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## **Acubalance Fertility Diet**

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*Let food be your medicine and medicine be your food. ~Hippocrates*

*Fertility is the ability to fully inhabit a moment, to be completely present. That is where life happens—and that is the creative force of the mother. When we can learn how to connect consciously with what is happening in each moment, however painful, allowing and trusting the unfolding of life on life's terms—rather than controlling and forcing outcomes—we more simply open, to life. ~ Robin Tiberi, DAOM, L.Ac, Clinical Director The Fertile Soul*

## **INTRODUCTION**

We have put a lot of energy and resources into creating the Acubalance Fertile Diet. Its inspiration came from years of counseling couples in our clinic on how to eat to optimize their fertility.

While Chinese physicians have been treating infertility with diet for centuries, Western science is just starting to catch up to the significant role that diet plays in the ovulatory causes of infertility. A landmark study published in 2008, based on the Harvard Nurses Study, makes startling connections between diet and conception. As the most comprehensive research to date on diet and fertility, this study associates **a slow carb, whole food, mostly plant based diet with a six-fold increase in fertility.**

The Acubalance Fertile Diet is an effort to blend the wisdom of Chinese medicine with groundbreaking western research to help women and couples learn what and how to eat to optimize fertility. The diet includes meal plans, recipes, shopping lists, and tips on mindful eating to help you get started.

But before you launch into this diet (or any other), you might want to take a minute to think about the following.

In my clinical practice women ask me daily about what foods to eat and what foods to avoid in order to lose weight and to be fertile. And to my surprise, when I pursue this question further with them, they all seem to already know the answers. So I began to wonder why, when we have tons of information about nutrition and diet, we still eat in ways that we know are not healthy for us? Even Oprah, with her access to the very best nutritional expertise, can't maintain a healthy weight. What's going on?

I think Bob Greene (Oprah's trainer) is onto something when he says "that when someone overeats, they are hungry—but what they really crave isn't necessarily food." He goes on to say that "people often turn to food as their drug of choice" when that can't get what they need in other areas of their life.

I was inspired to reconsider the whole issue of healthy eating and weight loss when I attended a presentation by Paul Pitchford, author of *Healing with Whole Foods – Asian Traditions in Modern Nutrition*. During his years of experience counseling people on diet, Paul realized that getting someone to change their diet was like getting them to convert to a new religion. And most people don't have the discipline it takes to make that change.

He found that if he took the focus off diet and instead concentrated on getting his patients to exercise more and take care of their well-being through meditation and walks in nature, they began to feel better emotionally and could then naturally gravitate to eating better.

This was an AHA! moment for me. I was in the process of developing the **Acubalance Fertile Diet**. But despite providing all the great resources it contains, I knew the trick would be in helping my clients feel motivated to make the change to this new way of eating.

It became clear to me that you don't first focus on changing eating habits; rather, you start by "feeding" the underlying aspects of body, mind, and spirit that are undernourished. You need to find balance and emotional and spiritual satisfaction in other areas of your life so you won't be so inclined to use food to fill a void. This led me to come up with three simple steps to feeling better and getting on the path to healthy, joyful, fertile living.

I call my three-step program: Move, Nurture, and Connect.

### **1. Move your body**

Exercise. Move your body. When you exercise, your body rewards you by releasing a cascade of feel-good hormones (endorphins). These endorphins are Mother Nature's antidepressants, lowering your stress and boosting your sense of well-being.

And to boot, exercise burns calories and helps regulate your insulin levels, reversing some of the metabolic imbalances that are contributing to your weight gain and your fertility issues. Just walking for 30 minutes every day has a positive effect. You can also make an effort to incorporate more activity into your daily routine by parking your car a few blocks from work or your destination, taking stairs instead of an elevator, or hiring a trainer.

## 2. Nurture

You can't be positive or give to others if your own basket isn't full and you are feeling depleted. So the first thing to do is put yourself on your agenda. Take time to nurture yourself: read an inspiring book, have a massage, go to the spa, keep a journal, garden, pamper yourself with a bubble bath with candles and music, or have a walk in nature. Take time each day to meditate and connect to what's important to you and what you have to be grateful about.

## 3. Connect

Humans are social beings, and studies have shown that having a supportive community of family and friends is the most important determinant of mental and physical health.

Malcolm Gladwell tells a fascinating story in his book *The Outliers*. He describes a small town called Rosetta in the US that had been settled by immigrants from a village in Italy. The town is renowned for the health and longevity of its inhabitants. Residents of Rosetta are astonishingly immune to the normal North American diseases like heart disease and cancer. Researchers were at a loss to explain this phenomenon as they could find nothing different in the diet or genetics of Rosetta compared to other towns in the region.

Finally, they identified the differentiating factor—the community itself. Three generations of families often lived together. Everyone knew their neighbors and people felt safe and supported. Whenever a family or individual was in difficulty, neighbors rallied together to take care of them. The researcher finally concluded that it was this culture of caring for each other that was the source of the remarkable health of the residents.

More and more studies are showing that feeling connected is a potent elixir of health—lowering blood pressure, boosting your immune system and creating feelings of happiness and well-being.

Start combining all three: **Move, Nurture, and Connect** by going for a walk in nature with family or friends at least once a week, and then come home for a tasty lunch or dinner made from some of the recipes we have in this book. I bet you will feel great!

### A Story

*This story is an example of how lifestyle and diet can have a remarkable impact on fertility.*

*Karen and Mike had been trying to conceive for 10 years and were feeling desperate. Even though they didn't live in Vancouver, they contacted me and asked if I would be willing to help guide them through the complex and emotional journey of fertility testing and treatment.*

*In the course of our discussions, I helped connect them with the right specialists in their area. Once they felt well taken care of by their physician, we discussed ways they could take control of their fertility themselves.*

*Karen had been diagnosed with PCOS and endometriosis, so I recommended that she go on an anti-inflammatory, low GI diet. Mike had some male factor issues so he needed to make changes in his diet as well. Over the next few months they researched different treatment options and even had an IVF tentatively set up for early 2009.*

*During this time Karen began to feel more in control and optimistic. Mike found he was sleeping better. They both felt less stressed because they now had a direction and some hope. They were doing things to nourish themselves, eating well, and taking supplements. And, low and behold, after two or three months, in early December 2008, they conceived naturally—after trying for 10 years! At the time of writing this they are 15 weeks pregnant and things are looking good.*

*Mike called me and said, "So what do you think did it? Do you think it was the diet and supplements, or do you think it was just luck?"*

*I said, “I think it’s all of the above. I think it’s the fact that you were able to let go and relax: you educated yourselves, you made informed choices, you had a plan, you had a team working for you, you took charge of your own health with diet, exercise and self-care to give yourself the best chance to conceive. Once you scheduled your IVF, you stopped “trying” and started making love, and, voila, Mother Nature did her thing.*

*So I think it was the diet, and I also think it was the luck, and, more importantly, I think it was the letting go, taking the stress away—that helped create a healthy environment for Mother Nature to do her magic.*

I hope this will inspire you to feel that there are many things you can do to optimize your fertility—including diet. But to begin with, you may need to take care of the emotional needs that may be causing you to eat poorly. That is where Moving, Nurturing, and Connecting can help you make the change. Once you have made the decision to embrace a fertile way of eating, the Acubalance Fertile Diet makes it easy for you to begin. If you love the science behind why certain foods negatively impact your fertility and why others positively increase your chances of conceiving and having a healthy baby, this book is a great resource.

If you want to know how to restock your pantry and where to shop for whole, locally grown foods, then we have that information for you. (Chapter 4: Getting Ready for Change, Chapter 5: Shopping for Fertility Foods )

If you just want some menu plans and tasty recipes, then check out our recipe section. (Chapter 8: Recipes )

If you have a complex condition like PCOS, endometriosis or male factor, then we have chapters specifically dedicated to help you manage these conditions naturally and, perhaps, avoid expensive invasive treatments. (Chapter 3: Fine Tuning for Special Conditions)

The essence of research and ancient practice is that healthy eating for fertility is based on a natural, whole foods, plant based, anti-inflammatory diet that includes the following:

### **Whole Foods**

Whole foods are minimally processed and refined as little as possible before being eaten. Whole foods provide maximum nutrients, fiber, enzymes, antioxidants and taste without added artificial flavors, colors, preservatives, sweeteners or trans fats. Whole foods are simple, local, unrefined foods, where processing is limited to enhancing digestibility (soaking, fermenting) or to food preservation such as canning, smoking, curing and drying.

### **Slow Carbs**

Slow carbohydrates are a group of carbohydrates that are slowly digested causing a slower and lower rise in blood sugar after being eaten. They include beans, peas, lentils, whole grains and most vegetables. Eating slow carbs help to minimize insulin resistance, regulate blood sugar, improve fertility and prevent gestational diabetes.

### **Plant Based Foods**

Plant based foods include a rainbow of high fiber, high antioxidant fruits and vegetables, legumes, nuts, seeds and whole grains. A plant based diet means that most (but not necessarily all) of the diet is based on plant foods and is associated with health promotion, disease prevention and longevity around the world. It may be vegan, vegetarian or include small amounts of meat, fish, poultry, eggs and dairy.

### **High Antioxidant Foods**

High antioxidant fruits, vegetables, herbs and spices help to decrease oxidative stress and cellular inflammation associated with decreased fertility. Organic produce has been shown to be higher in antioxidants.

### **Healthy Fats**

Healthy fats and oils that are pressed (slow, low temperature & unrefined - free of chemical solvents) expressed? (suggests expeller-pressed oils are unrefined, which is not the case) naturally from whole plant foods (coconuts, nuts, seeds, avocado, olives) and found in wild, deep sea, short-lived fish. Healthy fats combat cellular inflammation, and improve hormonal sensitivity.

### **High Quality Dairy**

Small amounts of full fat (non-homogenized) dairy products – particularly live culture plain yogurt and kefir, and high quality artisan (naturally fermented) organic cheese – as these are associated with increased fertility.



## Healthy Weight

Weight balance, through attention to balanced diet, portion size, daily exercise and mindful eating. Weight balance for optimal fertility includes a healthy body mass index (BMI) between 20 and 25 and a waist circumference (WC) of less than 35" for women and less than 40" for men.

## Mindful Eating

Mindful eating as a way of eating that can help you slow down and tune in to your body, mind and spirit. It offers a daily way to practice mindfulness (paying attention, on purpose, in the present moment, without judgment), which has been shown to be helpful to manage stress, blood sugar, blood pressure, anxiety, depression and unbalanced (disordered) eating.

The secret to long life, health, and fertility in Chinese medicine is cultivating a way of life that promotes inner balance, puts you in harmony with nature and conserves your essential jing or energy.

According to Chinese medicine theory we have three sources of energy that keep us alive: the air we breathe, the food we eat, and the inherited jing essence we are born with. Each of us receives a finite amount of jing essence from our parents which enables us to develop in the womb. After birth this essence is stored where it becomes the material for our growth, development, and reproduction. While we supply our daily needs for energy with the food, water, and air we consume, our essential jing--- our "family trust fund"-- provides us with backup energy we can call on for health emergencies and for reproduction.

To maintain health and promote longevity we must replenish our daily energy with nourishing foods and conserve that "jing" essence as much as possible through proper lifestyle and relaxation.

*Known as the "root of life," in Chinese Medicine the kidneys govern over birth, growth, and reproduction. Kidneys are described as housing the essence and being the root of yin and yang for the entire body-mind. The kidney involve all the physiological functions included in the Kidney-Urinary system along with the endocrine systems and the adrenal glands.*

However, for many of us living in the West, our frenetic pace of life, high stress levels, and poor nutrition forces our bodies to live beyond our daily income of energy supplied by food and air and to dip into our "jing account" on a regular basis. Living beyond our daily income, we are continually depleting our essential source of vitality, accelerating aging and reducing fertility.

