

UNIVERSITY OF CALIFORNIA, SANTA CRUZ

THE RELATIONSHIP BETWEEN THE FOOD SYSTEM, THE ENVIRONMENT
AND OUR HEALTH: PERSONAL REFLECTIONS AND ACTIONS

A Senior Thesis submitted in partial satisfaction
of the requirements for the degree of

BACHELOR OF ARTS

in

ENVIRONMENTAL STUDIES

by

Stephanie Marie Shaffer

March 2009

ADVISOR: Steven R. Gliessman, Environmental Studies

ABSTRACT: This work is an extensive chronological account of my year-long process of bringing my body back into a healthy balance. I tell my story of diagnosis, decision to use alternative methods for healing and the research I did around nutrition science. I summarize the different theories I came across behind the causes and cures for systematic diseases. I explore more in-depth the raw foods theory and basic principles, specifically from the research done by Colin Campbell, PHD and Gabriel Cousens M.D. in an attempt to explain my success and to share the most recent discoveries for root causes of health problems within the integrative medical field. I explore the direct correlation with our culture's average diet and nutrition to the increase in disease. There is a need to look deeper into how diet and lifestyle influence the strength of the immune system and therefore determine how susceptible we are to environmental toxicity, genetic mutations and viral/bacterial/fungal related illnesses. I argue that by switching to a plant based diet, we may decrease and or eliminate chronic health problems caused by systematic imbalances and therefore prevent and potentially cure many diseases westerners are developing at the root level. I also try to show how our current food system is the main protagonist to the state of our health. This paper reflects my process of peeling away the layers in my understanding of optimal health and nutrition.

KEYWORDS: nutrition, health, raw-food, food system, alternative therapies, integrative medicine, environmental health

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Preface

I have been studying nutrition for 10 years and now, more than ever, I am convinced that the American culture needs to reanalyze the role of food. Systemic health issues are rapidly increasing. The epidemics we see in the western culture include diabetes, obesity, cancer, heart disease and auto-immune disease. These diseases all have their roots in an empty caloric diet created by eating high sugar and starchy foods. It is common for adults in this country to not eat properly and therefore we see the children of these adults following the same eating patterns. I worked at a day camp for elementary students one summer and day after day I would look into their bags of “food”. I realized these children were eating highly processed foods with high fructose corn syrup, chemical flavoring and coloring as well as produce that had been sprayed with pesticides and fertilizers. What we eat directly effects our health and wellness and these new foods are promoting diets of empty calories and toxic additives. As consumers we need to demand for food that nourishes our bodies and prevents the premature degeneration of our cells.

In sixth grade I decided to not eat red meat anymore. I was intrigued with the literature on how animals were treated. As I progressed in awareness about nutrition, not only did the inhumane treatment of the cows and chickens bother me, but so did the health problems and environmental issues related to the standard American diet. Since this decision I made when I was 12, I have been forced to educate myself about diet and nutrition. The first steps I took to developing my new diet were more focused on eliminating foods I did not want to eat. First it was passing on steaks and hamburgers, then eating less and less dairy and eventually eliminating chicken and seafood as well. It was easy to figure out what I did not want to eat, but the hardest part was exposing myself to new and alternative foods. Fortunately, I found some vegetarian cook books, which provided new foods and suggested replacements for the animal products I had eliminated.

By my senior year in high school, I had a vegan diet, which meant I did not eat any animal products. Our fridge was full of “Stephanie Food”; most of it was soy products and organic produce. For my senior exit project for high school I chose to compile a book titled, A Beginner’s Guide to Veganism, which included the basic facts about the health and environmental benefits of a vegan diet. It became clear how important it is for me to share the information as well as, that I had a passion for understanding nutrition.

I entered the Environmental Studies program at UCSC which made me see another component to diet and nutrition. I was shown the relationship between the increase in health

problems and the increase in environmental and agriculture pollution. My family patiently listened to me over the phone as I told them about the sustainability movement and the importance of using organic products but for the most part they continued with their previous lifestyle. When I was home visiting my junior year, I was having dinner with my father and stepmother and we began discussing some topics I had been learning about in my current classes. What started the conversation were the green beans I brought home from a project I was doing on the campus's farm for a class. We talked about my experiment and what it means to use sustainable practices in farming. They thought it was really cool to eat beans that I grew! I asked them if they ever read where their produce comes from and my dad said "not really" and that there is usually a limited variety of produce to choose from.

I went into more depth about the practices used in conventional agriculture than I have ever before. My parents were interested, more than usual, because there had been more media coverage in the local newspaper, the Sacramento Bee, about agricultural issues of using chemicals throughout the Central Valley. This seems to have sparked their interest because they appeared to be listening more intently and even asked about alternatives. It was the first time I was able to fully explain to my parents the cycle of the chemicals and how they do not just kill the weeds or insects and how they are actually potentially very harmful to our health! My dad expressed his understanding and preference of buying produce at farmers markets, but he said that they are difficult to find and the closest one does not have organic.

Everything was conventional besides the green beans for our dinner and I struggled to talk about alternatives in fear of seeming ungrateful. Instead I approached the conversation with a different twist. I found myself talking about a recent experience at the farm and garden on campus where I was working. I told them about the tradition that every Thursday before Thanksgiving, the season's apprentices host over 40 people for an amazing feast, from appetizers to pie! They asked me what type of dishes the apprentices made, which allowed me to talk about how they try and use as much of their own food as possible in attempt to be local. We talked about community and making meals from scratch. My step-mom was especially excited to hear about the dinner because she had just made cranberry sauce from scratch for the first time. She shared how it reminded her of how traditionally people, mainly women, only prepared food from scratch because they could not buy things like canned cranberry sauce. Two years later, it is a common practice for my parents to buy organic due to my influence as well as, having more access to information through media and an increase in alternative options in the grocery store.

I was inspired to look more deeply into the relationship between our current food system and increasing health problems upon being diagnosed with a large benign tumor on my kidney. As stated above I had already been interested in agriculture and environmental issues and how they relate to the increase in western disease but due to my diagnosis I had the opportunity to research specifically the role of diet and nutrition in the promotion of disease and most importantly the role of diet and nutrition in the prevention and ability to cure disease.

Introduction

Diagnosis

In September of 2007, I was diagnosed with a grapefruit sized benign tumor on my left kidney. The mass was categorized as angiomyolipoma, which means it was made up of red blood vessels, muscle and fat tissue. I was told that the tumor must be removed along with the kidney. Although it was 98% sure that it was not cancerous, they suggested removing the tumor because I was so young and the tumor was so large. It would also be impossible to carry a pregnancy to term and there was a high potential of hemorrhaging. I talked to three urologists; neither of them knew what caused the tumor to develop and researchers in the field of angiomyolipoma have suggested genetics but even that was uncertain. This led me to question the effectiveness of surgery when the cause was so unclear. By cutting out the physical growth would we be getting rid of everything or would the cause still be there and promote continued development of tumors in my body, which could potentially turn cancerous?

Neither my physician, nor the three specialists inquired about past health problems or current lifestyle and this made me suspicious of the method these doctors were basing their treatment choice on. I was aware of integrative medicine practices, which advocate for a holistic approach to healing. Integrative doctors and practitioners use methods that aim to eradicate at a root level the cause for the specific ailment and therefore enabling the patient to get rid of the symptoms as well as the underlying cause for disease. I was willing to wait to get surgery and to work with alternative therapies in order to find the root cause. After confirming that the tumor itself was not life threatening, I decided to postpone the surgery and research alternative ways to shrink the tumor. I thought that maybe if I could find the root cause, then perhaps I would find the cure.

In this paper I will share with you my experience this past year as I reanalyzed my own diet, journeyed through the medical world and what I discovered from both allopathic and alternative methods and theories around diet and nutrition, causes of disease and potential cures.

Through this process of peeling away layers of my understanding of principles for good health I was constantly exposing the causes for misconceptions around nutrition. There is so much information out there about diet and nutrition that it is creating an overwhelming effect on individuals. People want good health but are vulnerable to manipulation from the health food, vitamin and supplement industry. I know this because I spent a lot of time relearning foundational principle for optimal nutrition and helping my friends and family filter through empty claims by certain products and food companies.

The main change I made was altering my diet to an 80% raw, 20% cooked, organic, vegan, low glycemic diet. This attempt to shrink a benign tumor and to gain my most optimal health has opened my eyes to how food could potentially be the main medicine for most of our common diseases. The research I did showed that an organic, fresh, plant-based diet has the ability to preserve and restore the human body, as well as our planet. In this paper, my intention is to shine light on the importance of eating more fresh raw food, as well as eating locally grown organic food that has been harvested and prepared with loving hands. I will focus specifically how unprocessed, unrefined, chemical free food can be used as preventative care, as well as medicine for our bodies.

There seems to be a direct correlation with our culture's average diet to the increase in disease. Diet and lifestyle influence the strength of the immune system and therefore determine how susceptible we are to environmental toxicity, genetic mutations and viral/bacterial/fungal related illnesses. By switching to a plant based diet, we may decrease and or eliminate chronic health problems caused by systematic imbalances and therefore prevent and potentially cure many diseases westerners are developing at the root level. In this paper I support the argument made by many scientist, activists and Doctors that our current food system is the main protagonist to the state of our health.

If it was not for the number of friends and family, sometimes even strangers who were looking for help, I would have been completely satisfied with the surface level of knowledge given to me by my nutritionalist and other reading I did. I could understand that I was detoxing and that the food I was eating made me feel good. I understood that my body was more in balance and my chronic problems went away. But why? At a deeper level, what was really causing this shift in personal health? Why wasn't my previous diet truly "healthy?" It was clear that in order to really help those I love the most; I had to do more thorough research.

