacement products, exercise routines, and research into how foods increase body fat and chronic illnesses. More than once old ideas have resurfaced, with science now there to explain the benefits of coffee, tea, alcohol and yes meat. The pendulum of understanding always seeks balance, as do our bodies.

A diet high in protein, particularly animal protein, may help elderly individuals function at higher levels physically, psychologically, and socially, according to a study. The research suggests that as people age, their ability to absorb or process protein may decline. To compensate for this loss, protein requirements may increase with age.

Due to increasing life expectancies in many countries, increasing numbers of elderly people are living with functional decline, such as declines in cognitive ability and activities of daily living. This can have profound effects on the health and well-being of older adults and their caregivers, as well as on health care resources.

"Identifying nutritional factors that contribute to maintaining higher-level functional capacity is important for prevention of future deterioration of activities of daily living," said Dr. Tsubota-Utsugi. "Along with other modifiable health behaviors, a diet rich in protein may help older adults maintain their functional capacity," of the National Institute of Health and Nutrition in Japan. This research followed over 1000 participants' average age of 67 over seven years, the results showed of those who consumed the highest amounts of protein, a 39% decreased chance of experiencing higher-level functional decline, than those in the study consuming the lowest amount of meat.



Now a word of caution here – remember Americans consume much higher levels of meat than any other country in the world, and equally pitiful quantities of fruits and vegetables. It should be noted the average citizen of Japan has a better balance diet on a bad day than many Americans. So this is not your license to eat a 24 ounce steak every meal, moderation as always is the key. Additionally, while Asians are not vegetarian and consume many squiggly bits from animals, fish and reptiles we do not, the study did not separate plant proteins from animal protein.

It might just turn out the combination and balance of nutrient rich real foods had as much to do with improved outcome as did, social activity, family, and physical activity as proposed by the Blue Zone research.

For now, consider life is to be enjoyed, our history with food is as old as human kind and is meant to be a cause for joy as well as nourishment, moderation is key. And it is up to you to make sure you are consuming at least 3 ounces of real protein daily. If you have difficulty digesting meats, try eating vegetables with lemon juice or vinegar first to improve stomach acid function.

We both agree on the dangers of processed foods high in commercial fats and the need for more fresh foods, and that the Mediterranean diet is a good starting place. The areas I personally plan to incorporate into my lifestyle involve brain games, there are some available on line through; Lumosity.com that have been developed to improve memory, recognition, special awareness and more. I have one on my Nook now that I can do for a few minutes wherever I am. This group has mapped the effects of these games on the brain with scans to show they really do work. Next comes exercise, building memory while sleeping, being aware of how medications effect memory along with chronic pain, and now that it is farmers market season more local produce.

Alzheimer's and dementia are not something I want to affect me or my loved ones in our 60's, 70's, 80's or even 90's. While I don't know if I have two sets of the APOE e4 allele, and I'm not planning on going Vegan, there is plenty of information here to show I can reduce the likelihood by as much as 65 percent with one change. It sounds like it is worth it to me.

## **A word about your liver.....**

Most of us spend very little time thinking about our liver or any internal organs for that matter. In our pursuit for longevity, research talks about the brain and heart; and for good reason, but the liver's vital role is as critical to health and longevity as the heart and the brain.

Just where is the liver in relation to everything else, well if you're an anatomy student you can probably lay your hand right on it, most of us can; the liver is located under the bottom ribs on the right side of your abdomen, only inches from your heart, kidneys and gut. The liver is the largest internal organ and the second largest next to the skin, it comprises 2.5% of body weight and is the only organ able to regenerate after injury or illness. The liver participates in functions associated with the cardiovascular, digestive, excretory systems and metabolism.

The liver stores and filters the blood to remove infectious organisms, and processes approximately three pints of blood every minute.

Most blood arrives at the liver direct from the intestines via the portal vein carrying dietary nutrients and toxins - the remaining blood arrives at the liver via the hepatic artery. The liver is the primary organ for detoxification of toxic chemicals that enter the body through skin, respiration and ingestion; it is responsible for the metabolism of 90% of ingested alcohol, 25% of basal metabolism and for the conversion of stored glycogen into glucose for release into the bloodstream. So if your liver is bogged down with high fructose corn sweetener, medications and chemicals you are increasing your risk factors for type 2 diabetes, fatty liver disease, hormone disruption and obesity.

