Breast Cancer:
Understanding, Prevention and Care

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Breast Cancer

Introduction

Our entire body is composed of cells which contain their own DNA (genetic blueprint). In a healthy body, cells divide at a controlled rate and are used for growth and tissue repair and replacement. If cells keep multiplying when new ones are not needed, a mass of tissue cells develops causing a growth or tumour. These tumours can form anywhere in the body and can be either benign (non-cancerous) or malignant (cancerous).

A malignant tumour that forms in breast tissue is called breast cancer. Malignant tumours grow uncontrollably and interfere with normal organ and metabolic functioning and have the ability to metastasize (spread to other parts of the body) and invade other organs or tissues. Breast cancer spreads principally through the lymph system and metastases are frequently found in the lungs, liver, brain and bone.

There are several different types of breast cancers, depending on where the tumours develop, with different doubling times and levels of metastases. Most often cancer cells start within the ducts (ductal carcinoma) or within the glands (lobular carcinoma). Ductal carcinoma is the most common type of breast cancer. (Cdn Cancer Society, 3)

While a diagnosis of cancer can be frightening, the tumour itself is a symptom of a systemic underlying problem or combination of issues. When the immune system is healthy, it can kill off cells that have mutated and are not working properly. So the tumour is a symptom of an impaired immune system. There are many factors causing abnormal cell growth (see Links to Cancer below), including damage from free radicals and imbalanced hormones. (Balch, 278)

Breast cancer is the most frequently diagnosed cancer in women, with more than one million cases occurring worldwide annually and is the second leading cause of cancer death in women, exceeded only by lung cancer. (Zelman, 63, 269) The lifetime risk of developing breast cancer for Canadian women is one in nine. In 2010, it is estimated that 23,200 women will be diagnosed with breast cancer (only 180 men) and 5,300 will die from it (50 men). The 5-year survival rate is about 87 percent for women (84% for men). (Canadian Cancer Society)

Links to Cancer

There is no single cause of breast cancer, but there are many and varied risk factors for the development and growth of abnormal cells in breast tissue. The following is a list of factors that can increase the risk of developing cancer:

1. Physical Factors
   - Age – although it is possible for a woman to develop breast cancer at any age, the disease is most common in women over 40, especially postmenopausal. (Balch, 251)
   - Gender – men account for less than 1 percent of breast cancer cases. (Canadian Cancer Society)
• Genetics – mutations in certain genes including BRCA1, BRCA2 may increase the risk of breast cancer by as much as 80%. (Zelman, 63) Five to 10% of breast cancers occur in women with a clearly defined genetic predisposition for the disease. Hereditary cancers usually develop before the age of 50. (Balch, 251)

• Weight – being overweight, obesity with menopause increases the risk of breast cancer. Obese women tend to have higher levels of estrogen in their bodies than thin women do. (Balch, 251)

• Activity – physical inactivity increases the incidence of breast cancer

• Reproductive history – onset of menstruation before age nine, oral contraceptive use, never having children, or having a first child after age 40, menopause after age 55, have been linked to breast cancer. (Zelman, 63; Balch, 250)

• Infection – certain infectious organisms have been linked to breast cancer including: Staph aureus, Staph epidermidis, Mycoplasma, Streptococcus, Chlamydia, Aspergillus and the Epstein Barr virus. These infectious organisms cause inflammation which promotes cancer growth or they can promote tumour growth by blocking apoptosis. (Kaur, 46)

• Chronic Inflammation – chronic infection leads to chronic inflammation in areas where there have been repetitive cycles of injury and repair.

• Hormonal Imbalances – researchers believe that the female sex hormone estrogen is involved with breast cancer. Many of the risk factors mentioned in Reproductive history result in the breasts being exposed to more estrogen over longer periods.

2. Environmental Factors

• Alcohol, cigarettes, preserved and chemical foods (especially salt-cured, smoked and nitrate-treated foods and trans-fatty acids created when vegetables oils are hydrogenated to make margarine and shortening) all have been proven to increase the incidence of breast cancer. (Haas, 79)

• Exposure to pesticides, herbicides and organochlorines and other pollutants such as heavy metals

• Frequent exposure to radiation from x-rays and electromagnetic radiation has been linked to increased risk for breast cancer

• Early or prolonged use of permanent dark hair dyes has been linked to increased risk for breast cancer

3. Emotional Factors

• Stress and how we react to it

• Self-defeating thoughts

4. Nutritional Factors

• Diet – the incidence of breast cancer has risen with the adoption of the Standard American diet including consumption of refined white flour and sugar and fried fast foods. (Haas, 370) Cancer of the breast and a high-fat diet has been shown to be related. It is thought that saturated fats generate more cholesterol and higher estrogen levels in women. (Haas, 78-9)
However, some women develop breast cancer without having any of these risk factors. Most women with breast cancer do not have a family history of the disease. (Cdn. Cancer Society, 5)

**Symptoms**
The earliest sign of breast cancer is often a painless lump in the breast or armpit detected by breast self-examination. Large tumours are usually felt as a mass on or around the breast. Less common symptoms include change in the size or shape of the breast, or a dimpling or thickening of the skin of the breast, swelling of all or part of the breast, distortion, tenderness or pain, and skin irritation and dimpling, nipple changes such as spontaneous discharge or ulceration, a rash around the nipple, and a swelling of a lymph node in the armpit.

Lumps in the breast are very common, especially just before menses. Therefore testing is necessary to make a firm diagnosis.

**Diagnosing Breast Cancer**
To make a firm diagnosis of breast cancer there are many tests that are available.

1. **Imaging studies** – x-rays, ultrasound, mammogram, CT scans or bone scans are used to determine the size, location and shape of the tumour and to see if it has metastasized.
2. **Biopsy** - cells are removed from the body and viewed under a microscope. There are several ways to complete a breast biopsy:
   a. **Fine needle biopsy** – a thin needle is inserted into the breast to remove fluid or cells from the lump.
   b. **Core needle biopsy** – a needle is inserted through a small cut in the breast to remove a sample of breast tissue. Sometimes an ultrasound or x-ray is used to guide the needle to the lump.
   c. **Surgical biopsy** – an operation to remove part or the entire breast lump or breast tissue. An *incisional* biopsy takes a sample, an *excisional* removes the entire lump or suspicious tissue.
3. **Laboratory Tests**:
   a. **Hormone receptor status test** – used to determine whether the cells have hormone receptors. Breast cancer cells that have hormone receptors require estrogen or progesterone to grow. If the cells have these receptors then the tumour is called hormone positive. Hormone positive tumours are more common in post-menopausal women.
   b. **HER2 test** – used to determine if the cancer gene that holds the HER2 (human epidermal growth factor receptor 2) protein is present. HER2 is a protein on the surface of breast cells that promotes growth. If the tissue has too much HER2 protein then it is called HER2-positive.
   c. **Blood tests** – used to determine if the different types of blood cells look normal and if they are normal in number. There are studies currently in process determining other factors in the blood that can diagnose cancer.
The following is a concise description of what goes on within the body to produce a cancerous tumour. It is taken in its entirety from Sat Dharam Kaur’s Healthy Breast Program, 44-45. Supplement suggestions are included in italics for each stage for consideration.

**The Cancer Process**

1. A mistake is made in the duplication process of the cell’s genetic material. Antioxidants and regular detoxification help to decrease the number of mistakes.

2. When genetic mistakes occur, the cell may fix them with repair mechanisms, or it may die shortly after being reproduced. Typically cancer cells divide too frequently and lack mechanisms for controlled, programmed cell death and for cellular repair. *Vitamin B3, lipoic acid, inositol, IP6, perillyl alcohol and limonene help to normalize cell division.*

3. In a good scenario, if the mutated cell survives, components of our immune system would recognize it as “non-self” and destroy it before it became a tumour. When the immune system is weakened because of stressors, pollutants, glandular imbalances, poor nutrition or emotional and spiritual factors, the cancer cell will continue to divide and reproduce, forming a cancerous tumour. *Astragalus, Echinacea, goldenseal, Mistletoe (Iscador or Helixor), thymus extract, Vitamins A, B6, C, E, B12, folic acid, zinc and selenium strengthen immunity.*

4. The doubling time for breast cancer cells can range between 21-100 days. This means that during this span of time, the cells will double in number. A mass of 100 billion cells is about the size of a golf ball and can take three to more than ten years to form. *IP6, inositol, limonene, perillyl alcohol, goldenseal and bloodroot reduce the doubling time.*

5. When a cancerous tumour attains the size of a pinhead, it sends out chemical signals that cause small blood vessels to encircle it, providing it with nutrients and carrying away waste. This increased blood supply encourages the tumour to grow to a large size. *Green tea, soy, turmeric all decrease angiogenesis.*

6. As the tumour grows it can release clumps of cancer cells into the blood stream or into the lymphatic system from where they can colonize other bodily organs or tissues. This process is called metastasis. The most common sites for breast cancer metastases include the liver, bones, brain and lungs. *Modified citrus pectin and melatonin reduce the possibility of metastases.* (Kaur, 44-45)
Diet and Supplement Recommendations

Any healing program for breast cancer requires a four pillar approach that targets rampant cell growth, aids the body to mobilize its own immune functions, promotes new, healthy cell regeneration and brings the entire body into balance to maintain optimal health. The four pillars are Diet, Exercise, Emotional/Spiritual Health and Supplements. Not one pillar is more important that the other – all four are required for balance and optimal health.

