

# YOUR NEW

# PRIME

**30 Days To Better Sex,  
Eternal Strength, and  
a Kick-Ass Life After 40**

**BY CRAIG COOPER**

**Chapter 1: Supercharge Your T...Naturally**

## CHAPTER 1: Supercharge Your T...Naturally

For thousands of years, men in China have believed they could build sexual stamina and willpower by eating tiger penises. For the ancient Greeks, it was sparrow brains and the flesh of the skink, a rare lizard. To this day, male Australian Mardudjara Aborigines eat their own severed foreskins as part of a circumcision ritual, believing it will hasten their initiation into manhood and make them strong.

The idea that something we eat, drink, inject, soak up through our pores, even slice off our own bodies and devour whole can turn us into paragons of masculinity has been around since the beginning of time--and it's an appealing one. After all, true manliness is elusive, hard to define. And some guys—the quarterback marching his team down the field, the construction worker building a house from the ground up, the CEO leading the corporation to record profits—can make it all look so easy. Wouldn't it be great if there were a pill, potion, or powder that could distill it all down and confer manliness upon us, once and for all?

As men with a few years under our belt, we probably should be less susceptible to the myth of manhood-in-a-bottle. By now, most of us have had experiences when we've manned up under pressure, others when we haven't, and know that manliness isn't an all-or-nothing, have-it-or-you-don't proposition. We've also seen enough paragons fall from grace over the years—like heroes from Greek tragedy--to know that a life of perfect masculine virtue is pretty near impossible to pull off. Manliness is a moving target—as much a function of being adaptable and open to the demands of the moment as it is a finite set of rules or behaviors.

Still, the age-old magic pill solution is a tough one to shake. And the drug industry, for one, banks on our faith in this idea. Big time.

This chapter is about testosterone—the beneficial, androgenic (man-making) hormone we all produce naturally. I’m going to take a look at what this hormone does for us and outline the proven ways you can raise yours without drugs to achieve new levels of vitality and vigor.

In the next chapter, I’ll talk about supplemental testosterone, the latest-greatest of the cures for all that ails the post-40 male, including where this drug came from and why and how it’s gaining traction with us New Primers. I’ll outline the dangers of taking it, and what it can—and definitely can’t—do for you. Finally, I’ll take you through what you need to know if you do decide to start taking supplemental T, and what safety precautions to take once you’re on it.

I’ll be as objective as I can here, but I might as well lay my cards on the table right up front: whereas elevating your T naturally is one of the best things you can do for your health and vitality, for all but a few of us, taking supplemental T is a big mistake—a veritable deal with the devil. But I’m getting ahead of myself.

## The Story of T

Evolutionarily speaking, T has been around for quite some time: in addition to CEO’s, football players, and horny guys in bars, T also shows up in mammals, birds, reptiles—even fish and insects, in a slightly modified form. Yup, T has been with us since we crawled out of the primordial muck. (It might have even been what caused us to crawl out of the primordial muck: along with so many other things, high T is associated with risk-taking, rule-breaking behavior).

As we all learned in sex-ed class, testosterone is the male sex hormone, responsible for all the stuff that happens to us in puberty—fertility, body

hair, deep voice, thick bones, big muscles, smelly armpits. In men, most of it made in the testes (in women, it's made in the ovaries at 5-10% of the production rate in men), though a small percentage is made further up, in the adrenal glands.

In addition to helping us mature, testosterone is also anabolic, helping adult men build and maintain muscle, strength, and bone density. Indirectly, it also appears to reduce the risk of cardiovascular disease by helping men increase lean body mass, reduce fat, lower cholesterol, and metabolize sugar more efficiently.

Slightly above-average testosterone is also associated with lower blood pressure, a healthy sex drive and sexual functioning, lower incidence of obesity, and an improved sense of well being. Psychologically, it can also aid memory, attention, and spatial ability, and may guard against cognitive decline and dementia that affects many men as they age. In general, higher T can drive high performance: one interesting 2011 study, published in the *British Journal of Oral and Maxillofacial Surgery*, found that doctors' testosterone levels leaped up to 500% when they performed complex surgeries: the more complex the procedure, the higher the surgeons' T rose to complete it. On an interesting side note: at very high levels, T can also impair cognition—just think road rage--indicating that there may be a “Goldilocks” level of T that's ideal for brain function.

When you're low in testosterone (a condition known as hypogonadism), the opposite happens. Sex drive and functioning drops. You may get fatter, lose muscle mass, become depressed, listless, unfocused.

Plenty of research—and common knowledge--links high T with alpha-male, dominant, and sexually assertive behavior: T spikes in men who win athletic contests and plummets in men who lose; it also rises substantially following an encounter with a new sexual partner. New anthropological evidence suggests that a species-wide drop in T some

50,000 years ago coincided with a sudden spike in cooperation, art, and technological innovation.

But recent studies have tempered the widespread belief that T turns us into knuckle-draggers: many studies done on criminals find no clear association of higher T with violent behavior. Physical aggression and difficulty in school are actually associated with low T (and higher estrogen) in young boys, and social success and fair behavior—in both boys and adults—are associated with higher T.

In a word, if you could bottle what makes a man biologically “manly,” for good and ill, testosterone is it. As Andrew Sullivan wrote in the *New York Times* in 2000, “Men and women differ biologically mainly because men produce 10 to 20 times as much testosterone as most women, and this chemical, no one seriously disputes, profoundly affects physique, behavior, mood, and self understanding.”

So though T sometimes gets a bad rap, on balance, it’s great stuff—the stuff of warts-and-all manliness, the bucking-bronco we’re all riding that makes life as a man at any age such a fascinating challenge. I’m not knocking the feminine influences in our lives—I’m all for art, creativity, cooperation, and a nurturing family life. Without them, we’d still be bashing each other on the heads at every turn and dragging women into caves. But it’s a balance. And it’s T that keeps us pushing the edge, looking for the next frontier, and prevents us from getting settled, complacent, resigned. T is the stuff of Your New Prime.

## **The Mystery of Declining T**

At present, our testosterone levels are under siege—literally. Various factors—from sedentary jobs, to poor diets and lousy lifestyle choices to

more ominous influences like environmental toxins—appear to be pulling our T levels into the gutter. One particularly disturbing study, published in the *Journal of Clinical Endocrinology and Metabolism* in 2007, indicated that men's testosterone levels plummeted 17% from 1987 to 2004—and that's controlling for health and lifestyle factors, such as obesity and diabetes, that are known to affect T levels. The study found not only that individual men were losing testosterone as they aged (which is fairly normal), but that same-age men from later eras had substantially lower T than their predecessors: a man who turned 65 in 2002, for example, had much lower T than a man who turned 65 in 1987.

At the same time, males in the US are experiencing increased incidence of birth defects in the penis and testicles, a higher rate of testicular cancer, and a general decline in reproductive health.