Kidney energy or Qi is the source of sexual desire, fertility, reproduction, and growth. If we were to draw a parallel between Chinese and Western physiology, we might compare Kidney Qi with the endocrine system that controls the hormonal balance. Substances that stress the adrenal glands are draining to Kidney Qi. Deficient Kidney Qi could mean issues with infertility, slow growth and low libido,

Adrenal exhaustion or "burn out" is a common complaint of modern day life. The adrenal glands--those glands that supply our body with the juice we need to respond to dangers and emergencies --are on continual high alert, pouring out adrenalin and cortisol in response to the threats and fears that we are constantly bombarded with. Over time our adrenal system becomes worn out and less able to respond to real threats like infections, illness, and aging. Fertility declines as the endocrine system divert hormones from the reproductive system.

For the last 2000 years Chinese Medicine has developed ways of conserving jing and promoting increased health and longevity by a daoist practice of self-care called yang sheng.

According to the Tao Te Ching (Chinese classic text written around the 6th century BC), those who practice yang sheng know how to preserve their jing, prevent disease and optimize their qi through proper diet, lifestyle and mental and spiritual attitude. Fertility, in this view, is the natural outgrowth of balance and vitality.

*Embracing a way of living that "nourishes life" can reduce the leakage of jing and build up your natural fertile vitality.*

The Chinese character of "yang" in yang sheng means to nurture, take care of, and nourish; "sheng" means life, birth, and vitality. Together "yang sheng" means Nourish Life — fostering health and well being by nurturing body, mind and spirit in harmony with the natural rhythms of nature.

The principles of yang sheng are:

- Practice loving compassion
- Live in harmony with the laws of nature
- Develop mindfulness through cultivating a calm and serene state of mind
- Care for your body through proper nourishment, rest, relaxation and daily exercise

### **Loving Compassion**

According to the Tao Te Ching virtues such as kindness, loyalty, love, and compassion benefit both the individual and the society. Those who practice these virtues are more likely to enjoy a happy, long life. It is interesting that Western research is finding tangible health benefits in people performing acts of kindness.

*In The Healing Power of Doing Good: The Health and Spiritual Benefits of Helping Others* Allan Luks shows the health benefits for those who perform selfless act of kindness. These include:

- Helper's high – the release of feel good endorphins that happens after doing an act of kindness produces a heightened sense of well being. This is often followed by an extended period of calm.
- Reduced stress --helping others reduces feelings of depression, hostility and isolation and can lower blood pressure and reduce levels of stress hormones like cortisol.
- Recurring benefit--acts of kindness don't just affect you at the time you do them Each time you remember the kind act you are flooded with good feeling that enhance your sense of well being for hours or days.
- Happy thoughts – Helping others can increase feelings of joyfulness, emotional resilience, well-being and optimism.
- Affiliate connection – acts of kindness make you feel more connected to others--and this sense of connection can have a positive effect on your health by lowering blood pressure and strengthening the immune system.

*If you shift your focus from yourself to others, extend your concern to others, and cultivate the thought of caring for the well-being of others, then this will have the immediate effect of opening up your life and helping you to reach out.*

*~ His Holiness the Dalai Lama*

### **Nature**

According to Chinese medicine being close to nature attunes you to the daily and seasonal rhythms of the natural world--the dao. The research of environmental psychologists like Roger Ulrich into the psychological effects of environment on people's health confirms this age-old wisdom. Studies have shown that direct contact with nature, living plants and even photos of nature increase the rate and extent of recovery from stress.

### **Mindfulness**

Frequent emotional upsets, excessive worry, and anger can undermine your health and seriously deplete your jing essence according to Chinese medicine. This is in accord with the modern medicine's understanding of the havoc that prolonged stress plays with your endocrine and adrenal system. Constantly high levels of cortisol can eventually exhaust your body's ability to adapt to stress, compromise your immune system and cause your reproductive system to shut down. Cultivating mindfulness through mind-body practices like meditation, qi gong, and yoga every day help nourish emotional calm and foster a serene and optimistic outlook.

### **Diet and Lifestyle**

A nourishing diet has long been considered the cornerstone of health and longevity in Chinese medicine. For thousands of years food, according to Chinese medicine, has been the primary way to preserve health and the first line of treatment in treating illness.

Where Western views of diet tend to focus on the chemical properties of food --vitamins and antioxidants for example-- Chinese medicine considers the energetic qualities of food: the balance of yin and yang, the qualities of taste, texture, and color. The combinations of foods, as well as season, method of preparation and geographic location all contribute to its healing power.

Yang sheng advocates a locally grown, mostly vegetarian diet with simple, balanced flavors without alcohol consumption or cigarette smoking. Grains, beans, vegetables, nuts, seeds, and fruits comprise the foundation of the diet.

*For the human body to remain in a healthy and balanced state, nothing else is required but to care about its nourishment. Sun Si Miao --Chinese proverb*

The five basic principles of yang sheng eating are

1. Mindful eating: Relax, eat slowly, and enjoy your food
2. Whole food: Eat food as nature intended it in as unadulterated a state as possible
3. Local food: Eat food that has been grown close to home minimizing your environmental impact and maximizing the freshness and energetic quality of the food. Try practicing the 100 Mile Diet as much as possible.
4. Seasonal food: Nature provides just the right foods for the season. Summer vegetables and fruits tend to be cooling and lighter while winter produce tends to be more warming and denser in nutrition. .
5. Moderate Eating Eat only when you are hungry, stopping before you are completely full.

### **Exercise**

Incorporate regular, consistent physical exercise into your lifestyle. Physical exercise can strengthen the body, improve the mind, stimulate digestion, increase circulation, improve insulin response, reduce stress, and build up your immunity.

### **In summary**

This diet is offered as a practical guide to integrating these recommendations into your lifestyle in order to increase your fertility. It is based on the best research and practice experience available and is recommended for all men and women trying to conceive. We have included a Fertility Food Guide; meal plans, shopping lists, and recipes as well as suggestions for fine-tuning your nutritional plan for specific conditions such as endometriosis and Polycystic Ovary Syndrome (PCOS). We invite you to join us in an exploration of the research, the benefits, and the practical aspects of choosing to eat for optimal fertility and we respectfully suggest that you consider these self nourishment changes with a curious, open, fertile mind.



## **Chapter 1: Fertility Diet Research and Recommendations**

The most comprehensive study to date looking at diet and fertility is the Harvard Nurses' Health Study that followed over 18,000 women in a long-term research project looking at the effects of diet and other factors on the development of chronic disease. Chavarro and Willett looked at the fertility data from this study in *The Fertility Diet* (2008). During the study, each woman was trying to have a baby. Over eight years of follow-up, the study found that most did get pregnant. However, one in six women encountered some problems getting pregnant. The results were incredible – even to the researchers – who found a six fold increase in fertility in people who ate a certain diet and maintained a certain lifestyle. Specifically, the study found that women who had the lowest risk of ovulation problem-related infertility (or the highest fertility) ate a plant based, low GI, whole foods diet focusing more on vegetable protein and monounsaturated fats. Women with the highest fertility exercised more, took a multivitamin mineral supplement, and ate at least one serving of high fat dairy each day.

### **Carbohydrates**

The study found that the type of carbohydrates you eat has a significant influence on fertility. It found that diets high in refined and easily digested carbohydrates increased the odds of ovulatory infertility. Fast carbohydrates (high GI foods) bring a quick influx of glucose into the blood stream which then leads to a rapid rise in insulin. This is often associated with a quick energy high followed by a depressing low. Fast carbs include foods made with white flour and refined sugar, russet potatoes, alcohol, candy, cookies, pastries, doughnuts, chips, and sodas. On the other hand, diets that were rich in high fiber, slow carbohydrates (low GI foods) were associated with improved fertility. Low GI foods include whole grains, brown rice, legumes, and vegetables. This lines up nicely with work showing that a diet rich in these slow carbs and fiber before pregnancy helps prevent gestational diabetes, an increasingly common problem for pregnant women and their babies.

Carbohydrates are the primary determinant of blood sugar and insulin levels. Fats and protein are digested slowly and do not have much impact on blood sugar by themselves. When blood sugar and insulin levels rise too high, they disrupt ovulation.

In fact, the study found that the amount of carbohydrates in the diet was as important as the type. Women whose diet contained at least 60% calories from slow carbohydrates tended to be a healthier weight than women who generally avoiding carbs. The slow carb eaters tended to also tended to have an overall healthier lifestyle including more exercise, less alcohol and coffee, less fat and animal protein and more plant protein.

#### ***What is insulin resistance?***

*Insulin resistance refers to the body's reduced capacity to metabolize insulin and glucose. The pancreas works harder and harder to produce insulin, but the insulin cannot do its work of transporting glucose (sugar) into the cells because of a hormonal imbalance or because a person is overweight. The excess insulin in the blood leads to excess glucose in the blood and contributes to prediabetes, weight gain and diabetes*

#### ***What is diabetes?***

*Diabetes refers to Type 2 diabetes caused by obesity and insulin resistance.*

#### ***What is the glycemic index?***

*The glycemic index (GI) is a measure of how high the blood sugar rises after eating a food. The foods are ranked on a scale, using white table sugar as a comparison (ranked as 100). Low GI foods cause a lower rise in blood sugar after a meal, creating longer satiety, less blood sugar swings and sustained energy. Research is pointing to a connection between low GI foods and increased physical performance, better weight management, prevention and treatment of diabetes and mood stability.*

### **Fertility Diet Recommendations:**

You can improve ovulation with a diet based on at least 60% of calories from slow release carbohydrates such as whole grains, dried beans and peas, vegetables and whole fruits. Eat mostly low and medium GI foods, and avoid those foods with a high GI.

## Examples of GI of Common Foods

### Low GI = 55 or less

Sprouted grain bread/tortillas  
Sweet potato  
Oat bran, Pumpernickel or Buckwheat bread  
Al dente (firm) pasta  
Lentils/kidney/ Chickpeas  
Quinoa, bulgur, barley  
Bran Buds with Psyllium™  
Fruits and vegetables  
Whole milk  
Yogurt

### Medium GI = 56 – 69

Potato (new or red)  
Oats  
Popcorn  
Split pea or green pea soup  
Brown rice  
Couscous  
Basmati rice  
Shredded Wheat cereal  
Whole grain bread  
Rye bread/Ryvita™ crackers

### High GI = 70 or more

Instant mashed potatoes  
Potato, baking (russet)  
White and Instant rice  
Whole wheat flour bread  
Pancakes, waffles  
Most breakfast cereals  
Bagel  
Soda crackers  
Candy/pop  
French fries  
Energy bars  
Sports drinks  
Most granola bars

### **The GI of a meal can be lowered by adding:**

- lemon juice or vinegar (add broccoli with lemon juice or a salad with dressing to a meal with high or medium GI foods i.e. brown rice)
- healthy fats like olive oil, walnut oil or organic butter
- mixing low GI food with a medium/high GI food (e.g. beans and brown basmati rice)

### **Here are some examples:**

- Breakfast: free-range eggs, sprouted whole grain toast or steel cut oatmeal with nuts and blueberries
- Lunch: salmon on sprouted tortilla, salad with oil and lemon juice
- Dinner: bean or vegetable chili over brown rice, fresh whole fruit salad

For a complete listing of the glycemic index or more foods, see [www.glycemicindex.com](http://www.glycemicindex.com).

Don't get too lost in the glycemic index. The important part is to focus on eating more legumes, whole grains and vegetables in place of fruit, juice or processed grains (breads, muffins, cakes, cookies).