First Pillar: Diet

To support your body while healing from cancer, you need to make sure that your diet is as health supporting as possible. The following recommendations will help you to attain that goal:

1. **Digestive Healing:** If your body is unable to absorb and utilize the nutrients that are coming in from food and supplements, it doesn’t have the tools necessary to heal. Digestive healing is a four stage support program to:
   a. **Remove** pathogens (specifically *Staph aureus*, *Staph epidermidis*, *Mycoplasma*, *Streptococcus*, *Chlamydia*, *Aspergillus* and the Epstein Barr virus) and **food allergens**;
   b. **Replace** digestive factors and enzymes so that food can be properly broken down (discussed in Fourth Pillar: Supplements);
   c. **Reinoculate** with probiotics and prebiotics to replenish the microflora populations in the GI tract (probiotics and prebiotics will be discussed in Fourth Pillar: Supplements); and
   d. **Repair** with nutritional support for regeneration and healing.

2. **Elimination Pathways:** We need to facilitate the body’s own detoxification system to promote the elimination of carcinogenic compounds. The body has two main elimination pathways: the kidneys excrete urine to remove water-soluble compounds from the body and the bowels excrete feces to remove fat-soluble compounds. To keep the kidney working optimally, you need to drink 8 to 10 glasses of filtered, re-mineralized water per day. To keep the bowels clear, your body needs to be eliminating at least once and optimally three times each day. This can be accomplished by eating at least 30 grams of fibre each day from **high-fibre food** (see #2 below) and supplementation.

3. **Support the Immune System:** Consuming foods high in antioxidants as well as cancer super foods will protect and heal the body. Antioxidants are found in foods high in Vitamins A, C, E, Selenium and Zinc such as egg yolks, salmon, halibut, algae, seaweeds, dandelion greens, carrots, parsley, spinach, kale, broccoli, Brussels’ sprouts, sweet potatoes, squash, cantaloupe, asparagus, pink grapefruit, mango, papaya, apricots, citrus, strawberries, melon, tomatoes, green and red peppers, rose hips, raw seeds and nuts (Brazil nuts very high in Selenium), barley, brown rice, red Swiss Chard, tuna, swordfish, lobster, herring, brewer’s yeast,
wheat germ and bran, garlic, turnip, split peas, potatoes, lima beans, mushrooms.

4. **Oxygenate**: Cancer cells will die in an oxygen-rich environment. Oxygenation is increased by consuming chlorophyll-filled foods, found in dark green leafy foods.

5. **Alkalinize**: Eating more fruits and vegetables, less protein and grains keeps the body more alkaline. Check the pH of urine and keep it around 6.8 to 7.2. Cancer cells cannot survive at a pH of 8. Foods high in potassium, magnesium, and calcium create alkalinity: seaweed, raw nuts and seeds, parsley, kale, broccoli, kidney beans, millet, brewer’s yeast, soy, dried apricots, collards, seafood, whole grains, dark green vegetables, molasses, navy beans, caraway seeds, dark cherries, lentils, oranges, apples, avocado, peaches, banana, pineapple, potatoes, soybeans, squash, tomatoes, sage, mint.

6. **Avoid sugar**: We can improve hormone metabolism and reduce the carcinogenic effects of too much insulin by dietary changes to a high sugar and refined carbohydrate diet. Avoiding sugar and choosing to consume foods with a low-glycemic load value will help to lower levels of insulin and IGF-1 hormones. These two hormones strongly stimulate tumour growth. Cancer cells derive their energy from sugar, and insulin, and IGF-1 strongly stimulates cancer growth. In addition, sugar causes a decrease in number of phagocytes which leaves a poorly functioning immune system.

So how can we do all of that? Pay attention to what you eat and how you feel. That includes paying attention to your energy levels, bowel movements, weight, sleep and emotional state. Every person’s metabolism, blood type, body type, digestive sensitivities, likes, dislikes and ethical views are different and affect how you feel about food.

That being said you need to follow a daily diet that has some **basic rules**:

- 8 to 10 servings of vegetables
- 2 servings of fruit
- 1 serving of complex carbohydrates (that means whole grains like brown rice, millet, quinoa, oats and whole wheat flours like spelt and kamut)
- 1 serving of protein (preferably nut and vegetable protein – see #8 below)

1. **Let’s look at food allergens**. This is a topic of heated debate because we get caught up in defining allergies versus sensitivities. What’s important to realize is that if a food that we are eating causes our bodies any discomfort, our bodies will respond with inflammation. To determine food sensitivity (or allergy) requires trial removal and rechallenge of different sets of foods. The most common food allergens include Dairy products, Gluten-containing foods (wheat based grains), Sugar, Red meat, Corn, Peanuts, Soy, Citrus, Caffeine, Alcohol, and Food colourings and additives.

   To determine if your body has an allergen response to any of these food groups, remove all of them for 2 weeks and then slowly reintroduce one group at a time.
2. Eat more high fibre foods (you’ll notice that these high fibre foods are also full of antioxidants, phytonutrients, minerals and vitamins. Keeping your focus on vegetables and fruits will keep you on the road to health) – base your diet on 8 to 10 servings of vegetables per day and 2 servings of fruit.
   a. Cruciferous vegetables are very important such as collards, broccoli, Brussels sprouts, cabbage and cauliflower. Brassicas contain the phytonutrient sulforaphane which increases the ability of the liver’s detoxifying enzymes to remove carcinogens and is a powerful antioxidant. They also contain indoles which induce protective enzymes, and stimulate C2 estrogen production (protective estrogen). CAUTION – Raw brassicas may interfere with thyroid function and cause a rise in thyroid-stimulating-hormone unless you combined with seaweed or iodine.
   b. Add yellow/orange vegetables such as carrots, pumpkin, squash, sweet potatoes, and yams. They are full of carotenoids which act as antioxidants that neutralize free radicals, enhance immunity, and high intake is associated with low cancer rates.
   c. Eat vegetables raw or slightly steamed. Aim for 50 to 80% raw (depending on the season).
   d. Eat onions and garlic, or take garlic in supplement form. They contain the phytochemical Allyl sulphide which increases liver enzymes to detoxify carcinogens and are high in trace minerals germanium and selenium.
   e. Iodine and sea vegetables such as kelp will protect your breasts and is actually used as a cancer treatment. They also help reduce lymphatic congestion and improve digestion. Use sea vegetables in your cooking to replace salt and sprinkle on top of salads for flavouring.
   f. Sprouts and cereal grasses are high in vitamins, minerals and enzymes. They make the body more alkaline (cancer loves acidic conditions). The sprouts of broccoli, mung beans, clover, yellow pea, green lentil, chick pea, fenugreek, contain more nutrients than the vegetable or bean.
   g. Fresh vegetable juices improve detoxification of the intestines and the liver. Carrot, beet, and cabbage juice is very good for breast cancer. You can add any combination of kale, parsley, watercress, asparagus, tomato, bok choy, apple, ginger, garlic sprouts, or seaweed.
   h. Lycopene protects you from cancers of the cervix, breast, mouth, esophagus, etc. You get lycopene mainly from cooked tomatoes, watermelon, grapefruit, and guava. Make sure you check your doctor and pharmacist to see if you can have grapefruit, as it interferes with the detoxification cycle of some medications. Adding olive oil to tomato sauce helps with absorbing lycopene.
   i. Citrus juice and peel (these contain flavonoids and limonene – known breast cancer cell killers). The most effective type of flavonoids comes from tangerines. Oranges and lemons are next. Limonene can also be found in dill weed, caraway seeds and mint. Cherries contain a chemical similar to limonene and are also protective against breast tumours.
   j. Aim for low sodium (salt), and high potassium foods (eat baked sweet potatoes, Jerusalem artichokes, potatoes, sea vegetables, almonds, prunes,
apples, beets, sunflower seeds). Potassium is a highly alkaline mineral that reduces acidity in the body.

k. **Shiitake and maitake mushrooms** are potent cancer cell killers.