For those with thyroid disease, approximately 80% of Triiodothyronine (T3) is produced in the liver from the conversion of Thyroxine (T4) to T3 and T3 accounts for 20% of thyroid hormone production. Triiodothyronine (T3) is approximately ten times more potent than Thyroxine (T4). That means having a healthy liver is central to hormone production and utilization, and not just of thyroid but of all hormones, insulin, testosterone, progesterone, estrogens (you have more than one), melatonin, DHEA.... Get the idea?

The liver stores several vitamins and minerals for the body to use; cobalt, 15% of the body's copper, manganese, ferritin (the endogenous form of iron), coenzyme Q10, biotin, folic acid, vitamins A,C,D, E, K, and B1,B2, B5, B6, and B12 all concentrate in the liver. But that's not all - endogenous phospholipids (healthy fats), and proteins are manufactured in the liver as well as cholesterol - vital for the protection of the brain, heart and hormones.

Liver malfunction may cause; Adult acne, Rosacea, Halitosis (bad breath), and Psoriasis.

Ailments that cause liver malfunction

Intestinal permeability may be an underlying cause of liver malfunction. This occurs from the additional workload placed on the liver in the detoxification of antigens that enter into the body as a result of poor gut health, this is especially important for children and adults with gluten sensitivity and autism. Systemic Lupus Erythematosus (SLE) a form of the serious autoimmune disease Lupus Erythematosus (LE) and Hepatitis A, B and C infections cause degeneration and

death of the liver. Additionally impaired liver function may occur as a result of adrenal insufficiency and gluten sensitivity.

People with liver ailments should not consume; Carnitine, smart drugs- Adrafinil, Propranolol only with caution, Xanthinol Nicotinate, the herbs Coltsfoot , Licorice, Valerian and high iron containing foods.

People with liver ailments should consume, Herbs like artichoke leaf, green tea, Jiaogulan, Korean ginseng, lycium, milk thistle, black Cherry (juice), Grape (juice), Lemon (juice drunk upon awakening in the morning), Pear (juice), Reishi Mushrooms. Many of these herbs and foods are found in high quality liver detox products and plans.



I encourage you to do a liver detox twice a year, and follow the footsteps of your ancestors; eat good grass fed, or organically raised liver one to four times a month, if you do not have Hepatitis C or elevated ferritin levels. Liver truly is nature's multi vitamin, and eating liver helps your liver to be healthier – our ancestors knew this, it's time to go back to those old fashioned food values that kept all of us healthier.

To Your Good Health and Joyful Eating.



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A Native Oregonian, Tammera established an Integrative Medicine Partnership in 2006 and currently works in a clinical setting with DO's, FNP-C, Bio-Feedback Specialists, and others to provide clients with tools to take control of their health. Tammera provides personalized nutrition consultations, in states not restricted. Her clinical and education practice is ever evolving to meet the needs of clients, the public and fellow practitioners striving to empower those they meet.

She received her PhD with Honors in Holistic Nutrition from Clayton College of Natural Health and holds national board certifications through the National Association of Nutritional Professionals (BCHN), the American Association of Integrative Medicine (BCIH), the American Association of Nutritional Counselors (CNC), American Naturopathic Certification Board (CNW), and the American Association of Drugless Practitioners (CNH). Tammera has served as Committee Chair for the Wellspring School of Natural Health, Holistic Nutrition Education Review Board and in 2012-2013.

Tammera became a Certified Gluten Practitioner (CGP) in 2013 through Thomas O'Bryan, DC and theDr.com gluten awareness/education program. In 2012, she became a Diplomate of the College of Biologically Based Practices in the American Association of Integrative Medicine.

Additionally, she serves on the Board of Directors for the National Association of Nutritional Professionals, Serves on the Accreditation Commission for the American Association of Integrative Medicine (AAIM) and works as one of many in Oregon promoting National Food Day to communities.

You can read more of Tammera's articles on her web page [www.yourwholenutrition.com](http://www.yourwholenutrition.com), You can also follow her on facebook at [www.facebook.com/tammera.karr](http://www.facebook.com/tammera.karr)