For decades, physicians and patients alike have been fearful of HRT, the logic being that – “if hormones are safe, then why do our bodies stop producing them? Clearly, they must turn evil after a certain age.” Alas, that is not true and enlightened physicians do their patients a service by recommending them for their patients at the appropriate time.

HRT is a means of replacing something necessary that gets lost. Best example would be an automobile – while it requires fuel to run, it also requires oil in the engine in order to prevent it from breaking down. Oil doesn’t suddenly “turn bad” after the first 100,000 miles. Neither do our hormones turn bad after a certain age. While we run on food for fuel, our bodies require hormones to keep parts in repair.

What is a hormone? It’s a chemical messenger wherein a gland tells another part of the body to do something. Most people are familiar with insulin (which regulates sugars and fat) and thyroid hormone (which regulates metabolism). Likewise, estrogen and testosterone perform important functions in our bodies (and incidentally, men and women produce BOTH of these).

Yes, our bodies do stop making these latter two hormones usually in our early 50’s (some earlier, some later). However, it is NOT because they suddenly “turn evil.” Rather, it’s due to the simple fact that 100 years ago, we were dead.

Think about it. A white female baby born in 1910 had a life expectancy of 52 years of age, a white male baby lived an average of 49 years. Blacks fared much worse. Remember: they did not have antibiotics nor any good treatments for high blood pressure or cancer. Back then, people died early and often, hence we didn’t see cataract, joint replacements or other surgeries because our bodies weren’t around long enough to wear out.

Thanks to science – the discoveries of antibiotics and treatments for other diseases, we’ve extended the lifespan for both men and women by 30 years! However, this is artificial life extension and not due to natural evolution. So, while we have the ability to prolong life into the 80’s, 90’s and even 100’s, without a body’s hormones, our bodies continue to break down. Look around and you can see the result of this – elderly men and women with spine changes causing them to hunch forward, among other things. Fortunately, this is totally preventable.

Everyone is familiar with the more common complaints of women going through “the change” – hot flashes, sleep problems, mood changes, for example. These are generally transient lasting months to a few years. The old doctor’s advice was “Don’t worry, dearie, you’ll get over them.”

However, the primary benefit to HRT is long-term protection against the body’s eventual breakdown. In women, hormones keep the “soft and squishy parts” soft and squishy. Without estrogen, women’s bodies do not absorb calcium from the gut leading to osteoporosis (leading to fractures of spine, hips and wrists most commonly). Estrogen, when started at menopause, helps protect women from heart disease and some studies suggest that they might help stave off Alzheimer’s. Testosterone has responsibilities for energy and endurance in men. In both men and women, it regulates sex drive (libido), brain function, muscle and bone mass, strength, and fat distribution.

“But surely there must be a downside to HRT, right?” That’s what was commonly believed, but recent studies have debunked many of the fears.

Let’s look at the fear that HRT can cause cancer. But first, SPOILER ALERT – WE ALL DIE! The longer that we live on this planet, the greater the chance that a cell in our bodies will mutate into something bad. Not many of us truly believe, let’s say, if we were to smear estrogen onto a breast or testosterone onto a prostate that they would induce cancerous changes. For example, it’s well established that the men with the highest levels of testosterone never develop prostate cancer at the time – those, of course are teenage boys. And, furthermore, it’s the men with the lowest levels of testosterone who fare far poorer if they do develop prostate cancer.

However, if a breast or prostate were to develop a mutation that went on to become cancer, then HRT probably is not a good idea for those people. That’s an important distinction. In other words, hormones most likely do not cause cancer, but if a cancer were already to be present, they may feed them.

Regarding breast cancer, one out of eight women will develop it (this includes women who do not use HRT). Conversely, this means that 7 out of 8 women will not. Genetic predisposition accounts for less than 15% of breast cancers. The two risk factors for developing breast cancer? Being female and growing older. And consider this: women developed breast cancer long before HRT was devised, more often in women who were estrogen deficient (older ages). Whereas one may consider that the chemicals with which we come into contact on an increasing daily basis might bear some contribution to its incidence, it’s highly unlikely that female hormones actually induce the cancerous changes; Or, to put it another way, as all women produce these hormones, one might expect a much higher incidence of breast cancer had they actually been responsible.

What’s a woman to do? Be aware of what your body looks and feels like, and get mammography when indicated. To end this subject on a positive note: *Bio-identical HRT (BHRT) has never been shown to increase risk of breast cancer.*

Regarding heart disease, the past studies were horrible in design, for both women and men. Physicians had long assumed that it was estrogen that protected women against heart attacks based upon observation. Look at a male and a female under the age of 50 who present to the local hospital emergency department with complaints of chest pain. Most of the time, the males did have a heart attack whereas the females did not. Hence the reason for why so many physicians ignored women’s complaints of chest pain because “women can’t get heart attacks.”

