

# How to Reduce the Damaging Effects of PCOS on Fertility Through Diet and Herbs

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Polycystic Ovarian Syndrome may be one of the most complex female health issues of our time. It is the most common endocrine disorder in women of reproductive age. PCOS is accompanied by a variety of different health issues, many of which directly impact fertility. Classic PCOS presents with obesity, polycystic ovaries (multiple ovarian cysts that look like a strand of pearls), elevated levels of androgens and absent or irregular menstrual cycles. Not all women who will go on to be diagnosed with PCOS will have these issues though.

## What Causes PCOS?

Doctors are unsure of what causes PCOS, but information suggests there are several links including genes, possible abnormal fetal development, insulin resistance and inflammatory response contributing to the cause. We know that insulin resistance plays a key role in PCOS, but what leads to the development of this has not been pinned down. PCOS is also negatively affected by diet, lifestyle and exposure to certain environmental toxins. PCOS directly impacts fertility, but has serious health implications as well, especially if left untreated.

## Genetic Predisposition and Abnormal Fetal Development

Women whose mothers, sisters or grandmothers had PCOS are at a higher risk for developing PCOS. Research suggests that exposure to excessive amounts of male hormones (androgens) by the developing fetus may alter proper gene expression. This means that the affected genes will not function correctly later in life, which may cause PCOS during the reproductive years of a woman's life.

A recent, first of its kind genome-wide association study of PCOS has identified two areas of DNA that leave women of European ancestry susceptible to developing PCOS. The researchers also found one region of susceptibility in the DNA of Chinese women.

Of particular interest was one area of DNA that contains the gene for the hormone FSH (follicle stimulating hormone). This finding provides evidence of disruption of the pathway that regulates FSH and in turn ovarian function which plays a crucial role in the development of PCOS.

The human genome project has allowed researchers to pool more than 700,000 genetic markers from the DNA of thousands of women with PCOS. This is what helped them identify regions of genes associated with PCOS.

*“For a number of years, researchers had been thinking that it was testosterone produced by the ovary that was a major problem in PCOS, but our study did not find signals for genes regulating testosterone... In contrast, we did find a signal for the FSH gene, which is produced in the pituitary gland at the base of the brain. This suggests that FSH, in either how it acts on the ovary or how it is secreted, is very important in the development of PCOS. This is a new way of thinking about the biology of PCOS.” – Dr. Andrea Dunaif*

Researchers are planning on mining the DNA of women of African ancestry with PCOS next to see if there is a shared genetic basis for PCOS over other ethnicities. Doctors plan to use all of this research to identify girls who may be at-risk for developing PCOS and create a medical treatment protocol to cure it.

Another interesting study of 235 women with PCOS sought to discover if there is a link to the development of PCOS later life that may be influenced by factors beginning in the womb. The women were divided into two groups.

**The groups were categorized by:**

1. Obese women with elevated androgens, elevated LH and testosterone, and
2. By thin to normal weight women with elevated LH and normal levels of androgens.

The results of the study showed a pattern in both the mothers weight and baby's birth weight and fetal gestation time. The women in group 1 had above-average birth weight and were born to obese mothers. The women in group 2 were born after 40 weeks gestation.

The conclusion was that events occurring during fetal development may have long-term effects on endocrine function later in life.

## **Insulin Resistance**

Insulin is a hormone produced in the pancreas and is responsible for signaling cells in the body to function correctly, most importantly to convert glucose to energy and to control their growth. It also plays a key role in the metabolism of carbohydrates, lipids and proteins.

Insulin resistance happens when the body's cells become resistant to the effects of insulin. When this happens, higher levels of insulin are needed so that insulin can have the proper effects. At this point, the pancreas must overcompensate, working harder and harder to produce more insulin. Insulin signals the ovaries to secrete testosterone and inhibit hepatic sex-hormone binding globulin (SHBG) production which leads to an increased level of circulating testosterone. This is why many women with PCOS experience acne, facial hair growth and male pattern baldness (hirsutism). Excess insulin in the bloodstream also signals the ovaries to release more estrogen which can suppress ovulation.