Why are these things happening? The study suggests that it's not only because of obesity, depression, or diabetes. And natural selection couldn't solve the puzzle either: by all rights it would take generations to engineer such a massive shift in hormonal levels.

One possible explanation? Transgenerational epigenetics: a field which studies the ways in which environmental influences, like our genetic coding, can be passed down from one generation to the next. Animal studies have demonstrated that exposure to some toxic chemicals, for example, can result in epigenetic changes that can be inherited--and increase the risk of chronic disease.

So are unknown and noxious environmental influences robbing us of our masculinity? It isn't clear—but it's possible.

Until we do know for sure, however, it's on all of us, as men, to do everything in our power to counteract the influences that known to deprive us of our physical and sexual health. Though I'm not in the "Higher T at all

costs!” camp, I also think that overly high levels of the hormone are decidedly not our problem right now.

Many guys assume that the solution is to pump themselves full of the hormone through artificial means—a solution which, as I’ll explain in the next chapter, isn’t nearly as effective as many people believe, and which, for many reasons, I find highly problematic.

But T that naturally hovers on the higher end is generally a very good thing. Though some guys manage just fine with lower T, there’s no denying that a naturally higher T level, like, say, clear skin, low body fat, sound sleep, and good muscle tone, is a bellwether of overall health, and something that we as older guys should strive to maximize. It’s both a cause and an effect of good health, an indication that our virility and vitality are on an upward, rather than a downward, spiral.

Through careful control of my lifestyle habits—diet, sleep, exercise, stress relief—I managed to raise my T levels 36% from 517 five years ago to 816 today—and I accomplished this during the same time period—my late 40’s and early 50’s--when most men find their levels plummeting. I did it naturally, and I’ve never felt better. So I can attest to the benefits of making positive lifestyle changes to give your T natural boost. But though the advice in this chapter is all scientifically valid, I’ll also admit that my experience is anecdotal—I’m one (borderline obsessive) guy, and even if you follow the advice here to a T (yuk, yuk), you may not achieve the same results I did. It’s conceivable—though unlikely--that your actual T levels won’t even change that much.

My response to that: it doesn’t matter. If you are contemplating going on hormone therapy because your T is low, or because of symptoms you are experiencing, I urge you, with every fiber of my being, for the sake of your own health to try the advice outlined below and detailed throughout this book first. Make absolutely sure that the problems you are experiencing

are due to your physiology rather than your lifestyle. You will feel better. Your sex drive will return. You will be more vital, more confident, more focused, more able to carry out whatever aspirations you have for yourself in this incredibly rich period in your life. And at the same time, in all likelihood your T will go up, too--but even if it doesn't, you will banish many if not all of the symptoms that are driving you to contemplate T therapy in the first place. And that matters far more than some number on a blood panel report.

Let's get started.

## **SIDEBAR: The T Audit**

### **In the last three to seven years:**

Has a physician diagnosed you with low testosterone?

1. Has your sex drive dropped?
2. Have your erections decreased in frequency and quality?
3. Have you lost noticeable amounts of strength or muscle mass?
4. Have you gained more than ten pounds?
5. Have you had difficulty maintaining a stable weight?
6. Has your energy dropped?
7. Have you found it necessary to shave less often?
8. Do you feel less engaged, committed, and excited by your career, family, or hobbies?
9. If you are trying to conceive, have you and your partner had a difficult time becoming pregnant, or have you been diagnosed with low sperm count?



10. Do you feel less sharp and focused?
11. Has your mood gotten worse?
12. Have you contracted diabetes, obesity, high blood pressure, or high cholesterol?
13. Do you routinely sleep less than seven hours a night?
14. Do you often feel stressed, anxious, and overwhelmed?
15. Do you avoid exercise?
16. Do you consume soy products (tofu, soymilk, protein powders containing soy) more than once a week?
17. Do you drink out of plastic bottles containing BPA?
18. Do you consume foods containing environmental toxins such as inorganic meats?
19. Do you use self-care products that contain environmental toxins? (Look for unpronounceable chemical names, particularly in shampoo)
20. Do you avoid social situations, particularly those involving meeting new people?
21. Do you eat a low-carb or low-fat diet?

Any **“Yes”** answers to questions 1-13 indicate your testosterone levels may be dropping or have dropped; “yes” answers to questions 14-22 suggest you may be in danger of causing T levels to decline.

# The New Primer's Guide to Amping Up Your T

There are three sections here: Stuff that Works, Stuff that Kind of Works (But You Should Do Anyway), and Stuff That Doesn't Work. Don't get the lists confused.

Helping you raise your T to a healthy level is one of my big priorities, so many of the tips here refer you to other chapters, where you'll get a more specific breakdown on how to integrate these practices into your lifestyle.

## STUFF THAT WORKS:

**1. Lean out.** Ever wonder why, in a nation of fatties, only one US president in 44 has been appreciably overweight? Maybe it's because being overweight lowers your T.

Not only that, belly fat can make you downright girly.

Seriously: abdominal fat increases the conversion of testosterone (and androstenedione, a precursor of testosterone) into estradiol, a female hormone. In turn, as estrogen increases, so does your tendency to store abdominal fat. As your T drops further, you'll be still more likely to accumulate abdominal fat--and fat everywhere else as well.

All told, the fatter you get, the less T you have. So if you're a heavier guy and can't seem to rouse the energy to get out of bed, much less hit the gym after a day at work, it might not just be the additional heft that's weighing you down, but your exponentially worsening hormonal profile.

I'm lucky (and, okay, I'll also cop to working hard to avoid it) in that I've never been overweight. So you may think it's easy for me to say slim down and you'll raise your T. Losing weight, I know, can be very tough: there are genetic and environmental factors which can stack against you

to make losing a noticeable gut feel like a lifetime struggle.

I'm here to tell you that, number one, if you make it a priority, you can do it. I'm not overweight because I have made it a massive personal priority to stay lean--it's a fundamental part of my personal health and wellness program--for all the reasons outlined in this book. I'm not going to promise you abs of steel, but with the right approach to diet and exercise, you can slim down--significantly-- and if you slim down your T will increase, alongside all the other health benefits of weight loss: one 2012 study from the Endocrine Society found that, when over-40, pre-diabetic men lost weight, the incidence of low-T in the group went down 50%.

I'll also add, secondly, that you actually don't have to lose a huge amount of weight to reverse the t-sapping trend: another study found that obese men who lost 17 pounds (a very manageable amount if you're substantially overweight, as these men were) saw their testosterone increase by 15%. Even if you stop the cycle of packing on 5 pounds every year or so and maintain your current weight, you'll be taking very positive steps in the right direction.

For more on fitness—and saying goodbye to that T-sucking gut--see Chapter Four.