### ***What are Whole Grains?***

*Whole grains are plant foods that include all parts of the grain kernel: the bran, germ and endosperm. Whole grains contain the most nutrients including B vitamins, magnesium, chromium, and fiber. They take longer to cook but are worth it for their flavor, texture, and nutrition. These are the best source of complex 'slow' carbohydrates as they are high in fiber, enzymes, antioxidants, vitamins, and minerals. Eat a few servings of whole grains every day, depending on your energy requirements.*

*Refined grains are whole grains that have been processed to remove part of the bran, germ, or endosperm. The more a whole grain is refined during processing, the more nutrients are lost. Some are partly refined like whole wheat flour, bulgur and couscous. These can be eaten occasionally, however should be avoided by women with PCOS and/or if you are trying to lose weight.*

*Processed grains have been totally refined or processed to the point where there is very little nutrition left (white rice, white flour). Some refined grains have had nutrients added back to them after processing (enriched white bread). Avoid these foods while you are following the Fertility Diet.*

*PCOS clients should restrict the amount of flour products they eat. Sprouted wheat or grains are a better choice as even whole wheat flour is processed and quickly digested and can cause rapid increase in blood sugar. To slow down the rate that foods made with flour are absorbed you can combine them with healthy fats (like almond or peanut butter) or protein.*

*True whole grains are: barley, large oats, brown rice, amaranth, quinoa, millet, wheat berries, spelt berries and kamut berries.*

## **Fats**

The Nurses' Health Study looked for connections between dietary fats and fertility from a number of different angles. Among the 18,555 women in the study, the total amount of fat, cholesterol, saturated fat, or monounsaturated fats in the diet wasn't connected with ovulatory infertility.

What they did find, however, was the largest decline in fertility in women who ate trans fats. Trans fats are artificial fats that cause damage to cells and contribute to inflammation and disease. Findings from the Nurses' Health Study indicate that trans fats are a powerful deterrent to ovulation and conception. Eating less of this artificial fat can improve fertility and can also mean an increase in healthful unsaturated fats, which can boost fertility even further. The largest decline in fertility among the nurses was seen when trans fats were eaten instead of monounsaturated fats.

### ***What are trans fats?***

*Trans fats are synthetic fats made by hydrogenation of oils. Trans fats cause inflammation in the body, thus decreasing immune function and increasing plaque builds up in the arteries. The National Academy of Sciences recommends that there is no safe level of trans fats, however the average North American consumes approximately 22 gm of trans fats each day through processed, packaged foods and fast food restaurants. You can minimize your intake of trans fats by avoiding foods with hydrogenated or partially hydrogenated fats or shortening on the list of ingredients and minimizing your intake of fast and processed foods.*

### ***What are monounsaturated fats?***

*Monounsaturated fats are associated with promoting healthy cardiovascular function. They are found in natural foods such as olive oil, nuts and seeds and their butters as well as avocados.*

## **Fertility Diet Recommendation:**

Choose oils that are cold-pressed, virgin and or UNREFINED from the plants or seeds that they originate. The process preserves/protects the nutritional value of the oil without using high heat &/or adding harsh chemicals . Be aware of oils that are industrially processed & chemically treated to extract the oils from seeds. The result is less exposure to free radicals/toxins and less damage to cellular metabolism. \*Avoid using the term expeller-pressed, as it still designates that the oil has been industrially processed or expeller-pressed using friction heat & is damaged. All Unsaturated Seeds are VERY fragile and easily damaged by heat (anything over 35 degrees), light & O<sub>2</sub>.

Use these Oils for Dressings or Garnishes (Cold use only);

- Cold-pressed Extra-Virgin Olive Oil
- Unrefined Sesame Oil
- Cold-pressed Flaxseed or Hempseed Oil
- Unrefined or Cold-pressed Black Currant, Avocado or Hazelnut.

Include Omega-3 Fats (small amount with each meal);

- Deep sea short lived fish (such as mackerel, sardines, salmon, and halibut)
- Walnuts
- Hempseeds, hempseed butter or hemp oil
- Olives or cold-pressed olive oil
- Flaxseed meal or Flax seed oil
- Salba seeds.

### ***What is Salba?***

*Salba is an ancient grain belonging to the mint family called Chia. It is an excellent whole food source of omega-3, fiber and protein. For optimum nutritional benefits, grind Salba before using. Salba is best freshly ground sprinkled on fresh food or cooked in baked goods like muffins, pancakes and cookies.*

## **Saturated Fats**

You can eat small amounts of saturated fats from pasture raised meat. Studies have shown that **exclusively grass fed** animals have significant levels of Omega 3 fatty acids.

Organic butter is another healthful fat.

Margarine is not recommended. Even if the margarine is made with 'good oils' and is non-hydrogenated, it tends to have artificial ingredients. Nut and seed butters are excellent as well as nutritious spreads such as hummus, pesto and tapenade.

Avoid buying foods containing hydrogenated fats, partially hydrogenated fats, shortening or that have mono or diglycerides on the list of ingredients. Remember--the most important element of the Fertile Diet is to eat **WHOLE** foods. One way you know you are eating a whole food is that it does not have a list of ingredients!

## **Proteins**

Findings from the Nurses' Health Study indicate that getting more protein from plants and less from animals is an important step towards fertility.

Women in the study with the highest protein intake (115 g/day) were 41 percent more likely to have reported problems with ovulatory infertility than women in the lowest-protein group (77g/day). However, when the type of protein was looked at (animal versus plant) protein, an interesting distinction appeared. Ovulatory infertility was 39 percent more likely in women with the highest intake of animal protein than in those with the lowest. The reverse was also true – women with the highest intake of plant protein were substantially less likely to have had ovulatory infertility than women with the lowest plant protein intake.

## **Fertility Diet Recommendations:**

These results point the way to another strategy for overcoming ovulatory infertility – eat more protein from plants (beans, peas, lentils, nuts, seeds) and less from animals (meat, poultry, eggs, and dairy). Contrary to old ways of thinking about protein quality, plant proteins are actually an excellent source of high fiber protein.

## **Plant protein:**

### **Legumes**

Legumes (beans, peas, lentils) are plant proteins that are rich in fiber, iron and B vitamins. **Eat legumes every day** either for lunch or dinner. Add them to soups or salads, make them into dips, or cook up a batch of chili or a bean casserole. Keep your cupboards stocked with a variety of canned and dried beans.

### **Soy**

Traditional soy foods like tofu, tempeh, tamari and miso are a nutritious protein and can be eaten as part of a balanced diet a few times a week. Balance is the key. People in Asia have been eating tofu, tempeh and miso for hundreds of years--in moderate amounts. In the west, however, we consume large quantities of processed soy products in soy milk, soy protein powders, soy "meat" products, and soy fillers. The result is that we are eating much larger quantities of soy that has ever been consumed in a traditional Asian diet. As well, we are eating a highly processed food product rather than a whole food. Increasingly studies are showing that adulterated foods (like trans fats) have unintended health consequences. The Acubalance Fertile diet advocates a whole foods, mostly plant based diet. The portion of protein in the full spectrum of the diet is about 25%. Of that 25%, most of the protein should come from plant sources. Soy protein, in its whole food form, is only one of many sources of plant protein available to us. To optimize your health and fertility enjoy a wide variety of whole food plant protein.

### **Conclusion**

Whole food soy products like miso, tempeh and spouted soybeans are healthy if eaten a few times a week in small amounts. If you eat tofu you should choose organic tofu. Two great sources that are made locally are Sunrise Tofu Soygenics and Superior Tofu. Daily consumption of processed soy products may have a negative impact on your fertility.

### ***What is soy?***

*Soy products are made from soy beans.*

*Tofu is fresh soy bean curd, which is a quick to prepare source of protein that takes on the flavor of whatever you are cooking.*

*Natto is fermented soybeans. Miso, tempeh, and seitan are fermented soybean products that have a similar taste and texture to cooked chicken.*

## **Nuts and Seeds**

Nuts and seeds are a great source of quick concentrated protein and good fats. Limit your daily intake to no more than one ounce (about 20 nuts) and choose natural organic products. For variety, try almond butter, cashew butter, and hazelnut butter in addition to natural peanut butter. Toss a tablespoon of ground flax seed on your oatmeal each morning. Try pumpkin seed butter, sunflower seed butter or hemp seed butter on your toast instead of butter or margarine.

## **Animal Protein**

Small amounts of organic animal protein can be part of a healthful fertility diet. If you choose to eat red meats, choose **grass or pasture fed** meat. Keep your serving size to no more than the size of the palm of your hand.

Organic turkey and chicken are great sources of lean protein, especially when eaten without the skin.

Organic eggs are an easy to digest inexpensive source of high quality protein. You can enjoy 3 – 5 eggs a week, even if your cholesterol is high. Don't forget about eggs for a quick high protein dinner!

## **Canadian Regulations for Animal Sources of Protein**

### **Meats**

*Specialty Meats and organic meats are raised without growth hormones or antibiotics and fed a diet of both grass and grains. Organic meats have the added benefit of being given organic food only. Buffalo/bison is entirely grass fed, but most beef is fed a combination of grains and grass. There are some suppliers of pasture fed beef. See our list of resources*

### **Chicken and Turkey**

*Free run poultry run around freely and are not confined in a cage. All chicken raised for human consumption in Canada is free-run.*

*Free-range poultry are allowed access to outside for part of the day. All turkey raised for human consumption in **Canada is free range.***

*Organic poultry is free range poultry that are fed a vegetarian diet that is at least 80% organic.*

### **Eggs**

*Free Range Eggs are laid by chickens that range free on pasture and are fed all vegetarian feed that does not contain animal by-products.*

*Free Run Eggs are laid by chickens that are cage free inside the barn on shavings and are fed all vegetarian feed but do not range outside on pasture.*

*Omega 3 - Free Run eggs are fed all vegetarian feed that contains ground flax to provide Omega 3 and Omega 6 essential fatty acids. The feed is also Vitamin E enhanced. Chickens are cage free inside the barn on shavings and are fed all vegetarian feed.*

Short lived, deep fish such as mackerel, trout, herring, sardines and wild salmon are all rich in omega-3 fatty acids shown to support healthy cells and immune function, manage weight and hormone balance and reduce pain associated with endometriosis.

### **Mercury in Fish**

*How do we follow advice to eat seafood twice a week without getting too much mercury and other toxins? Mercury is a neurotoxin, which can damage a developing brain. Fish that is high mercury tends to be larger fish such as tuna, swordfish, shark, marlin, orange roughy, and escolar. Limit your intake of these fish. Instead choose short lived deep sea Pacific fish such as wild salmon, mackerel, sardines, and halibut. Choose only high quality supplements that are from 'safer' fish.*

### **Safe Fish?**

*Check the Environmental Defense Fund website for a review of the safest and most sustainable fish choices for your health ([www.edf.org](http://www.edf.org))*

## **Dairy**

The Harvard Nurses' Health Study found that women who ate low fat dairy products were less likely to get pregnant. The study showed that eating full fat dairy products, on the other hand, was associated with an increased chance of getting pregnant. This led researchers to recommend that if women are including dairy in their diet they should consume moderate amounts of whole fat rather than low fat dairy products.

However, if you have a Chinese diagnosis of “phlegm damp” or have endometriosis, you should eliminate dairy from your diet completely. Some research has shown that dairy products may increase prostaglandins, which stimulate estrogen. Estrogen is responsible for common endometrial symptoms such as painful menstrual cramps, as well as menorrhagia (heavy menses), diarrhea, nausea and vomiting. In Chinese Medicine, dairy products are thought to create a dampness (mucous) that interferes with the flow of energy through the body, creating stagnation. Talk to your Chinese medicine practitioner about whether dairy is right for you.

## **Fertile Diet Recommendations:**

Enjoy one serving of whole fat dairy (1/2 cup yogurt, whole milk or 1/2 oz cheese) if that fits your Chinese medicine constitution. Keep in mind that the studies have shown that eating a whole food, mostly plant based diet is the best recipe for fertility. So limit animal proteins including dairy and focus on including a rainbow of fruits and vegetable in your diet every day.