3. Consume **only organically grown** food since pesticides and other chemicals have been linked to breast cancer.

4. **Essential fatty acids** (EFAs) – use Omega 3 (flax and pure fish oils) and Omega 9 (olive oil) oils. Omega 3 inhibits tumour growth. Never cook with Omega 3 oils (such as flaxseed oil), add them to foods after they are cooked or use on salads. When using Omega 9 (olive oil) add some water or stock to the pan first before adding the olive oil to keep it from overheating.

5. Take extra **fibre** daily (at least 30 grams per day) – we need both kinds of fibre: soluble and insoluble. **Soluble fibre** is found in psyllium seed, bananas, oranges, apples, potatoes, cabbage, carrots, grapes, oatmeal, oat bran, sesame seeds, flax seeds and beans. It absorbs water and improves the motility of the bowel which will also lower cholesterol and estrogen levels. **Insoluble fibre** is found in wheat bran, unpeeled apples and pears, tomatoes, strawberries, raw carrots, peas, whole grain breads, beets, eggplant, radishes and potatoes. It speeds up the transit time required to move fecal matter through the intestines.

6. **Protein** - if eating meat consume only free-range, organic chicken. Fish should be free of mercury and other contaminants and not more than once per week. Avoid red meat completely. Limit dairy products (not including eggs) because our bodies can react by producing excess mucus which can accumulate in the breasts and cause tumour formation. Further, they are difficult to digest and many people’s immune systems are stressed by them. Eggs are an unusually good, well balanced source of protein. They have all the essential amino acids in proper proportions. Nuts and seeds are also excellent sources of protein and can be sprinkled on top of salads, cooked vegetables and grain dishes to add flavour and texture. A mixture of raw almonds, cashews, pecans, filberts, Brazil nuts, walnuts, sunflower seeds, pumpkin seeds, and sesame seeds is recommended to supplement protein during the first six months when meat proteins are should be severely restricted. Proteins are best eaten early in the day, no later than lunch.

7. **Turmeric, rosemary, sage, thyme, ginger** are all great. You can even make fresh ginger tea. They stimulate bile production, digestion, detoxify and cleanse the liver and kidneys.

8. **Rotate your foods and aim for variety** – try to eat from above and below the ground, and to eat as many different brightly coloured foods as possible. (Kaur, 247 – 288)
Second Pillar: Exercise

We all know that exercise has many benefits: increased oxygenation of tissues and cancer cells die in an oxygen-rich environment; improved circulation and cleaning of blood combined with decreased viscosity and sticking of platelets; and maintenance of a healthy body weight. More important is that exercise makes you feel good. And we all need to feel good. When your body is out of balance, it is easier to get it back in balance when you are using it. Energy makes energy – the more you do, the more you feel like doing. This will combine to increase both your energy levels and your outlook on life.

It’s important to choose things that you enjoy doing (otherwise you won’t be feeling good!) because you’re going to be doing them for at least half an hour three times a week. Do you prefer to be outside? If so, go for long walks around your neighbourhood or in the forest where the stillness will rejuvenate you.

Does the thought of being in a forest send shivers of fear down your spine? Then perhaps you would prefer to join a health club and hire a personal trainer or get your friends together to help you stay on track. Most important is to start with something, anything – today!

Change up your exercise routines so they stay fresh and keep you wanting to go back for more. Is there a new forest trail that you’ve always wanted to go on, but been afraid to try? Get a friend to join you or find a walking group who can support you as well as push you to stretch your limits. That yoga class may look complicated but it won’t be so tricky once you get past the first day. And the benefits far outweigh the trials of learning something new.

Whatever you choose, while you are exercising, experience how your body feels. Feel the blood pumping through your body, take some deep breaths and feel how your lungs expand and fill you with life-giving oxygen. Feel gratitude for your body and its powerful self-healing abilities.

If you can’t do any of the above exercises, you can get your lymph moving (remember the lymph is the highway for your immune system) by dry brushing your body with a dry natural sponge, loofah, or a rough facecloth. Even if you are bedridden, you can still get exercise and move your body by stretching and using elastic strips for muscle resistance. There is always something you can do to get your body moving and pumping oxygen, blood and lymph.
**Third Pillar: Emotional/Spiritual Health**

Having any illness can be stressful. To help your body return to balance, you need to find ways to minimize stress within your daily life. If you are dealing with cancer, the emotional aspect is critical. Make time for deep rest and stillness, time to look at what changes you want or need to make in your life.

Take time to educate yourself about treatment options. Which ones actually sound reasonable to you? Not every option is right for everyone. Be still and calm within yourself to determine your best route through this process.

There are many ways to find stillness or mindfulness. Relaxation techniques such as meditation, yoga, or massage therapy can be very helpful. Sometimes there’s nothing better than a nice hot bath with candles and the door locked against intruders! Others find that answers to what their body really wants flow out of them while journaling, or in “stream-of-consciousness” writing. From a place of meditation, write down without judgement or even real thought, whatever comes to you. You’ll find that what appears from your deepest recesses can be illuminating.

There are many healing modalities that you can look into and discover which resonate most with you and your healing journey. Some examples include:

1. *Aromatherapy* – massage and facials
2. *Massage*
3. *Shiatsu*
4. *Acupuncture*
5. *Energy Work and Healing*

Another healing resource we often overlook is our support system of friends and family. Be clear with friends that you do need their help. Let them know what would be of most benefit to you when they ask. Do you need help with getting suppers prepared? With getting the kids to school in the morning? With picking them up at night? Be specific and you’ll find that the people around you are happy to support you.

Louise Hay was one of the first authors to make the connection between different conditions and body parts and the emotions associated with them. She feels that the emotions underlying breast cancer include “A refusal to nourish the self. Putting everyone else first. Over mothering. Overprotection. Overbearing attitudes.” (Hay, 21)

To heal ourselves from the emotional wounds we inflict on ourselves daily, she offers positive affirmations that can be added to thoughts and meditation for healing:

> I am important. I count. I now care for and nourish myself with love and with joy. I allow others the freedom to be who they are. We are all safe and free.

I find that whenever I catch myself speaking “negative talk”, I pull my positive affirmations out and remind myself that **I am loveable and capable**. Immediately you will feel better and will have stopped yourself from creating an emotional wound that runs more deeply than we realize.
Fourth Pillar: Supplements

The supplements that are suggested below are important, however they certainly do not represent the only products that we recommend nor do they all have to be used in a cancer patient in most circumstances. Each of us is unique and not everyone benefits from all supplementation. Listen to your body and let it be your guide.

1. Digestive Healing: If your body is unable to absorb and utilize the nutrients that are coming in from food and supplements, it doesn’t have the tools necessary to heal. Digestive healing is a four stage support program to:
   a. **Remove** pathogens (specifically *Staph aureus, Staph epidermidis, Mycoplasma, Streptococcus, Chlamydia, Aspergillus* and the *Epstein Barr* virus) and **food allergens** (discussed in First Pillar: Diet). If you have ever had any of the above viruses, then the first step will be removing all traces of them with herbal tinctures of Red Thyme Oil, Sage Leaf, Lemon Balm Leaf, Coptis and Black Walnut. Recommendations for herbal tinctures should be made with the assistance of a trained herbalist.

   b. **Replace** digestive enzymes so that food can be properly broken down. Digestive enzymes include Hydrocholoric acid (HCl), Intrinsic factor, Gastric enzymes (lipase, amylase, gelatinase, pepsinogen/pepsin), Pancreatic enzymes (trypsin, chymotrypsin, carboxylypeptidases, ribonuclease and deoxyribonuclease, amylase, lipase, cholesterol esterase, proelastase/elastase, phopholipase), Bile (for fat emulsification or breakdown), and Intestinal enzymes (dipeptidases and amino-peptidases, disaccharidases).

   **CNC (Ultragest)** - 1 capsule at breakfast, 2 capsules at start of lunch and dinner

   c. **Reinoculate** with probiotics to replenish the microflora populations in the GI tract. Probiotics include *Lactobacillus acidophilus, bulgaris and thermophilus, Bifodobacteria bifidus, longum, infantis, breve.*

   **HMF Intensive** - at least 8 billion (multi-strain variant) for first 6 weeks, 1.5-3 billion per day maintenance

   d. **Repair** with nutritional support for regeneration and healing (discussed in First Pillar: Diet).

