

Whenever we hear the word hormone we always think of a women struggling through menopause or a women fighting through that “time of the month.” Often times the answer to this is to prescribe women with hormones. Sometimes it works sometimes it doesn’t. At times hormones may make a women more symptomatic or even worse; create disease.

In 2002 the Women’s Health Initiative was stopped on the use of hormone replacement therapy (HRT). It was a study using estrogen and progestin in healthy postmenopausal women. The estrogen and progestin combination was supposed to be a preventative measure against coronary heart disease and fractures. After a five-year follow up period, the study was stopped early due to the increase in coronary heart disease, breast cancer, stroke and blood clots. The news flooded the media and women began to stop HRT immediately. This is a very scary situation for women and HRT.

Not all HRT is bad though. The women in this study were taking synthetically derived hormones. When it comes to HRT, all hormones are not created equal. There is a difference between synthetically derived hormones and bio-identical hormones. Studies have shown that bioidentical hormones are safer and more effective than synthetically derived hormones.

For instance, synthetically derived estrogens are classified as conjugated equine estrogens (CEE). Yes you read that correctly. These synthetically derived estrogens are made from horse urine! No wonder why there are so many issues.

Bioidentical hormones are available and are much safer than the synthetic hormones. But even with the use of bioidentical hormones, the question that must be addressed is “why are they low?”

Hormone dysfunction goes beyond menopause. Many of our female clients are experiencing many symptoms as they go through their menstrual cycle. Premenstrual syndrome (PMS) is happening at an alarming rate.

- 60% of our female clients under the age of 50 are affected by PMS
- 20-40% of our clients in the childbearing years are affected by PMS
- 5-10% of our clients experience PMS symptoms that completely disrupt their lives

Hormonal issues don't just happen with our female clients. Our male clients are struggling more and more these days with hormonal dysfunction. Just look at any men's magazine or commercial during a sporting event and you will see ad after ad for drugs that help with erectile dysfunction (ED).

Whether it is a woman with menopausal symptoms, PMS or a male with ED, hormones are on the decline or dysfunctional. Often times our clients are asking what hormones they should take to help with their symptoms. It is true that their hormones are low but the question they should be asking is:

“Why are my hormones low?”

The root cause of low hormones or imbalance is stress. The word stress brings to mind thoughts of emotional and mental stress. But stress can come in many forms. Besides mental and emotional stress there can be physical stress and chemical stress.

Our bodies response to stress has not changed for many years. If we were in nature 100 years ago and were confronted by a tiger, our body would go into a state of “fight or flight” and we would run away as fast as possible or fight like crazy to survive. Our body has the capacity to do this by producing stress hormones called epinephrine, norepinephrine and cortisol. In this situation, one of three things will happen:

1. You kill the tiger and survive

or

2. You run up a tree and survive

or

3. You become dinner!

One way or another, the stress is resolved and you go about your daily activity or you're a goner! The big difference in this day and age is that the stress can be a job, family, 500 emails, or driving in traffic. Stress is constant. Many of our clients are drowning in stress!

The consequence of this is stress on the adrenal glands. The adrenal glands are two small glands that sit above the kidneys. They are designed to help the body deal with stress and produce hormones such as dehydroepiandrosterone (DHEA), estrogen, progesterone, and

Robert Yang
www.robertyang.net
info@robertyang.net

testosterone. When stress becomes excessive cortisol production ramps up to deal with the stress but the consequence is a reduction of the overall production of sex hormones.

Often times it's the choices that are clients make about food and lifestyle choices that have a major impact on their hormones. If our client's can make the right choices the decline in hormones can be minimized.

Many times our clients are trying to make wise choices but are misinformed. They give a real effort but in the end they become frustrated and with further hormonal dysfunction.

As fitness professionals, we are in the business of helping our client's look and feel better. We can help educate our clients to make better choices when it comes to food and lifestyle factors.

Food is a hormone!

One of the best ways to control cortisol is by controlling blood sugar. It is the key to hormone balance.

When it comes to food, Barry Sears, PhD, Author of Enter The Zone said it best,

“Food is the most powerful drug you will ever encounter.”

Just give a kid a bunch of candy and watch him start bouncing off the walls!

Every time that you put something in your mouth, you will have a hormonal response. It can be favorable or unfavorable. The choice is yours!

WATER: the elixir of choice

It all starts with water. Your body is made up of 70 percent water. If you are drink the right amount of water you will:

- Decrease stress hormones
- Increase focus and concentration
- Increase fat burning
- Decrease joint pain
- Increase metabolism

The optimal amount of water to drink per day is:

Robert Yang
www.robertyang.net
info@robertyang.net

$\frac{1}{2}$ your bodyweight in ounces per day

or

1 litre per 30 kg of bodyweight

After water has been implemented, breakfast is very important for hormone control. If you fail to eat breakfast then you will fail to control your hormones. What ever you choose to eat will dictate your blood sugar in the afternoon. This is called the Second Meal Effect. Studies show that when you eat breakfast versus skipping it, the blood sugar is more stable after lunch.