You can substitute milk or cream in your coffee, tea, cereal, or baking with unsweetened, fortified, rice, oat, hemp, or almond beverages.

Incorporate calcium rich foods into your diet as outlined in The Fertility Food Guide. Take a calcium supplement if you aren't able to manage getting 1000 mg/day from your diet (i.e. 6 – 8 servings from The Fertility Food Guide). Choose calcium citrate with added magnesium and vitamin D. However, if you eat a whole food, mostly plant based diet you should be able to absorb enough calcium from your diet.

## **Vitamins and Minerals**

High quality food is always the best source of nutrients. Supplements can be useful in fine tuning a healthy diet and providing extra support for fertility. Supplementation is individual, depending on your diet, lifestyle, heredity, and health goals.

### **Multi-Vitamin/Minerals**

The Nurses' Health Study found that women who took a multivitamin mineral supplement at least six days a week had a higher fertility rate. Prenatal multivitamin mineral supplements are generally recommended for women trying to conceive. They contain 0.4 to 1.0 mg of folic acid, a B vitamin that is involved in central nervous system development of the early fetus. Some excellent brands are New Chapter, SISU, Natural Factors, and Progressive.

### **Iron**

A high iron intake of at least 40 gm/day is associated with increased fertility. The current recommended daily intake (RDI) for iron is 13 gm/day for women of childbearing age. Most prenatal supplements contain a highly absorbable form of iron.

#### ***Iron in Foods***

*High iron foods include naturally dried fruit, chickpeas, adzuki beans, lentils, quinoa, kale, broccoli, molasses and organic red meats. You can boost your intake of dietary iron by using iron fortified foods such as enriched grain products (for example a high fiber enriched Bran cereal with a low GI).*

#### ***Absorption of Iron***

*Help you body absorb iron by eating vitamin C rich foods at the same time as vegetable sources of iron. Use foods that are leavened, sprouted, soaked, fermented, and roasted to increase the bioavailability of the iron. Use cast iron and stainless steel cookware.*



**Note:**

*Supplements for men should not contain extra iron because studies have shown a link between supplemental iron intake and heart disease in men.*

**Selenium 200 mcg/day**

Selenium is a trace mineral that protects cells from oxidative damage. It is also needed for iodine metabolism and a healthy thyroid. Selenium is found widely in plant foods, depending on the quality of the soil. Brazil nuts, eggs and oatmeal are some of the best sources of selenium in the diet. The recommended daily intake is 55 mcg/day. Selenium is often found as part of an antioxidant formula.

**B12 (cobalamin)**

B12 supplementation is strongly recommended for people following a vegan diet. B12 is available through Red Star Nutritional Yeast, which can be sprinkled on food, or through a supplement of 2.6 mcg/day.

**Vitamin D – 1000 IU/day**

Recent research links Vitamin D to cancer prevention and a supplement of 1000IU/day is recommended for all adults.

**Fertility Diet Recommendations:** Acubalance Fertility Diet Supplement Protocol

**Women:**

- Prenatal Multivitamin/mineral
- Folic Acid 1mg/day
- CoQ10 100mg/day (if over 35 yrs)
- Greens: wheat grass 2 shots/day, or, Chlorella 3000mg/day
- Omega-3 2000mg/day
- Vitamin D 1000 IU/day
- L-trepeine & TAPS day 1-14 of cycle

**Men:**

- Multivitamin/mineral (Iron Free)
- Antioxidants
- Omega-3 2000mg/day
- Vitamin D 1000 IU/day
- Zinc 30mg/day,
- CoQ10 60 mg/day

**Quality of Supplements**

*A good quality supplement is well balanced, highly absorbable and free of contaminants or artificial ingredients. The best supplements available to date are organic food based supplements such as those developed by New Chapter and Progressive. They are highly absorbable and include a probiotic supplement that enhances absorption and digestibility. They have an excellent prenatal multivitamin/mineral supplement for women and a one-a-day without iron for men. Other excellent supplements are made by SISU, Natural Factors and Nordic Naturals.*

**What does fish oil do?**

*The best fish oil (omega-3) supplement is one that uses anchovies and sardines. Oil from fish contains eicosapenaenoic acid (EPA) and docosahexaenoic acid (DHA); both are omega-3 fatty acids, which have anti-inflammatory activity. The omega-3 fatty acids in fish oil help to balance the over abundance of omega-6 fatty acids found in most of our diets. When these two groups of fatty acids are out of balance, the body releases chemicals that promote inflammation. People appear to produce more of these inflammatory chemicals when experiencing psychological stress. With a fatty acid imbalance, inflammatory response to stress appears to be amplified. Prostaglandins are hormone-like substances produced within the body that regulate dilation of blood vessels, inflammatory response, and other critical processes. Omega-3 fatty acids are needed for prostaglandin formation. EPA and DHA also modulate immune function, perhaps as a result of their effect on prostaglandin production.*

**Body Weight**

The Nurses' Health Study found that weighing too much or too little can interrupt normal menstrual cycles and throw off ovulation or stop it altogether.

There is a wide range of body shapes and sizes that can be healthy and the number on the scale is not that relevant as a measure of health. Body Mass Index (BMI) and waist circumference are two measurements that when used together can better help to assess for a healthy weight.

The Body Mass Index (BMI) Chart is the same for males and females. It is simple to use. First find your height on the chart. Then find your weight on the chart. The number where they cross is your body mass index (BMI). A healthy BMI of 20 to 24 is considered the fertility zone. Women with a BMI less than 20 may be at an increased risk of infertility. If you are too lean, gaining five or 10 pounds can sometimes be enough to restart ovulation and menstrual periods. Adults with a BMI above 25 may be at an increased risk for metabolic syndrome, type 2 diabetes and polycystic ovary disease. Overweight also reduces the chances that in vitro fertilization or other reproductive technologies will succeed while increasing the risk of miscarriage, high blood pressure (pre-eclampsia), gestational diabetes and the chance of needing a Cesarean section. If you are overweight, losing 5 percent to 10 percent of your current weight is often enough to improve ovulation.

This number alone isn't the whole picture. Some people with high muscle mass will appear to have a higher BMI. However, when used along with waist circumference measurements, it does give a more comprehensive picture of your weight status. .

Waist circumference is a measure of the health risk associated with too much stomach fat. Men with a waist circumference more than 102 cm (40 in) and women with a waist circumference more than 88 cm (35 in) are at increased risk of developing weight related health problem.

To measure your waist circumference, place the tape measure half way between your hip bone and your lowest rib. This will be about 5 cm (2 in) above your belly button. Wrap the tape measure around you in a circle. Make sure the tape measure is level all the way around. The tape measure should not push in or indent the skin. Relax, exhale, and measure.

A small change in weight can make a difference. Even a change of 10% has been found to have a positive effect on health. See weight management area for support with weight loss or weight gain.

#### ***Measuring BMI and Waist Circumference***

*BMI is a ratio of weight to height. It is calculated by dividing your weight in kilograms by your height squared (in centimetres). Or use the BMI nomogram at [http://www.hc-sc.gc.ca/fn-an/nutrition/weights-poids/guide-ld-adult/bmi\\_chart\\_java-graph\\_imc\\_java-eng.php](http://www.hc-sc.gc.ca/fn-an/nutrition/weights-poids/guide-ld-adult/bmi_chart_java-graph_imc_java-eng.php).*

*To measure your WC, place the tape measure half way between your hip bone and your lowest rib. This will be about 5 cm (2 in) above your belly button. Wrap the tape measure around you in a circle. Make sure the tape measure is level all the way around. The tape measure should not push in or indent the skin. Relax, exhale and measure.*

#### **Fertility Diet Recommendations:**

A small change in weight can make a difference. Even a change of 10% has been found to have a positive effect on health. See weight management area for support with weight loss or weight gain.

#### **Environmental Toxins**

The Nurses' Health Study did not look at the relationship between fertility and toxins in the diet or the environment, however numerous other studies have shown that exposure to dioxins, PCBs, mercury and other chemicals does negatively affect fertility. Optimal health for all of us, including optimum conditions for fertility, means minimizing exposure to environmental toxins.

Mercury is a neurotoxin that is found all fish due to pollution. Some waters are more highly polluted than others. Generally mercury levels are lower in deep sea, short lived, small fish such as mackerel, sardines, wild pacific salmon, and halibut. Avoid larger fish such as shark, tuna, swordfish, shark, marlin, and orange roughy.

Dioxins and furans are common names for toxic chemicals (including some polychlorinated biphenyls (PCBs)) that are found in very small amounts in the environment, including air, water, soil and our food supply. Exposure to dioxins and furans has been associated with a wide range of adverse health effects. Dioxins tend to concentrate in fatty tissues so choose only organically produced dairy, meat and poultry.

## **Fertility Diet Recommendations:**

Minimize exposure to environmental toxins to maximize fertility

- Eat deep sea, short lived, small fish such as mackerel, sardines, wild pacific salmon and halibut.
- Choose organically produced meat, poultry and dairy products and use lean cuts of meat and skinless poultry.
- Go through your home room by room and get rid of toxic chemicals.
- plastic wrap on hot foods or placing plastic wrap over food in the microwave
- synthetic and toxic cleaning products (replace with natural products)
- synthetic shampoos, soaps, creams, cosmetics (replace with natural organic products)
- plastic storage containers (replace with glass or stainless steel)
- dryer sheets

## **Cellular Inflammatory and Fertility**

Each day our body works beautifully to keep us healthy. We even have a built-in detox system. If we take good care of ourselves through diet, exercise, stress management and a clean environment, the body ages naturally and we retain our energy, vitality and health as we age.

However, in the real world, most of us have had more than our fair share of exposure to stress, pollution, stress, medications, drugs, smoke, stress, environmental chemicals, stress, trans fats, artificial preservatives, colors and flavors. (Note: the emphasis on stress – it can have a powerful impact on our health). These push our natural defense system to the edge causing oxidative stress and cellular inflammation.

Oxidative stress or cellular inflammation is the root of premature aging and disease. It affects every cell and organ and depletes our energy and vitality. Oxidative stress is a warning sign of later neurodegenerative disease. And it makes us older than we really are. The good news is that diet plays a powerful role in promoting or preventing cellular inflammation and oxidative stress.

A diet that is high in sugar, trans fats, saturated (animal) fats, refined carbohydrates, high fructose corn syrup and artificial chemicals actually accelerate this cellular aging and disease process. This is the SAD (standard American diet), which has resulted in an epidemic of diabetes, diabetes, obesity, impaired glucose tolerance, heart disease, cancer, gastrointestinal problems, autoimmune disease and food allergies.

***High fructose corn syrup (HFCS)** – developed in the 80's – involves a complex chemical process that turns cornstarch into fructose. This processed fructose, unlike glucose, can only be broken down by the liver and causes cellular inflammation and oxidative damage to the body and is linked to hyperinsulinemia, obesity, insulin resistance and mineral deficiency – all which can negatively impact fertility. HFCS (also seen on labels as glucose/fructose) – like trans fats – are found in a wide variety of processed and fast foods, including sweetened beverages.*

On the other hand, a diet that is high in antioxidants, essential fatty acids and fiber acts to support our cells to remain vibrant and healthy. The anti-inflammatory diet for health is actually the same as the Mediterranean diet which has been proven to be associated with lower risk of disease.

Study after study has shown that inflammation is at the root of PCOS, endometriosis and infertility, and even male infertility.

## **Fertility Diet Recommendation:**

Avoid the following foods, ingredients and chemicals that increase inflammation and oxidative stress:

- Refined, processed foods and fast foods including most fast food restaurants.
- Flour and products made with flour (bread, scones, muffins, pancakes, cookies, etc).
- Moderate and high GI foods (white bread, bagels, crackers, refined cereals, juice, etc).
- High AGE foods such as fatty meats cooked on high heats and highly processed foods. AGE (advanced glycolation end products) is created when sugars and proteins are heated (e.g. sweet marinade on barbequed meat).
- Corn, safflower, sunflower, and soybean oils which are high in omega 6 fatty acids. The imbalance of omega 3 to omega 6 fats contributes to cellular inflammation.
- High fructose corn syrup which is a highly refined product used in pop and many processed foods.

