Complementary Medicine for Androgen Excess and Polycystic Ovarian Syndrome

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A large number of women experience significant symptomatology from chronic androgen excess and / or polycystic ovarian syndrome. Symptoms often commence in the late teens and early twenties with menstrual disturbances and masculinizing features. Infertility is common. Drug and surgical interventions may lead to distressing side effects.

There are many types of benign ovarian cysts, some functional (hormone producing) and others not. In many cases they are self-limiting and cause minimal disturbance. Polycystic ovarian syndrome (PCOS) is different in that it is chronic and progressive, and causes androgen excess.

In clinical practice PCOS may be expected to demonstrate relative symptomatic improvement when treated with complementary medicine. The extent to which resolution is reached depends on the individual severity of the case, patient compliance with the protocol and the ability of the practitioner to tailor the protocol to meet specific individual needs.

**MATERIA MEDICA FOR THE OVARIANS**

**Hormonal balancers:**
Actea racemosa (Black cohosh)
Chamaelirium luteum (False unicorn root)
Dioscorea villosa (Wild yam)
Paenonia lactiflora (White peony)
Smilax spp. (Sarsaparilla)
Verbena off. (Vervain)
Vitex agnus-castus (Chaste berry)

**Estrogenics:**
Actea racemosa (Black cohosh)
Glycyrrhiza glabra (Licorice)
Humulus lupulus (Hops)
Salvia officinalis (Sage)
Trifolium pratense (Red clover)

**Pelvic circulatory stimulants:**
Zanthoxylum americanum (Prickly ash)
Achillea millefolium (Yarrow)
Angelica sinensis (Dong quai)
Zingiber officinalis (Ginger)

**Ovarian tonics:**
Anemone pulsatilla (Pasque flower) *
Chamaelirium luteum (False unicorn) *
Paenonia lactiflora (White peony)

**Pelvic Decongestants:**
Achillea millefolium (Yarrow)
Castor oil packs
Collinsonia canadensis (Stone root)
Lamium album (White dead nettle)
Zingiber off. (Ginger)

**Anodynes:**
Anemone pulsatilla (Pasque flower) *
Chamomilla recutita (Chamomile)
Corydalis ambigua (Yan hu suo)
Eschscholzia californica (California poppy)
Piscidia erythrina (Jamaican dogwood) *

**Emmenagogues:**
Artemisia absinthium (Wormwood)
Artemisia vulgaris (Mugwort)
Caulophyllum thalactroides (Blue cohosh)
Mentha pulegium (Pennyroyal) *
Ruta graveolens (Rue)
Tanacetum vulgare (Tansy)

**Astringents:**
Alchemilla vulgaris (Ladies mantle)
Capsella bursa pastoris (Shepherd's purse)
Geranium robertianum (Herb Robert)
Rubus ideaus (Red raspberry)

**Prostaglandin inhibitors / regulators:**
Angelica sinensis (Dong quai)
Curcuma longa (Turmeric)
Tanacetum parthenium (Feverfew)
Verbena off. (Blue vervain)
Zingiber off. (Ginger)
* Anemone pulsatilla is classified here as an ovarian tonic due to its normalizing and regulatory effect on ovarian function. It is also an exceptional pelvic antispasmodic and has notable anodyne action specific to the ovaries. When prepared in the European style from dried plant material the risk of toxicity is low and it can be safely taken in low to moderate doses.

* Chamaelirium luteum is an endangered species due to habitat erosion and over harvesting of the roots. It is very effective as a normalizer of ovarian endocrine function but should probably be reserved for recalcitrant cases that have not responded to other non-threatened herbs.

* Piscidia erythrina is a powerful anodyne and should only be taken under the supervision of a qualified herbalist.

* Mentha pulegium and other emmenagogues should never be used if there is any possibility of pregnancy as they may cause foetal damage.

**ANDROGEN EXCESS**

Androgens (DHEA, androstenedione, androstenediol & testosterone) are made from 17-alpha-OH-pregnenolone. This is manufactured by the adrenal glands from cholesterol precursors. Androgens can be converted by *aromatase* enzymes into estrone (a form of estrogen) in hair follicles, skin, brain, bone, muscles, fatty tissue and bone marrow. This tends to happen especially in abdominal fat, typical in Syndrome X or Insulin Resistance disease, leading to excessive estrogen influence in these cases. Testosterone is the most abundant androgen and the most potent. 25% normally comes from ovaries, 25% from adrenal glands and 50% from aromatase conversion.