**2. Lower Stress.** Stress gets a bad rap in the 21st century. In reality, it's as essential to our health as air or water. Men in solitary confinement become depressed and anxious. Astronauts rapidly lose muscle mass, tone, and bone density in zero gravity. Without a certain amount of stressors in our lives, we get restless, bored, unfocused. We're made to absorb and deal with stress. Why go to sporting event, or participate in a sport, or even go to a movie or watch a TV show except to experience a vicarious sense of tension and drama?

Too much chronic stress, however, is harmful. Long-term chronic stress

places an enormous load on your adrenal glands, leaving you fatigued, irritable, depressed, and turned-off. The stress hormone cortisol, produced in the adrenals, can also deplete the body of DHEA, one of the major building blocks of testosterone. In short: higher cortisol, lower T.

It's been theorized that, evolutionarily speaking, lower T was useful in times of high stress because the behaviors associated with high T—things like aggression, mating, and competitiveness—were likely to get you killed when the heat was on (remember that the hyper-aggressive soldier type always gets eaten in the first reel of a zombie flick, while the rational, more cautious hero survives). These days, it's no longer tribal warfare and woolly mammoths that stoke our anxieties, but deadlines, angry bosses, and mortgage payments. Physiologically, however, the result is the same: high stress—low T.

Common stress relievers like yoga, meditation, deep breathing, positive visualization, and connecting with friends and family should be an essential part of your life anyway—but giving your T an additional boost is yet another reason to commit to doing those things regularly, as a counter-balance to all the manly stuff we do the rest of the time. For more tips and strategies, take the stress audit in Chapter Six and follow the guidelines there.

**3. Fast, brief cardio.** When most guys our age see the words “lose weight” or “get fit,” one word comes to their mind: jog. For a lot of reasons, some of which I cover in the exercise chapter, I want you to erase that idea from your mind.

I'll grant you this: for your heart and lungs, jogging may be better than doing nothing. But given its other liabilities, it may not win by much. Consider: jogging is a repetitive activity—particularly when you do it on a flat pavement or treadmill, where the terrain is hopelessly unvaried. Over and over and over again, you absorb up to seven times your body weight

with each stride. Because the range of motion in your hips, knees, and ankle joints is limited, you gradually lose mobility in those joints. Jog long and regularly enough and you actually lose fast-twitch muscle mass in the large muscle groups of your thighs and hips—and the strength and power those muscle fibers provide erodes.

Most significantly, as your mileage increases (if you're prepping for a marathon, for example) testosterone levels drop substantially: one study from the *British Journal of Sports Medicine* found that, in middle-aged long-distance runners, "training was inversely proportionate to testosterone levels": the longer the men ran, the lower their T.

Studies aside, most long-distance runners just look unhealthy to me. With the exception of the genetically gifted gazelles you see in the Olympics, marathoners typically look exhausted and emaciated. Compare your average marathoner to your average lean, muscular sprinter and there's no contest: sprinters just look better.

If you're going to run, do so fast—and intermittently. One 2010 study published in the *International Journal of Sports Medicine* found that testosterone levels increased measurably in young men after they performed sprint intervals on a stationary bike lasting just six seconds. It doesn't take much.

Quick story: I like to train on the beach. And now and then my wife will join me. We start at the same point, at the same time, at a similar pace. Pretty soon I get bored, however, and I'll sprint ahead of her at top speed for a few hundred yards. Then I'll rest for a moment to catch my breath. When she catches up, I'll do another sprint. Then, maybe I'll sprint up a set of stairs ascending from the beach to the street above, then run back down to rejoin her. 45 minutes later, we've both completed our workouts, but while she's gotten a "B-level" workout consisting of running at one pace, I've squeezed in an A+ workout—also known as a PRIME Workout, which

I'll explain in Chapter Four--consisting of speed, power, and strength work--in the same time period.

There are lots of other ways of doing this. Bottom line, we have a limited amount of time. We need to train hard and fast in the time that we have – and make it count. For more on PRIME Workouts—the New Primer's preferred method of cardiovascular exercise--see Chapter Four.

**4. Catch more Z's.** A naturally robust level of T is both a cause and an effect of feeling good. You get a hit of it when everything is cool, when you feel relaxed and on top of things, empowered and full of life. That hit of T, in turn, further increases your feelings of well-being. It's a virtuous cycle.

Unfortunately, the cycle spins the other way, too: low T can sap your energy and cause feelings of inertia, which in turn can lead you to exercise less and sit more, which in turn can further suppress T production. That's a cycle you want to avoid.

One important tactic in stopping the spiral down into the T-basement? More sleep. If burning the midnight oil, getting up at the crack of dawn, and toughing it out all day with Red Bull makes you feel manly, be advised that it won't for long: most of the T you burn off during the day is replenished during sleep—so the fewer z's you catch, the less time your body has to replenish those stores. One University of Chicago study found that men who averaged 5 hours of sleep a night experienced a 10-15% drop in testosterone the following day.

Older guys may be especially susceptible to the T-draining effects of skimping on sleep. One study found that young male rats who were deprived of sleep experienced a decline in testosterone over five days—but for older rats, the drop was even steeper, and took longer to return to normal when they returned to a regular sleep schedule.

Your mom was right: 7-8 hours a night is optimal for all-around health.

When we were kids, we could afford to skimp a little more, but no longer: get all the sleep you can—at night or in catnaps during the day.

## **SIDEBAR: Free vs. Bound T: What's the Difference?**

If you get your T levels tested, you'll probably get a slew of numbers: Total, Bio-available, and Free. What do these numbers mean?

Hormones work like commuters on a train: they circulate through the bloodstream, often linked to other substances, then get off when they reach the target tissues (like muscle and bone) where they perform their particular function.

Most of the time, T hitches a ride on something called sex hormone-binding globulin (SHBG). Less frequently, it binds itself to another substance called albumin, and still less often, it body-surfs through your system solo.

As you probably can guess, "total" T represents all the testosterone in your system in any state—bound to SHBG, bound to albumin, and all by its lonesome. "Free" T is the stuff that's on its own. "Bio-available" T is a measure of free testosterone combined with the T that's bound to albumin. Generally speaking, about 65% of testosterone in the blood binds to SHBG, 30-40% binds with albumin, and about 2% is free.

Here's where it gets tricky (and relevant to a guy trying to boost his sex drive, energy, and muscle-building potential): only the bio-available stuff—the free T plus the albumin-bound stuff—really matters: when T is bound to SHBG, it can't jump off and do its job on the target tissue: it's as if it's handcuffed to the commuter train.

The difference between "bio-available" T and "total" T a bit like the difference between body fat percentage vs. total weight: you might

weigh a healthy-sounding 180 pounds, but if 33% of that is body fat, you're definitely less than healthy!

So another way to effectively increase your T is to unleash a greater percentage of it from the SHBG that keeps it corralled. And this section includes several methods of doing that as well.

