



By Kevin Conley Photographs by James Wojcik © 2006

# Warning: This Program Will Reverse Aging



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Other side effects of human growth hormone may include:

an increase in energy, accompanied by better muscle tone and physique. A newly optimistic outlook on life. A spike in libido. The sudden ability to bench-press 375 pounds, to run six-minute miles, to react more quickly, to go all night, concentrate better, stop your hair from graying, tighten your gut, make you sleep better, throw farther, putt straighter, drink more, read menus without glasses...

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As Seen In



Excerpts from an article published in the January 2006 issue of GQ magazine.. .

### Disclaimer

*Cenegenics Medical Institute only prescribes hGH if a comprehensive evaluation reveals an adult growth hormone deficiency. Our prescribing protocols and analyses are based on multiple controlled studies in peer-reviewed journals, in adherence with FDA regulations. Cenegenics uses bioidentical hormone modulation to help patients regain and maintain metabolic and endocrine functions at the upper end of their normal range-for their age-creating the best opportunity for a healthier and more vigorous life.*



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**“This is the free-weight section, where you see a lot of the dumbbells,” said Jay Shubel, a silver-haired 59-year-old salesman and licensed hypnotherapist from Las Vegas. He was giving me a tour of the original Gold’s Gym, in Venice, California, and he meant no slight to anyone in the Mecca of Bodybuilding. Shubel was referring to dumbbells on the rack, which, because it was Gold’s, went as high as 130 pounds. As we walked through the Saturday-morning crowds working the iron, he explained his “max contraction” program, an obscure weight-lifting discipline that had him working huge weights for short bursts of time. “I’ve increased my max so much I find it hard to get enough weight, even at the greatest gym in the world,” he said. “Basically, I’m hard as a rock.”**

He looked normal enough. His skin was glowing, but Shubel was no Lou Ferrigno, just a man of middling posture in hiking pants he pulled up to show me his calves (strong, defined) and a sleeveless Gold's Gym shirt that allowed him to flex his solid arms. To help him demonstrate his technique, he stopped the first guy big enough and asked for a spot. The young man, about six feet three, 220 pounds, seemed surprised that a middle-aged man was preparing to lift the entire stack on the fly machine with one arm. But he helped him into position, and for six seconds Shubel held 265 pounds, although he says he can hold up to 400.

For the past three years, Shubel had been following a novel rejuvenation program whose most unusual feature—frequent low-dose injections of human growth hormone and testosterone—promised to reverse many of the effects of aging. "When I started it, my wife, who's a registered nurse, said, 'Are you really looking to give yourself a shot every day?' " he recalled. "Now she's seeing me get younger, and she's going to do it, too. She's already gotten the blood work. She doesn't want to get left behind. "

Shubel works in sales. He is, at present, the chief operating officer of Vericomm, a company



Seventy-six-year-old Bob Jones keeps company

that provides discount credit card processing. Before that, he said, he'd sold just about anything: real estate, health care products, high-density-data storage.

with a 33-year-old. "Sex," he says, "is not an impediment."

He has worked as a motivational speaker and peppers conversation with notepad quotables like "the first three letters of diet are D-I-E" and "Nobody cares how much you know until they know how much you care." "I look at it this way: If you have your health, you have everything," he said. "But if you really don't have your health, what else matters? The choice is, do you want life or"—he paused for a second before hitting on the right phrase—"not life? To me, I choose life." He wasn't speaking politically: He meant life for a 59-year-old in Venice, holding his own among the hardbodies in Lycra and half shirts. Shubel told me he was in better shape now, a dozen months shy of 60, than he was when he got out of boot camp at Fort Benning during the Vietnam War. "*Limitations* is an ugly word to me."

Five days after my lab tests—nine vials of blood drawn to determine more than seventy characteristics, including hormone and protein levels—revealed my unexpectedly low hormone levels, I, too, began injecting myself with human growth hormone (HGH) and something called human chorionic gonadotropin (HCG), a hormone that acts, according to the Las Vegas doctor I'd consulted, like "invoices for testosterone production." Vegas, of course, does not have the same reputation as Johns Hopkins or the Mayo Clinic, but I liked the odds they were giving me. The clinic I went to, the Cenegenics Medical Institute, about twenty minutes from the Strip, was consistently beating the spread on aging with a regimen of diet, exercise, and what they call hormone replacement therapy.