Excess serum androgen may be due to:
- ovarian disease eg. PCOS or androgen-secreting tumours
- adrenal gland disorders eg. congenital or acquired hyperplasia, androgen-secreting tumours
- post-menopausal state
- obesity (especially increased waist to hip ratio and insulin resistance)
- prescription drugs eg. Dilantin, progestogens, corticosteroids, corticotrophics, anabolic steroids
- reduced Sex Hormone Binding Globulin (SHBG) leads to increased availability of free androgens in circulation

Excess androgens causes masculinizing effects:
- hirsutism
- androgenic alopecia
- acne
- menstrual irregularity, oligomenorrhoa, amenorrhea
- voice deepening and breast atrophy in advanced cases
- increased sensitivity to androgens in the pilo-sebaceous unit may cause hirsutism, acne and male pattern baldness in the absence of elevated androgens.
Tests for excess androgens include:
- elevated serum testosterone (best test of ovarian androgen production)
- reduced SHBG
- elevated Di-hydroepiandrostenidione (DHEA) (best test for adrenal hyperplasia or androgen-secreting adrenal hormones)

Note that acquired adrenal hyperplasia is also associated with fluid retention, immune disturbance and hypertension.

Natural remedies include:
- Avoidance of high levels meat which can raise the levels of SHBG
- Smilax spp. and Turnera diffusa are mild competitive inhibitors of androgens
- Glycyrrhiza glabra and Paeonia lactiflora increase the rate of conversion of testosterone to estrogen in the tissues (watch for fluid retention with Licorice)
- Reducing obesity, normalizing insulin responses and eating a high fibre diet also raise SHBG
- A detoxification and hepatic clearance program is helpful to optimise liver function
- Ovarian tonic herbs

POLYCYSTIC OVARIAN SYNDROME (PCOS)
This condition is characterised by the presence of multiple ovarian cysts and hormonal irregularities. One or both ovaries may be affected, suggesting the primary cause is ovarian malfunction rather than disruption of the hypothalamic - pituitary - ovarian axis.

Signs and Symptoms include:
- Androgen excess → hirsutism, deepening of the voice, male pattern baldness, breast atrophy
- Commonly associated with elevated Lutenizing Hormone (LH) and normal or low Follicle Stimulating Hormone (FSH).
- Elevated estrogen due to peripheral conversion (aromatisation) of androgens to estrogens (chiefly androstenedione to estrone).
- Menstrual irregularities especially oligomenorrhoea, secondary amenorrhoea and erratic cycles due to estrogen excess.
- Reduced SHBG → increased availability of androgens
- Ovarian pain, especially if ovulation occurs
- Ovulation failure and infertility
- Obesity and insulin resistance (Syndrome X)

There is also increased risk of endometrial and breast cancer due to excessive circulating estrogen and failure of uterine lining to shed regularly

PCOS is easily confused and commonly mis-diagnosed as Cushing’s syndrome, adrenal hyperplasia, hormone-secreting ovarian cysts, hormone-secreting tumours of ovary or adrenals, hyperprolactinemia or hypothyroidism.
Postulated causes include:
- Familial tendency (genetic predisposition)
- Ovarian malfunction → reduced estradiol (ovarian estrogen) and excessive ovarian androgens. These androgens inhibit normal follicular development and ovulation → accumulation of undischarged follicles that become cystic.
- Excessive weight predisposes to aromatisation of androgens into estrogens → elevation of estrone → reduced FSH → inadequate stimulation of developing follicle and follicle maturation failure → tendency for undischarged follicles to accumulate in ovary and become cystic.
- Excessive adrenal androgen production → elevated serum androgens and increased aromatisation to estrone → elevated LH (and depressed FSH) → increased ovarian androgen production.

Treatment strategies include:
- Reduction of masculinizing effects of androgens
- Stimulation of ovulation
- Promotion of endometrial shedding

Allopathic approaches
Hormonal interventions may be required depending on the individual hormone picture. A series of saliva tests taken over one or more months can accurately identify the specific hormone pattern in each case and act as a guide to treatment.

Allopathic treatment includes induction of ovulation if pregnancy is desired and to reduce estrogen induced endometrial hyperplasia. In an anovulatory woman who does not desire a pregnancy intermittent use of progestins (eg medroxyprogesterone acetate 5 – 10 mg orally for 10 – 14 days monthly) is typically recommended. Natural health practitioners prefer to use yam-derived progesterone creams although it should be noted that these do still contain synthetic progesterone. The contraceptive pill is used where there is hirsutism because it suppresses gonadotropin and steroid secretion and increases the production of SHBG, thus reducing the availability of free testosterone in the blood.