2. Elimination Pathways: Fibre supplementation (further discussed above) at least 30 grams of insoluble and soluble fibre daily – from fresh vegetables and fruit, freshly ground flaxseeds, psyllium fibre, nuts and seeds. **Begin with 1 tsp of ground flaxseeds twice per day and gradually build up to 1 tbsp.** (depending on quantity of high-fibre vegetables and fruit).

Homeopathic *Ruta Graveolens 6C* has been found to be beneficial in breaking down the tumour load while clearing kidney and liver pathways. It heals the body, rebuilds and nourishes while helping to carry out the tumour load. Combine with *Calcarea phosphorica 3X* for best absorption. (Banerji, website)
**Ruta Graveolens 6C**: 2 pills = 1 dose - 2 doses daily, morning (breakfast) and evening (dinner time)

**Calcarea Phosphorica 3X**: 2 tablets = 1 dose, 2 doses daily, noon (lunch) and night (bedtime)

As with all homeopathics, dissolve pills in mouth. Do not chew or swallow. Do not touch the pills (use a pill cup). Do not eat, drink or take other meds at least 15 minutes before and after use. If you are taking steroids (Decadron), avoid taking them within 1 hour. Avoid any citrus fruits or juices for at least 30 minutes before or after taking Ruta/CalcPhos. Do not brush teeth with toothpaste at least 15 minutes before taking them.

3. **Support the Immune System**:
   a. **Essential Fatty Acids** – to replace and rebuild healthy cell membranes. 2 Tbsp. of Omega 3/flax seed oil per day, combined with 2 capsules daily of balanced EPA:DHA rich, molecularly distilled, sustainably harvested fish oil.
   b. **Proteolytic enzyme complexes** – to help break down abnormal cell membranes so that the body’s own immune system can destroy the cancerous cells. Wobenzyme or Zymactive - 2 capsules x 3 day on an empty stomach (20 minutes before you eat).
   c. **Curcumin (from Curcuma longa)** – Curcumin is an antioxidant, anti-tumour and anti-inflammatory. It stimulates bile production in the liver, improves the ability of liver enzymes to detoxify, relieves intestinal gas, is cleansing to the blood and skin. It is thought to prevent the formation of a blood supply to cancerous tumours so that they aren’t able to grow. Curcumin reduces the growth of both hormone-dependent and hormone-independent breast cancer cells. Daily recommended dose is 200-400 mg, 1-3 X/day. The body does not absorb it well so take it on an empty stomach 15-20 mins before meals, and with proteolytic enzymes.
   d. **Quercetin** - Quercetin is a naturally occurring bioflavonoid found in red wine, onions and green tea. Quercetin possesses powerful antioxidant properties and like other bioflavonoids, has the ability to stabilize cell membranes. Daily recommended dose is 200 -400 mg, 1-3X /day. Take with proteolytic enzymes for absorption.
   e. **Maitake D- or MD-fraction** – Maitake MD-fraction stimulates white blood cells known as macrophages (immune system). Dosage is based on weight: 0.5 to 1.0 mg for ever 1 kg or 2 pounds. (Usually around 35-40 mg of the D-fraction). Take 20 minutes before meals or on an empty stomach.
   f. **PSK/PSP** – Polysaccharide extracts of coriolus mushroom which significantly increase immune ability. A typical dose for the combination is 1 to 3 g per day.
   g. **Polyerga** - This is derived from animal tissue and is an immunostimulant which helps regulate healthy cell growth and stabilize cell functions throughout the body. Every tablet contains 100 mgs. People who weigh less than 100 lbs should take one tablet, 3X/day. For every additional 40 pounds, add an additional tablet. For example, a 220 pound person would take 5
tablets a day, at even intervals. There is no toxicity, but taking more will not necessarily produce a better effect. For best results, take on empty stomach before meals. DON’T take at same time as taking digestive enzymes such as papain, bromelain or pancreatin.

h. **Modified citrus pectin** - Derived from citrus fruits, modified citrus pectin can provide support for normal and healthy cell growth. A typical dose for adults is between 6 and 30 g daily in divided doses (e.g. 6 g, 1-5 X daily). AOR’s MCP powder is easily dissolved in fruit juice or water.

i. **Ip6 (Inositol hexaphosphate)** – Ip6 supports normal cell growth and development as well as natural cell defence. Ip6 also exerts an indirect antioxidant effect through the chelation of free transition metals and supports kidney function. In patients who have cancer, or are at high risk for cancer, the recommended daily dose is 4800 to 7200 mgs of Ip6 along with 1200-1800 mgs inositol. To ensure best absorption, they should both be taken on an empty stomach. Natural Factors has a blend of the two formulated by Dr. Murray – 2 (500 mg) capsules x 2 day.

4. **Oxygenate and 5. Alkalinize**: **Chlorophyll, Greens +, spirulina** or other green drink in the morning – increases oxygenation in the tissues. Cancer cells die in an oxygen-rich environment. Add 1 – 3 tsp. in fresh juice in the morning.

The diagnosis of breast cancer can be seen as an opportunity to bring about change in your life. It is your body’s way of telling you that the way you have been dealing with life is no longer serving you.

The four pillar system is a useful image to use when viewing healing from cancer, or any other serious disease state. It helps us to recognize that there are many components of healing. While diet is very important, equally so is exercise, emotional and spiritual health and supplementation becomes necessary in order to return to equilibrium.

This program offers a starting point for people with cancer. But it is also important to recognize that we are all individuals and while these supplements and food choices have been very beneficial to many, they are not helpful to everyone. Be prepared to experiment with food, exercise, and different methods of emotional/spiritual work and listen to how your body responds to the changes that you are making.
Diet and Supplement Summary: Breast Cancer

1. **Digestive Healing:**
   a. Remove pathogens (herbal tinctures of Red Thyme Oil, Sage Leaf, Lemon Balm Leaf, Coptis and Black Walnut) and food allergens (elimination diet to determine food sensitivities/allergies);
   b. Replace digestive enzymes (**CNC (Ultagest)** - 1 capsule at breakfast, 2 capsules at start of lunch and dinner);
   c. Reinoculate with probiotics (**HMF Intensive** - at least 8 billion (multi-strain variant) for first 6 weeks, 1.5-3 billion per day maintenance); and
   d. Repair: follow a daily diet that includes 8 to 10 servings of vegetables, 2 servings of fruit, 1 serving of complex carbohydrates (that means whole grains like brown rice, millet, quinoa, oats and whole wheat flours like spelt and kamut) and 1 serving of protein (preferably nut and vegetable protein)

2. **Elimination Pathways:** **Kidneys** - drink 8 to 10 glasses of filtered, re-mineralized water per day. (Homeopathic supplementation with **Ruta Graveolens 6C**: 2 pills = 1 dose - 2 doses daily, morning (breakfast) and evening (dinner time) **Calcarea Phosphorica 3X**: 2 tablets = 1 dose, 2 doses daily, noon (lunch) and night (bedtime). **Bowels** - eliminating at least once and optimally three times each day. Eating 30 grams of fibre each day from **high-fibre food** and supplementation with 1 tsp of **ground flaxseeds twice per day and gradually build up to 1 tbsp.**

3. **Support the Immune System**: antioxidants support the immune system: egg yolks, salmon, halibut, algae, seaweeds, dandelion greens, carrots, parsley, spinach, kale, broccoli, Brussels’ sprouts, sweet potatoes, squash, cantaloupe, asparagus, pink grapefruit, mango, papaya, apricots, citrus, strawberries, melon, tomatoes, green and red peppers, rose hips, raw seeds and nuts (Brazil nuts very high in Selenium), barley, brown rice, red Swiss Chard, tuna, swordfish, lobster, herring, brewe’s yeast, wheat germ and bran, garlic, turnip, split peas, potatoes, lima beans, mushrooms. Supplementation:
   a. **Essential Fatty Acids** – 2 Tbsp. of Omega 3/flax seed oil per day, combined with 2 capsules daily of balanced EPA:DHA fish oil
   b. **Proteolytic enzyme** – Wobenzyme or Zymactive (alternate) - 2 capsules x 3 day on an empty stomach (20 minutes before you eat)
   c. **Curcumin (from Curcuma longa)** - 200-400 mg, 1-3 X/day on an empty stomach with proteolytic enzymes for absorption.
   d. **Quercetin** - 200 -400 mg, 1-3X /day with proteolytic enzymes for absorption.
   e. **Maitake D- or MD-fraction** – Dosage based on weight: 1.0 mg for every 1 kg or 2 pounds. (Usually around 35-40 mg of the D-fraction). Take on an empty stomach.
   f. **PSK/PSP** – 1 – 3 g per day.
   g. **Polyerga** - People who weigh less than 100 lbs should take one tablet, 3X/day. For every additional 40pounds, add an additional tablet. DON’T take at same time as taking digestive enzymes such as papain, bromelain or pancreatin.
   h. **Modified citrus pectin** – Build up to 30 g daily in divided doses (6 g, 1-5 X daily).
   i. **Ip6 (Inositol hexaphosphate)** – Natural Factors – 2 (500 mg) capsules x 2 day.