My Background which Supported my Decision to Wait

Environment and Food System

While I intuitively saw removing an organ as unnecessary, I also was driven to make this decision because of three other factors. First, I had spent the previous three years at the University learning about the increase in environmental toxicity due to anthropogenic causes. My area of focus was in Agroecology and in these classes I learned about the increased use of agri-chemicals, genetic modification, preservatives and radiation by humans in food production - all which have negative effects on human and environmental health. Overall, my degree in Environmental Studies taught me how humans have depleted resources, polluted the water, soil and air and introduced hazardous chemicals into our food and through this have disrupted the earth's fragile ecosystem. Many of my mentors and scholars that I had been studying under believed that these changes were directly and indirectly impacting human health.

Diet and Nutrition

Second, I had personally explored animal free diets and had basic knowledge of Ayurvedic and Chinese Medicine. Chinese medicine, which has been around for 6,000 years uses many techniques for developing diagnoses like the tongue, temperature, pulse and menstruation in women. Usually the herbal medicine recommended will address multiple factors and provide specific properties relevant to each patient's specific needs. Ayurvedic medicine from India, which has been around for 4,000 years, diagnoses in a similar way. A doctor will consider your digestion, skin, temperature, cravings, weight, hair etc. and treat with a very extensive diet regime. There are many other traditions like the Native Americans, Aborigines and more recent practices like naturopathic that treat the whole person rather than the symptoms. By choosing to heal my body through integrative medicine, the main method being diet, I knew I would be forced to explore nutrition more thoroughly than ever before and to understand where my diet needed improvement.

Mind and Body

The third factor was that I was aware of the process of mind body healing. I was taught growing up that your body and mind were connected and that in order to heal you must look holistically at your individual circumstances. I had also been studying holistic health principles in a massage licensing program offered through the University. The classes in this program taught me about the importance of nutrition and lifestyle and gave me a deeper understanding of energetic and emotional therapies. We studied other cultures and their traditional methods of

healing through integrating the body and mind into their medicine. I felt confident in the integrative healing method and had access to practitioners of these many different therapies.

Hypothesis

With an awareness of the current environmental conditions, nutrition and the relationship between the body and mind, I could not help to want to figure out what was going on with my health at a deeper level and to ultimately discover what caused the tumor to develop. For many years up until this point, I had struggled with multiple chronic health problems; including headaches, inflammation, digestion and fatigue and was having no luck in finding out what was causing them. This led me to believe that my health problems and the diagnosed tumor were related and that changing my diet and lifestyle would help to bring my body back into balance and therefore fix the systematic problems. I thought it was important to not only know what initiated the tumor development; whether it was an environmental toxin, poor nutrition or even genetics, but to also figure out what was causing my chronic health problems. My hypothesis was that my chronic health problems were due to a systematic imbalance and this imbalance was weakening my immune system and therefore making me more susceptible to tumor development.

Family and Friends' Reaction

I received resistance from my some of my friends and family but for the most part I was greatly supported. The doubt in my decision was largely based on the fact that there were so many unknowns. They needed more information and were nervous about my well-being. They had questions like how long will it take? How will I know if it is working? Is it even possible to shrink a tumor naturally? And how was I planning on doing it? When I approached my doctors for advice, they all said to be careful and discouraged me, believing that my efforts would not work. Acknowledging that it would not hurt and could only be helpful to improve my diet, they said they would help me monitor the tumor by getting scans periodically but that eventually I would need to get the surgery.

Questions I Began to Ask

So my journey began down the road that was definitely less traveled and ultimately the road that would change my life. I had questions myself like, "Why Me?" I thought I was eating healthy, what parts of my diet and lifestyle needed changing? What is a "well balanced diet?" What made me more susceptible - why did I develop a tumor rather than someone else like my

brother who has similar genetic and environmental conditions? Who can help me? How can I afford it? How will I know its working?

The Nutritional Program I Did

I started with my diet. Fortunately, I was able to find a raw-foods nutritionist who would work with me for free on figuring out what I needed to do to get my body back into balance. While I was familiar with the basic principles and even some of the foods, I honestly took a leap of faith when I decided to wait on the surgery and give the diet a try. Three days before my scheduled surgery, I had my first consultation with a nutritionist and after a two hour session I made the final decision to wait.

During this initial conversation with my nutritionist, he asked me to tell him about my health history as detailed as possible; including, chronic illnesses, short term sicknesses, big surgeries and hospitalizations. He also asked about my current diet, lifestyle, family and spirituality. This meant I was telling a complete stranger the details of my life, which would conventionally never happen. I realized that I found what I was looking for. Someone who was guiding me on a healing path based on my own personal circumstances. Through the process of digging up my past and contemplating my lifestyle, I began to see common trends in my life. I noticed patterns in my lifelong illnesses, weak nutrition and stress. We talked about the theory of detoxifying and rebuilding the body and methods to do this with a raw-food diet. For the first time I got a glimpse of how I could actually shrink the tumor. By eliminating the things that were weakening my immune system and my body's ability to function properly I would then be able to start rebuilding my body's strength and natural processes so that it could get rid of the tumor on its own (Gardner). My initial hypothesis seemed to be going in the right direction.

Who Would Help?

According to my nutritionist, benign tumors are commonly worked with in the alternative field but unfortunately, alternative doctors would usually be up to \$250 an hour. The care that I needed and alternative therapies would most likely not be covered by insurance. The reality of how expensive this path would be and the fact that the allopathic medical system does not integrate alternative therapies to the extent that I needed made me feel alone and unsupported. "Taking the leap" never meant as much to me as it did in that moment. Although others have done what I was about to do, I thought it would be difficult to find them. I thought it would be difficult to support myself financially and emotionally as I looked for methods that would really work.

Affording Alternative Care

After my first consultation, I realized that in fact, I would not be able to afford these alternative methods alone. So I called out to my friends and family for financial and emotional support. I sent out a large email informing them of my diagnosis, my decision to not do the surgery and my alternative nutritional program. I bluntly stated that I need their help and was accepting donations! I struggled in deciding to do this because of feeling selfish and intrusive but realized it was the only way to make it happen. The response was amazing! People gave me financial support, suggestions for alternative treatments, sent me prayers and I even found a backup surgeon in case I needed to or decided to get the surgery. This response also showed me that I had made the right decision to wait. People were curious as to what I would find in my research and were very hopeful that I might stumble upon something truly transformational. Through this I realized that this journey would not be just about me, but that it could possibly be beneficial for others. My motivation switched from just shrinking the tumor but to also figuring out how to get to the root of common health problems and misconceptions around nutrition.

Recommendations

Based on everything I told my nutritionist about my health history, his recommendations included two books that would help get me started. These books included Rainbow Green Live-Food Cuisine by Dr. Gabriel Cousens and How to Detox: The Life Food Recipe Book by Dr. David Jubb and Annie Jubb. Dr. Gabriel Cousens specializes in research on natural cellular defense and promotes a low glycemic, raw, vegan diet. David and Anne Jubb's book outlines a liver and gallbladder cleanse, which consisted of a 14 day detox program of 100% raw-food liquid diet. Both of these books would elaborate on the raw-foods theory and approach to health as well as to help me become familiar with the authors' research. I learned from these were that tumor cells both malignant and benign thrive on sugar and toxins produced by eating acidic foods like meat, rancid grains and highly processed decomposed produce. In the alternative medical system, lipomas are believed to be fatty deposits, which help to buffer the body from toxins by storing them in fatty globules. Due to systematic stagnation, the lipomas develop into a tumor mass. This meant that if I began a detoxification and rebuilding process of my body that I could potentially flush the toxin and excess cell growth, which would shrink the tumor.

The basics of my diet regime would be eating low glycemic (no sugar) foods, 80% raw and 20% cooked, organic and vegan. The 20% cooked portion could include: whole grain quinoa, amaranth, buckwheat and steamed veggies. I would also need to do as many liver and

gallbladder flushes as possible, green juice and systematic enzyme fasting, as well as taking herbs and SuperFoods. I would be following the nutritional program developed by Dr. Cousens, which advocates for a three phase process of elimination and replacement of specific foods.

Gabriel Cousens Nutritional Program and General Raw Food

When looking into how exactly my raw-food diet would work to improve my health, I used the work from Dr. Cousens to better understand the theory behind healing with raw-food. Dr. Cousens has treated patients for over 30 years as a holistic physician and has documented patterns that have emerged through his nutritional programs. He uses images from microscopic dark-field, dry field, and phase contrast slides, which allow him to observe “minute to non-pathogenic organisms-mutating into full-blown toxin-producing fungi, molds, yeasts and viruses” (Cousens xix) due to certain foods that were eaten.

Dr. Cousens used a dark-field microscope to view blood samples and other diagnostic measures when monitoring the clinical progress of his volunteer staff at his Tree of Life Rejuvenation Center in Patagonia, Arizona. These volunteers adopted a low-glycemic or low-sugar diet for three months. Before the study they were on a complete live-food diet with no fruit intake limitations. After eating only low-glycemic sources of sugar; limited to berries, grapefruit and cherries, blood samples showed fewer pathogenic microorganisms and subjective reports revealed an increase in overall physical energy and mental clarity. The success of this study convinced him to offer this program, emphasizing living, low-glycemic foods to his clients (Cousens xiii).

Three Phase Nutritional Program

The specific nutritional program I followed for over a year was influenced greatly by Dr. Cousens’ scientific findings. The nutritional program is broken up into three stages. Phase 1 is the healing stage which includes only raw-vegan foods that exclude fruit or high-glycemic foods. Phase 1.5 is the transition stage between healing and maintenance stage which permits a small amount of mildly sweet foods only as long as symptoms do not return. Phase 2 is the maintenance stage, which you would use for long term. In this phase you continue to eat only raw-vegan foods and you may begin to integrate higher glycemic foods as long as your terrain can handle the microbe-stimulating effects of these foods (Cousens xv). I followed the Phase 1 strictly for six months and then began to integrate more fermented foods as well as some medium-high glycemic foods from that point on. I chose to continue eating only low-glycemic fruits because my taste-buds became more sensitive and I actually did not enjoy eating really

sweet fruits like dates and bananas anymore. There is a chart in Dr. Cousens' book, Rainbow Green Live-Food Cuisine of the specific foods to eat and not to eat in the three phases.