- Trans fats found as added hydrogenated fats, partially hydrogenated fats, shortening, or mono/diglycerides.
- Fried foods, especially in restaurants and fast food outlets.
- Artificial colors, flavors, preservatives, sweeteners.
- Processed soy products (tofu, soy protein, soy milk/yogurt).

Eat these foods to decrease inflammation and oxidative stress:

- High ORAC fruits and vegetables that are loaded with anti-inflammatory antioxidants.
- Anti-inflammatory herbs and spices – adding fresh and fresh dried herbs and spices can increase the antioxidant potential of the entire meal.

**ORAC** is oxygen radical absorption capacity is a test tube measurement of the total amount of antioxidant activity of a particular food. The Highest ORAC foods are aecia, alfalfa, apple vinegar, applesauce, asparagus, avocado, basil, beans, beets, bell peppers, black eyed peas, black pepper, blue berry, blackberry, broccoli, Brussels sprouts, cherries, chili powder, cilantro, cinnamon, cloves, cocoa, cranberry, dates, eggplant, elderberry, figs, Fiji apples, ginger, green tea, high quality olive oil, kale, nuts, oatmeal, oranges, oregano, parsley, peaches, pears, plums, pomegranate, prunes, purple cauliflower, purple sweet potato, raisins, raspberry, red cabbage, red grapes, red leaf lettuce, red potatoes, spinach, strawberry, tangerines, and turmeric.

## Chapter 2: The Fertility Food Guide

*Eat food. Not too much. Mostly plants.* ~Michael Pollan, author

The simplicity of Michael Pollan's dietary message goes right to the heart of the fertility diet. The recommendations for a fertility diet are summarized in The Fertility Food Guide.

This food guide gives guidelines as to minimum amounts of foods to eat from each of the different food groups in order to achieve a diet that is balanced for optimal fertility. The key is choosing the highest quality foods in each of the food groups.

Food Group	Servings per Day	Serving Size	Best Fertility Choices
<b>Whole Grains*</b> **	6 – 11	1/2 cup cooked grains 3/4 cup cold cereal 1 slice bread or 1/2 tortilla 3 cups popcorn	Whole oats, barley, buckwheat, bulgur, whole rye, quinoa, brown rice, millet, wild rice, amaranth, triticale, corn, millet, rice tortillas, popcorn, wheat/spelt/kamut berries, farro, sprouted wheat, corn tortillas, high fiber cereals.
<b>Vegetables</b>	4 or more	1/2 cup raw or cooked 1 cup raw greens (salad)	Local, seasonal, fresh, frozen, colored. Include at least 1 serving of leafy greens (kale, chard, rapini, dandelion, spinach, romaine lettuce).
<b>Fruit*</b>	3 or more	1/2 cup raw or 1 small fruit	Local, seasonal, fresh, frozen berries Tree: apples, pears, peaches Citrus: oranges, grapefruits, kiwi
<b>Protein Foods</b>	3 – 4	1 cup beans (legumes) 2 Tbsp. nut or seed butter 1/4 cup nuts or seeds 2 eggs 60 – 90 grams meat, poultry, fish	Dried beans and peas, lentils Mackerel, sardines, wild salmon, halibut, Almond/hazelnut butter, sunflower seed butter Almonds, pumpkin seeds, hemp hearts Free range organic poultry and eggs Grass fed organic meat.
<b>Calcium Rich Foods**</b>	6 – 8 (maximum of one serving of dairy)	1 cup greens 75 g canned sardines or pacific salmon 1/4 cup almonds or sesame seeds 1 Tbsp. blackstrap molasses 1 cup legumes 1/2 cup milk or fortified grain beverage 1/2 cup yogurt or 1 oz. cheese	Raw almonds, almond butter, sesame seeds, walnuts, hazelnuts Broccoli, Chinese greens, nettles Notes: Cabbage family (cabbage, broccoli), Unsulphured blackstrap molasses Sea vegetables (nori, wakame, kombu) Navy beans, white beans Organic whole fat milk, yogurt, cheese.
<b>Fats</b>	3 - 6	1/4 cup nuts or seeds 1 Tbsp. oil or 2 Tbsp ground flax/hemp/Salba 1/2 avocado 3 oz fish	Walnuts, butternuts, avocado Olives, extra virgin olive oil Ground flax/flax oil Ground hemp/hemp oil Salba Mackerel, sardines, wild salmon
<b>Herbs, spices, condiments</b>	Unlimited except for salt	Small amounts of unrefined sea salt	Cayenne, cinnamon, lemon juice, miso paste, pepper, nutritional yeast, tumeric, organic vinegar.

\*For weight loss and PCOS, have a maximum of 6 servings of whole grains and 3 small servings of fruit/day. Avoid all flour, sugar.

\*\*For endometriosis, choose wheat free dairy free choices.

## **Chapter 3: Fine Tuning for Special Conditions**

More information on specific diseases and conditions

### **Endometriosis**

Endometriosis, affects 10 – 15 percent of women between the ages of 24 and 40 years of age. The triad of symptoms include dysmenorrhea (pain during menses), dyspareunia (pain with intercourse), and infertility. Endometriosis refers to the growth of endometrial tissue in other areas of a woman's body besides the uterus. This tissue is usually found in the abdomen – on the ovaries, fallopian tubes, the ligaments that support the uterus, between the vagina and rectum, the outside of the uterus or the lining of the pelvic cavity – but also sometimes on the bladder, bowel, vagina, cervix and vulva; and very rarely, in the lungs, arms and legs.

The cause of endometriosis is not clear, but it has been strongly linked to immune system dysfunction and exposure to dioxins and other toxic chemicals that accumulate in the fat stores of fish, animals, and people.

The fertility diet is recommended as an adjunct treatment for endometriosis in addition to hormonal treatment. The priority is to first minimize PCB and dioxin exposure and consumption in the home, workplace and diet. A thorough detoxification program along with an anti-inflammatory diet is recommended with an emphasis on the following:

Use high fiber foods which increase transit time in the intestines and promote optimal balance of probiotics in the intestines.

- Avoid meat because it contains large amount of arachidonic acid with promotes inflammatory prostaglandins and inflammation and pain.
- Increase liver friendly foods such as kale, Brussels sprouts, broccoli, rapini.
- Use more anti-inflammatory spices such as turmeric (which protects against environmental carcinogens and decreases inflammation); ginger, milk thistle seeds, ground flaxseeds.
- Avoid sugar, caffeine and alcohol.
- Avoid/minimize dairy products (cause the lipid pathway to be tipped toward prostaglandins and leukotrienes that cause inflammation and vascular constriction).
- Supplement the diet with fish oil to help to reduce pain symptoms and decrease inflammatory response. Choose only supplements from an approved source that has proven low mercury short lived deep water fish.

#### ***Practice Recommendation:***

*400 DHA; 200 EPA supplement twice a day*

*The best fish oil supplement is one that uses anchovies and sardines.*

### **PCOS**

Polycystic ovary syndrome, also known as polycystic ovary disease (PCOD) affects five to ten percent of women in North America and is the leading cause of ovulatory based infertility.

Women with PCOS have high levels of male hormones (androgens) which interfere with the normal production of female hormones like estrogen. This results in the ovaries filling with cysts or creating immature follicles that are unable to generate eggs.

Along with reduced fertility women with PCOS are at a heightened risk for:

- Type 2 Diabetes
- Heart Disease
- Some forms of cancer

#### **What are the Symptoms?**

Some women with PCOS have no symptoms. More often, however, women will experience some or all of the following symptoms:

- Weight gain or obesity
- Excessive hair growth (hirsutism) and/or abnormal hair growth
- Irregular periods or complete absence of menstruation (amenorrhea)
- Acne
- Enlarged ovaries covered with cysts
- Insulin resistance/hyperinsulinemia



## **How is PCOS Diagnosed?**

If your medical doctor suspects that you have PCOS she may recommend that you have a blood test to test for elevated LH (luteinizing hormone) and serum testosterone and an ultrasound of the ovaries to determine if cysts are present (about 20% of all women will have ovarian cysts visible on the ultrasound, so having the cysts does not necessarily mean you have PCOS).

From a Chinese medical perspective, it is always important to look at the individual pattern diagnosis. Your practitioner will do a thorough evaluation of physical and emotional signs and symptoms as well as analyzing your diet and lifestyle and checking your tongue and pulse. Although every diagnosis in Chinese medicine is individual, the most common TCM diagnosis patterns for PCOS is kidney yang deficiency with phlegm and dampness.

## **What is the Cause?**

No one knows the exact cause of PCOS. Women with PCOS frequently have a mother or sister with the condition but there is not yet enough evidence to say there is a genetic link to this disorder. Many women with PCOS have a weight problem. So researchers are looking at the relationship between PCOS and the body's ability to use insulin.

PCOS often results in increased insulin resistance, glucose intolerance, impaired glucose metabolism, elevated lipid profile, high blood pressure, mood swings, and irritability. This means that the body has a reduced capacity to metabolize insulin and glucose. The pancreas works harder to produce insulin, but the insulin cannot do its work of transporting glucose (sugar) into the cells because of a hormonal imbalance or because of too many fat cells. The excess insulin in the blood leads to excess glucose in the blood and sets the conditions for prediabetes, weight gain and diabetes. If untreated, PCOS can lead to overweight, obesity, heart disease, diabetes and some cancers.

## **How Does Insulin Affect Fertility?**

Insulin is a hormone that regulates the change of sugar, starches, and other food into energy for the body's use or for storage. Excess insulin causes a rise in male hormones which can lead to acne, excessive hair growth, weight gain, and ovulation problems. As well, insulin blocks the liver from producing sex hormone binding globulin --a hormone that restricts which cells are affected by testosterone. So high insulin levels increase the amount of male hormones circulating in the blood and also amplify the effects on these hormones on all the cells. In turn high levels of insulin stimulate the ovaries to overproduce androgens. Excess androgens cause the follicles to develop too quickly & then to shut down prematurely before they produce an egg. To make matters worse insulin insensitivity contributes to gain weight, especially in the belly area and insulin insensitivity makes it harder to lose the weight. If that wasn't bad enough this excess fat sets up a negative feedback system: The adipocyte or fat derived hormone leptin inhibits the stimulatory effect of FSH. Obesity is associated with gonadotropin resistance. This is a classic example of a too much yang and not enough yin. In Chinese Medicine this condition can have a number of linked patterns of deficiency and excess that have an impact on the way the body ovulates.

## **How is PCOS Treated?**

Treatment depends on the severity of the condition. For both Western and Chinese medicine the first line of treatment is diet and weight control. With some women, reducing insulin levels and improving insulin sensitivity through weight loss, a low glycemic diet and exercise may restore normal ovulation. For more severe cases, Western treatment may also include fertility drugs, insulin regulating drugs and, in some cases, assisted reproductive therapies like In vitro fertilization.

The Chinese approach is to treat the underlying condition that is causing the hormonal imbalance as well as to alleviate symptoms. Typically a personalized treatment plan to rebalance hormones and regulate the menstrual period takes at least 6 months.

As mentioned diet and lifestyle play a crucial role in treating PCOS. The goal is to regulate the blood sugar, decrease insulin resistance, and improve glucose metabolism. This will help to stabilize insulin levels, moods and weight. Following an anti-inflammatory, low glycemic diet can keep your blood sugar stable, improve insulin sensitivity, and reduce phlegm.

