Achieve a Healthy Estrogen Quotient with Myomin

Tsu-Tsair Chi, PhD

No one can argue that healthy hormone levels have a positive effect on one's health. However, due to physical or environmental factors, it is sometimes difficult to achieve and maintain a healthy hormone balance. Levels of reproductive hormones like estrogen, in particular, can vary depending on your gender, age, or Hormone Replacement Therapy (HRT) use. Understanding estrogen and how it relates to other reproductive hormones is key to achieving hormone balance and reducing disease-related risks.

Estrogen has three main forms: estrone (E1), estradiol (E2) and estriol (E3). Estrone and estradiol are the most potent forms of estrogen and are considered to have a role in various diseases. Estriol is the weaker estrogen and is considered anti-carcinogenic in the presence of E1 and E2, according to some studies.

Professor Henry Lemon derived the Estrogen Quotient (EQ), a formula that provides a guideline to keeping the right E1, E2 and E3 balance. It is defined as E3 divided by the sum of E1 and E2.

EQ = E3 / (E1+E2)

An EQ over 1, therefore, signifies lower cancer risk. Because of E3's protective effect against cancer, ideally there needs to be more E3 than E1 and E2 combined.

In the metabolism of steroid hormones, estrogen is synthesized through different pathways. Understanding these pathways can help you determine how or why your levels of estrone, estradiol or estriol (and other hormones, for that matter) are deficient or elevated. This will also help you achieve a better EQ.

In Figure 1, the androgens androstenedione and testosterone are directly converted to estrone and estradiol, respectively, through the aromatase enzyme. Other hormones like progesterone, cholesterol, pregnenolone or DHEA are indirectly converted to the different forms of estrogen. So what does this mean? Let's say you are on progesterone therapy, for example. Progesterone can go through different pathways and eventually end up being converted to estrone or estradiol.

Myomin is a natural aromatase reducer that can reduce estradiol level. Its effect on aromatase expression was clearly indicated in an *in vivo* study. After 28 days of administration, Myomin reduced aromatase expression in rat endometrium and ovarian tissue by 100% and 85.6%, respectively (Chi TT. *Townsend Letter.* Dec 2009; 317:70-74.).

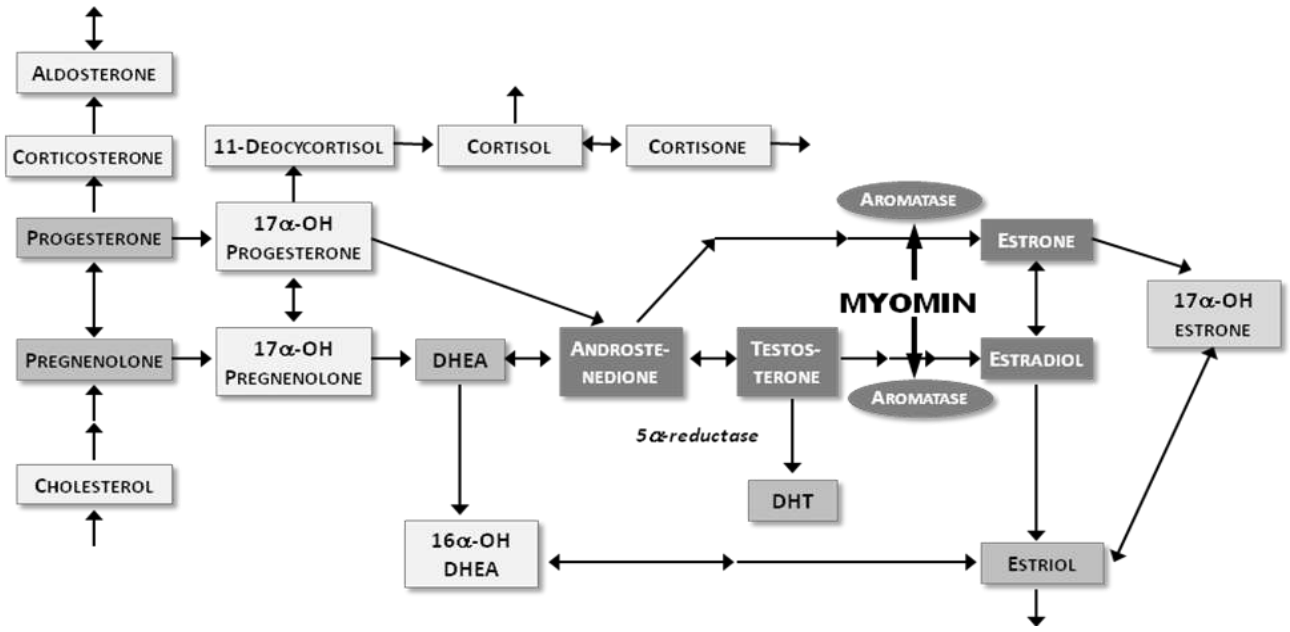
Its reduction of estradiol levels, therefore, was not a surprise. In an animal study, 90 female mice were given Myomin for 30, 60, and180 days. Their average estradiol level after each period was 50.6, 36.6, and 32.4 pg/ml, respectively. Their estradiol level progressively reduced and then stabilized.