This three phase program aims to address three main factors for health. The first is the fact that most people are already burdened by toxin-producing microbes and therefore a relatively wholesome diet of fruit, grains, and high-glycemic vegetables is actually feeding these microbes. This fact helped me to partially answer why I had developed so many chronic health problems and eventually a tumor even though I was eating "healthy". The second is that making sure the switch is made from inorganic to organically grown foods, which decreases the amount of exposure to heavy metals and pesticides. And finally, addressing the individual body type either as a fast or slow oxidizer is essential in the over all progress, as well as eating foods that support the bio-individuality in Ayurvedic constitutions (you can find a more detailed description of these constitutions in his book). Dr. Cousens believes that it is essential to meet these three factors with live-food in order to be successful and to increase the body's ability to naturally detoxify (Cousens xvi). The live-food nutrition program is influenced by the research that has been done for over sixty years by Dr. Enderlein, which concluded that "The most powerful diet for bringing a diseased biological terrain (a body) back to normal is live-foods" (Cousens xvi).

Pleomorphism

The pleomorphic theory is what the three phased nutritional program is based on. Research developing the theory of pleomorphism began in the 1800s by Antoine Bechamp. Bechamp was a medical doctor and professor of the sciences and pharmacy who uncovered a radical counter function and make up of blood. What he found was that blood was not a liquid but flowing tissue which had the potential to house what he called "mycrozymas". This finding enabled him to see the anatomical phenomena in a new way. These mycrozymas were living microscopic organisms that were capable of fermenting sugar in our system. This process of fermentation taking place within our body due to microscopic life forms is increased when our body or "physical terrain" becomes too acidic. This acidic environment is more habitable for the mycrozymas and promotes the pleomorphic permutation of these life forms into bacteria, fungus, yeast and mold. Toxic substances from our bodies then feed the bacteria, fungus, yeast and mold forms creating even more toxins, which Bechamp calls mycotoxins. The development of mycotoxins then leads to degenerative disease (Cousens 5).

The theory was then researched into the early 1900's by Dr. Gunther Enderlein, whom Dr. Cousens indirectly studied under through a student. For sixty years this physician observed

living human blood and was able to prove Bechamp's pleomorphic theory. Enderlein also proved that the cell was not the smallest unit of life but that within a cell lived "protists", or mycrozymas. His research also found that these mycrozymas change in their forms according to the conditions of the blood. Essentially, these mycrozymas are throughout the entire body in what the researchers call a colloidal field or physiologic and energetic environment and if the colloidal field is toxic then the physiologic electromagnetic field goes in the direction of pathology and promotes poor health (Cousens 6).

The theory has been developed further by Dr. Robert Young and added to by Dr. Cousens himself expanding on the different elements of the colloidal field. Basically there is a subtle organizing energy field that creates an energetic matrix from the mycrozymas which in the physical is a living colloidal field between and in the cells. The colloidal field is directly affected by "acidic food, acidic thoughts, low-oxygen, environmental toxins, heavy metals and lack of exercise" (Cousens 6) and it is this change in what was once a healthy energetic matrix for cells and tissues into a pleomorphic and unhealthy matrix. This environment is what enables the growth of toxin producing mycrozymas and they eventually decompose our bodies by eating the sugar in our system, DNA, proteins, the enzymes and hormones. The waste produced from these organisms promotes a more habitable environment for their continued growth. This process is called mycosis (Cousens 6). The findings discovered by Dr. Cousens and his mentors really point at the need to cleanse the body of toxins that feed life forms like bacteria, fungus, yeast and mold in order to prevent premature degeneration of our bodies.

Dr. Cousens' theory behind today's health problems is that most of the world is living with a body infested with pathogenic microorganisms, heavy metal deposits and pesticide residues. These organisms and substances enter our body mostly through the food we eat. Unfortunately, many people like myself, think they are eating healthy with a "wholesome diet" of animal products, grains and high-glycemic fruits and vegetables with minimal foods that are chemicalized, processed and unnatural but what Dr. Cousens is saying is that if you are already infected with these organisms, which most of us are, these foods create an environment for these organisms to grow (Cousens xiv). This really means that if you are serious about your health, you must eliminate these organisms completely by detoxing and then slowly integrating high-glycemic and even some acidic foods back into your diet but definitely never eating processed and chemicalized foods.

Past generations did not have as much trouble with these traditional diets because they had stronger genetic inheritance and constitutional strength. Today's generation is consuming an abundant amount of antibiotics, foodless foods containing no nutrient value, poisonous pesticides, hormones and food additives. This causes an increase in fermentation and toxin-producing microbes, which create a "self-composting" reaction. This composting-like reaction is induced by foods such as "eggs, mushrooms, brewers yeast, peanuts, alcohol, dairy, corn, white rice, white sugar and anything that includes an excess amount of acidity and low-oxygen state" (Cousens xv). You can find Dr. Cousens' detailed description of the "Composting Effect" in the appendix. My nutritionist came from the same point of view and has studied Dr. Cousens' work along with other researchers in the field and therefore I felt that it was important to really educate myself about pleomorphism and the basic principles of using raw-food as medicine. While more peer reviewed research needs to be done on these specific issues for my total advocacy, the personal results I had were life changing and harmonize with Dr. Cousens' work.

What does a raw-food diet look like?

"Simple definition: Raw-Foodism is the practice of eating only foods that have never been heated above 118 degrees Fahrenheit. This means that foods are not cooked using traditional methods" (Bull); including, frying, steaming and baking. According to raw-food theory, optimal nutrition is found in organic fruits and vegetables that are raw. Raw-food is also termed as living (or live) food. "The term living foods is used to recognize the fact that the enzymes contained in raw foods are intact and functional (living), in stark contrast to cooked foods, in which the enzymes have been denatured and destroyed by heat and are no longer functional" (Bull). Sprouted seeds, nuts, and grains are referred to as "live" because in addition to being raw, they continue to grow right up to the time of consumption. This makes them a very fresh and vital food source.

Preparation of Raw-Food

There are many techniques you can use to prepare raw-food. The main ways to prepare raw-food are to dehydrate and ferment. These methods alter the structure and allow you to combine the foods you are working with. With a dehydrator, you are taking your food and exposing the food to heat that is less than 118 degrees for about six hours. This is how you can dry fruit, how you can make bread, crackers and energy bars that are still living. The other popular way is to ferment the foods. This is done by soaking ingredients for a long period of time with salt, lemon, and or vinegars. It is a great way to cultivate important bacteria that our

bodies need to build a strong immune system. Yogurt and sauerkraut are examples. You can also ferment grains instead of cooking them. While it is important to remember that eating fruits and vegetables in their original state are optimal, it is great to have variety by changing the texture and flavoring without changing the living cellular structure.

Staple raw foods are whole grains, lentils, beans, seeds, sea vegetables, probiotics, fruits and vegetables. They provide the foundation for creating a holistic meal. Some essential ingredients for flavoring are crystal salt, oils, guava nectar, raw honey and miso. Over time, through detoxification, your taste buds become acclimated to eating these new foods; while at the same time developing aversions to highly salted, sweetened and processed foods. With a standard American diet our tongue is inundated with chemical flavoring and additives that make processed foods taste good and upon detoxing these chemicals you begin to be able to taste your food again and your preferences change from the chemically processed foods to natural fresh unprocessed foods. I experienced this form of detoxification of my taste buds. I began to pick up on the more subtle tastes in grains and fresh produce and became more sensitive to salty, sweetened and chemical flavored food.

Sprouts

Sprouts are an essential part of maintaining a well balanced raw food diet. Sprouts are made by soaking beans, grains, lentils and seeds in filtered water. You are actually causing the dormant seed to germinate. When a seed germinates, that means it is living. This process of soaking and sprouting takes a few days. This emulates the time when our species were foraging and grazing on plants and seeds out in nature. What is so great about sprouting? There are many benefits. Sprouts have the vitamins, minerals, proteins and enzymes that are necessary for the body to function optimally. Sprouts are easily digestible and even improve the efficiency of digestion. Amazingly enough, “sprouts help to eliminate gas, heartburn and toxic waste in the body. They also provide you with more protein, nutrients, vitality, water and oxygen than other foods” (Facts About Raw Food). The process of preparing sprouts only takes a few minutes a day and once you have become aware of the life force present in these foods from the change in your mental and physical health, it is easy to appreciate the fact that they are literally growing right up until you eat them. Your body begins to crave the freshness and cleansing properties of sprouted foods.

Enzymes

Enzymes are responsible for every chemical reaction in our body. According to research published on the Raw Roods 101 Journal Website, there are proteins that form a specific 3-dimensional structure in space and once heated above about 118 degrees, “enzymatic action ceases, as does the life force of the food”. Without them there can be no cellular division, immune system functioning, energy production or brain activity (Facts About Raw Food). There are three types of enzymes. Metabolic enzymes prevent aging, boost the immune system and prevent disease; digestive enzymes break down the food we eat and enzymes found in uncooked foods. Rita Ramono, the author of Dining in the Raw, agrees that when we eat cooked foods like dairy and meat we are not getting the enzymes from them (Ramono 7). Food is perishable and begins to break down with age and exposure to high temperatures and chemicals.

Enzymes are a necessary component in digesting foods. Enzymes are produced not only for digestion but also for all our vital systems to function. When we eat an abundance of cooked food lacking in enzymes, we deplete our resources because we have to use both the metabolic enzymes, as well as the digestive enzymes to process food. Kristi Steinmetz and John Potter published an article reporting findings by the School of Public Health in the University of Minnesota state which concluded that there is a direct relationship between fresh vegetable and fruit consumption and human cancer. Eating vegetables and fruit consistently is associated with a reduced risk of cancer. The reason for this is that anti-carcinogenic agents are found in these food sources, including carotenoids, vitamins C and E and dietary fiber. These agents have “mechanisms of action, including the induction detoxification enzymes, increased ability to reduce the binding of carcinogens in the digestive tract, alteration of hormone metabolism, antioxidant effects and others” (Steinmetz). We have adapted to these mechanisms through eating an abundance of fruits and vegetables; these essential nutrients are what maintain our body and health as a whole and cancer may be the result of reducing the level of intake of these foods that are metabolically necessary. This research shows that cancer and other common disease today are diseases of “maladaptation to our processed, refined, chemically induced foods” (Steinmetz).