## Ten tips to kickstart your PCOS diet

1. Eat low Glycemic Index (GI) carbohydrates such as vegetables and whole grains. It is very important for women with PCOS to completely avoid refined carbohydrates including sugar, white flour, whole wheat flour and products made from them e.g. pasta, breads, desserts, pop, and candy)
2. Keep your blood sugar stable with a daily schedule of meals and snacks every three to five hours that includes some protein and good fats (for example some nuts/nut butter, seeds/seed butter, hardboiled egg, hummus dip). Protein foods take up to 5 hours to digest while carbohydrate foods digest within 30 minutes.
3. Eat at least five servings a day of vegetables including two of leafy greens
4. Have a daily serving of legumes like black beans or lentils.
5. Enjoy grass or pasture fed meat up to three times a week
6. Eat at least three daily servings of fruits like berries --which have a lower glycemic impact each fruit as part of a meal or with a protein.
7. Limit or eliminate milk and dairy as these can aggravate internal dampness. If you do have dairy have only non homogenized full fat milk
8. Pay careful attention to portion sizes in order to moderate glucose load and minimize insulin resistance
9. Add one or two Tbsp of cinnamon on cereal each morning to help decrease insulin resistance.
10. Include prebiotic and probiotic foods which promote the growth of beneficial bacteria in the intestinal tract. Prebiotics are found in whole grains, onions, bananas, garlic, honey, leeks, artichokes, and some fortified foods. Probiotic foods are found in fermented foods (sauerkraut, live culture yogurt, kim chi, miso).

In addition get your heart rate up with at least 30 minutes of vigorous exercise every day. Studies have shown that exercise can reverse diabetes and improve insulin sensitivity as well as help with weight control.

Just losing five to ten percent of your body weight, if you are overweight, can restore your menstrual periods and reduce distressing symptoms like facial hair and acne. However it is important not to exercise too hard. Over exercise depletes your yin and can raise your testosterone levels. This is not the time to start your marathon training. Balance is the key!

### Supplements

- Chlorophyll: reduces symptoms of hypoglycaemia without raising blood glucose level
- B vitamins, magnesium, alpha lipoeic acid and conjugated linoleic acid: improve insulin resistance
- N-acetylcysteine (NAC) - Regulates blood sugar and is a strong anti oxidant
- Saw Plamento - blocks the production of DHT (dihydrtestosterone)
- Bitter Melon and fenugreek - Regulate blood glucose

In addition to dietary therapy, exercise and life style changes, your practitioner may prescribe acupuncture and herbal formulas. Some promising studies have shown Chinese herbs to be more effective than Western medicine in stimulating ovulation.

After a couple months of treatment you should begin to notice signs of ovulation like increased mid-month vaginal discharge and elevated Basal Body Temperature (BBT). You may notice, if you have very long cycles, that ovulation comes earlier in the cycle indicating healthier egg production. As well your skin should clear up and your excess hair should diminish.

In general, lifestyle changes which include weight loss, insulin control and TCM treatment with herbs and acupuncture have proven to be very effective in the treatment of PCOS

### Male Infertility

According to Chinese medicine, reproductive health is the result of your body being in proper balance. Stress, poor lifestyle, inadequate diet and other factors can disturb natural balance. This results in poor health including impaired semen quality and quantity. It takes 100 days for your body to create and mature sperm. A healthy diet and lifestyle can increase sperm production, increase the percentage of healthy sperm, and improve sperm movement.

Nutrition has a direct impact on sperm potency and motility. Research shows that poor eating habits and regular consumption of alcohol, for instance, can lower the quality and quantity of sperm, making conception more difficult. And since infertility is nearly as much a man's issue as a woman's — up to 40 percent of fertility problems can be traced to men — eating healthfully now will boost your chances of conceiving a child.

The following diet and lifestyle habits will help with male infertility:

- Losing excess weight – weight loss can increase testosterone, energy and vitality.
- Avoid soy and soy based products.
- Eating a balanced anti-inflammatory fertility diet to ensure maximum intake of minerals.
- Choosing organic foods and chemical free personal hygiene and cleaning products.
- Eliminating caffeine, alcohol, marijuana.
- Eat only low mercury fish and organic meat, poultry and dairy to minimize exposure to dioxins.

Take good quality supplements. Several studies show that even short-term zinc deficiencies can reduce semen volume and testosterone levels. Other studies suggest that men with low levels of folate – the same one women need to reduce the baby's risk for neural tube birth defects – have lower sperm counts. Calcium and Vitamin D play a role as well. The addition of essential fatty acids and Coenzyme Q10 will help with energy production, blood flow and control inflammation that can interfere with sperm motility.

Regardless of the source of infertility, it is important for both partners to support each other in the fertility process. The fertility diet is a healthy diet that supports energy, vitality, longevity, health promotion and disease prevention.

### **Miscarriage**

The research on diet and miscarriage is fairly limited at this time. It makes sense to follow a well balanced fertility diet to provide optimal conditions for a complete pregnancy. A good quality multivitamin mineral supplement that contains selenium as well as folate is recommended as some research has shown a link between selenium deficiency and miscarriage.

Food poisoning can mask as flu symptoms and can have serious consequences, including causing miscarriage during the first trimester of pregnancy. *Listeria monocytogenes* can be found in a variety of dairy products, leafy vegetables, fish and meat products. It can survive cold temperatures and sometimes grows on foods stored in the refrigerator. *Toxoplasma* is a single-celled parasite transmitted by the consumption of contaminated raw meat, or other raw foods including fruits and vegetables. Many food-borne contaminants do not change the appearance, smell or taste of food. To avoid food-borne illnesses, follow proper food-handling practices in the home:

- Wash hands frequently but especially before preparing and eating food.
- Prior to food preparation, and wash and disinfect food preparation surfaces and utensils that have been in contact with raw foods.
- Do not store fresh cooked meat and poultry products for more than 2 days in the refrigerator.
- Wash all raw fruit and vegetables thoroughly.
- Make sure hot foods are hot (above 60 degrees C/140 degrees F) and cold foods are cold (below 4 degrees C/39 degrees F).
- Refrigerate cooked foods immediately and use within 48 hours.
- If you are unsure of your hygiene practices around food, consider taking a FoodSafe course ([www.foodsafe.ca](http://www.foodsafe.ca)).

During pregnancy avoid these foods because of possible bacterial contamination that could cause miscarriage:

- soft cheeses, such as brie, Camembert and blue veined;
- deli meats, hot dogs and pâtés;
- previously cooked seafood and smoked fish;
- raw fish or meat and poultry that is undercooked;
- raw or runny eggs or foods that contain raw eggs (Caesar salad and beverages such as eggnog);
- unpasteurized dairy or juice products.

## Overweight

Women who have too much stored energy often have difficulty conceiving for other reasons, many of which affect ovulation. These include insensitivity to the hormone insulin, an excess of male sex hormones and overproduction of leptin, a hormone that helps the body keep tabs on body fat. Excess weight interferes with fertility.

There is no one reason why weight can get out of balance over time. Some people are too sedentary and some eat an unbalanced diet. Some are unaware of portion sizes. Others are emotional eaters. The solution to weight problems will depend on why the weight is out of balance. It is very seldom a simple issue of balancing calories in with calories out.

Here are the key elements of managing successful weight loss.

1. Eat a nutrient rich whole foods diet that is balanced in protein, fat and carbohydrates.
2. Reeducate yourself about healthy portion sizes. Use smaller plates.
3. Practice mindful eating each day – even for the first few bites of each meal.
4. Exercise most days of the week, getting your heart rate in the training zone for at least 30 minutes. Always get out and walk after a medium to large sized meal. Vigorous exercise improves fertility.
5. Find ways to reduce anxiety and manage stress. Mindfulness based stress reduction is an excellent tool for managing stress and has proven to be helpful in managing unbalanced eating behaviours; depression and other stress related concerns.
6. Use the Hunger Scale to find the place of satisfaction vs. fullness.

## **Hunger Satisfaction**

**Level E** – The stomach is uncomfortably empty and is a deviation from the self-referral path of comfort – try to eat before getting to this level.

**Level 0 – 1** – As digestion takes place, there is no remnant of food in your stomach from the previous meal – your stomach seems empty and you feel hunger. You are not starving but there is a definite need to eat.

**Level 2 – 4** - This range describes how you feel as you are comfortably continuing to eat and food is being comfortably digested. There is no sensation of hunger.

**Level 5** – You start to feel satisfied.

**Level 6** – You are full, but at the point of maximum comfort.

**Levels 7 and 8** – Your stomach is completely and uncomfortably full.

**Level F** – You can't eat another bite and the thought of food makes you sick.

## Underweight

Women's health practitioners have known for ages that body fat and energy stores affect reproduction. Women who don't have enough stored energy to sustain a pregnancy often have trouble ovulating or stop menstruating altogether. Changing weight is a challenge whether you are trying to lose or gain weight. However, the body needs a minimal amount of body fat for hormonal balance. It is important to determine the reasons why a person is underweight. Some of the reasons could be:

- genetics
- stress
- illness
- eating disorders.

A review of diet and lifestyle is the place to start. Underweight people are encouraged to eat every hour (the 100 calories every hour diet). If you can't manage that, eat six times per day consistently every day. Drinking healthy caloric fluids is another good way to support weight gain as long as it doesn't interfere with food eaten at meals.

## **Chapter 4: Getting Ready for Change**

The foods we eat each day are intimate choices, developed over time starting with how and what we were fed as a baby, our growing awareness of our body, our energy and our health, our access to food, and our overall relationship to food. This is a deep connection and in order to change, the motivation to move towards something new (a baby) must be stronger than the deep embodied need to hold on. Most people who are trying to conceive are very willing to do whatever is necessary to create the optimal environment.

There are different ways to approach the changes. The grin and bear it, I can do it, willpower model isn't really in alignment with the receptive, nurturing energy required for conception. Another model for change looks at first shining a light on the lifestyle habits you are already doing that can support conception. How did you know to do that? What motivated the change? Is there something that you learned from those changes that you can use now, to support you in making further changes?

It can be helpful to approach these new changes in diet and lifestyle with curiosity. Be open to the possibility that these new dietary recommendations might shift your health, energy and fertility in a way that you never thought possible, in a way that will give birth to healthier, more balanced parents.

### **Detoxifying your Home and Office**

Toxins accumulate in our body through exposure to contaminants in food, medications, drugs, alcohol, tobacco, environment, and stress. By reducing the intake of toxins and supporting the body's natural detoxing, the body can be cleansed. A detox program also helps to reprogram the palate to eliminate cravings for sugar and refined carbohydrates.

The first step in a detox plan is to identify and remove the following foods and ingredients from your cupboards and refrigerator:

- refined carbohydrates and sugar (this includes pasta, white rice)
- caffeine in coffee, tea, cocoa, chocolate, and candy
- pop
- alcohol
- artificial sweeteners, artificial colors, artificial flavors, chemical additives, synthetic preservatives
- fried foods, processed foods (including processed meats)
- high fructose corn syrup
- trans fats (hydrogenated or partially hydrogenated fats, mono and diglycerides).

Throw out all spices and herbs that are over six months old. This is important because they lose their potency over time, especially if they are exposed to light and heat (for example sitting in a spice rack above the stove). Fresh dried herbs and spices are potent sources of antioxidants. Adding even a small amount to the meal increases the antioxidant value of the whole meal.

Get rid of oils, nuts and seeds that have been left in a warm place or have an off smell. Rancid oils are harmful. Check expiry dates. Wipe down cupboards and the refrigerator with an environmentally safe cleaner.

While you are at it, get rid of shampoos, lotions and cosmetics that contain artificial and potentially toxic ingredients (check out [www.safecosmetics.com](http://www.safecosmetics.com)).

