Men's Journal

Want to know what's really going on inside your body? State-of-the-art checkups can show you full-color high-definition pictures of every single artery in your brain. Just be careful what you look for. BY CHIP BROWN

The New American Checkup

I'll try anything that promises to enhance my health and longevity, even if it takes years off my life, and after exhausting quasi-medical approaches like meditation and ginseng, I recently took a radical step. I went to a doctor. And not just any doctor. Eight years after my last checkup, I flew to the WellMax Center for Preventive Medicine in La Quinta, California, for a deluxe, "executive" physical. In three days filled with MRIs, angiograms, ultrasounds, cognitive tests, and genetic screening (not to mention my maiden tryst with a colonoscope), I hoped to make up for a decade of neglect.

OPPOSITE: DEREK BERWIN/GETTY IMAGES

As one of a growing number of small clinics that offer sophisticated screening and diagnostic tests once available only at major health centers like the Mayo Clinic, WellMax is part of a broad trend toward "personalized medicine," in which drugs, treatments, and even nutritional advice are tailored to each person's unique genome and physiology. The pitch in the WellMax brochure — "It's about you, living better, longer" — came with a picture of a high-resolution body scanner, plus photos of a corporate princess getting a rubdown and a virile VP teeing off at the La Quinta Resort & Club, where the center is based.

My wife Kate generally looks askance at anything that promises to enhance my longevity, but when she saw the photos of garden casitas where Greta Garbo and other Hollywood stars used to unwind, she decided she could relax by the pool with our five-year-old son, Oliver, while I scurried around on the frontier of preventive care. The cost of this super-physical/family getaway: about $5,000, roughly half of which would be covered by insurance.

During the flight to Los Angeles, I reread the WellMax welcome letter and handouts, which emphasized that the purpose of my stay wasn't to find disease, per se, but to pinpoint "modifiable risk factors." Averting problems before they were problems — even a man as stereotypically ambivalent about doctors and checkups as I couldn't have a problem with that. But then why did the WellMax letter congratulate me for having "the courage to find out exactly what's going on inside you," and confide that "too many people are afraid to know"? Back home it had never occurred to me that I would get anything but a clean bill of health out of this. Now it dawned on me how much I had invested in the peculiarly male fallacy that "good health" equals "feeling fine," and I found myself nervously wondering not only what the tests would reveal, but pretending to worry that, as I surely didn't have even one teeny-weeny problem, the whole trip would be a huge goose chase.

On landing we rented a car and headed into the desert. The temperature in La Quinta was 116 degrees. A blowtorch sun was scorching barren mountains. "I wouldn't worry about being too healthy," said Kate. "By Monday you'll have skin cancer."

After hotfooting it across the bubbling asphalt parking lot Monday morning, I found the director and founder of WellMax in his suite of offices. Dr. Daniel Cosgrove is a tall, trim 50-year-old spilling over with energy, though it was hard to say whether his fuel-injected conversation reflected his daily megadose of antioxidants and omega-3 fatty acids or his mega-cup of morning coffee. He studied psychobiology at UCLA, attended medical school at Washington University in St. Louis, and then, board certified in internal and emergency medicine, worked for 12 years in a regional trauma center in Palm Springs. He grew frustrated with the hyperspecialization of medicine that left physicians unable to see the "whole" person, especially with the economic pressures of managed care that by one recent estimate have whittled the average American doctor visit to seven minutes. For decades annual checkups had been a staple of primary care practice in part because they helped establish a bond between doctors and patients, but even those fell by the wayside after "evidence-based research" in the late 1970s and early 1980s showed they had little bearing on health and longevity. (Today most insurers will reimburse for coach-class checkups every two years or so.)

Cosgrove's dissatisfaction with the direction and quality of medicine came to a head when his aging parents took ill. "Their care was so reactive and fragmentary," he recalled. "Their doctors were all looking for symptoms they could use to make a diagnosis that would trigger an insurance code. Medical insurance tows your car when it breaks down, but it won't pay for tune-ups to keep you running. As doctors, we're often like rescue workers at the bottom of the hill, cutting people out of a car wreck with the jaws of life when we should be up at the top building a guardrail."

In 1998, believing it was "better to know a thousand things about one person than one thing about a thousand," Cosgrove opened his own clinic. "I had to figure out what early detection and prevention measures were appropriate. I had to figure out how to build a guardrail."