4. **Oxygenate**: Oxygenation is increased by consuming chlorophyll filled foods, found in dark green leafy foods. Supplement with **Chlorophyll, Greens +, spirulina** or other green drink – 1 – 3 tsp. in fresh juice in the morning.

5. **Alkalinate**: Eating more fruits and vegetables, less protein and grains keeps the body more alkaline. Foods high in potassium, magnesium, and calcium create alkalinity: seaweed, raw nuts and seeds, parsley, kale, broccoli, kidney beans, millet, brewer’s yeast, soy, dried apricots, collards, seafood, whole grains, dark green vegetables, molasses, navy beans, caraway seeds, dark cherries, lentils, oranges, apples, avocado, peaches, banana, pineapple, potatoes, soybeans, squash, tomatoes, sage, mint.

6. **Avoid sugar** – cancer feeds on sugar.

7. **Protein** – Only one serving per day – minimal animal protein. Best eaten early in the day, no later than lunch.
Recipes and Food Preparation Instructions

Suggestions for what foods are best consumed are taken from both Sat Dharam Kaur’s Healthy Breast Program combined with the diet suggestions of Dr. Donald Kelley.

On Rising
Prepare a Green drink using either 2 tsp. Greens +, spirulina, or other green powder in water followed by 2 glasses purified and remineralized water, with the juice of ½ lemon or lime added plus a pinch of cayenne pepper. Oxidizing and alkalinizing, source of vegetable protein, Vitamin B12, Beta-Carotene, Iron, Potassium, Magnesium, Phosphorus, Calcium

Breakfast
Cooked brown rice with turmeric, cinnamon and walnuts
Add half a cup of brown rice to 1 cup of water, bring water to boil and then simmer until all of the water has evaporated (about 30 minutes). Once the water has gone, add the soy milk, soaked apricots, and turmeric and simmer until creamy. Put it in your bowl and top with walnuts, cinnamon, flax seed and bran. Source of fibre, curcumin, vegetable protein (walnuts and soy milk), Vitamin B complex, Calcium, Iron, Magnesium, Manganese, Phosphorus, Potassium, Zinc,

Breakfast Scramble
In vegetable stock and olive oil, sauté sliced shitake mushrooms, chopped green and red peppers, sliced green onions, and pressed garlic. Once they begin to soften add 2 slightly beaten eggs and scramble everything together. Once the eggs are cooked, take them out of the pan and wrap them in a whole wheat tortilla. You could add some cayenne pepper to spice this up! Source of protein, omega 9 EFA, Beta-glucans (shitake mushrooms), Vitamin A, Vitamin B complex, Vitamin C, Iron, Magnesium, Lycopene, Phosphorus, Potassium, Zinc, Calcium, Allyl Sulphide

Cooked Teff with cinnamon, nutmeg and pumpkin seeds
Add half a cup of teff grain to 1 cup of boiling water, once it returns to a boil, turn down the heat and simmer until all of the water has evaporated (about 30 minutes). When the water is almost gone, you can add the cinnamon, nutmeg, allspice, soaked dates and rice milk. Once creamy, put in your bowl and add more cinnamon (to taste), pumpkin seeds, ground flax seed, and oat bran. Source of fibre, B Vitamins, Vitamin C, iron, zinc, manganese, magnesium, phosphorus and potassium

Baked Apples stuffed with walnuts and raisins – drizzled with Cashew Cream sauce
Preheat oven to 350ºF. Remove the core and seeds from apples and stuff with walnuts, and raisins that have been tosssed with cinnamon and cloves. Bake for 35 minutes uncovered (you will need to put a little water in the pan so that it doesn’t burn). While the apples are cooking, make the Cashew Cream Sauce. In a blender, combine 1 cup soaked almonds (soak overnight in water), ¼ cup maple
syrup, ½ cup coconut milk, ¼ tsp vanilla, ¼ tsp cinnamon, ½ tsp lemon juice, 1/8 cup water. Blend until smooth. Refrigerate for 30 minutes and serve over baked apples.

*Source of fibre, quercetin, vegetable protein, omega 3 EFA, Vitamin A, B Vitamins, Vitamin C, Calcium, Iron, Magnesium, Phosphorus, Potassium, Zinc*

**Cooked Quinoa with cinnamon, soaked dates and goji berries**
Add half a cup of quinoa grain to 1 cup of water. Cover and bring to a boil, then turn down the heat and simmer until all of the water has evaporated (about 20 minutes). When the water is almost gone, you can add the cinnamon, soaked dates, goji berries and almond milk. Once creamy, put in your bowl and add more cinnamon (to taste), pumpkin seeds, ground flax seed, and oat bran.

*Source of fibre, EFAs, vegetable protein, lycopene, B Vitamins, Vitamin C, Vitamin E, iron, calcium, manganese, phosphorus, zinc*

**Fresh Fruit Salad with Cashew Cream Sauce**
The options for a fresh fruit salad are endless. This salad calls for fresh berries but when they aren’t in season they can be expensive. So use whatever is available in your organic food source to provide a colourful and bright start to your day. Once you’ve washed and dried all of the fruit, place in a bowl and drizzle with the Cashew Cream Sauce (recipe above).

*Source of EFAs, fibre, magnesium, manganese, calcium, protein, B Vitamins, potassium, selenium, iron*

**Cooked steel-cut Oats with cinnamon and soaked prunes**
Add half a cup of steel cut oats to 1 cup of water. Cover and bring to a boil, then turn down the heat and simmer until all of the water has evaporated (about 30 minutes). When the water is almost gone, you can add the cinnamon, soaked prunes and almond milk. Once creamy, put in your bowl and add more cinnamon (to taste), seeds, ground flax seed, and oat bran.

*Source of fibre, EFAs, B Vitamins, Vitamin C, Vitamin E, iron, calcium, manganese, phosphorus, zinc*

**Snack**
Fresh vegetable juice, with 1 tsp. dulse or kelp powder
The possibilities are endless for juicing. Experimentation is the best way to find out what your pallet prefers. I use a VitaMix for all of my juicing as I prefer to include the pulp from all of the vegetables. It usually requires the addition of water or a little juice to make it drinkable. Adding garlic (which increases the phytochemical Allyl sulphide) or ginger gives the juice a more spicy flavour. Feel free to add some cayenne when you need a pick me up. The rule of thumb is to blend or juice the ginger and/or garlic first, then the green leafy vegetables, then the larger vegetables and fruit. Juicing gives you a higher, faster hit of vitamins and minerals than the blending does – but you loose out on the bowel cleansing fibre. The cookbook *refresh* by Ruth Tal has many delicious juicing recipes.
Very high in a variety of essential micro-nutrients and minerals. This is like having a multi-vitamin in a cup! Source of fibre if blending.

Or 1-2 pieces of fruit, especially cherries, apple, pear, banana, orange, grapefruit, tangerine, berries

Again, when creating a fruit salad, let your taste buds to the judging. Keep it simple and not too much quantity.

Very high in a variety of essential micro-nutrients and minerals. These are best consumed fresh and in season for highest nutrient density.

2 glasses purified and remineralized water, or herbal tea (green tea, licorice, immune tonic tea, red clover, fenugreek, mint, dandelion, rosehip)

Lunch
Asian salad, with Asian dressing, Sautéed Shiitake Mushrooms, Garlic and Ginger Tempeh

For the Asian salad, thinly slice red and green cabbage, grate ¼ cup of carrots, add a handful of sprouts (mix of bean, mung bean, and broccoli) and sprinkle with sesame seeds and dulse. For the Asian dressing, place the following ingredients in a jar, put on the lid, and shake! 2 Tbsp tamari, 3 Tbsp rice vinegar, 3 Tbsp sesame oil, 2 Tbsp honey, 1 clove garlic, 1 tsp. grated ginger. Use half of the dressing to marinate the cubed tempeh for 20 minutes in refrigerator. In a wok, pour ¼ cup of vegetable oil and 2 tsp. olive oil and heat. Then add 3 sliced shiitake mushrooms, 1 clove garlic, 2 tsp. grated ginger and the cubed tempeh with the marinade. Heat until the shiitake mushroom wilt.