**5. Clean Up Your Diet.** Many foods have been shown to cause a substantial drop in T: a 2009 study, for example, found that ingesting a solution of pure glucose (sugar in its simplest form) could suppress T levels by up to 25% for up to two hours afterwards. Other research indicates that dioxins—a chemical family found in herbicides used to treat animal feed—can not only lower T levels, but also cause damage to the male reproductive system in other ways as well.

The takeaway here is that, to keep T topped off, stay away from too much simple sugar and quick-digesting carbohydrates like pasta, bread, and desserts (which convert quickly to glucose in the body)—or at least eat these things along with other foods that take longer to break down, such as protein and veggies (though don't eliminate carbs or lower them too steeply, either! See tip #3 in the section on Stuff That Doesn't Work!). Also, consider avoiding conventionally raised meat products, especially fatter cuts of meat (dioxins accumulate not in the lean tissue but in the fat of animals we eat), as well as non-organic, high-fat dairy products.

**6. Eat Your Veggies!** Cruciferous veggies like broccoli, cauliflower, and cabbage contain the phytonutrient (plant-based nutrient) Indole-3-carbinol (I3C), a precursor to another tough-to-spell phytonutrient called diindolylmethane (DIM). Both I3C and DIM, which are also listed under supplements, do clean-up detail on the harmful, T-sapping estrogens in your body, while also helping to combat prostate cancer and BPH, or enlarged prostate. Take in these tree-like veggies daily if you can. In gener-



al, veggies also help control inflammation (kale, spinach, and blueberries are especially good for this too)—which helps you stay lean and gives T another added boost.

**7. Go Green(er.)** Xenoestrogens—chemical compounds which can ramp up estrogen production and dampen T, are, sadly, ubiquitous. Here’s a partial list of where these nasty substances can show up (brace yourself):

- Inorganic meat products
- Chemical-laden cleaning products (choose plant-based cleaners whenever possible and check the labels for chemicals!)
- Any personal care products (shampoo, deodorant, lotions) that contain the following ingredients: DBP, DEP, DEHP, BzBP, DMP. All of these are estrogenic!
- Most products with “fragrances,” such as cleaning products, air fresheners, and scented candles. (Those made with essential oils are typically safe).
- Most plastic containers for food and water, which contain BPA—a substance that mimics estrogen in the body. Use glass or stainless steel containers instead.
- Anything that has been heated in a plastic container (I don’t use a microwave for this reason!).
- Plastic bags. Here in California, they’re now banned in many stores, so we’re becoming a State of cloth-bag carriers, but if your local store is lagging behind, opt for paper.
- Receipts. Surprising, but about 50% of receipts contain BPA! Choose the “email receipt” option whenever possible. And when they ask, “Do you want your receipt in the bag?” Say “Yes.” Anywhere but in your hand.

That's a hefty list. I certainly don't want you hide out in your organically-scrubbed apartment Geiger-countering the mail for estrogenic substances. But be on the alert for these things and see if you can figure out ways to limit your consumption and handling of them. At the very least, grab onto the concept that T-sapping, E-contaminated stuff is all around us, and that going organic and natural with as many of the products you buy as possible is all for the good. Your T levels will thank you for it.

### **SIDEBAR: Stay Away from Phthalates**

Above we talk about BPA, a chemical found in plastics that poses a big threat to your hormones and manhood. Recently, information has surfaced about another group of chemicals—also found in plastics and personal health care products, among other places—that may be even worse.

“Phthalates” are as much an insult to your system as they are to my spellchecker. They belong to the same class of pollutants as BPA called “endocrine disrupting chemicals (EDC’s)”, and although phthalates have been studied extensively (and declared “safe,” predictably, by interested parties), the true extent of the dangers they present is only now coming to light. According to a 2014 study published in the *Journal of Clinical Endocrinology & Metabolism*, “exposure to phthalates, chemicals found in plastics and personal care products, is associated with reduced androgen levels and associated disorders.”

The study found that high levels of these chemicals in the urine of test subjects were associated with significantly reduced T levels in all the populations tested—men and women, young and old, with a particularly pronounced reduction in boys ages 6-12 and men ages 40-60 where exposure was linked to a 13% decrease in T levels.

No pollutants are good, of course—but for men hoping to hang onto their masculinity, phthalates are particularly nasty: the highest levels of phthalates are associated with all kinds of feminizing side effects, from breast growth to infertility.

They're an especially noxious example of the kinds of environmental forces that are conspiring to deprive us of our manhood. So you're smart to keep these things out of your home as much as possible, and way from your wife and kids, too.

Trouble is, they're almost everywhere. Here's a quick list of a few places you're likely to find them:

- Plastic food and beverage containers, especially plastic-wrapped foods, such as meats and other produce
- Hair spray and hair gel
- Deodorant
- Anything fragranced (soap, shampoo, air fresheners, laundry detergent, after-shave, face and hand lotions). If it's scented, you can bet it contains EDC's
- Insect repellent
- Cleaning products
- Carpeting
- New cars. That "new car smell" is nothing but the fine scent of phthalates
- Vinyl flooring
- Insulation on wires and cables
- Shower curtains
- Raincoats

- Plastic toys
- Steering wheel, dashboard, gearshift
- Medical devices (IV drip bags)
- Plastic sex toys
- Sexual lubricants like K-Y Jelly
- Dairy products
- Pesticides found on conventionally raised fruits and vegetables

Get the picture? Short of going off the grid, it's hard to imagine a life without some exposure to phthalates—which is probably why it's found in the urine of 95% of people tested.

So the key for New Primers is to get rid of as many of the highest-risk items as possible, using these few quick-and-dirty steps:

**1. Go fragrance-free.** Don't use anything on your body or in your home that has a fake-smelling odor. Clear out all scented cleaning and personal body products and look for brands that are fragrance-free or that are made using natural plant-based oils – or carry the EPA's Design for the Environment seal. Use plain bar soap for shaving (see below) and coconut oil for moisturizing. Go all natural for your shampoos and conditioners and ditch the after-shave.

**2. Store food only in metal or glass.** Avoid packaging with the 3, the 6 and the 7 recycling codes. Packaging with these codes may contain phthalates, and / or BPA. Instead, look for recycling codes 1, 2, 4 and 5, especially in anything that you carry, store or cook food in. Mason Jars are great for leftovers. For drinking water use stainless steel containers like Klean Kanteen.

**3. Don't mix plastic and food!** Forget "microwave safe": get some solid, high-quality glass or stainless steel containers for heating your

food. Even supposedly “safe” plastics can leach EDC’s into your foods at higher temperatures.

**4. Go organic.** Pesticides used in conventional agriculture are full of phthalates—but not in organic produce and meat. Get the good stuff whenever you can afford it. And avoid all meats that are wrapped in plastic – especially chicken - that often sits for days on display fermenting in E. coli bacteria. Buy the fresh cuts and get them wrapped in BPA-free paper. Wash all fruits and vegetables thoroughly.