Heart disease and stroke are the number one and three causes of death, so he resolved to do coronary artery calcium scores, and carotid ultrasounds, which ordinarily a person wouldn't have done without some symptoms. He decided to include colonoscopy, which at the time Medicare didn't pay for unless you already had symptoms of colon cancer. ("And by then it was probably too late," he says.) He invested in a $70,000 Hologic 4500 W bone scanner, and after shopping around he found a company called Great Smokies in North Carolina that offered a test examining 20 genes for $500. He was interested in only 14 of the genes, but it was a better buy than purchasing the tests à la carte.

Cosgrove devised a guardrail that consisted of more than 100 tests — basic tests for hormones, blood lipids, cholesterol, hearing, and vision; more involved tests for cardiac and pulmonary function and metabolic efficiency; esoteric exams using magnetic resonance, CT scan, bone density, and ultrasound machines; and lifestyle packages that involved nutritional evaluations and questionnaires asking whether you used seat belts. His guiding principle was as old as medicine itself, dating back to the *Nei Ching*, the 2,000-year-old urtext of Chinese medicine, which praised the superior doctor as one who intervenes "before the early budding of the disease."

CHECK MATE

With the explosion of the medical screening industry, many men now think of medical tests in the same way they do home-entertainment systems, with various options offering more power and precision the higher you go up the price scale. But there's a difference: A plasma TV won't scare you into believing you have an inoperable brain aneurysm if the resolution is slightly off. Beyond talking to your doctor about getting the essential tests listed below, you should get a routine physical featuring the old cough and "say ahh," twice in your 20s, three times in your 30s, four times in your 40s, and every year after that. As for the tests at right, buyer beware.

The Tests You Need

You should make these part of your regular checkups

VISION TEST
Even if you think you're fine, get your eyes checked every couple of years starting at 50.

CORONARY CALCIUM SCORE
May be the coolest of the required tests. A CT scan captures an image of all the plaque in your arteries, then spits out a composite score: Below 10 means you're relatively clean.

The Tests You Don't

You can forget these unless you have symptoms

FULL-BODY MRI
Frequently advertised by imaging centers for $1,000+. A state-of-the-art way to spy on your entire body. On the upside, there's a very slight chance you'll catch a problem, like cancer, early. On the downside: a much bigger chance you'll get a false positive, which will freak you out and could lead to unnecessary invasive procedures.

MRA
Like the more common MRI (above), but for the arteries and veins. Detects peripheral vascular disease, stroke, renal artery disease, and other circulatory problems. Downsides are the same as full-body MRI.

CAROTID ULTRASOUND AND IMT
The first part measures blood flow through the vital arteries; the second tells you precisely how much plaque has accumulated in them. Though extremely valuable in the hands of a cardiologist, neither is recommended for routine screening by the average family physician.

VO2 MAX
Don a Darth Vader mask and get a fancy measure of your aerobic fitness. Used by elite athletes to tweak their training, it has little

I WATCHED MY irregular heart lunge about in its pen like a rodeo bull — watched with a strange, life-in-*The Matrix* sense that I was but a projection of that living thing up on the screen.

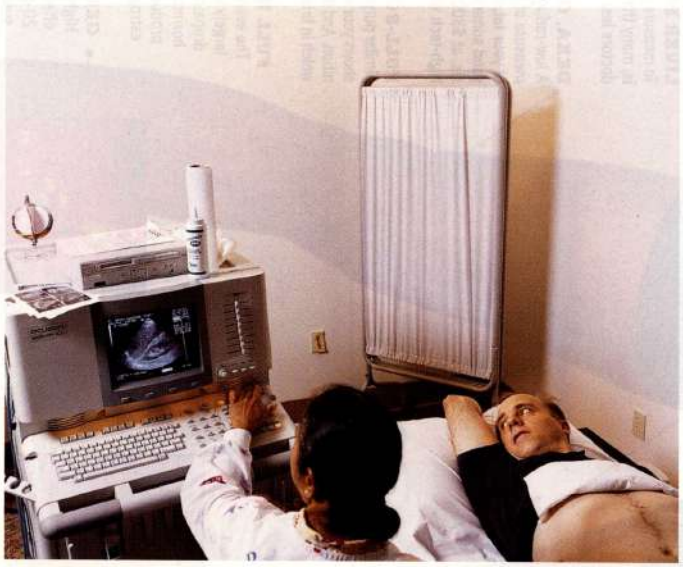
Shortly after 8 AM I was rolling up my sleeves in a consulting room, and a WellMax nurse was drawing blood and taking my vital signs. And just as quickly, the massacre of my denial began. The nurse frowned as she listened to my pulse, and murmured something to Cosgrove, who then bundled me over to an electrocardiogram machine. A few minutes later he said, "Your heart is in atrial fibrillation. The atria of your heart aren't beating regularly; they're just quivering." Something's wrong with my heart! Had this ever happened before, he asked. Had I noticed any symptoms? Uh, not really. I wondered could it be white-coat syndrome, where the prospect of having your blood pressure taken raises your blood pressure. Probably not, Cosgrove said, and, yes, it was serious. The atria were responsible for 10 to 30 percent of the heart's output; 2.2 million people had some variety of a-fib, and the risk was that blood would pool in the quivering chambers, then form clots, which might cause a stroke when the heart was jolted back into proper sinus rhythm. My ventricles were working fine, but I should probably be anticoagulated, maybe starting right away. Side effects? Blood thinners could cause hemorrhaging if a patient fell down.... I suddenly envied the upright unanticoagulated golfer in the WellMax brochure, having a few inconsequential tests between putts.