Source of fibre, EFAs, Allyl sulphide, indoles, gingerols, Beta-glucans (shiitake mushrooms), vegetable protein, B Vitamins, Vitamin C, calcium, iron, magnesium, phosphorus, potassium, zinc

Sprouted cannellini beans and lentils, tomato and vegetable stew, with a salad of kale, spinach, watercress, grated beets and carrots topped with sprouts and seeds

I’ve mentioned sprouts often in the recipes. Sprouting is very easy and multiplies the nutrient load of the seed or bean. For the cannellini and lentil beans, I sprouted them over two days in a bean pot. The first day, I poured the beans into a covered pot and covered them with clean water and put the aside over night. The next day, I drained the water and covered them again. When I checked them the third day, they had sprouted tiny little tails. You can either continue to sprout them for longer, but in this case, their good to go. Easier to digest and cook. To make the stew, in a casserole pot, add ½ cup of vegetable stock and 2 Tbsp. of olive oil and heat. To the oil add some cabbage, zucchini, onions, garlic, carrots, celery and sweet potato – all chopped into smaller than bite sized pieces. You can choose to add any vegetables that are available here. Once they are just softened – about 15 minutes – add the sprouted beans, 1 can of organic tomatoes, and 2 cups of vegetable or chicken stock and 2 cups of water. Simmer for 40 minutes. For spices, I would add salt, pepper, bay leaf, rosemary (always delicious with tomatoes), oregano and basil with the beans.
For the salad wash and dry kale, spinach and watercress. Grate a carrot and ½ a beet for garnish and top with sprouts. Make a light dressing from flax seed oil, olive oil, lemon juice and apple cider vinegar in a 1-3-1-1 ratio.

**Source of EFAs, fibre, vegetable protein, Beta Carotene, B Vitamins, Vitamin C, Vitamin E, Vitamin K, calcium, iron, magnesium, lutein, indoles, Allyl sulphide, phosphorus, potassium, zinc**

Fresh wild-caught salmon served with braised Brussels’ sprouts, walnuts and cranberries and mixed green salad with olive oil dressing

Drizzle olive oil and juice of ½ lemon over 4 oz salmon steak and sprinkle with salt, pepper, rosemary. Bake, covered at 350ºF for 20 minutes.

While the salmon is baking, heat a large skillet and toast walnuts for about 3 minutes until fragrant. Remove from pan and then add olive oil and about 6 halved Brussels’ sprouts. Cook 5 minutes until browned. Add one small clove garlic, minced and diced shallots and cook for one minute more. Cover and remove from heat for 5 minutes. Transfer to dish and sprinkle with toasted walnuts, dried cranberries and drizzle with walnut oil.

Serve with a small side mixed green salad with a dressing made from ½ an avocado chopped into bite-sized pieces, and ½ a tomato tossed together with juice of ½ a lemon and a drizzle of olive oil.

**Source of EFAs, protein, B Vitamins, Vitamin C, selenium, indoles, calcium, iron, magnesium, potassium, lycopenes,**

Braised Brussels’ sprouts recipe from Vegetarian Times magazine, January/February 2011, p. 48.

Spinach, kale, celery and diced shallots warm salad, topped with watercress, sprouts, Brazil nuts and pecans

In a heated skillet, add ¼ cup of vegetable stock and 1 tsp. of olive oil. Add the washed spinach, kale, diced celery and shallots and cover for 3 minutes. Remove from heat, drain and top with watercress, sprouts, Brazil nuts and toasted pecans. You can add interest to your nuts by drizzling them with olive oil then tossing them with cayenne pepper, turmeric or your favourite spices – then toasting them for 10 minutes. Delicious!

Dress salad with my favourite dressing from *Get it Ripe*, p. 148 – ½ cup of a blend of flax seed oil and olive oil, juice of 1 lemon, 1 clove garlic, minced, ½ tsp. Dijon mustard, 1 tsp. honey, ¼ tsp. sea salt, freshly ground pepper.

**Source of EFAs, vegetable protein, fibre, indoles, Allyl sulphide, selenium, iron, calcium, folic acid, Vitamin A, Vitamin C**

Curried chicken breast with turmeric and cayenne, with roasted root vegetables, with fresh spinach and tangerine salad topped with grated lemon and tangerine peel

Preheat oven to 350ºF. In an oven-proof lasagne pan, put a variety of root vegetables such as cubed squash, yams, parsnips, carrots, turnip. Drizzle with oil and curry powder, turmeric and a pinch of cayenne, toss, and put in the oven for 40 minutes – or until softened.

In a heated skillet, add a mix of vegetable stock and olive oil to just cover the bottom the pan. Add 2 tsp. of mustard seeds and cover until they start to pop. Once the seeds pop, add one chopped onion – once it becomes fragrant, add 1
Tbsp. spelt flour, 2 tsp. curry powder (Lala’s is my favourite), and a tiny pinch of cayenne pepper. Now add the chicken and a ½ cup stock so that the spices become a paste to cover the chicken. Cover and gently simmer for 30 minutes. While the chicken and vegetables are cooking, wash and dry some spinach, and peel and pull apart a tangerine. Grate 1 tsp. of combined rind of lemon and tangerine. Dress with sweet dressing of flax seed oil, lemon, maple syrup – 2:1:1 ratio.

Source of EFAs, protein, fibre, curcumin, carotenoids, limonene, flavonoids, potassium, Vitamins A, B, C, E, K, calcium, iron

Green rice bowl – steamed broccoli, bok choy, kale, swiss chard, over cooked brown basmati rice – drizzled with Simple Sauce (from refresh page 92)

Add half a cup of brown basmati rice to 1 cup of water with a pinch of salt, or a vegetable stock cube, bring water to boil and then simmer until all of the water has evaporated (about 30 minutes).

Simple Sauce is a great topper for any oriental flavoured dish. Use about 2 Tbsps. on top of the rice bowl. Put the following ingredients in a saucepan and simmer for 10 minutes: ½ cup tamari, 3 Tbsp. sesame oil, 1 ½ inch ginger root, grated, 4 Tbsp. lemon juice.

While the rice and the sauce are simmering, quickly steam the broccoli, bok choy, kale, and swiss chard – or add some other favourite greens. Make sure to chop them into bite-sized pieces or this can be a challenge to eat!

In your favourite rice bowl, put the rice on the bottom, cover with the greens, top with 2 Tbsp. of the sauce then garnish with sprouts and nuts and seeds and enjoy.

Source of fibre, EFAs, gingerols, limonene, indoles, lutein, beta-carotene, Vitamin A, B Vitamins, Vitamin C, E, calcium, iron, magnesium, phosphorus, potassium, zinc

Butternut squash soup with sesame seed crusted halibut, served with steamed broccoli, cauliflower and carrots topped with nutritional yeast

Preheat oven to 350ºF. Cut butternut squash in half, remove seeds and pulp, and lay cut-side down on parchment covered cookie sheet. Cook for 45 minutes or until soft.

Once cool enough to handle, scoop out the squash and set aside. In a large saucepan, heat vegetable stock and olive oil – add a chopped onion and 1 clove of garlic, minced. Once fragrant, add ½ tsp sea salt, black pepper and 1 tsp of cumin. Stir and heat for 3 minutes, then add 4 cups of vegetable stock, roasted squash, and 1 strip of kombu. Let simmer for 20 minutes then puree with a hand blender to remove all chunks. You can add ½ a can of coconut milk just before you serve.

To make the halibut, dip the halibut fillet in non-dairy milk then put on a plate and sprinkle with sesame seeds, and cumin. In a heavy skillet, heat vegetable stock and olive oil and gently fry the fillet – about 5 minutes per side until white and flakey.

Steam the broccoli, cauliflower and carrots and sprinkle with nutritional yeast (it tastes like parmesan cheese).
Dinner

Spaghetti Squash with vegetable tomato sauce topped with toasted pine nuts and nutritional yeast

Preheat oven to 350ºF. Cut spaghetti squash in half, remove seeds and pulp, and lay cut-side down on parchment covered cookie sheet. Cook for 45 minutes or until soft. Once cool enough to handle, scoop flesh out into a colander with a fork and allow to drain.

The sauce is a staple in my house – we use it with pasta all the time as its packed with vegetables and is terrific with home made chicken balls. Heat 3 Tbsp. of olive oil in a saucepan. Add 2 chopped onions and sauté until softened. Add 2 cloves garlic and sliced maritake mushrooms and sauté for another 5 minutes. Add a chopped bell pepper, zucchini and sauté for another 5 minutes. Pour in can of crushed tomatoes and simmer for 10 minutes. Stir in 2 tsp oregano, basil, rosemary and 1 tsp salt and simmer for 30 minutes.

