THE TESTOSTERONE SYNDROME

THE CRITICAL FACTOR FOR ENERGY, HEALTH, & SEXUALITY —REVERSING THE MALE MENOPAUSE

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that—*if you test for estrogen, and most doctors don't*—you may find that his estrogen has gone up to 60 ng/dl.

In a case like that, the initial estrogen/testosterone ratio was 1 to 23. The new ratio is 1 to 14. And the ratio of estrogen to free testosterone may be even worse. In fact, the poor man may have even less free testosterone now than he had before he started, even though his total testosterone has nearly doubled. Remember total testosterone is not very important; free testosterone is crucial. And increases in estrogen are likely to play havoc with free testosterone by increasing the amount of sex hormone–binding globulin, which binds it up.

It seems that the reason why testosterone injections and, to a lesser extent, testosterone creams cause such estrogen increases is that they temporarily—when first administered—drive testosterone up into an unusually high, nonphysiologic range. For reasons that we don't entirely know, this causes a significant conversion to estrogen. Fortunately, the other two methods—the testosterone patch and pellet implantation—release testosterone into the body in slow, steady doses and don't normally cause large increases in estrogen.

Finding the Balance

Let's watch this process in a real person.

David B. had reached the age of fifty-eight, after years of success in the highly competitive field of aerospace engineering. David had loved the work, had made many innovations, had had quite a career over the years. Now he felt he was coming unstuck. He woke up every morning unrested, his memory was playing tricks, his mental concentration came and went in fits and starts. At home he was irritable, depressed, and sexually out to lunch. David's self-confidence was shattered.

When I checked his horm
testosterone level of 365 ng/dl
ng/dl. I tried David at first o
testosterone only went up to 5
little more to 58 ng/dl. We had
ed giving David zinc and soy p
he drank four or five beers a da

That did the trick. David is f
testosterone level in the 500s an
ly stays around 30 ng/dl. His
back, the crushing fatigue that
day is gone. At home, his sexua

I hope we can get David t
improve his diet and start to get
make a difference. Nonetheless,
very typical case of the most
andropause.

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hink? What Should He Do?

found he wasn't feeling as much
sexual apparatus wasn't functioning
e forcefulness that he customarily
is years: "Oh, well I must be getting
ue, but now we know that the type
s, for the most part, hormonal.
oaches to treating sexual and erec-
ndix 1. If you're seeing a doctor, you
some of the testosterone-lowering
table that are not necessarily age

Factors that Lower and Raise Impotence
hypoxia
eroid use
of cancer
hemotherapy
ition
llness

ove your sexual function through
ep the following points in mind.

estrogen levels should be mea-
is or becomes too high, it may be
ne of the suggestions outlined in

2) Patches or pellets are usually superior therapies; they provide a slower, steadier supply of testosterone, and they are much less prone to incite estrogen increases.

3) If you're on prescription (especially the ones in Appendix 3), you'll need to work with your physician to determine whether they are affecting your sex function; if they are, it may be possible to change the drugs or alter the dosage.

4) It is probably advisable to practice Kegel exercises to improve muscle tone in the pelvic area. See Appendix 2. In one British study, the exercises *alone* were just as effective as surgery (yuck!) in correcting impotence.[3]

5) Be patient and persistent. Hormonal treatment is not a lightning bolt. It took you a long time to lose the sexual function with which you began. It may take you as long as a year to get it back.

From the Penis to the Heart

The last thing I want to discuss in this chapter is the one aspect of erectile function that we may have given short shrift to so far. Obviously no erection occurs without a massive flow of blood into the penis. If any doctors reading this chapter feel tempted to criticize my optimistic estimation of the effects of testosterone, they will probably do so on the grounds that I have not adequately accounted for the negative effects of cardiovascular deterioration on penile function.

There's little doubt that they have a case. If age-related or smoking-related or diabetes-related atherosclerosis has pro-

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The Lessons of Experience

Although the exact relationship of testosterone to the risk of prostate cancer remains unclear, the experiences of physicians who have been treating men with testosterone for long periods of time is certainly extremely relevant.

Their records show astonishingly low rates of prostate cancer among their long-term patients—far less than would be normal in an average cross-section of the middle-aged and elderly male population. Dr. C.W. Lovell, whose technique of administering testosterone with subcutaneous pellets will be discussed in Chapter 13, has treated more than three hundred men with testosterone at his Louisiana clinic over a thirteen-year period and *has yet to see a single case of prostate cancer!*

In France, Dr. Georges Debled, one of the preeminent European clinicians employing testosterone therapeutically in aging men, also reports extremely low rates of prostate cancer in the two thousand men he has treated with testosterone over the past twenty years.

My own experience in treating men with testosterone replacement, although not yet as extensive as the two doctors just cited, is entirely reassuring when it comes to the hormone's effects on the prostate. In fact, I have seen a number of men whose symptoms of BPH have shown rapid improvement once their testosterone levels normalized upwards.