As the hours and then days unfurled, the slaughter proceeded unchecked. Some of the tests were common to all physicals: My cholesterol was through the roof. I had blood in my urine. Inspection revealed a precancerous mole on my back. A simple waist-to-hip ratio gave me a bleakly high body-fat content of 28 percent; 20 percent is normal. Some of the tests were just beginning to be accepted as important. My homocysteine level, for instance: It was too high (bad for blood vessels and neurons). My level of the hormone DHEA was too low (bad, some say, for joie de vivre).

A review of 22 of my genes related to detoxification turned up the CYP1A1 variant on chromosome 15, which impedes the safe breakdown of polycyclic aromatic hydrocarbons produced by the burning of organic materials. In other words, it would be nuts to start smoking, and I should avoid stressing my chemistry with charbroiled meats and car exhaust. Devastating news because there's nothing I enjoy more than a well-done hamburger in rush-hour traffic.

For all their specificity, genetic tests of the sort I was having are often incomprehensibly abstract, and in most cases any conclusions are highly dependent on environmental variables. Mine did not leave me shivering with mortality; what did that was the echocardiogram that was hastily arranged to meet the exigency of my fibrillating heart. I watched the living thing lunge about in its pen like a rodeo bull — watched with a strange, life-in-*The Matrix* sense of knowing I was but a projection of those tirelessly flapping valves and pulsing chambers up on the ultrasound screen, and if they quit...

All of this was before the most disturbing news of all, which I got after an MRA scan of my brain at the Eisenhower Imaging Center. A doctor at the center looked at the picture of the vessels circulating blood inside my skull. (The image, oddly, resembled the roots of ginseng plant.) He spotted a 3.6-millimeter aneurysm on my right posterior communicating artery. It seemed to be inoperably situated. In other words, there was nothing I could do about it except imagine the worst. Cosgrove said he debated even telling me, but the finding was right there in the report that would go into a three-ring binder and be part of my "personal record of optimized health." He arranged for me to see a neurologist back in New York for a further consultation.



NOW WHAT? A WellMax tech administers the ultrasound of the author's vital organs.

At the casita that evening I reported the gloomy developments.

"Should I start looking for another husband?" Kate said.

Grateful for her concern, I began preparing my bowels for the next day's rendezvous with the colonoscope, a process that entailed forcing down endless draughts of a ghastly lemon-lime-flavored salt solution. WellMax had set me up with a gastroenterologist famous for having been Bob Hope's doctor. Dr. Gary Annunziata was very personable, but while chatting before Tuesday morning's procedure at the Mirage Endoscopy Center in Rancho Mirage, we somehow got onto the subject of the American abuse of Iraqi prisoners at Abu Ghraib. Annunziata said he couldn't understand all the fuss about a few soldiers playing a "college prank." It didn't seem wise to argue with a man who was about to thread a TV camera and cutting tool into the distant end of my alimentary canal. Gowned and gurneyed, I lay on my left side as an intravenous flow of drugs began: five milligrams of Versed and 50 micrograms of fentanyl.

Amazing drugs. Whoever called the self "the remembered present" must have been inspired by a colonoscopy under "conscious sedation." While technically awake, able to respond to commands, I was incapable of monitoring and recalling my own experience. A polyp was taken by hot biopsy; close-up portraits were made of the "mild diverticulosis" in my sigmoid colon, but I had less grasp of my immediate past than people who'd been anally probed by aliens in the Midwest.