Pour the sauce over the spaghetti squash and top with toasted pine nuts tossed with nutritional yeast.

Source of fibre, protein, beta-carotene, lycopenes, Beta-glucans (mushrooms), Vitamin A, B Vitamins, Vitamin C, E, calcium, potassium, manganese

Recipe adapted from Get it Ripe by Jae Steele, p. 188.

Stir fry with garlic, ginger, mixed vegetables, shitake mushrooms, served over a bowl of quinoa with leftover Asian cabbage salad.

Add half a cup of quinoa grain to 1 cup of water with one piece of kombu. Cover and bring to a boil, then turn down the heat and simmer until all of the water has evaporated (about 20 minutes).

While the quinoa is cooking, heat up a wok with some vegetable stock and olive oil. Add 1 clove garlic and 1 ½ inch piece of ginger, grated and cook until fragrant. Toss in cubed bell peppers, snow peas, red onion, broccoli, bok choy and fry until softened. Add bean sprouts and turn off heat. You can use some of the Simple Sauce (above) with this dish or add 3 Tbsp. of tamari, 1 Tbsp. of sesame oil and 1 Tbsp. of lemon juice with the bean sprouts and toss.

Source of fibre, EFAs, vegetable protein, Beta-glucans (shitake mushrooms), indoles, Allyl sulphide, B Vitamins, Vitamin C, Vitamin E, iron, calcium, manganese, phosphorus, zinc

Mixed vegetable and lentil soup with small mixed greens salad topped with walnuts, pumpkin seeds, fresh sprouts and flax seed oil

In a large saucepan, add ¼ cup vegetable stock and 3 Tbsp. olive oil and sauté 1 cup of mixed vegetable cubes (choose from carrots, beets, celery, onions, garlic, sweet potato) for 5 minutes, then add ½ cup of red lentils and 4 cups of vegetable stock and simmer for 1 hour. Season with thyme, rosemary, chervil and a dash of cayenne. Serve with a small mixed greens salad topped with toasted pumpkin seeds and walnuts, fresh sprouts and dressed with a drizzle of flax seed oil and lemon juice.
Stir fry mixed greens, marinated tofu, topped with tomato, cilantro, watercress and red clover sprouts served over brown rice noodles.

This is another one of my favourite noodle bowls based on the recipes in *refresh*. There’s nothing better than a big bowl of hot noodles and steaming vegetables on a cool winter’s eve.

Marinate the cubed tofu in half of the following: 2 Tbsp tamari, 3 Tbsp rice vinegar, 3 Tbsp sesame oil, 2 Tbsp. honey, 1 clove garlic, 1 tsp. grated ginger for at least 20 minutes in refrigerator. Save the other half to pour over the bowl.

Stir fry in vegetable stock and a little oil the bok choy, swiss chard, green kale and some collard greens. Add in the marinated tofu and let heat up.

Cook the brown rice noodles per the package directions. Different brands seem to take different amounts of time. I prefer the really broad noodles and they take forever – directly in proportion to how hungry I am!

Put the noodles in your bowl first, then add the steaming hot green vegetables, then top with a chopped tomato, cilantro, watercress and red clover sprouts. Pour the remaining marinade over the top.

*Navy bean soup with carrot, celery, red potatoes, served with a small fresh green salad*

Sauté in vegetable stock and olive oil one diced onion, carrot, 2 stalks celery and 6 chopped small red potatoes in a large soup pot for 5 minutes. Add 2 cloves minced garlic and sauté one minute. Add 4 cups of vegetable stock and one can of diced tomatoes and simmer 30 minutes. Add one can of drained navy beans and sea salt and pepper to taste. Serve with a small mixed greens salad topped with sunflower seeds and almonds, fresh sprouts and dressed with a drizzle of flax seed oil and lemon juice.

*Navy bean soup with carrot, celery, red potatoes, served with a small fresh green salad*

Sauté in vegetable stock and olive oil one diced onion, carrot, 2 stalks celery and 6 chopped small red potatoes in a large soup pot for 5 minutes. Add 2 cloves minced garlic and sauté one minute. Add 4 cups of vegetable stock and one can of diced tomatoes and simmer 30 minutes. Add one can of drained navy beans and sea salt and pepper to taste. Serve with a small mixed greens salad topped with sunflower seeds and almonds, fresh sprouts and dressed with a drizzle of flax seed oil and lemon juice.

Source of EFAs, vegetable protein, fibre, indoles, lycopenes, beta-carotene, lutein, Vitamin A, Vitamin C, Vitamin K, calcium, iron, magnesium, manganese

*Navy bean soup with carrot, celery, red potatoes, served with a small fresh green salad*

Source of EFAs, vegetable protein, fibre, indoles, lycopenes, beta-carotene, lutein, Vitamin A, Vitamin C, Vitamin K, calcium, iron, magnesium, manganese

Dandelion and pear salad topped with pecans and sprouts, served with leftover roasted root vegetables

Chop 1 bunch of dandelion and slice 4 pears and ½ red onion. Put in salad bowl. Dressing is made in a blender. Put 1 cup orange juice, ½ cup soaked cashews, 1 inch of ginger grated, ½ lemon juiced, 1 Tbsp. white wine vinegar, pinch salt, 2 Tbsp. flax oil, ½ tsp curry powder, ½ tsp cinnamon. Blend until smooth and rub into dandelion leaves. Leave it to sit while you toast the pecans or walnuts. Cut them up and sprinkle along with sprouts over the salad. This is my favourite salad and I often crave it. I can eat the whole thing on my own!

Serve with warmed up leftover roasted root vegetables from yesterday’s lunch. Makes this an easy night!

Source of EFAs, fibre, Alyll sulphides, lycopenes, phosphorus, manganese, Vitamin A, C, K, beta-carotene, lutein, potassium, quercetin, calcium, iron

Adapted from *Enlightened Eating*, p. 165
Garbanzo bean loaf served with lightly steamed greens and a grated carrot and beet and walnut salad

Preheat oven to 375ºF. In a skillet, heat olive oil and ¼ cup vegetable stock and add 1 chopped onion and 1 clove garlic, minced. Once fragrant, add 1 stalk celery chopped, and 1 green pepper, chopped. Put in blender with 1 can of garbanzo beans, 1 tsp. rosemary, cumin, turmeric, coriander and 2 egg whites. Put into a loaf pan and bake for 35 to 45 minutes.

Steam your favourite greens – kale, collard greens, bok choy, spinach. Drizzle with olive oil.

The salad used 2 ½ cups grated carrots, 1 ½ cups grated beets, ½ tsp sea salt, drizzled with hemp oil or flax oil and lemon juice. Top with toasted walnuts.

Delicious and beautiful colours – adapted from Enlightened Eating, p. 163. Source of EFAs, fibre, protein, curcumin, allyl sulphide, lycopenes, Vitamin K, Vitamin A, Vitamin C, magnesium, manganese, potassium, beta-carotene

**Before Bed**

2 glasses purified and remineralized water

1 cup Healthy Breast Drink (1 cup non-dairy milk, 1 tsp. turmeric paste, banana or frozen berries) blended (Kaur, 285)

Source of curcumin, vegetable protein (if using soy or almond milk), micro-nutrients and minerals

Or Green Drink (per On Rising)
References


Banerji, Prasanta, M.D. http://www.pbhrfindia.org/


Kaur, N.D. Sat Dharam. www.mammalive.net > recipe index


**Meal Plan: Breast Cancer Prevention and Care**

**ALWAYS include 8-10 glasses of filtered, remineralized water per day**

* All recipes attached. For additional food and menu ideas, please visit www.whfoods.com and www.mammalive.net