**5. Use non-synthetic bar soap.** Antibacterial soaps and body washes often contain triclocarban, another EDC that has been associated with testosterone disruption and prostate enlargement. Use a good old fashioned no scented bar-soap. You get the same clean up without the side effects.

**6. Go filtered.** It may be imperfect—some water may get through a system without actually getting sufficiently filtered--but it’s at least an ounce of prevention against some of the phthalates that show up in public drinking water.

**7. Say N-O to the K-Y.** Processed sexual lubricants contain chemicals linked to infertility, decreased sperm levels and other endocrine related disorders - not the stuff you want to be thinking about during sex. As an alternative, use coconut oil - it’s antibacterial, a great lubricant, and tastes a lot better than K-Y. It’s also a great source of saturated fats that you can ingest in ways only limited by your imagination!

**8. Socialize more.** Unsurprisingly, T gets a healthy boost when you interact with attractive women: one study found that a five-minute conversation with an attractive woman caused T levels to jump 30% (conversing with males caused a smaller jump of 13%). Evidence, as if any more were

needed, that we're sometimes as clueless as our wives and girlfriends say we are: T levels saw a similar jump whether or not the women seemed interested in the men.

Finally, having actual sex causes T to increase as well: one study found that men over 60 who engaged in frequent sexual activity had significantly higher T than those who didn't. Watching sexually arousing videos also increases T, as does masturbation. Ejaculation—contrary to common boxing-gym wisdom—does not cause testosterone levels to drop substantially, though, through the action of a number of other hormones, it does tend to mellow you out for a time (thank god). T is a social hormone. Get out there and interact.

**9. Supplement...wisely.** Flip to the back of...well, just about any magazine whose readership is largely male, and you'll see a host of products promising to make you ooze T from your pores. Many are dispensable and a few are a complete waste of money, but I believe some have enough legit science behind them to warrant your attention (all supplements have science both for and against). Here are the best ones—which I take myself and --full disclosure--have also developed into a formula for men which I highly recommend called EveryDay Male® (see [thenewprime.com](http://thenewprime.com) for further details):

- **Vitamin D:** Deficiencies in D are associated with low T—so make sure you're getting enough. Vitamin D is found in fatty fish, cheese, eggs, and fortified products like milk, but this may be one that's best to take in supplement form: it can be hard to get enough from whole foods.
- **Zinc:** Similar to Vitamin D, if you don't have enough zinc, your T may drop—though that doesn't mean getting extra zinc turns you into Superman. Find zinc in lean meats, poultry, beans, eggs, nuts, baked beans, and chickpeas. Supplement, if necessary, with 15 mg / day.

- **Avena sativa:** is also known as wild oats (as in sowing them). An extract from oats called avenacosides enhances the release of luteinizing hormone, which stimulates production of testosterone. Wild oats also boost sex drive and help support better erectile function.
- **Tribulus terrestris:** is an herb that contains a saponin substance called protodioscin--which seems to boost testosterone by stimulating the release of luteinizing hormone. The herb also increases production of dehydroepiandrosterone (DHEA), which is a precursor of testosterone.
- **Green tea extracts:** including the catechins, can interfere with testosterone "glucuronidation" (a metabolic process leading to the breakdown of T), causing an increase in the level of circulating testosterone.
- **Stinging Nettle:** is an herb that has long been used to treat urinary tract problems, including those associated with prostate problems like prostatitis and BPH (enlarged prostate). The herb also has an ability to interfere with the hormone SHBG, as noted by several researchers. Stinging nettle works, "by blocking the interaction between free testosterone and SHBG, thereby making higher levels of free testosterone available in the body."
- **Tongkat ali:** is a tree that is native to countries in the Far East. In a 2012 study, seventy-six men with low testosterone were given 200 mg of tongkat ali daily for one month, after which over 90% of them had normal levels. In a more recent study, 13 older physically active men took 400 mg of tongkat ali extract daily for five weeks, after which the men showed a significant increase in both total and free T concentrations.
- **Magnesium:** A 2011 study of martial arts athletes and sedentary men

indicated that a magnesium supplement of 10mg/kg bodyweight raised free and total testosterone both at rest and after exercise.

## **SIDEBAR: Need A Quick Boost?**

You've probably heard how body language is an essential component of how others see you. But it also has a profound effect on how you perceive yourself—and, not coincidentally, on your levels of the hormones associated with confidence, dominance, and stress. In recent years, Dr. Amy Cuddy has performed experiments in which she tracks the effects of various physical postures on key hormones. The results have been striking: just two minutes in a “power posture” results in an average 20% jump in testosterone and an average 25% drop in the stress hormone cortisol. Two minutes in a “repressed posture” had the opposite effect. In theory, anyway, a habitual sloucher who shifted into a power pose could boost his T by an astonishing 40%.

### **So what's a power pose?**

In truth, they're somewhat predictable: reaching arms overhead like a track star crossing the finishline; leaning back in a chair, hands behind your head like a CEO taking a refreshing pause; standing hands on hips, chest out, superhero style. Repressed postures were various versions of collapsed, small, curled in (think of the position you probably assumed while hunched over a tiny desk, filling in answer bubbles on a standardized test).

In work settings, people in positions of authority tend to gravitate towards “dominant” postures, lower-status workers towards repressed ones. Instinctively, it seems, they take on the body language appropriate to their ‘station’—thus reinforcing the perceived social order.



Is it any wonder, then, that so many people feel powerless and stressed out at work? Without meaning to, they're sending themselves a powerful message, day in, day out, that they are powerless and stressed out—a message that is then reinforced by their hormonal profile.

Cuddy's findings suggest, encouragingly, that it doesn't need to be so: you can fake it till you make it. In those moments when you're feeling stressed and repressed, go ahead and superman it up for a minute or two--and you'll feel better. Feel foolish? Hit the break room, an outdoor spot, or even the bathroom and go for it. The boss might notice that newfound confidence and bump you up a pay grade. Even if he doesn't, your T levels certainly will.

And according to Cuddy, these power postures amount to more than mere postur-ing: "When people feel more personally powerful, they become more present," Cuddy says in a summary of her work. "Better connected with their own thoughts and feelings, which helps them to better connect with the thoughts and feelings of others. Presence—characterized by enthusiasm, confidence, engagement, and the ability to connect with and even captivate and audience—boosts people's performance in a wide range of domains."

Sounds like exactly what we New Primers are after.

## **STUFF THAT KIND OF WORKS (BUT YOU SHOULD DO ANYWAY!):**

**1. Lift, hard and heavy.** Exercise, and lifting heavy weights in particular, increases testosterone—at least briefly. Studies from as far back as 1988 indicate that testosterone does jump significantly in response to

exercise—especially to compound-joint movements like squats, dead-lifts, chins, and presses, performed with weights equaling or exceeding 85% of what you can lift once (you probably won't be able to lift a weight that heavy more than five or six times). Time between sets should hover around 30-60 seconds, and workout duration should remain at or under around 60 minutes. Since T levels are typically highest in the morning, working out in the afternoon may result in a greater boost in average testosterone levels throughout the day (for more tips on how to create a workout that conforms to these parameters, see Chapter Four).