It was assumed that women were protected by estrogen’s ability to improve HDL and through other mechanisms. In an attempt to prove this, the Heart Estrogen/Progesterone Replacement Study (HERS) was undertaken and the reported results shocked everyone by noting that there was no protective effect noted in the women who took HRT versus those who did not. The investigators scared literally thousands of women from taking their HRT. This was a poorly designed study, however, with one big glaring fact: the average age of menopause in American women is 52 years of age (some sooner, some later); the average age of women in the HERS was nearly 67 years of age! In other words, they had already developed blockages in their coronary arteries by the start of the study. Incidentally, many of the women who stopped their HRT resumed it again within 6 months because they knew that they felt better on it.

Similar story for men. Physicians thought that testosterone replacement would induce heart attacks because too high levels can cause polycythemia (increase in # of red blood cells). The problem with many of these studies is that they, too, were poorly done. Some had their conclusions of danger published despite their data to the contrary (substituting their beliefs of what they expected, rather than what really happened). How bad were some of these studies? In one large retrospective study that purportedly emphasized the cardiovascular dangers of testosterone, only patients’ charts were reviewed – not a single patient was examined/tested – AND, a lot of the “male” patients turned out to be women!

Fortunately, more recent studies in both men and women have vindicated the cardiovascular safety of HRT at therapeutic dosages.

So, how does one know if he or she needs HRT? The diagnosis in women is fairly straightforward – if a woman has stopped having menstrual flows and has complaints of hot flashes, poor sleep, mood changes, etc. – then it’s obvious and no laboratory testing is required.

Different story for men as they do require laboratory testing for testosterone levels. Be aware that many people (physicians included) are unaware that so-called “normal” testosterone levels provided by a laboratory are not normal biological levels – they’re statistical normals. This is how laboratory normals are established: a lab analyzes hundreds of thousands of patients who pass through their doors for testing. They take the mean (a type of average) and then go out 2 standard deviations on either side of the mean to create their normal range This large group represents 95% of the patients who submitted for a particular test.

You may have noted that normal ranges vary from laboratory to laboratory. For example, the current “normal range” for total testosterone from LabCorp is 264-916 ng/dl. For Quest Labs, it’s 250-1100 ng/dl. If a male patient’s total morning testosterone was 400, this would be considered to be normal by both labs and their insurance companies would decline to pay for a testosterone prescription. The problem with this is that a man’s testosterone really needs to be above 600 mg/dl for normal healthy function, which means that many men unfairly wind up not being able to receive treatment for their fatigue, depression, loss of libido, etc.. If they elect to treat their low levels, it must come from out of their own pockets and this can be very expensive for brand name products (compounded formulations are much less expensive and work just as well, in my personal experience).

How to administer HRT? Many of us believe that the safest route is through the skin. There are no testosterone pills because they would screw up the liver. For women, there was a concern that perhaps oral conjugated estrogens could affect the liver, making the blood hypercoaguable and more likely to clot. Bypassing the “first pass” through the liver through topical administration theoretically makes HRT safer, hence many hormone preparations are prescribed for topical use, either as a patch, cream or suppository. The bioidentical HRT that many of us prescribe (for both men and women) is a cream that is easily applied every morning, which beats the heck of having to receive injections deep into the buttock on a regular basis (for men). (It also results in more stable daily levels than the highs and lows associated with the injections.)

As noted, brand name products for HRT can be very expensive, on the order of $400-$500 per month for a leading manufacturer of testosterone. Insurance co-pays might cut that down to $15-$45/month. Compounded products, on the other hand, are much more affordable, particularly if insurance won’t cover them – testosterone can range from $60-$80 per month, depending upon dosage strength. For women, compounded HRT cream runs in the vicinity of $50-$60 per month (and that includes 3 hormones: estradiol, progesterone, and testosterone all in one).

In summary, unless an individual has an absolute contraindication to HRT, it should be considered by both men and women to keep our bodies in good repair and functioning for as long as we remain on the planet.

[Copyright 2019, Jeffrey Pearson, D.O., F.A.O.A.S.M.]

Dr. Pearson is a Board-certified Family Physician and a past recipient of the national “Patient Care Award for Excellence in Patient Education,’ sponsored by the Academy of Family Practice and the Society of Teachers of Family Medicine. He is the Medical Director of Medicine in Motion, in Carlsbad, CA. www.medicine-in-motion.com