Back at the casita, Ollie had come down with strep throat, and Kate was reviewing a list of eligible hedge-fund managers. My "courage to know" was dwindling fast. Then again, myths of personal invincibility are surprisingly resilient. I seized on the few pieces of good news. My hearing was "awesome." I had "perfect posture" as interpreted by a computer reading a digital photograph. I didn't have any calcium in my coronary arteries. No aneurysm on my aorta. My ultrasounds were all clean — thyroid, prostate, kidneys, liver, pancreas, gallbladder, pelvis. My carotid arteries were free of the plaque that is often an early indicator of stroke and heart disease risk. Nor did there seem to be any of the so-called "intimal medial thickening" along the carotid walls — at least according to the radiologist who reviewed the results of the ultrasound performed at WellMax.

Sure, at any moment my right posterior communicating artery could burst and I would have the communication skills of a zucchini, but at least the Hologics 4500 W bone scan put to rest that canard about my body fat being 28 percent. Supposedly more accurate than a skin caliper test, the machine came up with a whole body-fat percentage of 14 percent. Woo-hoo! Cosgrove couldn't believe it, and questioned the number with Jennifer McGrath, the technician who did the scan. Jennifer flipped through the encyclopedia of my WellMax test results and found the image of my skeleton encased in a ghostly shroud of flesh.

"Look at his legs," she said, "There's no fat on them at all!"

In context, it seemed like a great victory, surpassed only by the results of my "WellScan," which was a package of 12 sensory, motor, and cognitive tests meant to determine my "biological" age. Of the various tests for lung capacity, visual reaction time, hand speed, vibrotactile sensitivity, memory, etc., I did the worst on the one a journalist ought to ace: a memory test that involved listening to a story and repeating the details. I

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blamed my poor recall on the memorably forgettable prose of the stories: "Anna Thompson of South Boston, employed as a cook in a school cafeteria..." But having aced the other measures, I came in at a biological age 18 years younger than my chronological age. Cosgrove said it was a lab record. I think it was shortly after this rejuvenating news that my heart spontaneously resolved its frenzy and, for the moment at least, returned to the comforting iambs of sinus rhythm.

We flew home in decent spirits, Ollie perking up on antibiotics, Kate rested and ready to remarry for money, if necessary. As for me, offsetting the burden of having to make follow-up appointments with a urologist, a cardiologist, a skin doctor, and a neurologist, offsetting even the knowledge that I was one malfunctioning heart or burst brain artery from oblivion, was the fact that I was biologically 33. A regimen of tests adds nearly two decades to your life, you feel pretty good.

The merry mood lasted until Ollie came out of his room that night wearing his large green foam-rubber Hulk Hands and without warning clobbered me in the back of the head. "For God's sake, Ollie!" I shouted, "Daddy has an inoperable brain aneurysm!"

At Cosgrove's behest a box containing an iPod-size heart monitor and bag of electrodes arrived from Desert Cardiology, and I spent a number of days and nights wired up, continuing to monitor my erratic ticker. It was extremely stressful to see the heart rate indicator veer from 60 to 140 when I was doing nothing more strenuous than paging through my four-pound WellMax personal notebook of optimized health.

With my hypochondria rising to hurricane strength, I finally called the Desert Cardiology outpatient liaison and learned the heart-rate spikes were the effects of jostling the monitor and didn't mean anything. The indications that were important, and accurate, were the heart-rhythm data I uploaded over a telephone modem; what a relief it was to learn that apart from some flutters, skips, and "pre-atrial contractions," which were "normal," my atria seemed to have calmed down and pulled themselves together.

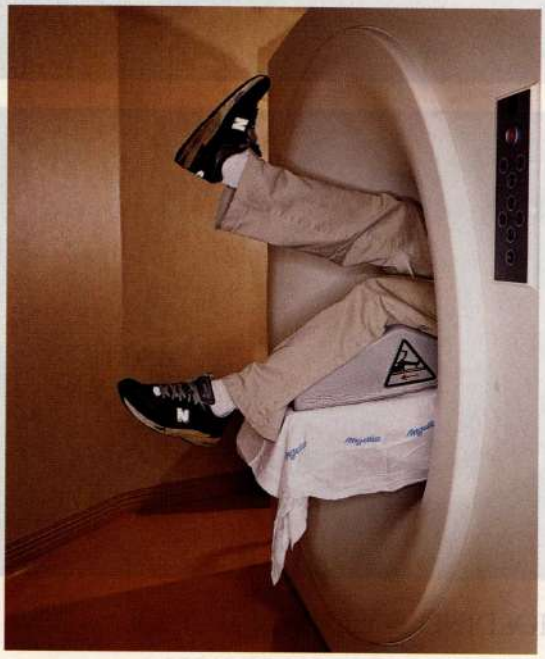
But just as that hurricane was dissipating, I went to see a cardiologist in New York. We didn't even have a chance to talk a-fib. Dr. Howard Weintraub glanced at the ultrasounds of my carotid arteries, which had been pronounced plaque-free, and said, "You have plaque." He showed me the subtle intimal medial thickening that the radiologist in California had not seen, or hadn't been able to measure, but had nonetheless incorrectly ruled out. My risk of heart attack and stroke had just shot up about 85 percent, thanks to something WellMax had *missed*.