All that said: though “lift weights to increase T” has been an axiom among the uber-fit for decades, it's actually unclear whether the temporary jump in testosterone brought on by strength training can have a noticeable impact on your T levels. Still, it will bring up your average T levels, and certainly can't hurt.

Strength training, however, should still be mandatory for all of us. Since the proven, indisputable benefits of exercise—on things like self-esteem, blood flow, and confidence—mimic many of the benefits of increased T (without the need to take drugs), in a sense its direct effect on T doesn't matter: lift heavy and often (and safely!), following the parameters above, and you'll feel like a new man—T numbers be damned.

**2. Take A Few Other Supplements.** I'm putting these guys in the less-proven category than the ones above. There's some literature to support these supps working, so, for completists, here they are:

- Fenugreek, or Greek hay, often used in cooking, boosts libido and “may assist to maintain normal healthy testosterone levels,” as noted in a 2011 study. There was also a 2010 study, which suggested that fenugreek may aid in muscle building and fat-burning as well as an-

other study showing that it boosts free testosterone.

- Resveratrol is a phytonutrient, antioxidant, and anti-inflammatory found in red grapes, onions, and several other foods. In addition to helping fight prostate cancer, resveratrol also promotes heart health and has been shown (in mice) to enhance levels of testosterone by 50 percent. As we know—we aren't mice (most of the time). Another one to experiment with.
- Chasteberry and licorice are naturally-occurring substances that you can take in supplement form. Both have shown some effectiveness in lowering estrogen—which can have many of the same effects as raising T.
- Boron is a dietary trace mineral found in a wide variety of foods such as almonds, avocados, broccoli, oranges, beans, bananas, red grapes, onions, and walnuts. Although supplementation of this mineral is usually associated with menopausal symptoms and bone health, some research indicates that taking boron can raise levels of free testosterone as well: One study published in the *Journal of Trace Elements in Medicine and Biology* demonstrated that consuming 10-mg of boron with breakfast may cause a significant decline in SHBG, an increase in free testosterone levels, and a significant decline in estradiol.
- Ashwagandha, a woody shrub long used in an ayurvedic medicine to enhance mood, has showed some ability to boost serum testosterone in men after 90 days of use.
- I3C and DIM, two phytonutrients found in cruciferous vegetables (see above), can also be taken in supplemental form, which may aid in restoring balance between estrogen and testosterone in the body.

For the record, I take everything above—and I feel amazing. I wouldn't recommend them if I didn't.

## SIDEBAR: Fast Car...High T?

Maybe there's something to that midlife sports-car purchase after all: a 2009 study of young men monitored their testosterone response to driving different types of cars for an hour: first, a decked-out Porsche 911 and then a 16-year old Toyota Camry. No shocker: the cruise in the Porsche caused a spike in T and a ramble in the Camry caused it to flat line, and sometimes plummet.

Researchers noted that, while T stayed elevated throughout the hour in the car, the strongest T response came when drivers eased the Porsche through populated areas, where eligible females could catch a glimpse of them. Such competitive display-type behavior—known as “peacocking” in the pick-up world—often results in a surge in T.

Having owned a handful of thrill-rides in my day (and having transitioned to a far more eco-friendly Prius in recent years) I'd wager that if those same guys had shelled out the 75K to own that Porsche, their T response to driving it would be negligible six months later—and might even be lower due to the shellacking their T-levels took whenever the monthly bill arrived. You want to be a peacock? Build a great physique—no monthly payments required.

**3. Drink Coffee.** Caffeine—and coffee in particular—appears to boost athletic performance, reduce inflammation, and may give your T a boost as well. One small study, conducted on people who had undergone a two-week abstinence from coffee, found that after four weeks, men drinking caffeinated coffee increased total testosterone and decreased concentrations of estradiol, whereas men drinking decaffeinated coffee did not. After eight weeks, however, the differences leveled off.

For self-experimenting types, that means you'll probably get the biggest boost out of caffeine by cycling it: abstaining for a couple of weeks, then going back to it when you need a little extra edge. I know one guy—a competitive runner—who drinks virtually no caffeine year round, then loads up on it on race day. He swears by it, and if you're that disciplined, go for it. Other athletes I know use "flat" Coca-Cola on race day instead of traditional sports drinks. Personally, I drink a fat-enriched blended coffee with MCT oil prior to training in order to activate fat burning and power me through my workouts (for the recipe, see Chapter Four).

Practically speaking, even if you cycle it, caffeine is never going to turn you from a muskrat to a musk ox. Still, a little Joe won't hurt your T levels, either, and because of its other benefits (improved alertness, focus, and athletic performance reduced inflammation), guys over 40 may want to drink a cup or two a day.

Just go easy on the cream and sugar.

**4. Take an Ice Bath.** Submerging some or all of your body in ice water may not be the first thing, or the most pleasant thing, you think of when considering post-workout relaxation techniques. But it may be one of the best ways to promote recovery—and possibly get a T boost as well. After a workout, your blood vessels are dilated, and your muscles filled with the bi-products of your labors, including soreness-inducing lactic acid. When you ice the affected area—or dunk yourself in ice water completely—the blood vessels constrict, effectively wringing those bi-products out of the muscles. When the icing ends, your blood vessels expand again, pulling freshly oxygenated blood back into the muscles and speeding repair of the tissues.

During group training sessions, Laird Hamilton often has us rotate ice baths with time in a sauna (which facilitates the return of oxygenated blood into the tissues). I also keep a commercial ice bath and an infra-red sauna at home, which I've been using for the last five years—the same

time period in which I managed to boost my T so dramatically.

The how-to on bathing in ice water is pretty self-explanatory: run the tub (cold water only) and top it off with one to three big bags of ice. The first few times out, submerge your lower body only (I recommend wearing shorts to avoid any ice-to-skin contact on delicate areas) and stay in for five minutes at a stretch. Over time, work up to full-body immersion for 15 minutes at a stretch—or as long as you can handle it!

You will curse. You will question your judgment and possibly the existence of a merciful force in the universe. But when you get out, all will be forgiven: you'll feel amazing. Yelling "WHOO-HOO!" as loudly as possible when you get out isn't a requirement, exactly, but it's something you'll almost certainly do.

A less-hardcore option is to stay out of the tub and rub ice directly on areas you trained: thighs, calves, chest, or arms. For this method, you can steal a tip from the athletic-training world and use frozen water-filled Dixie cups, peeling back the paper cup to expose more ice as it melts. This method allows you to massage the area at the same time—another excellent recovery technique—but it's also messy and labor-intensive relative to the full-body polar plunge method.