Similarly, a human study involving 60 postmenopausal women with cysts and fibroids reduced their estradiol level by 47.88% after only 10 days on Myomin.

There are also numerous case reports on men and women using Myomin to reduce their estradiol level and achieve healthy levels of other hormones such as progesterone and testosterone, with or without HRT, including Bioidentical Hormone Replacement Therapy (BHRT).

Y. Dikansky, ND from NY, has a 48-year-old premenopausal patient who had breast cancer at 38 years old. She had surgery and radiation at that time. Then the cancer recurred when she was 43 years old, for which she underwent surgery and radiation again. In May 2011, at 48 years old, her estradiol was high at 196.50 pg/ml. She found out that she had **fibrocystic breasts**. This time she took Myomin. In July 2011,

Figure 1. Biosynthesis of Steroid Hormones



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a biopsy revealed that it was not cancerous. By Oct 19, 2011, about 5 months later, her estradiol level reduced to 53.21 pg/ml, within normal range (Table 1).

Table 1. Estradiol reduced with Myomin: Premenopausal Female with Breast Cancer History

Urine Test	May 2011		Oct 2011		Premenopausal range
Estradiol	196.50	High	53.21	Normal	5.0– 54.7 pg/ml

F. Cromeyer, RPh from Texas, has a female patient in her 50s who took Myomin for 2 months. Her estradiol level reduced from 6.5 to 2.4 pg/ml (Table 2).

Table 2. Estradiol reduced with Myomin in Postmenopausal Female

Saliva Test	Before Myomin		After 2 months		Postmenopausal range
Estradiol	6.5	High	2.4	Normal	1.0– 3.2 pg/ml

J. Carrozzella, MD from Florida, has a male patient in his 50s who took Myomin. After only 3 weeks, his estradiol level reduced from 60 to 25 pg/ml (Table 3).

Table 3. Estradiol reduced with Myomin in Male Patient

Serum Test	Before Myomin		After 3 weeks		Male range
Estradiol	60	High	25	Normal	6-30 pg/ml

M.K., an 80-year-old male from California, has prostate cancer. He had elevated levels of estradiol and PSA before he started on Myomin and Prosta Chi, another herbal supplement. He had been taking dutasteride (Avodart) for years but his PSA was still elevated at 5.0 and his estradiol was at 60 (normal is 6-30 pg/ml). After adding Myomin and Prosta Chi for 2 months, his PSA reduced to 2.88 and his estradiol reduced to 39. When he stopped taking it for 2 months, both levels increased. He promptly took Myomin and Prosta Chi again and his PSA and estradiol levels dropped (Table 4), showing how effective Myomin and Prosta Chi are for the prostate.

Table 4. Estradiol and PSA level reduced with Myomin in Male Patient

Date	Estradiol	PSA level	Notes
9/2011	60	5.0	Levels with Avodart and before he added Myomin and Prosta Chi.
11/2011	39	2.88	After 2 months with Myomin, Prosta Chi
01/2012	59	5.6	He stopped Myomin and Prosta Chi, his levels increased. So he started taking them again.
03/2012	39	Not tested	2 months after he restarted Myomin, Prosta Chi
04/2012	31	3.6	After 3 months on Myomin, Prosta Chi

Estrogen receptors

In order for estrogen to function, it needs to attach to a receptor. Once this binding occurs, it determines how a cell will function for the rest of its life. Estrogen receptors exist in many tissues of the body, explaining the many conditions associated with estrogen. They are classified into two types: estrogen receptor alpha (ER-alpha) and estrogen receptor beta (ER-beta). Each type of receptor has different effects in terms of cell proliferation and how it responds to E1, E2 or E3.