## **Low-grade Inflammation**

It has also been found that women with PCOS have low-grade inflammation, which may be a cause for insulin resistance. White blood cells produce substances to fight infection, this is known as inflammatory response. In some predisposed people eating certain foods, or exposure to certain environmental factors may trigger an inflammatory response. When inflammatory response is triggered, white blood cells produce substances that may contribute to insulin resistance and atherosclerosis.

# Signs, Symptoms and Health Risks

## Signs and Symptoms of PCOS

- Irregular menstrual cycles
- Absent period
- Anovulatory cycles
- Abnormal mid-cycle bleeding
- Excessive or heavy menstrual bleeding
- Alopecia (balding)
- Hirsutism (excessive body hair)
- Acne
- Acanthosis nigricans – darkening skin in armpits, back of neck, groin
- Polycystic ovaries
- History of ovarian cysts
- Mood disorders
- Obesity
- Recurrent Miscarriage

## Health and Fertility Risks Associated with PCOS

- Infertility
- Menstrual cycle irregularities
- Possible increased risk for endometrial and breast cancer due to estrogen
- Cardiovascular disease
- Diabetes
- Gestational diabetes

## How is PCOS Diagnosed?

When PCOS was first discovered it was named Polycystic Ovarian Syndrome because of the presence of polycystic ovaries seen by ultrasound. Over time doctors began to realize that PCOS was a complex array of health issues. To date there is a push by doctors to change the name of this condition.

***“Patients read into the name and just think, ‘Okay, this is about my ovaries, it’s really not about anything else...’ But from a doctor’s perspective, the most worrisome aspects of the disorder are the long-term consequences, such as diabetes.,”*** said Dr. Melissa Goist, ObGyn. (Livescience, 2013).

This led to certain criteria that must be recognized to be diagnosed with PCOS, rather than just the presence of polycystic ovaries. In fact some women with PCOS do not have polycystic ovaries. In order to be diagnosed with PCOS the following should be evaluated by your healthcare practitioner:

### **Pituitary and Ovarian Hormone serum levels:**

- Luteinizing Hormone (LH)
- Follicle Stimulating Hormone (FSH)
- Estradiol
- Progesterone
- Prolactin

### **Circulating Androgens:**

- Free testosterone
- Free androgen index (FAI): 17-hydroxyprogesterone
- Sex hormone binding globulin (SHBG): 24 hr. urinary free cortisol
- Dehydroepiandrosterone sulfate (DHEA-S)

### **Endometrial Biopsy Glucose Tolerance Test Thyroid Panel Blood Lipid Profile**

Are you wondering what your test results mean? Please talk to your doctor in detail about what your test results mean for your fertility. Some doctors may tell you that you have mild PCOS. Women may have some or all of the symptoms of PCOS, some may have normal menstrual cycles and some may not. Testing is the best way to find out if you have PCOS for sure or not.

# How PCOS Affects the Menstrual Cycle

## What happens in a normal menstrual cycle?

In very simple terms the hypothalamus produces GnRH (gonadotrophin-releasing hormone) which signals to the pituitary to produce LH (luteinising hormone) and FSH (follicle stimulating hormone). The release of GnRH is pulsatile in women with regular menstrual cycles. The normal pulsatile release of GnRH signals some of the follicles in the ovary to begin maturing and for the ovaries to release estrogen and progesterone. This estrogen/progesterone signal is recognized by the pituitary gland.

As the follicles begin maturing they release and increase the hormone estrogen over time. The rising estrogen level signals the pituitary gland to curb the release of FSH. This communication allows for ovulation to occur. In women with PCOS the menstrual cycle follows a different pattern of endocrine function and communication.