Sam B., for instance, was a sixty-six-year-old patient of mine with a long-term history of heart disease—including a quintiple bypass in the early 1980s. Sam, however, wanted me to help him with his declining sex function, his waning energy, and his persistent urinary problems. He had a smooth, diffusely enlarged prostate gland and a PSA that was normal for his age. His urinary problems were fairly standard for a man with BPH: hesitancy at starting urination, decreased flow, a need to urinate

more frequently, and nocturia, i.e
middle of the night to urinate.

I had put him on a saw palmett
the flow and decrease the freque
ment came when I put him on te
Sam took testosterone lozenges d
found that he was urinating less
was much better. He also had a l
As Sam puts it:

My sex life got a whole bunch be
twice in one day. Lots of other things
stronger and have more stamina. M
farther, I simply have more get up an

Sam has always been an extre
goes hiking in the hills, hunts de
gets out on the golf course two or
weather. I wasn't at all surprised t
felt after taking testosterone. I ce
his prostatic symptoms were impr
scribes testosterone to older men

The prostate aspect of Sam's sto
practice that it has led me to thin
prostatic illness may be hormonal

I would like to leave the reade
thought, obvious but consistently
hypertrophy and prostate cancer
levels of testosterone are high—
years after the initiation of testost
ty, forty, or fifty years after that
plausible to assume that testos
problem?

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ng/dl. Moreover, in women as in men, an official lab verdict of "normal" cannot be taken as final. A healthy normal, as opposed to a nonindividualized lab normal, is what works for a particular woman's body.

If a woman finds that her libido is significantly lower than it was in the past, that her energy is down, that she has no spark and sparkle, then, in all probability, something is hormonally amiss. Those are typical symptoms of androgen deprivation. Loss of muscle mass and any indications of osteoporosis would also be indicators.

If you and your doctor agree that you should take testosterone, there are several excellent delivery systems.

The easiest is a cream or gel applied to various parts of the body five times weekly. Each gram of the cream should contain from 3 to 6 milligrams of testosterone. A very small amount of the cream can be applied two to three times a week to the external genitalia to stimulate sexual response.

Women with leaky bladders will find that a milder testosterone formulation—.25 to .5 milligrams of testosterone to each gram of cream—can be applied intravaginally with a vaginal applicator. It works wonders.

Finally, some women who find that testosterone is definitely part of the hormonal solution they've been looking for may wish to have pellets inserted in their buttocks for a slow, steady time release, lasting four to six months.

I hope that those of you who are in need of testosterone supplements will be lucky enough to discover that the male hormone is for women, too.

CHAPTER 11:

The Power of Growth Hormo

Late in the summer of 1996, Gerald A. c
checkup and a shot. He's a nice fellow, wh
than a decade; semiretired, but still tr
selling jewelry. It's his hobby and his voc
tinuing part of his livelihood. On this
many times I'd see Gerald again. He had l
complications of asthma and emphysem
was seventy-two, and for several years ha
cardiac-pulmonary rehabilitation progra
fitness.

However, I was well aware that the l
been hard on him. First off, Gerald had
prostate cancer and treated with ext
Apparently, the therapy had been succes
out on the West coast visiting his childre
ry infections had battered his fragile lung

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terone creams and gels is that *discipline* and *accuracy* are required in measuring the amount to apply each day. If those words are not in your personality profile, or if you have an ingrained tendency to think that more is always better, then you're probably better off using some other method of hormone replacement.

Pellets. Discovering pellets was a significant stage for me as I treated testosterone-deficient patients. It more or less coincided with my realization that injections were a truly ineffective modality of treatment, and it offered another method of offering long-term treatment with a minimum of patient inconvenience. Injections have usually been given once every three or four weeks. Pellets need to be implanted only once every four to six months. These little gel-like objects are inserted into the buttocks—a minor and completely painless procedure (a painkiller is used). Imbedded in the fat, the testosterone formulation gradually dissolves, giving a slow, steady constant infusion of the hormone into the body. The vast majority of men treated with pellets find this delivery system extremely effective—usually more effective than anything else they've tried. It is usually not difficult to get a man into the 600 to 900 ng/dl range and keep him there. Moreover, estrogen conversion does not occur at high rates. For some reason, the human body creates far more estrogen from testosterone when the testosterone is delivered in a large surge than when it gradually enters the system.

If you and your physician decide to try pellets, he should contact Bartor Phamacal in Rye, New York. To my knowledge, this company is the only FDA-approved maker of testosterone pellets in the United States. The cost, when calculated by the year, is somewhat less than patches or lozenges.

A Hormone Progression

I believe we are going to find, as
increasingly widespread, that m
over two or three decades thro
manipulation. In their forties o
for a rise in estrogen relative to
their doctor may suggest they t
stimulate their own production
the final stage of hormone thera
testosterone replacement in the
and effective for them.

Changing body, changing tre
gance and simplicity about thi
your hormone levels will declin
But this will no longer be myst
what to do.