The **estrogen receptor alpha (ER-alpha)** is stimulated by E1 and E2 and is considered proliferative and pro-carcinogenic. It is found in the following tissues:

- Blood vessels · Hypothalamus · Ovaries
- Breast · Liver · Prostate
- Endometrium · Lung · Testes

The **estrogen receptor beta (ER-beta)**, on the other hand, is stimulated by E2 and E3 and is considered anti-proliferative and anti-carcinogenic. It is found in these tissues:

- Blood vessels · Kidney · Prostate
- Breast · Heart · Skin
- Brain · Intestines · Endothelial cells
- Bone · Lung

Since estrogen receptors are distributed widely in the body, estrogen is clearly in many different health conditions. It has been implicated in the pathogenesis of some types of cancer, including breast, endometrial, ovarian, prostate and testicular cancer. This is partly due to the expression of ER-alpha and ER-beta in these types of tissues. Recently, new studies show that estrogen may also play a role in lung cancer and melanoma.

Knowing the function and distribution of estrogen receptors is vital to achieving the right balance of E1, E2 and E3. Since the proliferative and pro-carcinogenic ER-alpha binds to both E1 and E2, we need to have lower levels of these estrogens. ER-beta has an affinity for E3 and not E1, so a higher E3 is more cancer protective.

Achieve E3 > E1 + E2

Referring to Figure 1 again, Myomin limits the production of E1 and E2 by blocking the conversion from androstenedione and testosterone, respectively. E3, in contrast, continues to be produced unopposed from other pathways. So you are getting more E3 than E1 and E2. This is how Myomin is able to promote a healthy EQ. Women need to check their hormone levels once they hit menopause to keep track of their EQ. One case clearly illustrates Myomin's effect on EQ.

I. Ekasari, PhD from Colorado, has a 59-year-old female patient with breast and thyroid nodule, conditions that are both estrogen-responsive. Then she started taking Myomin and Angiostop. After 1 ½ years, her E1, E2 and E3 levels are within normal range and her EQ is now over 1.0 (Table 5), signifying a lower risk for breast cancer. Her breast and thyroid nodules have also reduced in size.

Table 5. Patient with breast and thyroid nodules effectively increased her EQ with Myomin

Saliva Test	Results		Postmenopausal range
Estrone (E1)	17.46	Normal	5.8 – 34.2 pg/ml
Estradiol (E2)	1.08	Normal	1.0 – 3.2 pg/ml
Estriol (E3)	18.97	Normal	<30.0 pg/ml
EQ = E3/(E1+E2)	**1.02**	Normal	>1.0

Factors of Estrogen Imbalance

In order to manage estrogen and reduce the risk for estrogen-responsive cancers, we need to be aware of various factors that contribute to elevated estrogen levels: hormone replacement therapy, obesity, xenoestrogens, and hyperaromatization.

Hormone Replacement Therapy (HRT)

It has been years since the Women's Health Initiative study has been halted but we are still getting valuable information from follow up evaluations of the study participants. Essentially, the harmful effects of HRT far outweigh the benefits. Women, therefore, are encouraged to use HRT cautiously, especially if there is a history of estrogen-responsive conditions such as cysts, fibroids, or endometriosis.

For men and women who absolutely need it, they can safely be on HRT or BHRT by adding Myomin to avoid the excessive conversion of other hormones to estrogen. This will also help preserve a natural balance among E1, E2 and E3.

In one case, S. Vlach, MD from South Dakota, has a 65 y/o/m well-built patient using bioidentical testosterone cream. With Myomin, his testosterone was over 10,000 (normally 300-750). Then testosterone dose was cut in half, but his testosterone level was still 3,000. Finally after stopping the testosterone cream and just taking medium-dose of Myomin, his testosterone and estrogen (normally 6-30) levels are within normal range.

In another case, J. Weber, DC from New York, has a 33 y/o/f patient who had hormonal imbalance. Her periods have been irregular since she was 19 years old. She is also overweight, has low thyroid function and had insulin resistance. Dr. Weber recommended progesterone cream, Myomin, Chi-F, Pro-Metabolic and Slender All. After only a month on the program, her periods became regular. A year later, her hormones are balanced (Table 6) and she lost 40 lbs.