## What the menstrual cycle is typically like in a woman with PCOS...

In women with PCOS the menstrual cycle starts off irregular, with the hypothalamus releasing GnRH in a higher than normal pulsatile frequency. This allows for increased LH and decreased FSH, which in turn leads to excessive production of the androgens androstenedione and testosterone. This causes the follicle to only mature some, but not enough to achieve full maturity in order to be released for ovulation. This also allows for continued increase of estrogen, primarily estrone. During a woman's reproductive years, estrone levels are relatively low. Typically we associate estrone with menopause, not the the fertile years of a woman's life. The higher levels of androgens and estrogen create a chronic state of low to very low progesterone and anovulatory cycles.

Classic polycystic ovaries are a result of chronic anovulation. Endocrine function is imbalanced from the very beginning of the menstrual cycle causing mild to severe hormonal imbalance, depending on the individual.

Excessive levels of estrogen may also cause uterine hypertrophy, also known as endometrial hyperplasia. Unopposed estrogen may cause excessive cell

proliferation of the endometrium. The endometrium is the innermost layer of the uterus that is shed as menses during menstruation. Endometrial hyperplasia may cause heavy menstrual bleeding or prolonged bleeding during menstruation. The uterus may become bulky and larger than normal.

## Medical Options for PCOS

### Anovulatory Cycles

Oral Contraceptive Pills (birth control) are the number one most prescribed medication to regulate menstruation in women with PCOS. While this may help to create a regular menstrual cycle (which is important) it prevents pregnancy. This is not helpful for women with PCOS who are trying to conceive. OCPs do not solve the root of the problem and may actually cause long-term reproductive health problems. Other hormonal medications may be commonly used as well. This is determined by case. Clomid is commonly used for women with PCOS to hyperstimulate the ovaries to ovulate. Once again the problem we encounter here is that Clomid does not resolve PCOS, though it may help a woman to get pregnant. Ovarian drilling done by laparoscopic surgery. This is done with the intent to stimulate ovulation.

### Insulin Resistance - Metformin

This drug is commonly prescribed for women with PCOS, even if they are not insulin resistant or have any signs of type 2 diabetes. Metformin helps to control the amount of glucose in the blood. Metformin is used to treat type 2 diabetes. PCOS can often be helped by specific diet changes, similar to a diabetic diet.

Metformin comes with risks and side effects, please talk to your doctor in detail before choosing to use Metformin to control PCOS. Many natural therapies may be used with Metformin with your doctor's approval.

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**Note: Long-term treatment with Metformin has been shown to cause malabsorption of vitamin B12 in some patients.**

Before choosing to use this medication, talk to your doctor about the long-term goal and duration of treatment. There are a variety of other medications

prescribed depending on the symptoms of PCOS. There are medications for hirsutism or alopecia, weight gain and more. Your doctor can provide you with specific information on medications.

## Learn to Eat a PCOS Fertility Diet

Eating a specific PCOS Fertility Diet is one of the best things you can do to improve your chances of becoming pregnant.

### **The biggest part of the problem with PCOS is insulin resistance.**

Resistance to insulin increases the body's insulin levels which can have a negative affect on ovulation by limiting the maturation process of an egg and in turn delaying or preventing ovulation from taking place. Insulin resistance also makes it difficult for the embryo to attach properly to the uterus for implantation.

This has a direct impact on your fertility and ability to conceive. Women with insulin resistance are 4-5 times more likely to have a miscarriage.

PCOS is also a huge red flag for the beginning of type 2 diabetes. I do not say all this to scare you, but I do want you to know that this is a serious matter. Fortunately, there are many natural options you can do on your own to turn this all around. The biggest step you can take is to change your diet to a PCOS diet.

### **The benefits of following a PCOS Diet are:**

- Increases the rate of spontaneous ovulation
- Significantly improves the environment of the uterus, prep for implantation
- Increases the likelihood of a healthy conception
- Decreases the potential for miscarriage
- Helps to prevent insulin resistance from turning into diabetes

## PCOS Diet Guidelines



## 1. Balance your daily protein intake with an equal amount of carbohydrates

This will help to eliminate the insulin yo-yo. When you eat equal amounts of protein and carbohydrates this helps to keep your insulin at a balanced level, thus increasing your fertility.

