

Grow or Decay, Your Choice

From The Desk Of Clarence Bass

"Most of what we call aging is decay, and decay is optional; it's under our control." ~Henry S. Lodge, MD, co-author, *Younger Next Year*

"Regular strength training for life sounds stupid, nasty and scary. And we wouldn't even mention it if it were not one of the best pieces of advice in the whole damn book." ~Chris Crowley, coauthor, *Younger Next Year*

Younger Next Year: A Guide to living like 50 Until You're 80 and Beyond by Chris Crowley and Henry S. Lodge, MD (Random House, 2004) may be the best book l've read on aging well; it's the most complete, and certainly the most engaging and fun. The foundation of the book is seven rules, called "Harry's Rules." Chief among them: "Exercise six days a week for the rest of your life [4 aerobics, 2 strength]," and "Quit eating crap."

Harry is Dr. Lodge (Henry S.), a 46-year-old board-certified internist who heads a 23-doctor practice in Manhattan. This would lead one to believe that Harry developed the rules and recruited co-author Chris Crowley as an enthusiastic patient,



but that's not the way it happened. "I had been talking about lifestyle issues with my patients and exploring the science for a long time," Lodge reveals in the Appendix, "but Chris had been working on these ideas for a number of years before we met; he actually talked about doing the book together that very first day in the office."

The book was Chris' idea and Harry was the eager doctor. They alternate chapters and it really works: Harry provides the science and Chris tells about applying it in an earthy, witty and often self-deprecating way, making some pretty heavy stuff come to life.

Chris Crowley is a 70-year-old retired New York lawyer, a high-powered "former litigator." You can tell he was good in the courtroom; his gift of gab comes through loud and clear in his writing. He's been around the block a few times. The father of three children, he retired young, at 55, to write, ski, sail, windsurf, cook and spend time with his third wife. Good as that may sound, he found himself 40 pounds overweight and walking the streets of New York City feeling unproductive and unhappy. He missed the challenge and connections of practicing law; being out of the loop messed up his morale. He didn't really come out of it until, approaching 70, he began thinking about doing the book with Harry.

Younger Next Year covers everything from erectile dysfunction to caring and commitment to spending in retirement. Did I say it's complete? Well, it is. I'm going to limit my coverage, however, to the three main recommendations: the two rules given above, plus strength training. I'm particularly interested in the new science on growth or decay Harry has pulled together from many sources. He vouches for its essential

accuracy, but warns that it is "drastically condensed and simplified, with all the inevitable compromises that entails."

It's a Choice

Conventional wisdom that we begin a long slide into old age and death at about 50 is wrong. It doesn't have to be that way. You can get off the slippery slope by following Harry's Rules. How you age is mostly up to you. **You can choose to live like fifty until your eighty and beyond**. (Following the rules becomes more important the older you get.) What's more, if you're overweight and out of shape, you can become younger for a number of years and then level off. That's the premise of the book.

For starters, here are some numbers to chew on. Harry says **changing your lifestyle can eliminate over 50 percent of all illness and injuries in the last third of your life. Furthermore, he says 70 percent of premature death is lifestyle-related**. "Even more important," Chris writes in the opening chapter, "is Harry's statement that some 70 percent of the *normal* decay associated with aging—the weakness, the sore joints, the lousy balance, the feeling crappy—70 percent of that horror can be forestalled almost until the end."

Swim Against the Tide

The key to aging well lies in our ancient past. We have inherited a wonderful body and an amazing brain. But there's a "catch," says Harry. They were not designed for modern times. "They were designed for life in nature, where only the fittest survived." That not new, but Harry adds an intriguing new twist.

"Nature balances growth with decay by setting your body up with an innate tendency toward decay." The signal is weak at first and grows a little stronger each year. Chris calls it the "relentless tide." Between 45 and 55 our bodies switch into a "default to decay" mode. "The free ride of youth is over." Nature's rationale is simple, and brutal: to make room at the trough for the next generation. Food was in short supply and needed for the childrearing and productive members of the group.

"In the absence of signals to grow, your body and brain decay, and you age."

What can we do? "It starts with exercise," says Harry. "Exercise—the physical work of hunting and foraging—has always been the single most powerful signal we can send that life is good; that it's spring and time to grow."

"Biologically, there is no such thing as retirement, or even aging," Harry writes. "There is only growth or decay." And sedentary living, so common in modern times, is "the most important signal for decay."

Fortunately, we can swim against the tide for a very long time--if we chose to do so.

Exercise Signals Growth

Harry takes the reader inside the body for a look at how exercise affects the process of growth or decay. You'll have to read the book for the finer points; I can only whet your appetite with the big picture. He says much of this is "new biology that has forever changed our thinking about aging."

I've heard that the body is constantly renewing itself, but I didn't appreciate the scale of the process. Every muscle cell in the body is replaced about every four months. "Your blood cells are replaced every three months, your platelets every ten days, your bones every couple of years." That's just scraping the surface, but you get the idea.

It's an active process. Your body doesn't wait for something to go wrong; it destroys and replaces the old parts on a natural schedule. Think of it as preemptive maintenance. "Biologists now believe that most cells in your body are designed to fall apart after relatively short life spans, partly to let you adapt to new circumstances and partly because older cells tend to get cancer."