Their diet and exercise guidelines were demanding but nothing I couldn't handle—the program called for more fresh fruit, very little rice or bread, only two servings of red meat a month, and so on. But their studious administration of hormone shots promised to reshape the model of how we age, ushering in a Brave New World where everyone (or at least everyone who can pay for it) may regain or retain access to his youthful self. Following their program, I would shed fat, restore lean muscle, lower my risk for heart disease, improve my immune response, and remove my protowrinkles. The literature suggests that the program could enhance sexual performance as well. It was as if the old man returned to the genie to say, "Maybe I spoke too quickly with that first wish. Can I give you back this blue diamond pill and get something that would make *all* of me young again?"

The treatments promise so much—the possibility of youthful vitality in its many facets—that your first instinct is to dismiss the whole regimen as snake oil. But the science is encouraging and increasingly well supported. In fact, I tried to scrounge up some objections to the hormone replacement treatments from the medical community, but most of them were generic; epidemiologists cautioned that there weren't enough studies to justify the current enthusiasm or quantify the risks—a standard objection to medical breakthroughs. And the possible side effects (a small risk of carpal tunnel syndrome, temporary water-weight gain) didn't seem like deal breakers. Positive studies investigating various aspects of HGH therapy continue to show up in such sober publications as the *New England Journal of Medicine* and the *Journal of Clinical Endocrinology and Metabolism*. (In October the *Journal of the American Medical Association* published a paper questioning the legality of using HGH for preventative medicine, but HGH's many proponents remain unfazed.) In fact, FDA-approved clinical use of HGH continues to grow: the bioidentical synthetic protein, which is created in the lab and is a molecular twin to the HGH naturally secreted in the body, has been approved to combat wasting in AIDS patients. Other studies have shown that short-term use of HGH can help patients recover from major surgery or burns. But perhaps the most convincing evidence of the growing acceptance by the medical community is this: According to Cenegenics, doctors and their families make up almost 25 percent of its 5,000 patients. They're ideal early adopters—informed enough to review the medical literature and wealthy enough to afford the treatment.

These doctor-patients come to HGH therapy rationally, often after seeing significant improvements in the health of patients who'd begun hormone

therapy on their own. The rest of the early adopters seem motivated by a more compelling blend of bravery and desperation, like the crowd at a Wild West saloon.

Alan Mintz, M.D., the 67-year-old founder of Cenegenics, is an achievement junkie—an ex-marathoner and avid bodybuilder who won the title of Mr. Illinois in the grand masters division at the age of 58 (he performed his winning sequence of poses to Barbra Streisand's "Don't Rain on My Parade"). He headed radiology departments in several Chicago-area hospitals, founded and then sold a company that managed radiology diagnostics for HMOs, and funded Cenegenics with some of the millions he earned from that deal. The bodybuilding doctor began using injectable testosterone stimulants in his early forties. A decade later, he began an HGH treatment program after reading a landmark 1990 study by Daniel Rudman, M.D., that had shown how HGH injections could reshape the bodies of elderly men, helping them lose nearly 15 percent of their fat and gain almost 10 percent in lean muscle mass.

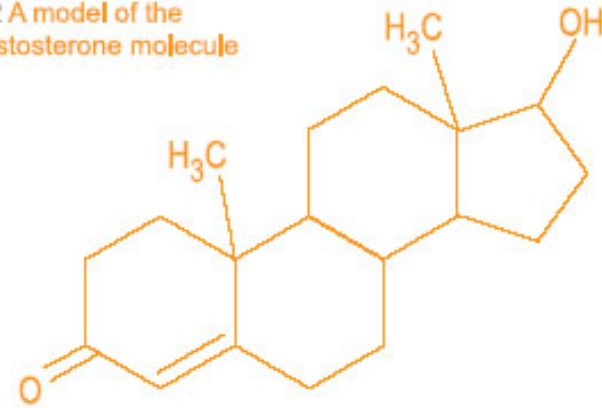
There is no fact so immutable that baby boomers cannot rebel against it and, by doing so, alter it for the rest of us. Hormone therapy unites two of their primary agitations: sex and aging. And while restoring youthful levels of hormones appears to have systemic benefits, nearly everyone talks about the revitalizing effects on sexual performance. Guys my age—in their midforties—tend to say, essentially, "Never had a problem, but it sure got better." Older men are not that coy. Even Mintz, who is as modest as any multimillionaire doctor with the body fat of Mr. Olympia could be, couldn't restrain himself. During an explanation of his workout schedule—he rises at 3:30 A.M. and then heads to the gym for two hours before work—he allowed himself to digress. "My wife is more of a night person," he said. "So we'll go to bed together, enjoy each other's company, then she'll get up. She'll work until three in the morning and then she'll sleep till eight. So I always take the dogs out."