Table 6. Hormones balanced with Myomin: Premenopausal Female on Progesterone Cream

Saliva Test	9/15/2010		10/3/2011		Premenopausal range
Estradiol (E2)	2.20	Normal	1.76	Normal	1.0-10.8 pg/ml
Progesterone (Pg)	< 10.0	Low	219.26	Normal	127-446 pg/ml
Ratio Pg/E2	4.40	Low	124.58	Low	200-600
DHEA	128.20	Normal	219.01	Normal	106-300 pg/ml
Testosterone	55.10	High	43.09	Normal	5.9-49 pg/ml

Obesity

What many people do not realize is that fat tissue has a high concentration of the aromatase enzyme. When testosterone is low and estrogen is high, this reduces muscle tone and promotes fat accumulation. Since fat tissue is the greatest peripheral source of aromatase, this further leads to more estradiol buildup from testosterone conversion (hyperaromatization). So the increased estradiol production contributes to a cycle of more aromatase and fat buildup.

Myomin can interrupt this cycle by blocking the conversion of testosterone and androstenedione to estrone and estradiol. As a result, weight will eventually reduce, especially around the abdomen, which has the highest concentration of aromatase. In the case of K. Kaplan, DC from FL, for example, she has a 58-year-old female patient who took Myomin, Slender All and Pro-Metabolic for a year. Her weight reduced from 245 lbs to 193 lbs. She lost a total of 4 inches from her waist and 8 inches around the thigh.

Xenoestrogens

Xenoestrogens, also called environmental hormones or endocrine disrupting chemicals, are substances that mimic the effects of estrogen. They attach to receptors and disrupt endocrine functions. People are continually exposed to xenoestrogens in the environment like plasticizers, clouding agents, and phthalates. Clouding agents, for example, are found in sports drinks, juices, tea drinks, fruit jams, syrups, tablets or powders. Constant exposure to xenoestrogens can cause damage to the reproductive system and other organs and lead to cancer. In women, it can cause early puberty and increase breast cancer risk.

Myomin is recommended for those who are exposed to xenoestrogens. Besides its aromatase inhibition function, it also competes with xenoestrogens and/or estrogens at the estrogen receptors to reduce their harmful effects.

Hyperaromatization

Hyperaromatization is excessive conversion of testosterone and androstenedione to estradiol and estrone, respectively. This is one of the issues faced by individuals on HRT or BHRT and also women on birth control pills. For individuals taking hormones, this can be problematic for a number of reasons. First, they are not retaining all the hormones that they need. Second, they are accumulating more estrogen than necessary. This leads to an increased risk for cysts, fibroids, gynecomastia and certain types of cancers.

According to Dr. Jonathan Wright, the pioneer in BHRT, the types of people who are more likely to have hyperaromatization have the characteristics listed in Table 7.

Table 7. People of at risk for Hyperaromatization

- Overweight
- Hypertension
- Type 2 diabetes
- High cholesterol level
- Insulin resistance
- High triglyceride level
- Family history of Type 2 Diabetes

In Table 8, Dr. Wright further enumerates certain symptoms to watch to determine if a person has hyperaromatization.

Table 8. Symptoms of Hyperaromatization

- Overweight
- Reduced muscle tone
- Low libido
- Gynecomastia (enlarged male breasts)

When a patient has low testosterone and high estradiol levels, a definite sign of hyperaromatization, check for insulin resistance or diabetes. Once it is confirmed, recommend Myomin to correct hyperaromatization. As in these two cases, both patients have diabetes or insulin resistance and also have the symptoms of hyperaromatization.

L.H., a 65-year-old female from New York, is diabetic and had a fasting HbA1c level o f 7.6. After 6 months on Myomin, Diabend and OxyPower, her HbA1c level reduced to 6.5 (Table 9).

Table 9. Myomin reduced HbA1C with OxyPower

Serum Test	Before	After 6 months	Reference range
HbA1c	7.6	6.5	< 6.0

J.W., a 69-year-old female from New York, had insulin resistance symptoms and marginal HbA1c. After taking Myomin, Diabend and OxyPower for 6 months, her HbA1c level reduced to 5.7 (Table 10) and her symptoms cleared.