*A low-carbohydrate, high-protein diet helped insulin resistance.  
A high-carbohydrate, low-protein diet made insulin resistance worse.  
– Medical Journal Metabolism; no. 12: 1481-1487*

*A diet containing 25% carbohydrates improved insulin resistance,  
whereas a diet that included 45% carbohydrates did not.  
– International Journal of Obesity and Related Metabolic Disorders;  
20 no. 12:1067-1072*

The types of carbohydrates you choose are also an important factor. Choose whole grain, or sprouted grain products. They contain more protein and fiber (better for balancing insulin levels) than their processed counterparts.

Avoid processed carbohydrates, especially the white variety (white flour, rice, potato, etc.) which cause a spike in insulin levels and provide little to no fiber, or nutrients.

Some examples of whole grain and sprouted grain products are:

- Ezekiel breads
- Spelt
- Quinoa
- Millet
- Brown Rice
- Buckwheat
- Amaranth

The best place to find these foods are at your local health foods store or Whole Foods Market. Make sure the proteins you are eating are complete and organic. Organic meats and dairy contain essential fatty acids and will reduce the negative impact on hormonal imbalance.

## **2. Eat foods low on the glycemic index and glycemic load list**

Blood glucose rises and then falls when you eat a meal containing carbs. How high it rises and how long it remains high depends on the kind of carbs (glycemic index, GI) and the amount you ate (glycemic load, GL). Low glycemic index foods are carbohydrates that break down slowly in the body, and don't cause such a dramatic spike and then drop in insulin levels.

The glycemic load takes into consideration the amount of the glycemic index food you consumed and how that affects your blood sugar. The glycemic load combines both the quality and quantity of carbohydrate into one 'number'. It's the best way to predict blood glucose values of different types and amounts of food.

The serving size of the amount of carbohydrates consumed really matter here. Be sure to eat no more than 100g of low glycemic index carbohydrates a day if you have insulin resistant PCOS and are overweight. Increase the amount of low glycemic index carbohydrates consumed a day to over 100g if you are thinner or underweight.

Some examples of low glycemic index foods are:

- Kale, broccoli, asparagus
- Beans and lentils
- Grapefruit and apples
- Walnuts and almonds

Processed carbohydrates that break down quickly make insulin levels jump dramatically. Avoid foods that have a high glycemic index such as sugary and starchy foods such as: pancakes, syrups, sugar, white potatoes, jams, scones, white bread products, pasta, soda, alcoholic beverages.

### **3. Eat a diet high in fiber**

Fiber helps in two ways with PCOS. The first way it helps is by slowing down the digestion of sugars in the body, so there is no spike in insulin. The second way fiber helps is by promoting healthy estrogen metabolism which aids in the reduction of elevated levels of androgens.

Great sources of fiber are: broccoli, celery, whole grains, Ezekiel bread, apples, and dark leafy greens.

### **4. Eat 5 meals a day**

By eating more often, the body will not go into fasting mode. When you look at the way most Americans eat, it is usually three big meals a day. With such a large gap of time between meals the body goes into fasting mode which may cause the metabolism to become imbalanced.

Your five meals a day should consist of three regular meals and two healthy snacks, or 5 small meals. The first snack should be eaten in the mid-morning before lunch and the second snack to be eaten less than an hour before bed. At each meal a day be sure you are eating a serving of protein (3-4 ounces), a low GI/GL carbohydrate (1/4-1/2 cup or serving size), and vegetables (1 – 1 & 1/2 cup).