In other words, if HGH treatment becomes commonplace, this generation could launch its fourth or fifth social revolution...

A future full of lean retirees bounding about in Danskins and hiking shorts seemed only theoretically interesting to me: reassuring but barely relevant, like water on Mars. What I wanted to know was, could this program be of more immediate use? To, oh, a healthy youngish guy under a load of pressure, a guy whose hormones have dwindled but hardly disappeared? The body's production of human growth hormone begins to decline rapidly after the college years—the average 40-year-old produces less than half the hormones he did as a 20-year-old—so couldn't men in their thirties and forties also benefit from hormone replacement therapy? Not all the people in the programs I visited had received their AARP cards. Mintz confirmed that he and his colleagues had begun treating younger clients who were looking not to restore their vanished youth but to keep their edge. "I'll be honest with you," Scott Wade, the 37-year-old general manager of Gaudin Ford, one of the largest car dealerships in Nevada, told me. "What

attracted me to it, initially, was the ability to decrease body fat at an easier rate.” Wade was the son of a pro ballplayer, and he’d inherited his father’s big-league build. It took a lot to keep the pounds off, and with the hours he was working, he said, once he got home he was more likely to fall asleep on the couch than go to the gym. Still, on one of his visits to the gym, he ran into Mintz, who introduced him to Jeffrey Life, M.D., another bodybuilding doctor in the Cenegenics practice. “I don’t know if you’ve seen what he looks like,” Wade said of Life. (I had. Life has hung a photo of himself in jeans and no shirt alongside the diplomas on his office wall. From the neck down, the 67-year-old Life looks like an Ohio State linebacker.) “And when he communicates with you, you feel like you’re talking to a 30-year-old.

02 A model of the testosterone molecule



## The Needle and the Damage Undone: What Hormones Are Really Good For

High school biology taught you that human growth hormone made you grow and that testosterone turned you from a hairless prepubescent into the sexual animal you are today. But when the two hormones were isolated and administered to people later in life, after the body’s natural supplies had declined, researchers began to document a host of other effects, which were every bit as important to our general well-being. Both separately and in combination, the two can promote:

**Bone density**, which helps stave off the brittleness of load-bearing bones that comes with age.

**Strength and muscle mass**, which helps you avoid injury and stay mobile longer.

**Cardiac health**. The increased fat-burning contributes to a lower risk of atherosclerosis.

**Vascular health**. Better elasticity of the arteries helps you avoid strokes and heart attacks.

**Visuospatial performance**, which assists in parallel parking or shooting jump shots—abilities that decline with age.

**Verbal memory**, which includes vocabulary and Scrabble skills.

**Working memory**, which involves your ability to recall pertinent facts, like the name of the girl you sat next to in biology.

**Mood**. You’re bound to feel better when all of the above are in working order.—K.C.

## The Doctor Is in... Awesome Shape!

Many of the HGH treatment's earliest champions are physicians who bear more than a passing resemblance to Arnold Schwarzenegger in his prime. Here, some of the bodybuilding doctors who helped pioneer and popularize the treatment show off their own youthful physiques—a result of countless hours of toil at the gym and all the hormonal advantages money can buy. —Stephanie Davis



**Mitchell Wagner**

44

Orthopedic surgeon who maintains the same weight he did when he played college football

**Body fat: 8%**



**Alan Mintz**

67

Radiologist, former Mr. Illinois (grand masters division)

**Body fat: 8-9%**



**Jeffry Life**

67

Family practitioner, named an EAS Body for Life Grand Champion at age 60

**Body fat: 8.5%**

NOT SURPRISINGLY, Dotson recommended that I take HGH, HCG, and thirty-two different pills, vitamins, minerals, and antioxidants. Two days after I got back from Vegas, my first shipment arrived, complete with insulin-style syringes and alcohol swabs, and the next morning I began my new life as a juicer. The actual injections—you draw out .32 cubic centimeters of HGH solution, or .50cc of HCG, into a tiny syringe, pinch some of your stomach fat, and jab yourself with the needle “like a dart”—were surprisingly trouble-free.

