

Aromatase Inhibitors

“Starting with a diet high in natural aromatase inhibitors, reducing refined carbohydrates, addressing cortisol status, and supporting hormone production can have a huge effect on someone's health.”

Aromatase is an enzyme that increases as we age. Aromatase catalyzes a critical step in the conversion of androgens to estrogens. This takes place in many tissues, including the gonads, bones, brain, as well as adipocytes. Both men and women have hormones called androgens, namely testosterone and androstenedione. Aromatase synthesizes estrone from androstenedione and estradiol from testosterone. So, we need a little, but we don't want too much. Hormones are the most powerful signaling agents and can direct cells to repair and regenerate.

Years ago, Donna DiMarco presented an intriguing webinar called “Understanding Male Hormones.” She articulated two major classes of problems exist when assessing hormones. First, is the pituitary talking to the gonads and are the gonads listening? The second class of problems is a little trickier. It's called peripheral signaling. Peripheral signaling refers to these questions: Does the body have what is needed to make the hormones? Is anything causing the hormone



pathway to shunt in another direction? Is there something in our lifestyle that affects the enzymes or pathways? Is the liver breaking down or clearing hormones properly? Finally, is the gut carrying away the cleared hormones in such a way that pieces of the hormone are not being reabsorbed?

Let's look at a few of the things which can cause the peripheral signaling to go astray. Probably the biggest offender is an excess of refined carbohydrates, which will increase insulin, and ultimately, cause insulin resistance. Insulin is a major signaling hormone. Insulin as well as cortisol, which we

know comes from chronic stress, sits on receptor sites to block hormones.

So, right off the bat, we have to assess and support adrenals and manage diet. Not only is fat storage a result of insulin resistance or metabolic syndrome, but the enzyme aromatase is increased. And as we just discussed, as the enzyme aromatase is increased, so is estrogen increased. For men, we want to make sure we don't lose healthy androgens to estrogen. Also, natural aromatase inhibitors can benefit women because aromatase is expressed at higher levels in human breast cancer tissue than in normal breast tissue.

As you might imagine, there is an exciting growing field to find ways to inhibit excess aromatase. Leading scientists are looking for foods that are natural aromatase inhibitors. Shiu-an Chen, Ph.D., is the Director of the Department of Surgical Research at the City of Hope in Duarte, California. His laboratory has found grapes, mushrooms, and red wine contains chemicals that can suppress aromatase activity. Perhaps the most exciting however is a grape seed extract - pro-cyanidin B, which according to Dr. Chen's research, reduces up to 80% of aromatase. Although not as aggressive as grape seed extract, we find other foods and nutrients that suppress aromatase. I've put together a list of foods and nutrients that suppress it. Including them in our diets has multiple benefits.

Biotics Research makes two products high in grape seed extract. One is called Bio-Cyanidins, which is a source of proanthocyanidins. Bio-Cyanidins contains 35 mg Grape Seed Extract, a 95% pure concentrated form of OPCs as well as 15 mg of Pycnogenol.

Clinicians have shared with me over the years that Bio-Cyanidins also help chronic inflammation as OPCs are major antioxidants. One molecule of OPCs will quench thousands of free radicals. The other component in Bio-Cyanidins is Pycnogenol which has additional benefits with ADD and ADHD. Donna DeMarco shared that she started out by balancing sugar levels and adding button mushrooms to the diet. Next, she used Bio-Cyanidins, one, three times a day to bring levels into balance upon retesting.

A more concentrated product with multiple aromatase inhibitors is called Hormone Balance and Protect. It's designed to maximize the life of hormones and keep them in balance. Not only does it have 140 mg of Grape Seed Extract as a 95% OPC concentration, but it contains other aromatase inhibitors like broccoli seed extract, zinc, and iodine as well as botanicals to inhibit excess cell growth in general.

But the side benefit that I'm most interested in is the topic of cancer stem cells. The current cancer strategies, namely surgery, chemotherapy, and radiation may kill or remove tumors, but they do nothing to inhibit cancer stem cells. Hormone Balance and Protect provides many botanicals that researchers are finding inhibit cancer stem cells. The dose is 2 twice a day. It's a product I personally take every day as an aromatase inhibitor and to maximize the effectiveness of my hormones. You can see a link to a great webinar that Dr. Berkson did on this product to the right.

As you can see, this type of therapy often takes detective work to find out what's going on. And then it can take time to tweak therapies until patients experience optimal health. But starting with a diet high in natural aromatase inhibitors, reducing refined carbohydrates, addressing cortisol status, and adding products like these to support hormone production can have a huge effect on someone's health.

Thanks for taking time to be with me, I look forward to being with you again next Tuesday.