Cyproterone acetate is a powerful progestogenic and anti-androgenic agent with a noted effect against hirsutism. It is approved in many countries for this purpose but not in the US due to it causing breast cancer in experimental dogs and fetal abnormalities in rats. It is usually used in a cyclical manner with estrogen to induce bleeding. It is known to cause depression and decreased libido.

The diuretic spironolactone also inhibits the synthesis of androgens and competes with androgens for binding sites, thus reducing the overall androgen influence. In the US it is used off label as an anti-androgenic.

In extreme cases a ‘wedge resection’ surgery may be performed but adhesions are common and pregnancy is unlikely to occur after such surgery.
Natural treatments include:
- Avoidance of exogenous estrogens in diet
- Cleansing and detoxification programs and avoidance of coffee and other liver stressors
- Avoidance of animal fats and supplementation with essential fatty acids and GLA
- High fibre diet
- Treat blood sugar disturbances
- Ovarian tonics and normalisers especially Chamaelirium luteum, Paeonia lactiflora and Anemone pulsatilla
- Pelvic decongestants and pelvic circulatory stimulants and castor oil packs
- Emmenagogues
- Astringents
- Phyto-estrogens
- Avoid Vitex because it may increase LH
- Humulus lupulus, Actea racemosa and Lycopus europeus will reduce circulating androgens
- Smilax spp. may act as a competitive inhibitor for androgens

Dr. Tori Hudson ND also recommends
- Avoidance of high heels or excessive standing that compromise circulation
- Healing of past abuse issues if relevant
- Expression of creativity

A high protein diet (44% protein, 35% carbohydrates, 21% fat) reduces alpha-5 reductase activity, thus lowering levels of highly active dihydrotestosterone, and also enhances cytochrome P450 hydroxylation of estradiol, both of which are therapeutic goals.

**TYPICAL PROTOCOL FOR PCOS**

<table>
<thead>
<tr>
<th>Tincture</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Actea racemosa</td>
<td>15 mL</td>
</tr>
<tr>
<td>Glycyrrhiza glabra</td>
<td>15</td>
</tr>
<tr>
<td>Collinsonia canadensis</td>
<td>10</td>
</tr>
<tr>
<td>Serenoa repens</td>
<td>10</td>
</tr>
<tr>
<td>Chamaelirium luteum</td>
<td>10</td>
</tr>
<tr>
<td>Paeonia lactiflora</td>
<td>10</td>
</tr>
<tr>
<td>Humulus lupulus</td>
<td>10</td>
</tr>
<tr>
<td>Anemone pulsatilla</td>
<td>10</td>
</tr>
<tr>
<td>Smilax ornata</td>
<td>10</td>
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</tbody>
</table>

100 mL per week dosed at 7.5 mL twice daily in hot water before meals
**Clinical Phytotherapy for Ovarian Cysts**

**C. Cabrera 2003**

**Tea**

Rubus ideaus  
Mitchella repens  
Lamium album  
Chamomilla recutita  
Urtica dioica  
Mentha spicata

Equal parts, mixed. Use 2 tsp per cup and drink 2 - 4 cups daily.

**Supplements**

<table>
<thead>
<tr>
<th>Supplement</th>
<th>Dose</th>
<th>Administration</th>
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<tbody>
<tr>
<td>B complex</td>
<td>100 mg</td>
<td>2 x / day</td>
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<tr>
<td>Vitamin B6</td>
<td>100 mg</td>
<td>1 x / day</td>
</tr>
<tr>
<td>Evening Primrose oil</td>
<td>500 mg</td>
<td>3 x / day</td>
</tr>
<tr>
<td>Magnesium citrate</td>
<td>250 mg</td>
<td>3 x/ day</td>
</tr>
<tr>
<td>Zinc</td>
<td>25 mg</td>
<td>2 x/day</td>
</tr>
<tr>
<td>Turmeric</td>
<td>700 mg</td>
<td>2 x/day</td>
</tr>
<tr>
<td>Bromelain (@2000 GDU/g)</td>
<td>1000 mg</td>
<td>2 x/day</td>
</tr>
<tr>
<td>Serratio peptidase</td>
<td>5 mg</td>
<td>2 x/day (proteolytic enzyme from silk worms)</td>
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**CASTOR OIL PACK**

Castor oil is extracted from the castor plant (*Ricinus communis*). Taken internally it acts as a powerful laxative and is not recommended to be used in this way. But if applied externally or topically it has unique medicinal actions on the body. It penetrates skin and muscle to reach right into underlying tissue and assists in decongestion and breakdown of inflammatory material through enhancing blood flow and lymphatic flow in the area. This also helps very much in the removal of toxins and the elimination of wastes. Castor oil is also warming to the tissues and this eases stiffness and pain.