#### **Here is what the 5 meals a day could look like:**

- Breakfast (right away, when you wake up): 2 eggs scrambled in 1 tsp. coconut oil with spinach and 1/2 cup of black beans
- Snack: Smoothie with unsweetened coconut or almond milk, 1/2 of a peach, 1/4 tsp. of ground cinnamon, hemp protein powder and spirulina
- Lunch: Organic Turkey lettuce wrap with celery sticks and hummus on the side
- Dinner: Organic chicken with steamed broccoli and half a cup of baked yam
- Snack (less than an hour before bed): organic unsweetened yogurt with half a serving of low glycemic index fruit (blueberries, raspberries, papaya) and 1/2 tsp. chia seeds

Alternately, you could have your last snack between lunch and dinner, eating your dinner right before bed. Find out what works best with your lifestyle.

## **5. Eat essential fatty acids daily**

Eating essential fatty acids (EFA's) helps you to lose weight, aids hormonal balance, and are important building blocks for the body to create a healthy environment for conception.

The best source of omega-3 EFA's is Cod Liver Oil, and omega-6 EFA's is Evening Primrose oil.

**Cod Liver Oil**– Take 1 capsule daily with one of your meals. Cod Liver Oil is a rich source of DHA which is essential for a developing baby's brain health. You can take this daily and during pregnancy.

**Evening Primrose Oil**– Take 1500mg of this oil from day one of your cycle (menstruation) till ovulation. Evening Primrose Oil helps to increase cervical mucous and metabolic function. Use in addition to flax or cod liver oils.

## **6. Exercise for 30 minutes, 5 days a week**

Exercise helps PCOS by improving insulin sensitivity, increasing metabolism and helping to shed any excess weight. Both aerobic and resistance exercises are good. Researchers found that participants of resistance exercises showed better improvement in insulin sensitivity than with aerobic exercise alone.

Avoid excessive exercise programs because too much exercise overworks the adrenal glands which increases inflammation and in turn makes PCOS worse. Restorative exercise programs are best. You could walk and lift weights, or take a Pilates class and run on the treadmill, or do some Zumba and then Fertility Yoga. Discover what you enjoy doing and do this 5 days a week for at least thirty minutes a day.

## **7. Eat Organic**

You will be eating a high protein diet, so it is essential that any animal proteins (meats and dairy) you are eating are organic. In commercial meats there are large amounts of added hormones (estrogens) that make the animals grow bigger, faster, and produce more milk. With PCOS there is usually a progesterone deficiency and adding more estrogens can make it even worse. Studies have shown that organic foods contain more vitamins, minerals and healthier proteins.

## 8. Quit Coffee

Caffeine increases estrogen levels. A study from Fertility and Sterility shows that drinking just two cups of coffee a day boosts levels of estradiol, a natural estrogen. Women who drink 4-5 cups of coffee a day produce 70% more estrogen in the follicular phase of the menstrual cycle (when the body is trying to produce a viable follicle for ovulation, which is already an issue for women with PCOS.)

If you need help getting off the bean, check out Teeccino. It is a coffee alternative that tastes great and is alkalizing for the body. Click [here](#) to learn more about Teechino and other herbal coffee alternatives...

## PCOS Herbs and Supplements

***Important note: It takes at least 6-12 months of consistent lifestyle and diet changes, along with natural therapies to bring about real change in the body when living with PCOS.***

In addition to eating the PCOS diet, supplements have shown to be effective in helping those with PCOS boost their fertility and give birth to healthy babies. The overall goal with PCOS is to balance blood sugar levels, maintain hormonal balance, promote healthy digestion for improved estrogen metabolism, while also working to promote regular ovulation and menses.

Adaptogen herbs are also important, this is because adaptogens increase resistance to mind-body stress and enhance overall vitality and health through non-specific adrenal (known as stress glands) support. Plants recognized as adaptogens help to normalize the body's functions, most importantly the endocrine system, even during diseased states, are non-toxic, nutritive, and have been deemed safe for long term use.

Herbs and supplements are not meant to be a substitute for dietary and lifestyle changes! If diet and lifestyles changes specific to PCOS are not in place, herbs and supplements cannot aid the body properly!