The second step towards a rock solid blood sugar is high protein foods. There is virtually no rise in blood sugar and most importantly it keeps a person satiated.

Many of our clients are trying to lose weight. One of the primary reasons that clients stop a diet is because of hunger and cravings. A high protein diet will help a client feel satiated and keep compliance high.

A high protein intake is important for hormones because with a high protein plan means more meat will be consumed. With more meat comes fat and cholesterol.

Many people think that fat and cholesterol are bad but your body makes cholesterol everyday! Often times I see people on low fat diets suffer from hormone decline and imbalances. The reason is that our hormones are made from cholesterol. If you don't eat enough fat and cholesterol then you don't have the raw ingredients to make your hormones.

Ladies, this is especially true for you! If you are exercising for an increase in bone mass, lean muscle or improvements in body composition, then your consumption of protein and fats must go up.

Many of our female clients that exercise require much less carbohydrates than male clients due to the fact that fat is used as the main energy source. More specifically they use less glycogen in muscles and use intramuscular triglycerides and lipids in the blood for energy. Therefore the need for fats is high for females.

If females try to eat a low fat diet, there will be a depletion of intramuscular triglycerides which may affect energy in future exercise sessions. Besides being a source of energy, fat is critical for sex hormone concentrations. Great sources of fat and cholesterol.

Robert Yang
www.robertyang.net
info@robertyang.net

- Whole eggs
- Grass fed red meat
- Free range chicken
- Wild shrimp
- Lobster
- Butter
- Coconut oil

When it comes to carbohydrates, blood sugar control should always be the priority. The type of carbohydrate will dictate how the blood sugar responds. I classify the carbohydrates into two categories. Anytime carbohydrates and cautionary carbohydrates.

Anytime carbohydrates

- Vegetables
 - Cruciferous vegetables: cabbage, cauliflower, broccoli, and brussel sprouts
 - Green leafy vegetables: kale, chard and spinach
 - Salad

Caution carbohydrates

1. Fruit
2. Tubers
3. Gluten free grains
 - Buckwheat
 - Corn
 - Millet
 - Rice

Timing is of the essence when it comes to eating cautionary carbohydrates. Fruits, tubers and gluten free grains can rapidly elevate blood sugar and create unstable blood sugar. So eating them first thing in the morning could wreak havoc on blood sugar in the afternoon. Same goes for at night. Eating these types of carbohydrates before bedtime will create the after-effect: low blood sugar. Low blood sugar during bed time is a bad thing. Low blood sugar is an alarm system to your body. Cortisol production is wound up during sleep, which will disturb your sleep or worse yet keep you up all night.

Sleep

Sleep is critical for hormonal balance. It is the most therapeutic tool that a person could have. The great thing is that it is completely free! These are some simple guidelines to better sleep:

Robert Yang
www.robertyang.net
info@robertyang.net

- Avoid stimulating and stressful TV
- Reduce lights 1 hour before going to bed
- Avoid stimulating light (i.e. cell phones and lap tops)
- Warm Epsom salt bath for twenty minutes

Supplements

Supplements can help many of your clients with hormonal decline and dysfunction. But you must always coach your clients to create a foundation of hydration and blood sugar control. This creates a foundation in which the supplements can be more effective.

Magnesium is involved in over 350 biochemical reactions to the body. Every time that your client becomes stressed, the magnesium levels will begin to decrease. This decrease in magnesium will affect energy levels because it is the spark that is needed for our body to produce energy.

Since most of our clients are in a state of “fight or flight”, magnesium levels plummet and low magnesium leads to low energy. This becomes a vicious cycle of a stressed out client with no energy. Magnesium is known as a calming nutrient. So it is highly effective at helping out clients to deal with stress and to shift their bodies into a more ZEN state.

Gamma linolenic acid (GLA) is a special omega-6 fatty acid that must be obtained from the diet. Sources of GLA include: evening primrose oil, borage oil, and black currant seed oil. It has been shown to be effective in treating PMS symptoms. The dosage should be 200-250mg per day with breakfast and dinner.

Diindolylmethane (DIM) is a photochemical that is found in cruciferous vegetables such as cabbage, broccoli, brussel sprouts, and cauliflower. Dim has been shown to have an anti-aromatase activity in the body. That means that it helps to detox the body of the bad estrogens. Due to the environmental estrogens that are encountered every day, DIM should be taken by everyone. The dosage should be 150 mg twice per day.

As you can see, hormone balance goes well beyond just taking hormones. As fitness professionals, we see our clients on a weekly basis. We are in a great position to coach our clients about hydration, proper food intake and lifestyle choices. Our clients will leave us empowered to make informed choices to help balance their hormones but more importantly to improve their quality of life.

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