"KNOW THYSELF," SOPHOCLES SAID. WOULD HE HAVE reconsidered after an executive physical? Everything I diligently avoided knowing about my body I've now got in a three-ring notebook, two CDs, and a flash drive housed in a plump ballpoint pen. As a trailblazing male who has barely tapped the power of personalized medicine, I already have enough data to hospitalize myself for anxiety. And just think, according to one study women are twice as likely as men to seek preventive medical care!

Every morning, on Cosgrove's advice, I choke down a dozen or so pills, including vitamins E and C; a big honking tablet of salmon oil; glucosamine for joints; and saw palmetto to inhibit the action of an enzyme that converts one form of testosterone into another. To lower cholesterol, I take Lipitor, the world's most popular prescription drug. I take coenzyme Q-10, an antioxidant the levels of which Lipitor can depress. Cosgrove has advised I lower my homocysteine with a B-vitamin supplement because high levels are associated with heart disease and dementia, but I haven't tried it yet because when I take B vitamins my eyelids swell up hideously and my throat itches so badly a bout of dementia would be a holiday. I've been reforming my diet: more salmon, broccoli, and pomegranate juice; less cheese and meat. The diet nurse at WellMax implored me to drink 64 ounces of water a day and limit my consumption of peanuts to five per serving.

As a special treat I can look forward to another colonoscopy in five years.

I still have to visit a neurologist, a skin doctor for a mole I can't see, and a urologist to make sure the blood in my urine is just a sporadic anomaly, not an indication of bladder cancer. In the meantime, when I am not studying my urine like a court physician peering into the chamber pot of George III, I find myself reflecting on my new responsibilities. When you enter the health-care system after a long hiatus, one of your main jobs is to keep doctors from killing you, and that's not as easy as it sounds. A famous estimate published five years ago in the *Journal of the American Medical Association* ranked doctor-generated medical problems as the third-leading cause of death after heart disease and cancer. In other words, maybe there's something to be said for a little constructive avoidance. Many of the tests on the cutting edge of medicine are of still-unproven value; they are often hard to interpret, and can yield false-positive results that lead to treatments that aren't needed.



SCAN MAN The author tumbles headfirst into the CT machine

But much as I might like to go another eight years without a checkup, I can never reclaim the medical innocence that was slaughtered in California. The latest, generally accepted — though always provisional — science says a man my age with my risk factors should repeat about 15 of the 100 tests I had in California the same time next year. (See "Check Mate," page 46.) I won't pretend I'll be jumping up right on schedule to do that. Old habits die hard, and besides, my personalized health profile incorporates a certain superstitious conviction that he whom the gods would destroy first with a falling piano or a wayward bus is the teacher's pet with all his risk factors optimized.

By the same token I can't imagine running up the years again between doctor visits, onerous as they may be. Undergoing an exhaustive medical review teaches you the hard rules of the spirit's house. To get beyond the fear of doctors and the aversion to checkups is to face the fragility of life, to embrace its heartbreaking terms: No longevity is permanent, no health is endless, all we have is a series of sweet reprieves.

When I telephoned Cosgrove with the news that my carotid arteries were not as shipshape as he'd reported, he conceded a first-class exam ought to calculate intimal medial thickening, or IMT; the software package that measures it is now part of a WellMax checkup. He had some news too, and although it was embarrassing for him he was happy to report it. The director of the center that had diagnosed the aneurysm in my brain had returned from vacation and reviewed my MRA scan. I could cancel the appointment I'd made with a neurologist in New York. I didn't have a brain aneurysm. It was an artifact or a shadow or something. It didn't exist.

Never have I been more elated to be misdiagnosed. I walked home on air that night. Kate was reading the *Wall Street Journal*. I told her to call off the search. The Hulk was up, trolling for a brawl. I told him I had been released by the magic of modern medicine and could resume my life as Superman. It wouldn't bother me a bit if he hit me in the head.