What was difficult was taking thirty-two pills a day. Every morning, I felt like one of the confessional poets mid-overdose. When I complained about it to a friend who works in an emergency room, he told me this feeling of revulsion was well-known; they judged the seriousness of a suicide attempt by the amount of pills the patient had managed to get down. But it was worth it. I began losing weight quickly—seven pounds in four weeks, with no exercise besides the standard gazelle-like leaps up the stairs to my office and whatever yard work I'd done that weekend. Long-lost musculature emerged from writerly blubber. Perhaps some of this loss was a result of adopting the Cenegenics dietary recommendations. I was, for example, grieved to discover that beer, of which I had heretofore unfailingly consumed three a day, had a higher glycemic index than pure sugar, making it far more likely to turn into fat. Anyway, Dotson recommended that I follow the dietary guidelines only six days a week. “It's the opposite of church,” he explained. “You're good six days and bad one.” Apparently, the discipline took. On the jubilee day, I took my new body out to a party and refused a puff-pastry hors d'oeuvre. “Oh, that's why you look so young,” one of my oldest friends said. “You don't have any fun.” There were other changes. My new nickname around the house was Bionic Bunny. Further evidence of the return of my twenty-something ways was the tendency to waste time on pornography (now on the Internet!). Not that I could ever claim yogic detachment in this regard, but as I got older it had been possible to view the ebbing of testosterone as not entirely without benefit. Being less stupid, for example.

One of the hardest things to quantify was the gradual reintroduction of various positive hallmarks of the youthful self. A friend I speak with over the

phone noticed a deeper and more forceful quality to my voice. “Not that you sounded haggard,” he added a little too quickly. Also—and I don’t know how else to put this—I was happier. Not idiotically happy, but more resilient, less sluggish, more likely to throw myself into the next challenge with a forcefulness that, this time around, I knew how to direct. There is a type of youthful radiance that’s more than just the glow of the skin and the unhindered command of the body. I recognized the feeling as a part of my personality I thought I’d misplaced, a force that years ago I’d confused with my self. This time around, I knew it wasn’t a birthright, although I wondered, of course, where it had gone and why it had ever left. STILL, FEELING LIKE you’re 20 doesn’t mean you won’t hit your share of life’s tragedies.

Rob Pieroth discovered Cenegenics in the aftermath of a problem with his life insurance; when his cholesterol levels shot up unexpectedly in his midforties, his insurance company demoted him from preferred to standard rates. To double his life insurance, he’d have to pay premiums four times what he was used to. Pieroth did some research, found Cenegenics, and began taking the supplements and following the clinic’s dietary guidelines. He lost twenty-six pounds in a matter of months, and with the help of a statin, his cholesterol returned to his customary levels. (Pieroth is not currently injecting the hormone; he says he will add it to his program when Cenegenics recommends it.) He knew the regimen was working when he was rummaging in his desk to find a stamp for a coworker, and a jar of aspirin rolled out. “Oh, my God,” he said. “I haven’t used that in five or six months.” His acute migraines had disappeared. His teenage kids have started emulating his new eating habits. “Mikey, the youngest, used to eat cheeseburgers, Taco Bell, just junk. And he won’t even go into a drive-through place now. So it’s exciting to see those kinds of changes and benefits and know that I’m not completely insane.” Pieroth laughed lightly. Pictures of his three kids hung on the walls and sat on a counter behind his desk. It all seemed so perfect that before I could think, I asked him if he had a picture of his wife. “No, you know, I divorced a couple of years back. Married twenty-eight years. She just decided to kind of leave the family, go off and do her own thing. Hardest on the youngest one, Mikey; he was 15 at the time. You know: Mom’s not coming home. She was just staying out, partying with her friends. I basically stayed with the kids.” I asked him whether all that was happening around the time his cholesterol shot up, and he nodded. “Mentally, stress can cause those issues,” he said. “I’d wake up in the morning, and the kids would go, ‘Where’s Mom?’ I can only tell so many stories before you just say, ‘She’s out partying. She’s out with her friends. You guys might as well know.’ I think maybe that was an incentive for me. Because I’m it now. There’s nobody else to fall back on if I’m not healthy. These guys need me.” Pieroth was the first person I’d met who’d sought the treatment because he was thinking of others: He needed to be around for his kids. He took the step of securing his health out of love, and the practical gesture stood out. One side effect of making the therapy more affordable, of course, would be that more people could seek it out. A great number of them would do so for quite acceptable but standard reasons: vitality, vanity, competitiveness, bodily pleasure, the sort of things that sell magazines and TV shows and cars. But a substantial number would have motivations as complex and urgent as Pieroth’s.