<table>
<thead>
<tr>
<th>Time</th>
<th>Monday</th>
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<th>Saturday</th>
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<tr>
<td><strong>On Rising</strong></td>
<td>Green drink - Spirulina in water - 2 glasses water with juice of 1/2 lime + pinch of cayenne</td>
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<td>Green drink - Spirulina in water - 2 glasses water with juice of 1/2 lime + pinch of cayenne</td>
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<tr>
<td><strong>Breakfast</strong></td>
<td>1 cup cooked brown rice cereal with turmeric, cinnamon, walnuts, 1 Tbsp. freshly ground flax seed, 1 Tbsp. oat bran, soaked apricots + 1/2 cup soy milk</td>
<td>Breakfast scramble (2 eggs scrambled, sautéed sliced shiitake mushrooms, peppers, garlic, nutmeg and pumpkin seeds) + 1 Tbsp. cayenne pepper, 1 Tbsp. Asian cabbage and 1/2 glasses of water</td>
<td>1 cup cooked teff cereal with cinnamon, nutmeg and pumpkin seeds, 1 Tbsp. freshly ground flax seed, 1 Tbsp. oat bran, soaked dates + 1/2 cup rice milk</td>
<td>2 baked apples cored and stuffed with walnuts, raisins - after cooking top with freshly ground flax seed and cashew cream sauce</td>
<td>1 cup cooked quinoa cereal with 1 Tbsp. freshly ground flax seed, 1 Tbsp. oat bran, soaked dates and gogi berries + 1/2 cup almond milk</td>
<td>Fresh fruit salad - blueberries, strawberries, raspberries and bananas topped with 1 Tbsp of freshly ground flax seed and cashew cream sauce</td>
<td>1 cup steel cut oatmeal with 1 Tbsp. freshly ground flax seed, 1 Tbsp. oat bran, soaked prunes + 1/2 cup almond milk</td>
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<tr>
<td><strong>Snack</strong></td>
<td>Fresh fruit salad sprinkled with freshly ground flax seed and sliced almonds and 1 cup of red clover tea and 1-2 glasses of water</td>
<td>Sliced pear with ginger and nutmeg and 1 cup of herbal tea and 1-2 glasses of water</td>
<td>2 cups fresh vegetable juice (celery, kale and tomato) with 1 tsp. dulse powder and 1 cup of peppermint tea and 1-2 glasses of water</td>
<td>2 tangerines with toasted pecans and 1 cup of herbal tea and 1-2 glasses of water</td>
<td>2 cups fresh juice (ginger, beet and carrot) with 1 cup of red clover tea and 1-2 glasses of water</td>
<td>2 cups fresh vegetable juice of green kale, parsley, celery, cucumber, with 1 tsp. kelp powder and 1 cup of licorice tea and 1-2 glasses of water</td>
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<tr>
<td><strong>Lunch</strong></td>
<td>Asian salad and dressing served with Sautéed Shiitake Mushrooms, Garlic and Ginger Tempeh</td>
<td>Sprouted cattail leaves and lentils in a vegetable stew with a fresh salad topped with sprouts.</td>
<td>Fresh wild caught salmon served with steamed Brussels sprouts and fresh salad served with olive oil dressing</td>
<td>Spinach, kale, celery and diced onion salad topped with watercress dressed with olive oil served with Brazil nuts and pecans</td>
<td>Curried chicken breast with roasted pumpkin seeds served with fresh spinach and tangerine salad topped</td>
<td></td>
<td>2 cups fresh juice of spinach, garlic, beet and carrots (1 cup with 1 tsp. dulse powder and 1 cup of rosehip tea and 1-2 glasses of water</td>
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<tr>
<td><strong>Snack</strong></td>
<td>2 cups finely blended Immune Booster cocktail - ginger, garlic, spinach, lemon, celery, carrots, cayenne pepper and 1 cup of fenugreek tea and 1-2 glasses of water</td>
<td>Sliced apples with almond butter with 1 cup of herbal tea and 1-2 glasses of water</td>
<td>2 cups fresh juice (ginger, apples, carrots) with 1 cup of dandelion tea and 1-2 glasses of water</td>
<td>2 cups fresh juice (ginger, beet, apples, cucumber with 1 Tbsp spirulina powder) with 1 cup of green tea and 1-2 glasses of water</td>
<td>2 cups fresh juice (spinach, beet, carrots, apple) with 1 cup of green tea and 1-2 glasses of water</td>
<td>2 cups fresh vegetable juice of spinach, garlic, beet, celery and carrots with 1/2 tsp. turmeric, 1 tsp. dulse powder and 1 cup of rosehip tea and 1-2 glasses of water</td>
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<td><strong>Dinner</strong></td>
<td>Spaghetti squash with fresh tomato and vegetable spaghetti sauce topped with pine nut parmesan</td>
<td>Mixed vegetable and lentil soup with small mixed greens salad topped with walnuts, pumpkin seeds, fresh sprouts and flax seed oil</td>
<td>Stir fry mixed greens, marinated tofu, topped with tomato, cilantro, watercress and red clover sprouts served over brown rice noodles</td>
<td>Navy bean soup with carrot, celery, red potatoes served with a small fresh salad</td>
<td>Dandelion and pear salad topped with pecans and sprouts served with leftover roasted root vegetables to warm things up!</td>
<td>Garbanzo bean loaf served with lightly steamed greens - kale, spinach, broccoli and grated carrots and beets</td>
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<td><strong>Before Bed</strong></td>
<td>2 glasses water and 1 cup Healthy Breast Drink (1 cup non-dairy milk, 1 tsp. turmeric paste, banana or frozen berries blended) or Green drink</td>
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and known nutritional practices reveal a poor nutritional performance during ICU stay and after discharge \([9, 10]\). This narrative review provides practical guidance on nutrition therapy for the ICU, post-ICU, and long-term convalescence phases, based on recent literature and guidelines. The key role of personalizing and timing the provision of macronutrients (calories and proteins) will be discussed. CTE 1

Rebecca Lane Chronic Traumatic Encephalopathy: Chronic Degenerative Disease By: Rebecca Lane Prepared for: Edith Kunszt, CNP, RNCP, DiHom Date: December 9, 2010 Course: Nutritional Pathology. A Replica Management in Data Grids Leanne Guy Peter Kunszt Erwin Laure Heinz Stockinger Kurt Stockinger CERN, European Organization for Nuclear Research CH-1211 Geneva 23, Switzerland

fLeanne.Guy, Peter.Kunszt, Erwin.Laureg@cern.ch fHeinz.Stockinger, Kurt.Stockingerg@cern.ch July 1, 2002 Abstract Edith is a Certified & Registered Orthomolecular Nutritional Practitioner. Edith Holds diplomas from the Institute of Holistic Nutrition (First Class Honors) and the British Institute of Homeopathy. She has studied with various well known international experts in the field of Homeopathy, Homotoxicology & Clinical Nutrition.

Edith teaches on Human Diseases as an instructor of Nutritional Pathology in the Diploma Program and teaches Homeopathy for Beginners in the Continuing Education program at The Institute of Holistic Nutritionâ€™s Toronto and Mississauga Campuses. NP 07 Nutritional Pathology. This course provides a thorough understanding in the study of the traits, causes and effects of disease, as seen in the structure and workings of the Human body. Detailed nutritional assessment It is advisable that patients who are at risk of malnutrition during screening undergo a detailed nutritional assessment for the diagnosis of malnutrition, preferably by a registered dietitian or nutrition expert. In patients with cirrhosis whose screening results indicate a high risk of malnutrition, it is suggested that each component be assessed and documented every 1â€“6 months in the outpatient setting and for inpatients, at admission and periodically throughout the hospital stay.17.
Nutritional fish pathology. Morphological signs of nutrient deficiency and toxicity in farmed fish. by. Applications for such permission, with a statement of the purpose and extent of the reproduction, should be addressed to the Director, Publications Division, Food and Agriculture Organization of the United Nations, Viale delle Terme di Caracalla, 00100 Rome, Italy. © FAO 1992. ABSTRACT The paper summarizes the major nutritional pathologies which have been reported in farmed fish. Morphological signs of nutrient deficiency and toxicity are presented and discussed under the following headings, 1) disorders in protein, lipid, mineral and vitamin nutrition, 2) endogenous anti-nutritional factors present in plant foodstuffs, and 3) adventitious toxic factors present in foodstuffs. The nutritional care of patients is one of the primary responsibilities of all registered nurses (Persenius et al, 2008). A poor nutritional status can lead to malnutrition, which can have serious consequences for an individual's quality of life (Field and Smith, 2008). This paper commences with an introduction to the concept of nutrition, provides an overview of nutritional guidelines and nutritional screening tools which identify those at risk of malnutrition. The nutritional roles of nurses include conducting nutritional screening to identify nutritionally vulnerable patients (Ferguson and Capra, 1998; Holmes, 1999; Wilson and Lecko, 2005) and offering nutritional counselling services (Schaller and James, 2005; Henning, 2009; Waber et al., 2011). ... Exam Preparatory Manual for Undergraduates—Pathology. 840 Pages·2017·70.75 MB·19,050 Downloads·New! Pharmacology for Medical Graduates. 572 Pages·2015·207.14 MB·54,854 Downloads·New! Review of Pharmacology (PGMEE) Paperback. 660 Pages·2018·127.3 MB·50,174 Downloads·New! Harsh Mohan, together with the Second Edition of the pocket size companion Pathology Quick Review and MCQs. Included t The Essentials Of Forensic Medicine And Toxicology.