The burning question, however, is 'will it boost T?' Perhaps: one reason your balls hang outside your body (besides leaving them vulnerable to swift kicks) is that they work better that way: as high temperatures limit sperm production. A few studies have also suggested a link between temperature and testicular functioning:

- A Japanese study found that, for DNA synthesis, sperm production, and "most likely" testosterone production as well, optimal temperature is 31-36 degrees C—or 87-96 degrees F—a few degrees below body temp.

- One animal study found that exposing rats to high temperatures substantially lowered testicular weight and testosterone production; two others demonstrated that the leydig cells of monkeys and rams secrete testosterone more effectively when cooled than when exposed to heat.
- Finally, in a 2013 study, researchers studying 6,455 men over a period of three years found that sperm quality, volume, and motility were significantly higher in the colder months of the year (making you're more fertile during winter months). Since the same hormones stimulate sperm production and testosterone production, cold may help you crank out more T as well.
- I'll also add that colder temps in general may facilitate fat loss, lower inflammation, and, at night, facilitate better sleep, particularly in those of us who exercise a lot and whose core temperatures tend to run a little hot (pro athletes, for example, almost always prefer to sleep in a colder room). Better sleep, as I mentioned above, facilitates higher T. Most studies agree that a temperature above 60 and below 67 degrees Fahrenheit is optimal for sleeping, while temps below 54 and above 75 are disruptive.

Of course, none of these studies point to a clear connection between the very cold temps of an ice bath and optimal testicular functioning or T levels, and that's why I'm relegating ice baths to the "probably works" list.

Undeniably, however, sitting in ice water for any length of time (I recommend 20 minutes) requires seriously manly levels of stoicism. That's part of why Navy SEALs regularly lie in the surf for fifteen minutes at a stretch as part of their training. And there's no question that cold therapy makes you feel great (after it's over!), and will definitely improve recovery from your workouts.

Unlike a lulling warm bath, it also wakes you right up. Trust me.

## **SIDEBAR: Will A Sex Fast Boost My T?**

No sex might seem a counterintuitive means to higher T. After all what's the use of firing up your libido if you can't put it to good use? But a recent study has suggested that a sex fast now and then may temporarily raise your T levels: researchers measured endocrine response to orgasm both before and after a three-week period of sexual abstinence, and found that after the break the men had a higher spike in T levels after ejaculation.

I realize that this advice may be impractical, and possibly stupid--I'm trying to imagine how one might explain to a willing sexual partner that you "have to take the pass tonight, honey," because you're trying to boost your T, without coming across as a complete bonehead, and risking a knee to the groin next time you want a little action.

Still, it does suggest that the sex breaks that befall most of us from time to time aren't going to turn us into geldings, and may even have hormonal benefits. Just don't tell your wife.

## **STUFF THAT DOESN'T WORK:**

**1. Long, slow, aerobic exercise** like long-distance running and cycling, or long workouts of 90 minutes or more, can cause testosterone to flat-line or drop. Some long-distance cyclists even have to get on T therapy simply to get their levels back up to something approaching normal. Low T in endurance athletes is a double whammy, because it can also lead to osteopenia and osteoporosis—low bone density--which makes them more vulnerable to fractures during their sport of choice (hours on a bike



saddle, with all that weight where the sun don't shine, can also lead to ED—yet another way in which long-distance exercise can unman you!) I hate to knock any particular form of exercise, especially since so few of us get enough of it anyway. But if you're concerned about low T, stay away from all those junk miles.

**2. Eating Low Fat.** There's a reason that injectable T is administered in an oily solution: it's fat-soluble. Cutting fat out of your diet—or even lowering it substantially—can reduce T levels: in one study, increasing fat consumption from 20% of total calories to 40% increased T significantly. One study even indicated that a diet consisting of less than 40% fat (and that mostly from animal sources) can lead to a decrease in testosterone levels. Conversely, following a low-fat, high-fiber diet (ironically, the type of diet that was strongly recommended for optimum health even up to a decade ago), reduces testosterone by 12%. 40% is an awfully high percentage of your diet to come from fat calories—but it's certainly drives home the point that we need dietary fat. So make (the right) fat your friend. More on this in Chapter Three.

**3. ...or low-Carb.** After the Great Dietary Fat scare of the 1980's and 1990's was shown to be overblown, the 21st-Century Carb Crackdown quickly slipped in its place. Carbs stand accused of all manner of crimes, from expanding waistlines to brain fog to, inevitably, diabetes and obesity. When it comes to overly processed junk food (corn-syrup laden desserts, Wonder Bread, Saltines, sugary cereals), I couldn't agree more: that stuff's nutritionally-bankrupt crap. But legitimately whole-wheat products, taken in moderation—the much-maligned bread and pasta included, which have caused all kinds of objections—are another story entirely.

A recent Life Sciences study found that men who ate a high-carb diet for ten days had higher T and lower levels of cortisol, the stress hormone than men who ate low-carb during the same time period.

If you exercise regularly (or, perhaps, plan on starting to exercise regularly soon!), a low-carb diet is an even worse idea: in 2010, researchers studied the effect of low-carb dieting on athletic performance and found that, after just three days of low-carb dieting, most subjects were unable to complete a cycling test. After three days back on carbs, they completed the test with ease.

Low carb dieting, then, results in lower T, higher cortisol, and a drop in athletic performance. And since exercising hard and heavy is one of the most potent ways to up your T, eating low carb is, effectively, another double-whammy against your T levels.

I'll discuss this in more detail in Chapter Three—but this isn't license to chow down on carbs of any kind: as noted above, consumption of an exceptionally high-carb meal results in a temporary drop in circulating T. Moderate carb consumption seems to be the way to go.

## **SIDEBAR: The Intermittent Fast**

I'll cop to it: I eat no solid food on Tuesdays. A sip of this or that here and there, plenty of water, but nothing solid, and certainly no huge, gut-busting smoothies. It's a very ascetic day for me.

I do this for lots of reasons—weight control, body composition, and just-plain variety among them—but I also do it because it boosts my T. “IF” dieting has been shown to increase your satiety hormones—the ones that make you feel full—including insulin, leptin, and adiponec-tin—which in turn boost T.

IF isn't for everyone. I'll admit, a day off from eating, even on a Tuesday, can throw your social life off a bit. But it's something I've come to enjoy, and I know it's doing good things for me. During "Hell Week" in their training, Navy SEALs go almost a week without food (or sleep, for that matter), and emerge knowing that they can handle more—much more—deprivation than they thought they could. A weekly fast is a miniscule version of that same kind of self-imposed discipline. Give it a try—at least once. You'll find that being hungry won't kill you, and, without mealtimes to interrupt you, you'll probably have a very productive day, with a healthy T boost to go along with it. At the very least, you'll realize it's not impossible to function without gorging yourself every few hours. And that can be remarkably empowering.