Certainly, if hormone replacement therapy becomes widely available, we will see social changes. Put some pep back in the step of a few million people and their new habits could have an impact bordering on the environmental. Some of the consequences will be benign: Greater vitality and health for an aging population could help keep that group engaged in satisfying and productive work and lessen projected burdens on Medicare. But it’s easy to predict a slew of unintended consequences, from increased energy demands to widespread divorce...

AS I HEAD INTO my third month on the program, my HGH and testosterone levels have achieved the targeted numbers: my IGF-1, the marker hormone for HGH, has risen from 119 to 289, and my testosterone has more than doubled, from 308 to 831. And I’ve come to regard the treatment as normal. My wife has noticed that I’ve gotten a little slimmer, but she claims, God bless her, that she couldn’t care less. My objections are practical: It’s hard to take thirty-two pills every day. Questions about ethical implications—that I’m upsetting the natural order, that I might even be cheating myself of some harder truths accorded only to those who accept the lessons of the body’s decline—seem academic, even quaint, like the antivivisection arguments heard before the First World War. The benefits appear to be overwhelmingly positive, and the risks, at present, appear to be minimal. But the price of the treatment still troubles me. I don’t mind that Botox and calf transplants and \$3,100 skin creams are available only to the wealthy, but

hormone replacement therapy, with its potentially huge benefits to long-term health, is not so easy to satirize.

Right now it's easy to dismiss the therapy as a luxury item, a frivolity, even a perversion of nature, but that would be understating the real medical benefits and forgetting that over the past fifty years, old age itself has made the transition from being a luxury to being commonplace, practically to being a right. Both my grandfathers died in their early sixties, my father at 88. Much of that twenty-eightyear difference can be attributed to medical interventions that my grandfathers' generation might have seen as unnatural. Hormone replacement simply closes a gap in current medical practice, providing the sort of vitality that has been missing at the end of a life span that we no longer regard as unnaturally long.

Given the tendency in this country for medical advancements to move quickly from a small group of the privileged and the self-obsessed to the population at large, it seems safe to predict a future in which hormone... [modulation] becomes commonplace, too. is therapy could change the quality of life for millions of people, and in so doing alter the shape of our society in ways more profound than senior-center wife swapping. e therapy could change the very nature of our final years. When I asked ... about the sort of changes we might expect, [I was told] ... to consider the seagull: " The new shape of death should be compared to a seagull's. A seagull's hormones don't drop with age. We used to think that seagulls lived maybe ten, twenty, thirty years. Now we've got seagulls that outlive the scientists that follow them; their little radio signals are still flickering when the scientists pass away. And physically, that old seagull flies 100 percent like the young seagull. You can't imagine God creating a seagull any other way, because they have to pick up fish from the ocean. In veterinary medicine, you don't see a seagull with a stroke, where one of his wings works and the other doesn't. You don't have a seagull with arthritis. It doesn't happen. They are in perfect health, until the day when suddenly the life span stops and the old seagull drops in the ocean and dies. And that's exactly what I want. I want to be a seagull. I don't care when I die. I could be 60, 70—I could be 200. But I want to be a seagull."