Our body literally deteriorates due to the lack of enzymes creating aging and age-related illnesses. Eating enzyme-dead foods cause your pancreas and other organs to overwork and can eventually exhaust them. Impairing your pancreas and progressively losing your ability to digest food is becoming more common amongst those that have spent their whole lifetime ingesting

processed foods. Another benefit to increasing your consumption of raw food is that it takes less energy and the food passes through the digestive tract in ½ to 1/3 of the time it takes for cooked food (Leduc). In Chinese medicine some food is recommended to be cooked in order to extract certain properties and the message here is to increase the amount of fresh-living food in order to promote good health and longevity.

Enzyme Fasting

Enzyme fasting was recommended by my nutritionalist for the above reasons. By spending multiple days taking a systematic enzyme supplement (9 different ones) they would replenish cells with essential enzymes and increase the body's ability to dissolve sluggishness. The enzymes metabolize the dead cells and toxins in the blood stream which increases circulation of oxygen. With an increase in oxygen, it would help to dissolve tumors, arthritis and decrease inflammation. The digestive enzymes break down food that has been stagnant in the intestines (Gardner). In How to Detox: The Life Food Recipe Book by Dr. David Jubb and Annie Jubb, it is recommended to take a high dosage of the enzymes throughout the day, while drinking 2-3 quarts of green juice for about a week.

This was probably the most intensive fast and detox I did through the whole year. The green juices gave me enough sugars to maintain energy throughout the day, I actually felt really light and clear-headed during this fast compared to the other detox program. About a week after I broke my fast, I went on a hike that was very demanding with a long steep incline. I assumed I would have been extremely sore since I had not exercised in months but the next day I had no soreness or stiffness. From my research I learned that this was because my blood had been cleaned thoroughly by the systematic enzymes the week before and therefore my muscles were receiving more oxygen which prevented any soreness.

Juice Fasting

Juicing is the best way to increase your alkalinity. Alkalizing foods to juice include: cucumbers, tomatoes, avocados, green leafy vegetables, celery, kale, lemon and lime. By raising alkalinity in blood you make a hostile environment for viruses, bacteria and fungus. Acidity is generally caused by grains that have been stored for too long, meat, dairy and soy. They acidify your blood. When you give your body a healthy climate by drinking green juices regularly, it will find the equilibrium it needs for optimal health (Gardner). You want a quality juicer, preferably a Green Star, because it preserves the cell wall structures of your produce by pressing

the plant. It is also the most efficient machine in extracting as much juice as possible. I developed cravings for the freshness of a green juice.

Immune System

It is guaranteed that we come in contact with bacteria and viruses through out our life. We have all gotten a cold before. This is because our immune system was unable to attack the bug before it multiplied. Research was done at the Institute of Clinical Chemistry in Switzerland on the effect of food (cooked and processed versus raw and natural) on the immune system. Dr. Paul Kouchakoff's research focused on the leukocytes, the white blood cells. He found that after a person eats cooked food, his/her blood responds, immediately increasing the number of white blood cells. This is a well-known phenomenon called 'digestive leukocytosis', in which there is a rise in the number of leukocytes - white blood cells - after eating (Leduc).

Because this response was normally observed after eating, it was hard to understand why it appeared to be a stress response, as if the body was reacting to an infection, exposure to toxic chemicals or trauma. Data also showed that if food had been altered through heat or processed (refined, chemicals added, etc.) this would cause an increase in white blood cells as well. This reaction was renamed 'pathological leukocytosis', since the body was reacting to highly altered food. The research found that eating raw-food did not cause this increase in white blood cells. It was as if the body accepted them as 'friendly' (Leduc). Our immune system prevents these bacterium and viruses from over powering our bodies. The white blood cells play a key role in the functioning of the immune system and when they are diverted to digest foods, our bodies also become more vulnerable to infection and disease.

Liver and Gallbladder Cleanse: The detoxification and rebuilding of my body

My nutritionalist highly recommended intensive detoxification programs along with eating living, vegan, organic, low-glycemic foods to get rid of the harmful organisms. In order to detox the molds, fungi, bacterium, viruses and environmental toxins that had been preventing my body from flushing the toxins in my tumor, I was recommended to go through a process of nutrification. Nutrification happens by removing the toxins and replacing them with highly energized and cell rejuvenating foods. This putting-in and putting-out cycle enhanced my body's ability to detox and restore simultaneously (Gardner).

Due to all the necessary detoxing I would be triggering with my new diet, I had to clean out the detoxifiers first! Physiologically, the liver is responsible for detoxing the bloods and veins and ultimately creates non toxic blood. Why does the liver get overloaded? According to

my nutritionists, the liver is like a sponge and the gallbladder is the trashcan. Toxins get packed away in the gallbladder with stuff like cholesterol which turns into gal-stones; this is the best way to store without toxifying the body. The gallbladder is attached to the liver like a side pouch (up river). It secretes bile, which will help break down food. At the end of flushes the body releases a bunch of bile and then the sphincter opens up and dumps into the colon. Once this happens I would have to flush the colon by doing enemas (Gardener).

Basically, cleaning out the liver and gallbladder would be the first step to prepare for an “up river” cleanse. The release of “toxic sludge” is triggered during this cleanse due to the increased absorption of required fresh raw oils in the form of olive oil. Fat cells will release the toxins into the oil rather than storing it. The fresh-raw oil provided a safe encapsulated medium for the toxins to travel in as they exited my body. The more beneficial raw fats and oils; the easier it would be for my body to detox what was being quarantined in the tumor cells. I maintained a high level of fresh, raw oils while I was off the cleanse by eating foods daily such as avocados four tablespoons of flax seed oil, hemp seed oil, olives and nuts (Gardner).

Along with my raw diet and intensive liver and gallbladder flushes, I was taking supplements, which pulled toxins out of my body on a cellular level and herbs that helped with reducing lipomas by triggering fat cells to release toxins. These supplements and products seemed to be helpful but at the same time very difficult to monitor their effects. Ideally, I would have been monitoring my urine to see what was being extracted exactly. I looked into the process, but the testing kits were expensive and I did not have enough support from a physician to have them covered by insurance. The herbs and medicinal mushrooms recommended had been used for centuries in Chinese medicine to promote circulation and to increase the expelling of toxins from my cells. This was the only form of Chinese medicine I did for about a year of this diet. I regret not working with an acupuncturist throughout this time to help promote deeper circulation and detoxification. The treatments are usually not covered by insurance and from what I gathered by looking on my insurance’s website, they would cover a portion but only for those practitioners on their “preferred” list, which literally had no names listed. Other mechanisms put into place to promote detoxification were avoiding products with chemicals, low frequency electromagnetic waves and pollution. The things I could focus on were food, air inside my home and the water I drank because they all could be controlled.

How Will I Know it is Working?

In the process of switching my diet to a healthier one, I was told that normally I would

want to be mindful of my personality and what works for me. Normally, I would want to set up a plan that was progressive. For example: if I ate meat and dairy and cooked food etc, I would just drop one or two things off the list every week or two and simultaneously trying a couple new things every week or two. But in my case, I was told to completely stop my old diet and begin instantly eating these foods. After two weeks, I began to experience emotional and physical symptoms of detox and ultimately progress.

“Keep in mind the body rids itself of the most toxic matter when you are ‘sick’” (Gardner). This wisdom from my nutritionalist was permanently engraved into my mind and was called upon many times during my detoxification process. The effects I felt were almost instant and very obvious. My original consistent side pain, which is what took me to the hospital, was gone after one week of eating a 100% raw diet. After my liver flush on day 11 of my first cleanse, I felt a rush of energy and excitement. During the liver and gallbladder cleanses I also felt temporary nausea, dizziness, pain in my stomach similar to the ones from childhood and diarrhea, headaches, general soreness and sometimes feverish. My energy would fluctuate from very low and lethargic to high and energized throughout each of the two week periods. As the months progressed of doing the liver and gallbladder cleanse, I would periodically get a throbbing pain on my left abdomen (where the original pain was) for most of the day and then it would go away. In my journal I wrote things like, “I have a lot more clarity – less sluggishness”. I also wrote “my body feels light and awake...I could taste my food better...I have not had any throbbing in my side for about a week...my pinched back sensation has been gone for about 5 days...when I push down on my side, it is softer than before”. Throughout the year of actively detoxing, I experienced a roller coaster of emotions and physical discomfort and mid way through the year I started to have “random” food cravings for fried chicken, burritos and pizza; all which I did not eat normally, only when I was younger.

Other noticeable changes were weight loss after two weeks of eating completely raw and loss in systematic inflammation; I noticed that my knuckles were smaller. Most importantly, my chronic problems: headaches, fatigue, weight gain, digestion, and lethargy were eliminated by this diet and process of nutrification. I had a general sense of empowerment as well, feeling more in tune with what my body needs and what I needed to feel in balance. There were so many changes going on, I have only summarized the main ones. Some were explainable by my nutritionalist but others would need more clinical monitoring. The whole time I wished I could have had my blood urine and stools monitored. It would have been helpful to see what was

coming out of my body and if anything was related to the tumor and or other symptoms. I wanted to monitor my blood more regularly in order to see the change in my blood levels, which would help to determine if my body was getting the nutrients it needed. Having more consistent and professional emotional therapy would have been helpful to work through the many random memories (mainly traumatic) that came up. The cycle of depression and contentment was making me question my sanity. I am still trying to understand those experiences.