**4. Eating Soy.** Stroll through the aisle of your average GNC or Vitamin Shoppe and you'll see tons of protein powders loaded up with soy. There's a reason: soybeans are cheap and plentiful, and it's easy to grind them up and make them into protein-filled powder (usually called soy protein isolate on the label) that consumers think will help them build muscle.

**Stay away:** after years of back-and-forth wrangling, researchers have demonstrated conclusively that, if you're trying to hold onto your cajones, skip the soy: in active men, soy protein lowers T and raises cortisol—the stress hormone that most of us already have plenty of. Estrogen levels may also be affected...and not in a good way: another study (in which subjects admittedly ate soy in huge quantities) some of the male subjects developed breast enlargement and nipple discharge. Yikes.

Read the labels on your protein powder, and skip the tofu at the local vegetarian joint.

**5. Boozing It Up.** Here's irony for you: many of the behaviors we associate with a certain type of over-the-top masculinity—staying up all night, wreaking havoc of various kinds, and, yes, boozing, are associated not with high T, but with low T. So next time you meet an obnoxious, hard-drinking hell-raiser, just know he's probably compensating.

Plenty of studies confirm this—one of the more recent ones discusses the effect of alcohol on the hypothalamic-pituitary-gonadal (HPG) axis—the hormonal network that affects male reproduction. Turns out that alcohol not only lowers T but generally lowers fertility as well—a fact that may have been welcome news back when you were a tipsy teen looking for action on a Friday night, but probably not so much now that you're an adult trying to hang onto your T.

Other reasons alcohol is tough on T: it promotes weight gain and damage to the liver. Packing on weight, as I cover above, increases estrogen and lowers T, while overtaxing the liver—an organ also responsible for metabolizing T—can dampen your levels still further. That makes booze a double—or even triple—whammy against healthy T levels.

I'm not going to preach total abstinence here—life is short and many of us enjoy a drink now and then. But I will say that the less alcohol you drink, the better off your T will be: studies have indicated that even two drinks a day can depress your levels. And drinking beer, specifically, is a huge mistake: hops, a key ingredient in the brewing process, are so effective at increasing estrogen that they are currently being studied as a way to treat hot flashes in menopausal women. Stay away.

Probably the healthiest alcoholic drink is vodka—a low-cal, no carb option that's nonetheless potent and tastes great. If you're going to drink, a moderate amount of vodka on weekends is probably the way to go, but

if you insist on a blow-out now and then, you should consider limiting yourself to six drinks a week—meaning one a day most days of the week, three each on Saturday and Sunday, or six on Friday.

I probably don't need to add that drinking lots of alcohol is also a great way to pack on a gut, lose fitness and focus, and, if you go far enough with it, ruin your life. We've all known guys (and women, and young people) who have let the bottle steal vital years from their lives. If you have a problem with alcohol, get help for it. Yesterday.

## **SIDEBAR: What About Protein?**

The caveman in all of us would probably like to believe that a high-protein diet boosts testosterone: you spend the day hunting the elk, you drink its blood, eat its flesh, it makes you strong and manly. Ooga!

Sorry. Stuffing yourself morning to night with flesh of one kind or another (as some obsessive Atkins proponents do) won't up your T, and according to one small study from 2008, might even lower it by boosting IGF (insulin-like growth factor), which interferes with T production. So as far as T goes, eating either way too much or way too little of any of the three major macronutrients (carb, fat, and protein) is wrongheaded.

Still: protein is essential for building muscle and tissue repair, as well as for satiety--that unmistakable feeling that we can't eat another bite at the end of a meal. And they also contain branched-chain amino acids, a potent muscle builder and promoter of T levels. So though you probably shouldn't pound down an 84-ounce porterhouse every night, you should make sure you're getting enough good quality protein—through vegetarian sources, salmon and sardines, and some

organic meats--throughout the day (more on this in the chapter on nutrition), and probably shouldn't worry about getting too much.

## Your 30-Day Action Plan for Naturally Increasing Testosterone

That's a lot of information I just threw at you. For the sake of convenience, I'm going to distill it into broad strokes that you can put into practice in your life right away as you get going on the first 30 days of Your New Prime.

Admittedly, there are a lot of tips in this section, some of which by themselves require some serious time and attention. You'll get the best results from this chapter if you can put them all into practice starting on day one. But I also live in the real world. Failing the "revolutionary" approach, you can also choose a handful of tips (buying organic vegetables, sleeping seven hours a night, and meditating once a day) to implement on day one, and sprinkle the rest in as the month goes on so that by day 30, the whole plan is up and running. It's up to you.

If you choose the slower, steadier approach, start with changes that are easiest to make: those you are 90-100% sure you can adhere to, and work up to the tougher ones. Better to get a few easy wins in early in the process before you tackle the tougher stuff.

1. **Go hard and go home.** When exercising, focus on hard, fast cardio and strength training (for more on this, see my tips in Chapter four, The Prime Pump).
2. **Chill out.** Practice stress management techniques, and implement a once-a-day meditation practice as described in Chapter Six, The

Head Trip.

3. **Hit your sleep target.** Aim for 7 hours of sleep a night—no more, no less. For tips on sleep, see Chapter Six.
4. **Eat organic** as much as you can afford, and emphasize cruciferous vegetables like broccoli, cabbage, and cauliflower.
5. **Control your exposure to contaminants that raise estrogen and suppress T.** Audit your personal and household products (shampoo, soap, and so on) for any synthetic chemicals, especially those containing phthalates. Replace with natural, non-fragranced products. Avoid touching or being exposed to any products with BPA, including plastics (especially those labeled with a 3, 6, or 7) and paper receipts.
6. **Handle and store food wisely.** Use the microwave as infrequently as possible, and use glass containers when you do. Switch your storage and drinking containers from plastic to glass.
7. **Socialize more.** Need some more pals? See Chapter Six.
8. **Skip the soy**, including those containing “soy protein isolates” commonly found in protein supplements.
9. **Practice moderation.** Limit your alcohol intake to no more than one a day; experiment with fasting up to one day a week, and periodically abstain from ejaculation for a week.
10. **Supplement as needed.** Make sure you have enough Vitamin D and zinc in your diet, and supplement if necessary, experimenting with the natural supplements detailed in this chapter.
11. **Get cold.** Experiment with ice baths and with sleeping in a colder-than-normal room with fewer blankets.
12. **Fake it and make it.** Use body language and posture that conveys

confidence and ease—both to others and to you.

13. **Drink filtered water only** – from stainless steel or glass containers.

Diet, exercise, sleep, stress management, socializing, supplementing: In many ways, this list summarizes the New Prime Lifestyle, a lifestyle that will not only boost your T but help extend and improve your life, give you energy, boost your libido, and give you a more positive outlook. Make good on these commandments 80–90% of the time and you'll be well on your way to achieving all that faster than you thought possible.

There's one more practice, of course, that I haven't covered here that has a huge influence on testosterone levels: the kind you get from a doctor and inject with a needle.

And that's the subject of the next chapter.