Table 10. Myomin reduced HbA1C with OxyPower and Diabend			
Serum Test	**Oct 2010**	**Mar 2011**	**Reference range**
HbA1c	6.0	5.7	< 6.0

Hyperaromatization can negatively affect the EQ since E1 and E2 can potentially increase much faster than E3. It is therefore important to correct this condition not just to achieve an ideal EQ but also to maintain a healthy weight, increase muscle tone and reduce insulin resistance risk. At more than 12 lectures different medical conventions since 2010, Dr. Jonathan Wright has discussed the safe and effective use of Myomin with BHRT to correct hyperaromatization.

Conclusion

Myomin is an herbal formula that has been demonstrated to reduce aromatase expression and estradiol levels in animal and human studies. By reducing estradiol, it has many applications in improving cysts, fibroids, endometriosis, prostate issues and other estrogen-responsive conditions. Since it regulates the synthesis of estrogens, Myomin can help you achieve a healthy estrogen quotient, keeping the right balance among E1, E2, and E3. Myomin can be safely taken by premenopausal and postmenopausal women as well as men on BHRT to minimize its associated risks.

For more information:
Chi's Enterprise, Inc.
1435 N. Brasher St, Anaheim, CA
(714) 777-1542
www.chi-health.com

DR. JONATHAN WRIGHT, MD, the pioneer of Bioidentical Hormone Replacement Therapy, has lectured on Myomin at many conventions and symposia nationwide

2010

- April 17, 2010 – Hormone Therapy in Clinical Practice (Seattle, WA) sponsored by the Bioidentical Hormone Society
- .May 14-16, 2010 – Bio-Identical Hormone Replacement Symposium (Los Angeles, CA) sponsored by A4M
- November 6, 2010 – Optimal Health through Integrative Medicine (Las Vegas, NV) sponsored by ACAM

2011

- May 14, 2011 – Nutritional Therapy in Medical Practice (Seattle, WA) sponsored by The Medical Educator Consortium
- September, 2011 – Bio-Identical Hormone Replacement Symposium (Dallas, TX) sponsored by A4M
- June 24, 2011 – Bio-Identical Hormone Replacement Symposium (Las Vegas, NV) sponsored by A4M

2012

- March 22, 2012 – Bio-Identical Hormone Replacement Symposium (San Francisco, CA) sponsored by A4M
- March 25, 2012 – Men's and Women's Health: Updates on Natural Treatments for Urological and Reproductive Conditions (Berkeley, CA) sponsored by the California Naturopathic Doctors Association
- March 28, 2012 – Puget Sound Functional Medicine Group (Bellevue, WA)
- April 20, 2012 – Nutritional Therapy Seminar (Phoenix, AZ) sponsored by A4M
- September 20, 2012 – Bio-Identical Hormone Replacement Symposium (Chicago, IL) sponsored by A4M
- October 5-6, 2012 – Comprehensive Approach to Menopause, From Bones to Brains Conference (Seattle, WA) sponsored by Key Compounding Pharmacy

JAMES BOWMAN, MD, ND (Wisconsin) – Testimony on Myomin and Chi Products

Dr. Bowman is so impressed with Myomin and other CHI products that he wrote a letter to Dr. Chi, saying that he is distributing a copy of his JANMA article to all his patients, including a commentary at the end. This is an excerpt of his commentary:

My experience with MYOMIN, and all the other herbal remedies we use from Dr. Chi's laboratory, has been exceptionally positive. As a health care practitioner, it is my responsibility to find, research, test, and verify only the most pure, most potent, most effective natural and alternative remedies available.

This is no small task as there are literally **thousands of companies in the US and around the world who "claim" to have the ultimate in product safety, purity, potency and effectiveness…Most of the time, probably more than 95% of the time, it's a joke.** We have extremely high and uncompromising standards in everything we do, every service or remedy we offer to anyone. Safety comes first here.

I first discovered the Chi Laboratory after meeting Dr. Chi at a conference for naturopathic physicians in 2001. **I was impressed by the thoroughness of his research. His rigorous standards matched those we use and because of this I spent a great deal of time learning more about him and his work.**

I was not disappointed in the least. **I trust him, his staff, and his products 100%.** We have found that for the most difficult, complex, and chronic health problems, **these products succeed where others fail**, and because of this I use them personally and recommend them to our patients in need of restoration of better health using safe, natural, evidence-based, proven natural herbal remedies.

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