# Supplements That Are Beneficial for PCOS

## Whole Food Multivitamin

A major part of decreasing the effects of PCOS on your health and preparing the uterine lining is to take a prenatal multivitamin. Making sure your body has all of the nutrients necessary is a lot easier when you are taking a whole food multivitamin. Synthetic multivitamins won't have the same effect.

Other vitamin and mineral considerations...

## Chromium

This trace mineral enhances the action of insulin. Some studies have shown supplementing with chromium may improve blood sugar control. In one study, women with PCOS were given 1,000 mcg per day of chromium for two months and in that time results showed improved insulin sensitivity by 30% in average weight women and by 38% in obese women with PCOS.

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Foods that are high in chromium are onions, tomatoes, brewer's yeast, oysters, whole grains, and bran. Most foods contain very little chromium, so supplementation may need to be considered.

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## Calcium and Vitamin D

Both calcium and vitamin D play significant roles in the health of many parts of the body. Where PCOS is concerned, calcium protects cardiovascular health.

Vitamin D plays a role in glucose metabolism. Studies have shown that people with type 2 diabetes are often deficient in vit. D. A small study of 13 women with PCOS showed that 7 out of the 9 who had absent or irregular menstrual cycles, had a return of normal menstrual cycles within two months after being given 50,000 IU once or twice per week of vitamin D and 1,500 mg per day of calcium. This is a marked improvement! Of the 13 women, 5 were shown to be vitamin D deficient.

Good food sources of vitamin D are cod liver oil, eggs, salmon, mackerel, tuna and whole fat yogurt or other dairy products. Vitamin D can also be obtained for free by sitting out in the sun for 15 to 20 minutes per day. Forget using sunscreen it will actually block the ultraviolet light that is needed to produce Vitamin D. The warm sun helps your skin to create Vitamin D3 that is then transformed into the active hormone form of Vitamin D by the

kidneys and the liver. In fact, by being out in the sun for just a few minutes a day, a woman's body can create between 10,000 to 25,000 IU of Vitamin D. Calcium can be found in kale, turnips, collards, mustard greens, kelp and wakame seaweed. Hiziki, a type of seaweed has 10 times more calcium than a glass of milk.

## **Herbs and Supplements that promote hormonal balance and support regular ovulation:**

### **Cod Liver Oil**

Again, cod liver oil is a rich source of omega-3 EFA's. Eating omega-3 essential fatty acids can help to lose weight, balance hormones, and creates a healthy environment for conception. Omega-3 EFA's have been shown to aid hormonal regulation and reduce inflammation.

### **Licorice root (*Glycyrrhiza glabra*)**

Licorice root helps the body to maintain proper hormone production and release. Licorice also supports healthy insulin levels and liver health which is important for women with PCOS.

### **Maca (*Lepidium meyenii*)**

Maca works to balance estrogen and progesterone in the body which may help to encourage a healthy menstrual cycle. Maca is an adaptogen and an incredible fertility superfood. It helps to balance the hormones, but does not contain any hormones itself. It is able to do this by nourishing the endocrine system.

### **Vitex (*Vitex agnus-castus*)**

Vitex (Chaste Tree Berry) is one of the most powerful herbs for women's fertility and menstrual health. There are numerous studies and testimonials of Vitex and its effects on the body. Vitex supports hormonal balance in the body by having an effect on the hypothalamic-pituitary-ovarian axis (hormonal feedback loop), correcting the problem at the source.

### **Tribulus (*Tribulus terrestris*)**

Tribulus has been found to help encourage regular ovulation in infertile

women when used prior to ovulation. This herb has been found to be wonderful in aiding women with menstrual irregularities, improving the timing of the entire menstrual cycle. Tribulus has also been found to be a nourishing tonic for the female reproductive system as a whole, especially concerning the ovaries.