I later learned that this cycle of physical discomfort, depression and euphoria was probably due to chemicals and toxins being flushed from my blood and intestines from the detoxification process. Based on Dr. Cousens research along with many other doctors and scientist, it turns out that it is common for people to have heavy chemicals, pesticides, and even free radicals from radiation. These heavy chemicals burden our body and weaken our immune system by tampering with our cell structures. I learned that eating foods that are hybridized inject unnatural starches and proteins into our digestive system, causing disharmony and increase in allergies. I also learned, like I mentioned above, that the body stores these toxins in fat cells and stores mutated cells in capsulated tumors. It was important that I trigger the flush of these pollutants from my body in order to create a conducive environment for my cells and organs to replenish and restore, which would allow my body to heal itself. It feels good to know that I spent a good year's time actively pulling these harmful toxins out of my body and replenishing them with highly energetic foods and nutrients that rebuilt my physical health on a cellular level.

Need for Further Research

While there has been small scale private research proving the pleomorphic theory of disease process in the body for nearly two centuries, it has remained isolated from our larger public and private sectors of research. It was difficult to find peer reviewed research being done on the health benefits of eating more fresh living foods. Besides the political economical reasons behind the western medical system and the pharmaceutical industry, I think there is basic level of nutritional principles that are being overlooked in allopathic medicine. This was discouraging, due the fact that I had had so much success in ridding my body of chronic pain and illness, enhancing my mental clarity and rejuvenation my physical energy. I had a hard time understanding why a nutritional program like mine was not recognized on a bigger level within our medical system and seen as the root method for disease prevention. Dr. Cousens provides a brief history in his book of two guiding theories that have lead to a discrepancy in the most effective treatment of disease.

Germ Theory vs. Biological Terrain

French microbiologist, Dr. Antoine Bechamp and Dr. Claude Bernard, approached health and medicine with the belief that the state of the body's terrain is the fundamental key to preventing disease. Dr. Bechamp and Dr. Bernard faced controversy with the Nobel Prize laureate Dr. Louise Pasteur who was the creator of the "germ theory". These two positions became highly controversial during the late 1800s when the developments of western medicine methodologies were becoming concretized. The story goes that after Dr. Pasteur spent a lifetime of advocating for the treatment of disease through identifying and destroying the germs, but on his death bed, his final words (in French) were "Claude Bernard was right. The microbe is nothing. The terrain is everything." He was acknowledging that the external germs were not the root-cause of disease but rather "opportunistic scavengers" that appear and thrive when the body is out of balance. Bechamp believed that the cause of disease was a weak "biological terrain". Our body's cells, fluids, organs, etc. make up the biological terrain. To restore and maintain health, he recommended a diet of low levels of toxicity and fermentation; the proper range of acid/alkaline balance; strong electromagnetic potential; high cellular oxygenation; and a high number of pro-biotic beneficial bacteria and a low number of pathogenic microorganisms (Cousens xiv).

The allopathic medical system has been built on the "germ theory", which sees the germ as the cause of disease or illness. Allopathic medicine has the capability to then diagnose disease by addressing surface symptoms and using technology like scans and blood and urine tests. This form of medical practice may offer pharmaceutical drugs that are either natural or synthetic derivatives of existing plant or chemical compounds. The derivative is a highly concentrated, highly potent version of the original form. In a lab, scientists are able to isolate specific properties in plants and other naturally existing compounds. This enables them to make drugs that are specified for certain symptoms. Usually these drugs help with the symptom but because it is so focused on one thing, there are common side effects. My herbology teacher gave the example that if you are cramming for a test the night before, you might have been successful at studying extensively but your immune system was weakened by stress and lack of sleep so you caught a cold the next day from the dining hall. Pharmaceutical or prescription drugs are similar in that they do not address the whole situation. From the research done by Dr. Cousens and his mentors, with a healthy physical terrain, these germs will not penetrate the immune system and

therefore a patient will have no need to take pharmaceutical or prescription drugs and in some cases not need surgery.

Dean Ornish M.D Program in Heart Disease Reduction

A pioneer in the field of integrative medicine, Dean Ornish M.D. has had the most recognized progress in gaining support from insurance companies for his work with lowering cholesterol and heart disease by using alternative treatments like nutrition, yoga and meditation. He has dramatically decreased the need for surgeries and pharmaceutical drugs within his practice. This is one of many examples where allopathic doctors and partnering insurance companies have realized the benefits of a holistic approach to health care.

Basic Principles for Optimal Health

Overall, there are a couple basic principles that I have taken away from this experience with raw-food nutrition and my detoxification process that can be universalized for everyone. I realized that what I did was “extreme” and that the average person would have had a hard time changing their diet to basically 100% raw-vegan and to alter their lifestyle enough to be able to do intensive detoxing programs. But what I found to be the main barrier for myself and others to develop optimal nutrition, whether in the context of a therapeutic diet or a daily maintenance diet, is access to education about medicinal and preventative nutritional programs. This was due to a spectrum of reasons including: minimal subsidized research being done on healing with diet and rather an emphasis in technological and pharmaceutical methods for healing; money to pay for organic and healing “super” foods; as well as, motivation and time due to our highly industrious society and abundance of convenient foods. Therefore, with confidence, I can say that the main emphasis should be in education at the public and individual level in order to make optimal nutrition available and to become more common knowledge. The education should be teaching three main principles which cut through the many controversies around nutrition science. These include eating a plant based diet that is mainly made up of organic and fresh-living foods.

Eating a Plant Based Diet

When implemented properly, a plant based or raw-vegan diet has been proven to ensure enough protein, iron and other micronutrients through plant sources. Collin Campbell PHD, a leading nutrition scientist’s research shows that a plant based diet also has the capability to prevent most chronic diseases. Campbell spent multiple decades researching how exactly animal protein affects the body and his most precedent-setting experiment revolved around toxin exposure and diet. He had two groups of rats, one was given a high dose of Aflatoxin and the

other a low does. The high dose group was then given a 5% animal protein (casein) diet and the low dose group was given a 20% animal protein (casein) diet. “The rats given the higher dosage with a 5% protein diet developed subsequently fewer [tumor cells] and the rats fed a lower dosage with a 20% protein diet produced subsequently more [tumor cells]” (Campbell 54). Therefore, he concluded that cancer development, after initial exposure, is controlled by the amount of animal protein consumed. He found that eating more than 10% of animal protein in your diet causes the enzymes to metabolize the toxin rather than detoxify it. This then leads to cell mutation and eventually disease (Campbell 54).

From the research done by Dr. Cousens and Collin Campbell, animal products are also problematic because they tend to bring in pathogenic organisms or chemicals and also feed the pre-existing pathogenic organisms which promote genetic mutation and other negative reactions at a cellular level. This is important in the continued debate around animal products because it helps to explain why past generations could eat animal products and be fine but why current generations are being harmed by them. Today, we are faced with an increase in pollution and large scale livestock, produce and grain production. According to Dr. Cousens’ research, flesh and dairy foods are associated with pathogenic organisms in part because the grain which the animals eat are kept in long-term storage and therefore are infected with fungus, which then we absorb through consumption of the animal. The large scale conventional methods of production are decreasing the quality of food and exposing us to even more chemical pollution and therefore weakening our immune system (Cousens 63).

So these two researchers are really saying that not eating an animal protein based diet in today’s world helps to prevent exposure to harmful organisms and toxins induced by conventional agriculture and livestock production. If you do chose to eat animal products, you can decrease the chances of your cells metabolizing toxins by eating less animal protein and more plant protein. It is clear that the debate around eating meat and other animal products has been going on for decades and what I really appreciate about these to researchers is that they are not necessarily saying meat is bad, but actually saying the meat carries problematic organisms and pollutants. Campbell specifically, shows us how animal protein at a cellular level promotes disease and through this, we can see that if we were not exposed to carcinogens and other chemicals in the first place, animal protein would not be such a problem. The key words are “plant based” meaning a diet that is mainly made up of plants not “plant only”. Of course, like I

have mentioned above, an animal free diet is ultimately promoted by these researchers in order to gain optimal health for our bodies as well as the environment.

Eating Organic Foods

The second principle is eating organic foods. Organic food production is a system of farming that does not use chemical pesticides, herbicides, hormones, genetic engineering and nitrates (preservatives). The farming practice maintains and replenishes the soil fertility without these synthetic chemicals. Benefits of eating organic include improved vitamin and mineral nutrients; phytochemical and anti-oxidant content. The University of California researchers found organic strawberries, Marion berries and corn to have higher levels of vitamin C and higher levels of compounds called phenols, which are phytonutrients (Squires).

Due to the increase in conventional (non-organic) methods of agriculture, USDA reports on nutritional content have been declining since 1940s. Wheat went from 19% in the 40s to 12% today on average (Cousens 63). According to the National Resource Defense Council, 20% of pesticides currently used are linked to cancer, birth defects, developmental harm, nervous system damage and are considered to be in direct correlation with increase in hyperactivity and adult attention deficit disorder. Studies show that just by switching to organic there is a 50% cure rate amongst children (Cousens 68). The non-profit organization, Environmental Working Group, completed a study that measured the diets of people eating high and low amounts of pesticides, which showed that choosing organic when possible and avoiding the most contaminated fruits and vegetables can lower the amount of exposure by 90% (Dirty Dozen). There is a correlation between this decrease in nutrition with increase in and dependency on these conventional methods.

There are many side effects and unknown dangers from genetically modified foods as well. John Hagelin (quantum physicist and candidate for president for the Natural Law party) says we are destroying our genetic encyclopedia and there are many unknown side effects (Cousens 90). The list of dangers is long consisting of: unanticipated side effects, increased allergens, decrease in biodiversity, nutrient ratios altered and inability to digest these “new foods”. For the above reasons, optimal health is promoted by eating organic foods.