**Occasions to use a castor oil pack**

<table>
<thead>
<tr>
<th>Condition</th>
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</thead>
<tbody>
<tr>
<td>Lymphatic congestion</td>
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<tr>
<td>Fibromyalgia</td>
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<tr>
<td>Abdominal inflammations</td>
</tr>
<tr>
<td>Glandular swellings</td>
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<tr>
<td>Adhesions</td>
</tr>
<tr>
<td>Endometriosis</td>
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<tr>
<td>Muscle tension</td>
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<tr>
<td>Arthritis or Rheumatism</td>
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<tr>
<td>Muscle spasms</td>
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<tr>
<td>Pelvic congestion</td>
</tr>
<tr>
<td>Deep infections</td>
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<tr>
<td>Fibroids and ovarian cysts</td>
</tr>
<tr>
<td>Back ache</td>
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<tr>
<td>Local pain due to inflammation or spasm</td>
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</tbody>
</table>

**How to make a castor oil pack**

Take a piece of flannel or toweling folded 3 or 4 times and large enough to entirely cover the area to be treated.

Pour castor oil all over it until thoroughly soaked.

Place over the skin and cover with a large piece of saran wrap.
Cover this all with a heating pad or hot water bottle and leave in place for one to two hours. After use the pack can be wrapped in plastic and stored in fridge (bring back to room temperature before re-use). You may wish to add a little more castor oil with each use. The pack should be discarded after 10 uses.

Frequency
This will depend on the problem being treated. For acute situations one or two sessions in a 24 hour period may clear the problem. For chronic situations you may need to repeat it daily for several weeks.

DIETARY AND NUTRITIONAL SUPPORT FOR OPTIMAL LIVER FUNCTION

- Bitter greens such as endive, radicchio, arugula, watercress, dandelion greens, kale, collards, turnip tops, beet tops, cabbage, broccoli,
- Cold water fish (wild salmon, sardines, herring, mackerel, halibut)
- Organic free range eggs (3 – 6 per week)
- Avocados (2 per week)
- Radishes (red, black, white)
- Onions, garlic, shallots, leeks, chives
- Beets, carrots, burdock root (gobo), artichokes

- Try to make 50% of your food be vegetables with 25% protein and 25% whole grains or starchy foods such as potato, squash, yams
- Eat the evening meal no later than three hours before bed.
- Eat protein and fats in the morning and at lunch and save the carbohydrates (starches) for the evening meal
- Drink a large glass of water with juice of ½ lemon first thing in the morning
- Drink 8 oz of water for every 20 lbs of body weight. Try to drink this between meals (at least ½ hour before and 1 hour after eating).
- Avoid all coffee including decaffeinated and also guarana, yerba mate. Drink green tea and bancha tea if you need a stimulant
- Snack on fruit freely – several servings daily is good. Fresh fruit is best.
- Avoid all refined flour or sugar products
- Avoid all fried foods and all bought baked goods. Only use olive oil to cook with and use Essential Balance or Udo’s Choice for salad dressings or on steamed vegetables and baked potatoes. Do not use bought salad dressings of any kind.
Supplements and foods to promote Phase I detoxification in the liver
- Phosphatidyl choline (Lecithin & Choline)
- Essential fatty acids (omega 3 and 6 blend)
- Methionine
- Beta carotene
- High dose balanced B complex
- Vitamin C
- Vitamin E
- Copper
- Magnesium
- Zinc
- Sulphur
- Cold water fish and Flax oil
- Sunflower seeds
- Walnuts
- Sesame seeds
- Wheat germ

Supplements and foods to promote Phase II detoxification in the liver
- Cysteine
- D - glucarate
- Glycine
- l-glutathione
- N-acetyl-cysteine
- Taurine
- Germanium
- Magnesium
- Selenium
- Sulphur
- Zinc
- Molybdenum
- Manganese
- Cabbage family foods
- Onion family foods
- Molasses
- Eggs
- Citrus fruits and peels

Information for this article was drawn from the following sources:
1998, Trickey Ruth, Women, Hormones and the Menstrual Cycle, Allen and Unwin, St. Leonard’s, Australia
Hudson Tori, 1992, Gynaecology and Naturopathic Medicine, 2nd edition, TK Publications, Oregon
Classes and personal discussions with Paul Bergner, Francesca Naish, Mary Bove ND, Jill Stansbury ND