### **White Peony (*Paeonia lactiflora*) and Licorice Rt. (*Glycyrrhiza glabra*)**

Most clinical trials have found that when White Peony is combined with Licorice Rt., it performs better, especially for relaxing muscles, reducing painful menstruation, as well as lowering serum and free testosterone levels in women with PCOS.

### **Natural Progesterone Cream**

Progesterone cream can help to oppose estrogen dominance that may occur in some women with PCOS. Through the topical application of progesterone cream one can mimic a natural cycle and help the body to establish its own cycle, including ovulation, once again. Dr. John Lee believed that with progesterone cream, along with changing to a PCOS specific diet and regularly exercising, PCOS could become obsolete.

## **Healthy Estrogen Metabolism**

### **DIM**

DIM balances the hormones and aids in the breakdown of estrogen. Estrogen is a major culprit to many of the fertility issues women face today including PCOS. Unopposed estrogen has been shown to cause menstrual cycle irregularities and in more advanced cases, endometrial hyperplasia. Removal of excess estrogen is vital to overall hormonal balance in women with PCOS.

## **Insulin Resistance**

### **Cinnamon (*Cinnamomum spp.*)**

A pilot study published in 2007 by Fertility and Sterility showed cinnamon to greatly reduce insulin resistance in women with PCOS. Another study suggests cinnamon may also reduce insulin resistance by slowing the



movement of food from the stomach to the small intestine. This slows the breakdown of carbohydrates, which is important for people with diabetes and women with PCOS.

### **Gymnema (*Gymnema sylvestre*, *G.sylvestris*)**

Gymnema has been used for hundreds of years to reduce high blood sugar. This herb has a “sugar blocking” action on taste buds and the small intestine. Gymnema blocks the typical paths that sugar molecules take during digestion, delaying the absorption of sugar. It works by stimulating the regeneration of pancreatic cells that produce insulin, which aids in more insulin production; in turn stimulating production of enzymes that help with the uptake of glucose into cells; and then prevents stimulation of the liver to produce more glucose. Gymnema also appears to have a lipid-lowering effect, which aids in weight loss.

## **Hirsutism and Endometrial Hyperplasia**

### **Saw Palmetto (*Serenoa repens*)**

Saw Palmetto has been found to inhibit DHT production by reducing 5 alpha-reductase production, which may help prevent hirsutism in women with PCOS. This herb also helps to reduce endometrial hyperplasia and hormonal acne symptoms.

## **Inflammatory response**

Because women with PCOS usually have low-grade inflammation constantly present in the body, it is important to support the body by promoting a healthy inflammation response. Some foods are known to trigger inflammation in the body. If you have food allergies, avoid foods which you are sensitive to because they trigger an inflammatory response.

### **Omegas**

Omega essential fatty acids decrease the risk of inflammation, especially omega-3 and 6. Getting enough essential fatty acids in the diet may help, both through foods you eat and through supplementation. Systemic Enzyme Therapy or using systemic enzymes is another option. Systemic enzyme blends work as a biological response modifier;

working with the body's own immune defense system to moderate inflammatory response. They also break down the proteins in the blood that cause inflammation. Royal Jelly and Bee Propolis Royal jelly and bee propolis have been shown to reduce inflammation and naturally boost the body's immune system. They may also aid in hormonal balance through endocrine system support.

## Summary

PCOS is a complex female health issue. It consists of many different health concerns and risks. If permanent diet and lifestyle changes are implemented, these risks and health issues may become obsolete. There are many ways to support the proper health of a woman's body that is dealing with PCOS.

### Important key tips...

1. Make sure your doctor performs the correct tests and you get a proper diagnosis.
2. Follow a PCOS specific diet to help decrease insulin resistance, balance weight, and improve estrogen metabolism.
3. Promote hormonal balance and support regular ovulation through supportive herbs and supplements.
4. Support a proper inflammatory response.
5. Stick to your plan, believe in yourself, only you have the ability to change your circumstances!