Eating Fresh-Living Foods

Increasing the amount of living foods is the third principle because it is essential in the detoxification and restoration of the body, as well as necessary for general health. While a 100% raw-food diet may not work for many people and has not had thorough long term studies done, a diet with mainly living foods has the potential to naturally help your body rid itself of major and

minor health problems. For the many reasons stated throughout this paper, eating a diet with mainly fresh-living foods is associated with a reduced risk of cancer and other diseases. Raw organic has two times as much vitamin and mineral content on a fresh weight basis than conventional (Cousens p 63). If you can do anything to improve your diet, eat more fresh-living foods.

In my case, I was looking for alternative medicine and therefore created a therapeutic diet regime. I think this is necessary in the initial stage of healing but once your body has been able to reach its equilibrium again, integrating other foods is possible. Everyone is in a different situation and therefore an individual needs to implement a diet that is appropriate for them. These basic principles are necessary in a therapeutic diet and are highly recommended for a daily/maintenance diet in order combat today's level of environmental and agricultural pollution.

Lifestyle: Change

Through my experience of immersing myself in integrative medicine, it became clear to me that while your diet and nutrition plays a large role in health, lifestyle plays just as large or even more of a role. For the purposes of this paper, I focused on the nutritional changes I made, but it was clear to me that in order to be successful with healing my body at the root level I had to address my lifestyle. I took a leave of absence from school during the quarter after I was diagnosed because I thought I was getting surgery. Although I did not end up getting surgery at that time, it was essential in allowing me to research what my plan of action was! It was also helpful because I could spend more time at home with my family. The news was very shocking and we all were given a chance to be reminded of how precious this life is. The extra time also allowed me to do the extensive liver and gallbladder cleanses as well. This time was needed and very beneficial. While it would have appeared to be relaxing and rejuvenate, I was in survival mode. I felt totally vulnerable. Without professional guidance and financial assistance from my insurance, I was alone on this path and it kept me on guard and completely focused on the task at hand.

During the winter and spring quarters, I was doing independent study thorough a campus organization, which was a nice compromise of personal space and worldly responsibilities. I was basically on my own schedule which allowed me to do my liver and gallbladder cleanses, but I was still active in school and taking credits. I was having great results with my diet. And I began to relax a little and was feeling more comfortable about my decision. I naturally started exploring the esoteric elements of myself because they were "coming to surface" with the detox

and more down time. I began a steady meditation practice and attending more spiritual teachings. I realized that while cleansing the body is essential for good health, spiritual purification was necessary for my emotional and mental cleansing and stability.

I started to see how stressed I was from school and other involvements. I began to identify certain parts of my life that were unfulfilling and removed myself from previous commitments. I also altered some of my relationships and types of activities. These gave me more time to exercise, play, and laugh and explore what it is like living life fully. A by-product of this was getting exposed to more fresh air and oxygen and sunlight, which I would later learn that they were essential for good health.

Along with my nutritionist, I was confiding in spiritual healers and alternative practitioners in areas like massage, emotional therapy and energy work. To go into depth about my experiences with each of them would take too much time. While I believe them to be just as helpful, if not more to my healing process, for the purpose of this paper I have focused on diet and nutrition. But I feel it necessary to mention because I think addressing emotional and mental health is vital when trying to understand illness.

Ripple Effect

My friends and family could see these physical and emotional transformations I was going through. And because so many people were following my progress through update emails, I had many conversations with friends and family about their personal health. Many wanted suggestions and advice that I was not qualified to give. It was very frustrating to learn how so many people are living with chronic imbalances, similar to mine. I wanted to share with others that it does not have to be that way and there are ways to get rid of them. I happened to find a medium to eradicate my chronic health problems but the desire to help others is what lead me to do further investigation of what was out there in the world of nutrition science.

Unfortunately, I could only tell them the basics of what I knew from my experience. I recommended eating organic foods and buying fresher and less processed foods. My parents were inspired to buy a Vita-Mix blender, which is a health-foodist necessity in my opinion, and began to increase their knowledge of SuperFoods. I also became trusted enough by many to talk about their bowel movements! I was definitely not expecting this, but it makes sense. Bowel movements are one of the best meters of your health. It was clear that we all need to take a deeper look at the relationship between the food we are eating and the health problems we are having.

Final Decision

In the end, I decided to get the surgery. It was very difficult to make the decision. I could not make sense of it in my mind; I was struggling financially, I was tired and becoming burdened by the fear of being cancerous or potentially hemorrhaging. But intuitively, it did not feel right. My chronic health problems had dissolved and I had total belief that my plan was working. I was getting check-up ultrasounds which were not giving me accurate measurements so it was hard to know if the tumor itself was actually shrinking. All I could tell from those scans was that the tumor was still there and it was still big. The only trusted measurement was the fact that I did not have any more pain and had more mobility (bending over, twisting, etc). I did not want to get CT scans because of the radiation, and it was daunting to not know if and how long it would take for the tumor to completely dissolve.

The fact that I was in school gave me access to insurance coverage, which meant as a college graduate I would have no financial stability and lose my insurance. If I decided to get the surgery after I graduated, getting insurance would be impossible with this “pre-existing condition”. Being financially secure was absolutely necessary to maintain my diet and alternative treatments. A local integrative doctor, who I paid out of pocket for, put it the best, “holistic health includes your finances” and that confirmed the deal for me. It is hard for me to say that I got surgery because it was the cheapest thing to do. I went against my values and belief system around health care but knowing that I would lose my ability to monitor the tumor and that in the worst case, I might burden my family with a large medical bill due to an emergency surgery, I decided the safest thing to do was to go through with it at the time I did. While I was disappointed, I also looked forward to the relief of removing the tumor and had an abundance of gratitude for the medical technology available. The surgery was a success and my overall health has improved.

Conclusion

The increase of health issues in America is related to cultural eating habits. In order to reduce these common health problems and even prevent them from happening we must, as a culture, re-educate ourselves on what it means to eat healthy. Raw-food theory plays a vital role in this revitalization of our culture’s relationship with food because it promotes basic principles for a strong foundation in nutritional wisdom. The research I did around the theory of raw-food and the basic principles for optimal health and wellness helped me to better understand the root causes of systematic diseases. I was also able to explain my success with bringing my body back

into balance. By increasing the amount of raw-food intake, I was able to re-build my immune system and allow my body to maintain itself more efficiently. Diet and lifestyle both contribute to a weakened biological terrain and therefore therapies to help strength them should be integrated with western medicine technology into a holistic health care system.

Cleaning the blood and body at a cellular level to increase health is explained most extensively with the pleomorphism theory. This theory has helped me to understand the science of nutrition and how the body's multiple systems function and what promotes health and what promotes disease. It actually has helped me to understand more thoroughly the many theories and methods around diet and nutrition; especially, the vitamin, supplement and general detox programs that are heavily promoted in health food stores. Some programs are bolstered by this pleomorphic theory but for other vitamin, supplement and detox programs this theory exposes the ineffectiveness of the program's method. An example would be the abundance of vitamin companies promoting their "multi-vitamin" product as the essential supplement to a diet due to its all inclusive package of vitamins. But as Dr. Cousens points out, until you rid your body of these molds, fungi and viruses developed from eating acidic forming foods, you will always have systematic imbalance that promote disease even with this multi-vitamin. You will still get a cold, you will still be vulnerable to systematic inflammation and eventually your body will still degrade prematurely.

Most importantly, pleomorphism helped me to understand why my "healthy" diet was actually perpetuating my own systematic imbalances. The main problem was that my staple foods were starches, soy and other high-glycemic foods. Even though I had a vegan-organic diet, it was still promoting mycosis and therefore disabling my blood to cleanse itself and strengthen my "good" cells. This weakness had many side effects including inflammation, fatigue and digestion problems and going along with my hypothesis; in this state, potentially my weakened "good" cells could not prevent the tumor growth.

Eating properly to promote good health is not a new concept. The situation we have today though is that we are dealing with two generations now that have been inundated with "fake" foods and our bodies can not evolve fast enough to process what we eat. Because our bodies can not adapt to this new food we are seeing new disease and health effects at a level our species has never been seen before. An increase in allergies, inability to digest efficiently or at all, mutations in DNA and inability to process toxins have been weakening immune systems and therefore leaving the body incapable of healing itself. Research needs to be focused on finding

out what kind of nutrition is appropriate for today's world. We need to look for ways to promote detoxification and strengthening at the same time. Increasing our ability to combat the ever growing environmental and agricultural pollution will need to be emphasized in nutrition science. A good diet is not a two week menu plan or a diet pill or even calorie counting rather it is about changing the way we eat and live at a fundamental level.

As I began looking deeper into diet and nutrition and its role in the curing and prevention of disease I was reminded of the relationships between our current food system, agriculture, health care, nutrition and environmental destruction. In the letter to President Barack Obama titled "Farmer in Chief", Michael Pollen emphasizes that until we address these intricate relationships, it will be impossible to truly eradicate the problems our country is facing today (Pollen 1). Our current food system does not support the best quality health. Developing a regional based small scale sustainable agriculture system will directly improve human and environmental health. This transition to a sustainable food system is necessary because it is directly related to the environmental, health care and economic problems occurring in the United States and the world today.

The effects from the current social, political and economic system can be seen in through the role food plays in the American culture. Before the industrial revolution, it was normal that meals were prepared with fresh local produce and animal products that were well-rounded and seasonal. Agriculture was embedded in the daily lives of people when food production was for sustenance and trading. Throughout the 1900s, agriculture became standardized and therefore altering its quality and variety. The past three decades especially have been highly influenced by the corporative food industry. The average American diet consists of mass made, highly processed, highly chemicalized food. Before agriculture was removed from the social sector and made into solely and economical system, it promoted a fresh, seasonal, local diverse diet.