### **Reading Labels**

Watch for words you will see on the ingredient list that you may not recognize. Avoid foods containing these ingredients:

#### **Synthetic Fat**

- Mono and di-glycerides, glycerol, esters
- Shortening
- Hydrogenated or partially hydrogenated fats and oils (trans fat)
- Monosodium glutamate
- Disodium phosphate
- sodium bisulfate
- Brine, garlic/onion/celery salt
- Sodium alginate/benzoate, sodium hydroxide/propionate
- Hint: watch for the word "sodium"

## Refined and Processed Sugars

- Fructose, sucrose, maltose, lactose
- liquid invert sugar, syrup, raisin
- syrup, corn syrup solids
- high fructose corn syrup
- galactose, dextrose, dextrin
- Hint: Watch for words ending in “ose”

## Sugar alcohols

- Isomalt, Lactitol, Mannitol, Maltitol
- Sorbitol, Xylitol
- Hint: Watch for words ending in “ol”.

After you have cleaned your cupboards and your home, take some quiet time to just sit and feel the open space. Note the open space in your home. Note the open space in your mind, as you prepare to bring in the new. Note the open space in your heart, as you prepare to care for yourself on a deeper level. You’ve taken the first step on your journey to healthy eating for fertility – you’re mentally open and receptive to positive change and restructuring, you’ve de-cluttered your cupboards and refrigerator of past-dated and unhealthy foods.

While you are at it, check out the kitchen at your workplace and give it a makeover. Throw out nondairy creamers, as they are loaded with hydrogenated fats and other artificial ingredients. Pick up a small fridge and fill it with veggies, fruit, water, nuts, seeds and fresh milk or soy/rice beverage for coffee and tea.

## Detoxifying your Mind

Mindful eating is a way to approach the daily ritual of eating with more awareness. If practiced regularly, it can transform our eating and our health. Each day, each meal, we have an opportunity to slow down and notice what we are eating and how it feels in our body. Slowing down, noticing, paying attention makes it easier to connect with ourselves and our body. This is important personal awareness to cultivate at any time - but mindful eating offers valuable benefits during the preconception period. Studies show that mindfulness practices are very effective in reducing stress, anxiety, depression and unbalanced eating.

Mindful eating can focus our attention and calm our mind. It is deceptively simple and, at the same time, very, very difficult. It is difficult because we live in a fast culture with many distractions that keep us from ourselves. To slow down can seem excruciating at first, but it is worth persevering. We invite you to try mindful eating – start with just one meal or even for the first few bites each time you eat.

## Introduction to a Mindful Eating Practice

1. When you sit down at the table, take a deep breath and relax. Check in with your feelings. Notice and observe them.
2. Clear away any distractions such as the television, computer, phone, books, and newspapers.
3. Notice the food on your plate. Notice the temperature, aroma, color and arrangement on the plate.
4. Appreciate the food, the farmers and all the work involved in bringing this nourishment to you. Find a place of gratitude.
5. Start eating slowly. Take one bite of food, put down your fork and chew your food thoughtfully. Become aware of the flavor, pleasure and health that the food is giving you.
6. Listen to your body. Notice when you are satisfied or when foods don’t agree with you. Continue to breathe. Continue to eat and just notice. Notice when you feel satisfied. Notice when you feel full. What am I really hungry for? How hungry am I? How much do I need to satisfy that hunger? How do I feel when I eat that food? What am I feeling right now? Let the feelings flow through just noticing them.
7. Continue eating your meal, resisting the pull to rush through or distract yourself.
8. When you are finished eating, pause and take a deep breath. Appreciate yourself for taking care of yourself.

The secret to mindful eating is the daily practice. We invite you to try eating mindfully each day. Start with the first few bites of each meal and then try a mindful meal each day, until it becomes part of your rhythm. Mindfulness practices have been shown to be very effective in helping people manage emotional and unbalanced eating problems, as well as depression and illnesses associated with stress. For more information and support check out The Centre for Mindful Eating ([www.tcme.org](http://www.tcme.org)).



## Detoxifying your Body: The first two cycles

### **Nourishing the Kidneys**

Some foods to eat for fertility that support Kidneys (Bob Flaws The Tao of Eating)

Each of the five elements in TCM has a flavor attributed to it, and the Water flavor which governs Kidneys is salty. To support the Water element, eat foods that have salty flavor likes: miso, sea salt, tamari, salted raw sauerkraut or kimchee (Korean cultured vegetables).

**Kidney shaped foods:** black beans, kidney beans, most beans – Because beans are kidney shaped as well as seeds with potential for new life, these foods have long been considered especially nourishing to the Kidneys.

**Blue and black foods:** Blueberries, blackberries, mulberry, black beans – The colors blue and black correspond to the Water element of the Kidneys. It is possible to strengthen the Water element by eating blue/black foods.

**Seafood:** fish, shrimp, seaweeds – all support the Water element.

**Seeds:** flax, pumpkins, sunflower, black sesame – seeds relate to fertility and growth which is governed by Kidney energy

**Animal Products:** Pork, duck, lamb, eggs, cheese – Small amounts of animal protein can be used therapeutically here.

**Grains:** Barley, Millet. These are both mildly cooling and nourishing to Yin.

**Vegetables:** Asparagus, Deep green leafy vegetables –Deep green leafy vegetables build the Blood, and since Blood is a Yin fluid, they are highly recommended. Also moist vegetables such as cucumbers and celery are helpful.

**Fruits and Melons:** These are emphasized since they are moistening and mildly cooling.

**Tonics:** Spirulina, kelp, chlorella, wheatgrass – These mineral rich foods build the Blood which enhances Yin. They are also high in nucleic acids (RDA/DNA) which have been shown to reduce signs of aging.

**Mineral rich herbs:** Nettles, Oat straw. Nettles is a gentle, cooling tonic that supports the Blood and Kidneys, while oat straw strengthens the nerves.

### **ESSENCE NOURISHMENT**

- 1/2 cup pumpkin seeds
- 1/2 cup sunflower
- 1/2 cup brown flax seeds
- 1/2 cup golden flax seeds
- 1/2 cup black sesame seeds
- 1/2 cup white sesame seeds

Dry toast the pumpkin seeds and sunflower seeds in a frying pan by continually moving the pan over medium heat, until the seeds start to pop. Mix all of the smaller seeds in a pan and dry toast them until they pop. This usually takes only a short period of time, 2-5 minutes, depending on your burner setting. The two different size seeds are prepared separately because the small ones cook more quickly. Mix all seeds together and sprinkle over food or eat as a snack.

## **Chapter 5: Shopping for Fertile Foods**

### **Where to Shop**

It is now time to support yourself and your health by filling your house with healthful foods, cosmetics and cleaning products. It is worthwhile to find one or two good places to shop for your foods – a place that has high turnover and high quality standards. Look for a store that has a commitment to supporting local producers and farmers, happy employees, and a love of food.

### **Fertility Shopping List**

#### **BEANS AND LEGUMES, canned and/or dried**

- Black
- Cannellini
- Garbanzo (Chickpeas)
- Brown and Red Lentils

#### **GRAINS**

- Brown Basmati,
- Brown Short or Long grain Rice,
- Quinoa, Specialty Rice (Lundberg's)

#### **PASTA and NOODLES**

- Assorted Whole Grain, Brown Rice, Soy Flour, Corn Pasta
- Soba (buckwheat)

#### **CEREAL, hot and cold**

- Terra Breads or Granola King Granolas
- Nature's Path and Kashi cold cereals
- Bob's Red Mill extra tasty hot cereal/steel cut oats

#### **UNREFINED OILS**

- Extra virgin olive oil (one for cooking and one for drizzling)
- High heat oil like Sunflower or Grapeseed or Coconut
- Toasted Sesame oil for flavoring
- Organic coconut oil for frying

#### **VINEGARS**

- Balsamic
- Red Wine
- Brown Rice

#### **HERBS, SPICES AND SEASONING**

- Unrefined Sea Salt and Kosher (coarse) Salt
- Whole Pepper Corn
- A selection of herbs and spices you use the most
- Nutritional yeast (Red Star flaked yeast)
- Note: this is a great source of B12 for people who don't eat meat
- No Wheat Tamari Soy Sauce
- Bragg's Liquid Amines All Purpose Seasoning
- Curry Paste (refrigerate after opening)
- Gomashio

#### **NUT BUTTERS AND DRIED FRUIT**

- Almond, Hazelnut
- Pumpkin Seed, Sunflower Seed, Hemp Seed
- Selection of your favourite naturally dried fruit (without added sulphites)

#### **TOMATO PRODUCTS**

- Diced, Crushed and Paste

#### **CONDIMENTS, BROTH and SAUCES (refrigerate after opening)**

- Pasta Sauces

- Pizza Sauce
- Chicken and Vegetable Broth
- Salad Dressings (make your own whenever possible)
- Salsa
- Roasted Peppers
- Sun-dried Tomatoes
- Capers
- Chutney

#### **OTHER**

- Canned Salmon, Sardines, Mackerel

#### **PANTRY VEGETABLES**

- Garlic, onion and shallots
- New potatoes (white or red)
- Yams

#### **REFRIGERATED STAPLES**

- Butter
- Non-hydrogenated butter spread like Earth Balance
- Organic Cheese
- Parmesan Cheese (can also be kept in the freezer)
- Eggs
- Ketchup (once opened)
- Lemons and Limes
- Mayonnaise
- Organic full-fat Milk
- Dijon Mustard
- Tempeh
- Miso Paste
- Organic plain yogurt
- Fresh Fruit and Vegetables in Season
- Kalamata Olives
- Fresh Ginger

#### **FREEZER STAPLES**

- Veggie Burgers
- Brown Rice Bread, Corn Bread, Buckwheat Bread
- Sprouted Grain Wraps/Tortillas
- Shelled Nuts, pecans, cashews, almonds, walnuts, pumpkin seeds

#### **FROZEN VEGETABLES**

- Corn kernels
- Green Beans
- Green Peas
- Chopped Spinach
- Edamame
- Cauliflower

#### **FROZEN FRUIT AND BERRIES**

- Berries
- Freeze your own bananas

#### **WHEAT FREE PRODUCTS**

##### **Freezer foods:**

- Brown Rice and Corn Tortillas
- Brown Rice bread/bagels/English muffins (taste much better toasted)
- Wheat free pizza shells
- Wheat free panini bun

##### **Refrigerated foods:**

- Wheat free Tamari sauce or Bragg's Liquid Aminos

**Pantry foods:**

- Brown rice crackers
- Corn, rye or rice crackers
- Trail mix
- Mighty Tasty Hot Cereal (Bob's Red Mill)
- Nature's Path Millet/Amaranth Cold Cereal Flakes
- Whole brown rice, quinoa, millet
- Buckwheat, quinoa or brown rice pastas

*What is the difference between wheat free and gluten free?*

*Gluten is a protein found in wheat, rye, barley and some oats. A gluten free diet is similar to wheat free but more restrictive in that in addition to avoiding wheat, spelt and kamut, you must also avoid rye, barley and oats and products made with these ingredients. Also avoid products containing TVP (texturized vegetable protein) or HPP (hydrolyzed plant protein); beer; ale; lager; malted beverages; soy/rice beverages made with barley (i.e. Rice Dream).*

**Gluten free mixes:** there are many good quality mixes now available that you can use on a wheat free diet:

- Gluten free pancake mix
- Gluten free baking mix

## **Chapter 6: Lets Get Cooking!**

### **Meal Planning**

There are many excellent cookbooks and recipes available. We have provided a 3-week meal plan, complete with recipes to get you started.

All of the following meals and recipes provide high nutrient density, lower GI foods that are recommended for improving fertility health. Only very small amounts of dairy or wheat products are included in some of the recipes. You can enjoy these recipes as well, unless you have endometriosis or food sensitivities, in which case substitutes are recommended.

It is a good idea to look over the menus and recipes before you get started. Cooking healthy meals is much easier when your pantry, fridge and freezer are full of the right staples. A shopping list with best brands has been included to help with your shopping. A bit of planning can make it fun and easy.