Another by-product of the industrialized food system is the depleted knowledge of proper food preparation. The increase processed and packaged convenient foods have replaced the need to cook for most Americans. There was a study done at Cornell University that showed that women who cook, eat and chat together improve their diet. One woman expressed excitement when she prepared new vegetables for her kids and they liked them (Lang). This study was created as a way to understand why families were not getting enough nutrition in their diet. According to the reactions of the women involved, they just did not have the knowledge. I see this as a reflection of the disconnection our culture has with food. Because parents are feeding

their kids pre-made, frozen or fast food, these kids never gain the knowledge and when they become adults, they continue this habit with their family. Creating good habits when you are young will only help in influencing a well balanced diet when you are old.

My decision to postpone surgery in attempt to explore alternative treatments and to ultimately find the cause for tumor development forced me to look at my life on a deeper level. I had to reanalyze my food choices and lifestyle. Now I know from experience that it is difficult to take the time and even if you strive for a healthier way of living, our culture does not support a smooth transition. I recognize how hard it is to educate your self with accurate information and to gather resources. I had spent multiple years searching for the “right diet” and the “best foods” and honestly I am still looking. I thought I was eating healthy but the reality of our toxic environment and current food system woke me up the fact that creating optimal health both mentally and physically is a full time job and therefore takes a great deal of motivation.

I also found that until we develop an integrative medical system which uses the advanced technology of allopathic medicine along with traditional methods of medicine that emphasis holistic health we will struggle to create true health. Fortunately, we have pioneers in the movement to integrate our health care system and we already see great results. Patients have shown higher rates of complete recovery and prevention from their illness when using complimentary and integrative medicine.

Research has shown us how food is vital energy and that depending on what kind we are eating, determines what kind of energy is absorbed. Dr. Cousens claims that a live-food diet will promote radiant health and build the foundation to live an ecologically conscious and fulfilling way of life. He believes that the internal warfare going on with our physical terrain cannot be separated from the external warfare we see around us. Changing the way we eat is the most effective way to stop the internal composting as well as the external composting we see in today’s world (Cousens xvii). I am motivated to be apart of a culture that wakes up to the unnecessary degradation that is occurring on our planet and in our bodies. I want to bring awareness to the public of how to take responsibility as an individual to reclaim a healthy earth and to reclaim a healthy body. The exponential increase in environmental degradation and the parallel rise in health problems is a pressing issue of my generation and our time. I hope this work serves as a stepping stone in the field of understanding the relationship of health and the environment and the importance of developing and implementing a sustainable food system. I am excited to see future work being done on this issue.

Appendix I “Composting Effect”

Acidic Lifestyle Influences

Dr. Cousens states that certain foods increase the process of rotting or composting. These include foods that are high in fungal forms and mycotoxins, high in sugar, animal fats, mushrooms, commercial salt, saturated vegetable oils, margarine butter, soy sauce, dairy products, pastries, creams, and commercial irradiation, genetically engineered and micro-waved foods (Cousens 18). Stress, acidic thoughts, overextended, anxiety filled fear, negativity, not enough sleep, not exercising properly and use of allopathic drugs are all other acidic lifestyle influence (Cousens 17). The following is a list of problematic staple foods that we see in the western diet.

Sugar

Sugar is the number one food that affects the biological terrain. This includes fruits that have a high glycemic index as well as, white sugar. The higher the glycemic index of foods the quicker the food converts to sugar in the blood.

These include:

Processed beet, corn sugar, sorbital, fructose, maple syrup, dried and sweet fruit, melons and all refined carbohydrates, such as white flour, white sugar and potatoes

Eliminating these foods from your diet will promote the restoration of the body's biological terrain and to eliminate mycosis (Cousens 18).

Fruit

The diet that Dr .Cousens proposes is one that has moderate to low-glycemic fruit. Fruits ferment very quickly and develop fungus and mold. He discussed how apple juice contains a mycotoxin called patulin and a study published in the British Journal of Cancer in 1965 showed that the juice induced mammary tumors in mice. It is not that you should never have apple juice but to be moderate and to dilute it (Cousens 18-19).

Grains

Grains are next on the list of yeast/fungi/mold-stimulating foods. Based on the research that stored grains will ferment in 90 days and produce mycotoxins, he believes stored grains are mycotoxic hazards. Grains that are not stored include spelt, amaranth, quinoa, millet, buckwheat and wild rice. Humans didn't eat grains for 5 million years, and some societies never used grains including Polynesians and early Africans. Although switching from a meat based diet to a grain based diet would enable us to alleviate worldwide food shortages, and improve environmental and personal health it would not cultivate the highest state of health (Cousens 19). Historical records show that humans evolved on fruits, vegetables, nuts and seeds. In order to eat grains, we must cook a majority of them and based on his theory behind our cultures degenerating health, he believes cooking the grains decreases and eliminates the vital nutrients including the vitamins, minerals, co-enzymes, carbohydrates, proteins and fats. Grains are acid forming which is one of the main caused for degenerative tissues. Our culture's diet is also based on calcium deprived foods and our bodies have to over compensate by extracting it from our bones to replace. The bland taste of grains promotes the use of condiments such as salt, fats, oils, refined sugar and fruits. We tend to balance this grain based diet with fats that also contribute to fungal growth. A high grain-high fat diet is not supportive for good health (Cousens 20).

The high non-soluble fiber is an irritant to our digestive systems causing many problems like irritable bowel syndrome. As well as, moves through our system faster than the body can absorb the nutrients. Soluble fiber found in fruits and vegetables are preferred.

While fruit rots, grains ferment due to the mixture of starch, sugar, and sometimes yeast. The result of this fermentation is alcohol and gas which harms the cells in the body because it is a mycotoxic by-product (poison) (Cousens 20).

Problems associated with grains:

Allergies, asthma, digestive disturbance, yeast infection, various mucous and congestive conditions, gluten and gliadin intolerance, and several types of arthritis. These problems can be linked with mycosis. Mycosis can be caused directly by eating grains or indirectly by eating animals that are fed stored grains. Most of his patients are able to reduce or eliminate these allergic symptoms after stopping a grain based diet. Grain allergies may also affect mental states, specifically gluten, which has been linked with many mental and neurological disorders. “Some research has found that gluten contains fifteen different opioid sequences (morphine-like molecules)” (Cousens 21). He links the addictive properties of opioids to the addiction to eating grains as well as, some learning disorders and to schizophrenic reactions in some people. Many of his patients have problems with starches. He sees a common trend in his patients to prefer starches (white flour and white sugar) as binge food to calm and comfort. He can connect this tendency with blood sugar imbalances, depression and short term highs (Cousens 22).

Cycle of addiction to starches:

Immediate clarity and then confusion
 Mental state of well-being and then negative and depressed
 Cooperative to uncooperative
 Peaceful to aggressive
 Energetic to lethargic
 Sensitive and tuned in to numb

When “detoxing” from these starches and grains, people begin to feel withdrawal symptoms and cravings. Starchaholic is what he calls those addicted and the addiction tends to cause weight gain due to slow rise in blood sugar which turns their appetite control off until after they have over eaten. While grain based diet is healthier than an animal/dairy based diet, Dr. Cousens advocates a diet of mainly fruits, vegetables, nuts and seeds. An acre of fruit will feed 250% more people compared to an acre of grains. When we are eating grains, it is important that we are eating fresh grains which reduces the risk of mycotoxins in your diet (Cousens 22).

Animal Products

Animal Foods are associated with mycotoxins mainly because the grain which the animals eat are kept in long-term storage and therefore are infected with fungus, which then we absorb through consumption of the animal. Also, meat and dairy acidify the biological terrain. Under a dark field microscope, Dr. Cousens was able to monitor a patient’s blood as he went from a raw vegan diet to having raw goats milk and then back to the vegan diet. What he found was that his blood was originally clean and free from any yeast and fungal forms, but after a few weeks of eating the raw goat’s milk, his blood was filled with these yeast and fungal forms. Then after eating a raw-vegan diet again for a couple weeks his blood cleared up completely. This was very interesting because it showed that even goat, which does not have a grain based diet, causes mycotoxic growth. His original thought that only cattle caused the mycotoxic affect due to the grain based diet was shifted. Now it was clear those animal products, whether organic, raw, or homegrown are likely to have this mycotoxic effect (Cousens 23).

Pathogenic microorganisms

He discusses the amount of pathogenic microorganism in honey, milk, butter, eggs, cheese, ice-cream, beef, poultry and fish. Along with high-glycemic foods, main courses of beef, poultry or fish may contain up to 750 million pathogenic microorganisms per serving compared to a typical vegan diet with 500 pathogenic organisms per meal (Cousens xiv). Aged meat has more pathogenic microorganisms because it is partially fermented. The decomposition begins instantly due to the protists. Research by Robert Young research on mutton showed that the consumption of aged mutton during the holidays has been associated with juvenile diabetes amongst newborns following Christmas. Dr. Cousens's theory is that the uric acid from the mycotoxins in the mutton breaks down to alloxan and alloxan "has been found to specifically destroy the beta cells, or insulin producing cells in the pancreas (Cousens 24).

Foods high in mycotoxins and fungus (Cousens 25-26):

Corn, peanuts, barely, cottonseed, oats cashews, wheat and malted products
Most mycotoxins are not affected by heat.

Yeast

The classified yeast, *Saccharomyces cerevisiae* includes brewers yeast, nutritional yeast, and bakers yeast increase the level of mycotoxins. Dr. Young's research shows that the consumption of brewers yeast is associated with breast and prostate cancer, liver problems and Crohn's disease, colitis, heart and kidney disease, cirrhosis and osteoarthritis. "Japanese research has linked breast cancer with ingestion of baked goods". Research also shows breast secretions from women with breast cancer are high in mycotoxins.

Alcohol

Alcohol is mycotoxic and may convert back to acidic aldehyde.

Soy Sauce

Fermented by *Aspergillus flavus* is also recommended to avoid because of its high amounts of mycotoxins as well as all heated soy products.

Edible Mushrooms

Acidic forming

Full of mycotoxins

All contain various levels of amanitin

Mycotoxins found in mushrooms were associated with cancer in the lungs, liver, thyroid, nasal cavity, stomach, colon and gallbladder in mice according Dr. B. Toth

Acid forming in the tissues

Tobacco

Due to curing it is subjected to yeast and sugar during the curing process.

Heat oils

The original structure and natural state becomes disorganized and heat creates mycotoxins

Safe anti-mycotoxic foods

Safe anti-mycotoxic foods include vegetables and grasses, which are high in fiber and low in sugar; sea vegetables, nuts, seeds, low-glycemic fruit and algae. The above are all alkalizing and are free of yeast. Greens are low-calorie, low-sugar and high nutrient rich foods

An anti-mycotic diet does not include many popular foods but does support a new diet that is healthier biological terrain

Appendix II

Foods to Avoid

Dairy, eggs, meat, wheat and other stored grains (un-sprouted, flours, etc), high-glycemic fruits processed foods, soy products (including tofu) corn, white sugar, brown sugar, man made chemical agents, non organic (“conventional”) foods, alcohols, narcotics (including aspirins, modern cough syrups etc), slave labor chocolate (slave labor anything for that matter), coffee, rice cakes, potatoes, general multi-vitamins, foods with preservatives, cigarettes (and related), caffeine, heated oils (coconut okay!), man made salt (table salt), soy sauce (nama shoyu in moderation), yeasts, cooked peanuts, bottled juices, microwaves, pasteurized, irradiated and most cooked food.

Foods to Eat Abundantly

Daily Green Foods

Kale, mixed lettuces, mustard greens, parsley, cilantro, chard, collard greens, spinach, arugula, beet tops, wheat grass, all the grasses, sprouts, the darker the better, etc

High mineral, low sugar items

mulberries, all berries, goji berries, cranberries, olives, the above greens, sea vegetables (nori, wakame, kelp, hijiki, irish moss, dulse, sea palm), herbs, summer squash, seeds: pumpkin, sunflower, sesame, vegi seeds(vary), buck wheat, flax, cucumbers, tomatoes, avocados, zucchini, sprouted legumes, bell pepper, celery (any vegetable you can eat raw except those listed below in the glycemic portion)

Raw Nuts

most nuts benefit from being soaked - cashews(8 hours), almonds(12 hours), pecans(2 hours), pistachios(0 hours), walnuts (2 hours), pine nuts(?), brazil nuts (0 hours), macadamia nuts, hazel nuts, etc.

Algae

spirulina {immune system and WBC count} chlorella {nervous system} blue green {brain, detox} red {viruses}

SuperFoods

algae, goji berries, raw chocolate {cocoa}, young Thai coconut, aloe, cinnamon, ginger, kale, bee pollen, mangosteen, ormus, burdock root, holy basil {tulsi}, maca, royal jelly, acai, raw honey, vanilla bean, cayenne pepper, hemp, flax, pink himalayan crystal salt, raw carob, pumpkin, garlic, maitake, shiitake, and reishi mushrooms, kombucha, sea vegetables, avocado, durian etc.

Roots

ginger, burdock, yams (cooked lightly), taro, galangal, yarrow, horsetail, Jerusalem artichoke {dulse}, daikon radish

Cultured Foods

rejuvenative foods products, sauerkraut, apple cider vinegar, vegan kefir, kim chi, miso, tempeh {rarely}, pickles, pickled anything, kombucha, acidophilus

Water

lots, well filtered or better

Oils

flax, hemp, virgin olive, sesame, coconut, almond, sunflower, non-rancid viable fats. The body will use for buffering and rebuilding. He expressed how bogus our culture’s obsession is around low fat diets, because our bodies need fat and what is important is the kind of fat not how much fat. He really emphasized to not eating hydrogenated oil!

Grains

sprouted: quinoa, buckwheat, millet, amaranth, spelt, wild rice

Fruits and Vegetables

glycemic levels: (low: grapefruit, lemon, lime, cherries, strawberries, cranberries, raspberries, goji berries, blueberries) (med: oranges, peaches, pears, apples, pomegranate, plums {med vegis: carrots, peas, yams, sweet potatoes, raw parsnip, raw rutabaga, raw pumpkin and squash, raw beet}) (high: apricots, melons, kiwi, mango, papaya, pineapple, banana, date, fig, raisins, grapes, most dried fruits {high vegis: cooked parsnip, cooked rutabaga, cooked pumpkin and squash, cooked beet, white potato})

Sweeteners

use sparingly: agave nectar, succanat, raw honey, yacon syrup, raw maple syrup, stevia, xylitol

Appendix III Detox Supplements

Liquid Zeolites

Natural Cellular Defense is made of volcanic ash which detoxifies chemical solvents and depletes uranium and other heavy metals.

Medicinal Mushrooms/Herbs

Reishi Mushroom tea: Reishi (*Ganoderma lucidum*) is an Asian mushroom that is woody in texture and traditionally sliced and simmered for tea or boiled in soups and then the pieces are discarded. The medicinal mushroom provides a terpenoids which help defend our bodies by stimulating the immune system, regulating blood pressure and carrying anti-cholesterol properties as well as antioxidants. Studies have also shown that Reishi helps with healthy aging and longevity, detoxifying the liver, prevents arteriosclerosis and helps to manage Alzheimer's disease. It also has anti-inflammatory, anti-allergic and antibacterial actions and has nerve protection properties. Dried Reishi has been shown to deter highly invasive breast and prostate cancer cells from growing and establishing themselves through out the body (“Reishi Mushroom and Powder Profile”).

Maitake Mushroom Tea: Maitake (*Grifola frondosa*) is found in the northern temperate forests of Asia and Europe, eastern Canada and the northeastern United States. The medicinal mushroom is an immune booster and cancer fighter. Extracts of its beta-D-glucans administered with whole Maitake powder and standard chemotherapy promoted cancer regression and symptom relief in 58 percent of liver cancer patients, 69 percent of breast cancer patients and 62 percent of lung cancer patients according to a 2002 report in *Alternative Medicine Review*. Other clinical studies show that the extracts increase production of interleukin-12, which activates the body's natural killer cells. Many additional benefits have been indicated for Maitake, including possible regulation of cholesterol, diabetes, high blood pressure, viral infection and liver disease (“Maitake Mushroom Profile”).

Fo-ti: Fo-ti (*Polygonum multiflorum*), is a traditional Chinese medicine used in teas and tinctures and sometimes found in capsules. Fo-ti is one of the herbs used to nourish the heart and calm the spirit. Its chemical agents, chrysophanic acid, chrysophanol, and emodin were thought to unblock the channels of energy through the body, allowing the escape of the pathogenic influences that cause generalized weakness, soreness, pain, and fatigue. The plant is also used as a wash for itching and skin rashes. Another use of the herb is bringing color back to graying hair (“Fo-ti Root and Powder Profile”).

Rebuilding Green Powders

These special raw foods powders are considered SuperFoods. They provide powerful support at the most fundamental levels. The nourishment received from consuming these powders is necessary to function optimally, your body is able to naturally detoxify, regenerate and sustain abundant physical and mental energy.

Vitamineral Green: This SuperFoods supports blood sugar, colon, detoxification, the immune system, liver, kidneys, blood, bones, colon, regularity, circulation, and longevity. Vitamineral Green contains a full spectrum of naturally occurring, absorbable and non-toxic vitamins, minerals (including calcium) and trace minerals (including naturally colloidal and better). It also has naturally occurring essential amino acids (protein), antioxidants, fatty acids, chlorophyll, soluble and insoluble fibers, tens of thousands of phytonutrients, and a plethora of other synergistically bound, organic nutrients. Which include:

Land Vegetables: Whole Leaf Barley Grass, Whole Leaf Wheat Grass, Nettle Leaf, Shavegrass (Horsetail), Alfalfa Leaf Juice, Dandelion Leaf Juice, Kamut™ Grass Juice, Barley Grass Juice, Oat Grass Juice, Burdock Root, Broccoli Juice, Kale Juice, Spinach Juice, Parsley Juice, Carob Pod, Ginger Root, Nopal Cactus, Amla Berry

Algae: Spirulina, Broken Cell Wall Chlorella

Wildcrafted Aquatic Vegetables: Icelandic Kelp, Nova Scotia Dulse

Enzymes: Optimum absorption of Amylase, Lipase, Protease, Cellulase, Bromelain and papain

Comprehensive Probiotic Mixture - Beneficial Organisms:

Includes Exclusive NSO, (Natural Soil Organisms) and Implantable Species.

A. Agilis, L. Acidophilus, R. Arrhizus, DDS-1 Acidophilus, Bifidus, L. Bulgaricus, A. Brasilienese, B. Brenis, P. Chrysosporium, A. Citreus, L. Casei, P. Calcis, S. Cellulasae, P. Denitrificans, S. Faecium, S. Fradiae, P. Flourescens, A. Globiformis, S. Griseoflavus, P. Gelatic, B. Lipolyticum, A. Luteus, A. Lipoferum, A. Lwolfii, B. Laterosporous, P. Marinoglutinosa, , B. Macerans, P. Nigraclens, P. Putida, L. Plantarum, B. Pumilus, B. Polymyxa, B. Stationis, L. Salivarius, B. Subtilus, B. Succinogenes, A. Simplex, B. Subtilus, S. Thermopolis , A. Terreus, M. Verrucaria, T. Viride. , K. Zopfit (Sheridan).

Pure Synergy: Pure Synergy is a comprehensive formula that offers a multitude of valuable phytonutrients, including: lutein, enzymes, chlorophyll, carotenes, beta glucans, iodine, alginates, ellagic acid, anthocyanins, proanthocyanins, quercetin, RNA/DNA, sulforaphane, phycocyanins, GLA, SOD, sitosterols, and zeaxanthin, from some of nature's most vitalizing and nutrient-rich herbs, algae, grass juices, sprouts and fruits. Pure Synergy's cleansing and regenerative grass juices, algae, seaweeds and enzymes are combined with these protective fruits and berries and restorative, adaptogenic herbs and mushrooms to enhance natural detoxification and radiant energy ("Pure Synergy").

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