The recipes make great “planned over” meals (new word for leftovers) that can be used for a quick and easy lunch the next day. Whenever possible, these planned over lunches have been included on the menus. The motto for these meal plans and recipes is “Cook once, Eat twice”.

Most of the food items in the recipes can be found in your local natural food store and in the “natural foods” sections of most large supermarkets. Choose ORGANIC, LOCAL, AND SEASONAL food items whenever possible and shop at local farmer’s markets when available.

### **Cooking Tips**

Before starting to cook, take time to get everything organized. Take out all the ingredients, wash or rinse items as required, measure ingredients and pre-heat your oven if needed.

- Cook extra brown rice and quinoa for freezing in zip lock bags or freezer friendly containers. This will save time when a recipe calls for already cooked rice.
- Spend more time preparing recipes on the weekend and always make extra for freezing or plan over.
- Keep track of your pantry, fridge and freezer staples.
- You can make shortcuts by buying already cooked chicken or fish.
- Keep a shopping list on your fridge and write down items that you need, as you use them up.

### **Healthy Snack Ideas**

Some people like to have just three square meals per day while others find it better to eat smaller meals and have snacks. There is no right or wrong way for everyone. It is about finding the right eating pattern that keeps your energy going all day long.

For appetite and blood sugar control, don’t go for more than 5 hours between meals. An afternoon snack is often a good idea, while eating in the evening before bed can make it difficult to sleep well and digest your food properly.

For any snack, local seasonal vegetables are ideal. Avoid fruit juices as even unsweetened juices are high in fructose and will raise your blood sugar.

Here are some other healthy snack ideas that include a source of protein to help manage hunger, blood sugar and moods:

- frozen blueberries with organic plain yogurt
- nuts and/or seeds with fresh fruit
- apple with organic peanut butter
- dried apricots with walnuts or almonds
- fresh fruit with almonds or walnuts
- fresh fruit with a slice of organic cheese
- Wasa™ or Ryvita™ crackers with organic peanut butter
- raw vegetables with Hummus
- homemade pita chips with salsa

*Did you know? Protein foods take about 3 – 5 hours to digest, while carbohydrates are digested immediately within about 30 minutes. Protein foods include meat, fish, poultry, eggs, nuts, seeds, tofu and legumes. For a balanced diet, fill half your plate with vegetables, ¼ with protein foods and ¼ with whole grains.*

### **Cooking Grains and Legumes**

Cooking grains is easy. You can use simple pot and lid or a rice cooker to cook many different grains and have them ready for you when you walk in the door. Cook a little extra one night and toss it into a salad with chopped vegetables for lunch the next day. Or freeze extra in small containers. Once you get into the habit of having whole grains on hand, you will love them!

Rinsing – don't skip this part

Just rinse them quickly to remove dust or natural coatings that can give them a bitter taste. Put some in a sieve and run under the tap or put some in a pot and fill with cold water, swirl around and drain.

Soaking – an optional idea for people who find whole grains hard to digest

After rinsing, just soak the whole grain overnight in water before cooking to increase digestibility.

Toasting – an optional idea for bringing out the flavor

Toasting grains before cooking them brings out a nutty flavor and promotes a fluffier grain after cooking. After rinsing, just stir in a large heavy pot over medium heat with a little extra virgin olive oil for about 5 to 10 minutes.

Cooking

- To simmer grain, bring the water to a rolling boil before stirring in the grain or adding it to toasted grain.
- Make sure the lid of the pot fits tightly so that little or no steam escapes.
- For fluffier grain, put a clean towel under the lid of the pot during the standing time. The towel will absorb excess moisture instead of the grain and will keep the grains separate and fluffy.

Grain Standard Stovetop Cooking Times					
Grain (1 cup)	Liquid (cups)	Optional Salt (teaspoons)	Minutes Cooking	Standing Time (covered)	Yield (cups)
Barley, hulled	3	1/2	50-60		3
Barley, pearl	2 1/2	1/2	30-45		3 1/2
Buckwheat*	2	1/2 - 3/4	10-12	5	2
Millet*	2 1/2	1/2 - 3/4	20-25	5	3 1/2
Oats, steel cut	3	1/2	15		
Quinoa	2	1/2 - 3/4	15	5	3
Rice, basmati white	2	1/2	15-20	5	3
Rice, brown	2 1/4	1/2	45-60	10	3
Rice, white	2	1/2	15-20	5	3
Wheat berries	2 1/2		60-90		
Wild rice	2 1/4	1/4 **	50-55	10	2 1/2

\*toast before boiling for improved flavor and more even cooking



Grain Standard Stovetop Cooking Times					
Grain (1 cup)	Liquid (cups)	Optional Salt (teaspoons)	Minutes Cooking	Standing Time (covered)	Yield (cups)
**add salt after cooking to ensure proper absorption of liquid					

**Cooking Legumes**

Start by cleaning beans by rinsing under cool water. Then cover them with water and let them soak.

- Overnight Soak: Let beans and water stand overnight in refrigerator. Drain.
- Quick Soak: In a large saucepan, bring water and beans to a boil; cover and boil for 2 minutes. Remove from heat and let stand 1 hour. Drain.

Cover with fresh water, bring to a boil, reduce heat and simmer until soft. Lentils and split peas cook within an hour, while most legumes need a few hours. Crock pots are great to have on hand for cooking beans.

## Chapter 7: Three Week Meal Plan

Sample Menus. The Fertility Meal Plan is offered as a guide to help move your diet in a healthier direction. It incorporates all the nutritional recommendations for increasing fertility (low glycemic index, high fiber, high nutrient density, and plant based protein).

### Menu Week 1:

#### Sunday

<b>Breakfast:</b>	<u>French toast, fresh or frozen berries, plain yogurt</u>
<b>Lunch:</b>	<u>Frittata, baked new potato wedges, fresh fruit</u>
<b>Supper:</b>	<u>Cumin chicken with tzatziki</u>

#### Monday

<b>Breakfast:</b>	<u>High protein fruit and berry smoothie, toast with almond butter</u>
<b>Lunch:</b>	Chicken salad (made with planned over <u>Cumin chicken</u> )
<b>Supper:</b>	<u>Salmon, sauteed arame and seasonal veggies, brown rice</u>

#### Tuesday

<b>Breakfast:</b>	Whole grain cereal like Kashi Go Lean fresh or frozen berries, plain yogurt
<b>Lunch:</b>	Planned over salmon salad, raw assorted veggies
<b>Supper:</b>	Curried tempeh and veggies, chutney and brown basmati

#### Wednesday

<b>Breakfast:</b>	Poached eggs on sprouted toast, fresh berries
<b>Lunch:</b>	Planned over currie tempeh and veggies

### Menu Week 2:

#### Sunday

<b>Breakfast:</b>	<u>French toast, fresh or frozen berries, plain yogurt</u>
<b>Lunch:</b>	<u>Brown rice fusilli with veggies</u>
<b>Supper:</b>	Roasted chicken, Greek salad, Greek potatoes

#### Monday

<b>Breakfast:</b>	<u>High protein fruit and berry smoothie, sprouted toast with almond butter</u>
<b>Lunch:</b>	Greek chicken pita pocket
<b>Supper:</b>	Moroccan chickpea and millet soup, Greek pasta salad (planned over from Sunday with spinach)

#### Tuesday

<b>Breakfast:</b>	whole grain cereal like Kashi Go Lean, fresh or frozen berries, plain yogurt
<b>Lunch:</b>	Planned over Moroccan chickpea and millet soup
<b>Supper:</b>	<u>Salmon</u> , lundberg mixed rice, Russian kale and leeks

#### Wednesday

<b>Breakfast:</b>	Poached eggs on sprouted toast, fresh berries
<b>Lunch:</b>	Planned over salmon <u>sandwich</u>

<b>Supper:</b>	<u>Creamy carrot and parsnip soup</u> , side salad with chickpeas (oil and vinegar dressing)
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#### Thursday

<b>Breakfast:</b>	Steel cut oatmeal with ground flaxseed, fresh or frozen berries, plain yogurt
<b>Lunch:</b>	Planned over <u>creamy carrot and parsnip soup</u> , planned over side salad
<b>Supper:</b>	<u>Southwestern vegetarian chili</u>

#### Friday

<b>Breakfast:</b>	Whole grain cereal like Kashi Go Lean, fresh or frozen berries, plain yogurt
<b>Lunch:</b>	Planned over <u>vegetarian chili</u>
<b>Supper:</b>	<u>Pizza</u> (artichokes, feta, sundried tomatoes) and veggie plate

#### Saturday

<b>Breakfast:</b>	Scrambled eggs, sprouted toast and butter, fresh berries
<b>Lunch:</b>	planned over <u>pizza</u>
<b>Supper:</b>	<u>Halibut, roasted butternut squash</u> , brown basmati rice and sautéed beans

<b>Supper:</b>	Veggie burger, baked yam fries, side salad with planned over Russian kale and leeks
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#### Thursday

<b>Breakfast:</b>	Steel cut oatmeal with ground flaxseed, fresh or frozen berries, plain yogurt
<b>Lunch:</b>	Planned over veggie burger
<b>Supper:</b>	Moroccan lentils. brown basmati rice, sautéed seasonal veggies

#### Friday

<b>Breakfast:</b>	whole grain cereal like Kashi Go Lean, fresh or frozen berries, plain yogurt
<b>Lunch:</b>	Planned over Moroccan lentils
<b>Supper:</b>	Sable fish, wilted greens with lemon honey vinaigrette, quinoa pilaf

#### Saturday

<b>Breakfast:</b>	Scrambled eggs, sprouted toast and almond butter, fresh berries
<b>Lunch:</b>	Planned over sable fish wrap, slivered red pepper, carrot, and snap pea salad
<b>Supper:</b>	Quesadilla (black beans, corn, and jack cheese) with salsa, napa cabbage and Jicama slaw, guacamole

### Menu Week 3:

#### Sunday

<b>Breakfast:</b>	French toast, fresh or frozen berries, plain yogurt
<b>Lunch:</b>	Grilled tempeh sandwich
<b>Supper:</b>	Roasted turkey breast, coriander and citrus roasted veggies

#### Monday

<b>Breakfast:</b>	High protein fruit and berry smoothie, toast with almond butter
<b>Lunch:</b>	Turkey wrap with planned over roasted veggies
<b>Supper:</b>	West coast salmon chowder

#### Tuesday

<b>Breakfast:</b>	Whole grain cereal like Kashi Go Lean, fresh or frozen berries, plain yogurt
<b>Lunch:</b>	Planned over west coast salmon chowder
<b>Supper:</b>	Pizza topped with spinach, tomatoes, and smoked gouda

#### Wednesday

<b>Breakfast:</b>	Poached eggs on sprouted toast, fresh berries
<b>Lunch:</b>	Planned over pizza

<b>Supper:</b>	Miso and lemongrass soup with tofu, chilled soba noodles with edamame and carrots
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#### Thursday

<b>Breakfast:</b>	Steel cut oatmeal with ground flaxseed, fresh or frozen berries, plain yogurt
<b>Lunch:</b>	Planned over soba noodles with edamame and carrots
<b>Supper:</b>	Spring pea soup with mint, warm penne pasta salad

#### Friday

<b>Breakfast:</b>	Whole grain cereal like Kashi Go Lean, fresh or frozen berries, plain yogurt
<b>Lunch:</b>	Planned over pasta salad
<b>Supper:</b>	Sable fish, wilted greens, quinoa pilaf

#### Saturday

<b>Breakfast:</b>	Frittata, baked new potato wedges, fresh fruit
<b>Lunch:</b>	Planned over spring pea soup with mint
<b>Supper:</b>	Kamut berry, brown rice salad with currants and almond topped with grilled tempeh

Recipes available online at <http://www.acubalance.ca/fertility-diet/acubalance-fertility-diet/chapter-8-recipes>