Exercise, and each renewal is likely to be an improvement; if you don't, you may throw out more than you replace. Your muscles control growth or decay in the body. "The nerve impulse to contract a muscle also sends a tiny signal to build it up, creating a moment-to-moment chemical balance between growth and decay," not only in the muscle but throughout the body. "If enough of the growth signals are sent at once, they overwhelm the signals to atrophy, and your body turns on the machinery to build up the muscles, heart, capillaries, tendons, bones, joints, coordination, and so on."

"But let your muscles sit idle and decay takes over again."

Biology of Exercise

Your body was designed at a time when hunting and gathering was the way of life; it doesn't know any other way. Fortunately, it can't distinguish between walking in the neighborhood and foraging, or jogging and hunting. The key is to understand that foraging and hunting have distinct metabolisms. Likewise, sprinting and capturing wild prey have a similar and distinct metabolism.

Light aerobic exercise (up to about 65% of maximum heart rate), walking and foraging, burns mostly fat. It's "a wonderful pace," says Harry. "This is the metabolic zone where your body and brain heal and grow." Harder exercise builds more fitness, "but you gain more endurance and general healthiness with prolonged light exercise."

Harder exercise (65% to 85% of max HR) is like shifting into second gear; you need more power than you can get from fat alone, so your muscles start to burn glucose (and fat). This shift is also "the signal that you've started to hunt."

Your ancient genes look on glucose as "powerful but expensive fuel," never to be wasted on foraging. "If you're burning glucose, you must be hunting, which triggers a major metabolic shift that affects your muscles, brain, gut, immune system, kidneys, liver, heart and lungs." Over 85% heart rate is anaerobic exercise; it's like going into high gear. You've exceeded your ability to deliver blood and oxygen to the muscles. This degree of effort can only be sustained for a short time, before lactic acid build-up shuts you down. It's reserved for "escape or capture" moments. "It saved your ancestor's lives, or let them end someone else's, countless times over the past few billion years." The modern equivalent would be the 200m dash, or Lance Armstrong sprinting for the finish line. It's interval training or the Tabata protocol (see article 10). "It's great for vim, vigor and pure fitness, [but] don't bother with it until you get into pretty good basic shape."

As mentioned earlier, Chris and Harry recommend that four days a week be devoted to aerobic exercise. That might be two days of light aerobics and two of hard aerobics, with interval training thrown in once a week.

"Once you pass the age of fifty, exercise is no longer optional. You have to exercise or get old." Do something six days a week, which brings us to strength training.

Strength Training

Frankly, I didn't expect to learn anything new and exciting about the benefits of strength training from a pencil-necked Manhattan doctor and a 70-year-old lifting newbie—but I did. Did you know that the greatest benefits from strength training come in sports like figure skating and skiing? Listen to Harry. (I'm liking him more and more.)

"The greatest advances have come not in the strength sports, like the shot put and weight lifting, but in the coordination sports—the ones that require grace, skill and coordination, like figure skating and skiing. Those improvements are due largely to increased coordination and muscular integration, as well as the increased muscle power available for jumping and landing, developed through strength training."

What we tend to overlook is the marvelous network of nerves that link our brain and body. To make the point, Harry uses the example of a single step. "Each step, each coordinated movement, involves thousands of nerve fibers." Climbing stairs or running requires more nerve and muscle coordination, of course. And hitting a tennis ball requires "a massive harmony" of brain and body: "hundreds of thousands of nerve cells, controlling hundreds of millions of muscle cells." And that's only for the split second it takes to hit a tennis ball across a net.

Harry says the body grows and the brain learns from each movement; strength training develops the connection between the two. It builds power and neural coordination. "The neural impulses to create coordination and power blaze a trail through your neural circuits. Each time you use them, you strengthen the balance, power and muscular coordination centers of the physical brain. And the trail gets broader, smoother and faster."

Lifting weights until you can't do another rep forces your brain to activate the maximum number of strength units, nerve and muscle. It also damages the units, which is good, because it forces the body to rebuild them stronger and better than before. It forges new pathways.

That's why two days a week is enough (three days max) for strength training. "Unlike endurance units, which recover from aerobic exercise overnight, your strength units need to enter a forty-eight-hour repair cycle."

The "coordinated strength" that makes you a better skier will also "let you live well at any age." It wakes up your nerve/muscle connections, makes you more mobile and less injury prone, and might even cure your arthritis. "Most arthritis patients report about a 50 percent reduction in pain and limitation with several months of strength training; minor arthritis usually disappears entirely." It strengthens and tightens the muscles around the joints, making them function more smoothly, with less wear and tear and pain.

By the way, free weights are better, if you can handle them. In his usual reserved and understated way, Chris explains why: "They involve balancing and subtle corrections from side to side, all of which use and strengthen a whole bunch of other muscles and, more important, zillions of neuroconnections, which are at the heart of your ability to function in the real world."

Chris and Harry say everyone, especially those over 50, should be doing strength training. "Aerobic exercise saves your life; strength training makes it worth living."

Diet

I don't have much to say about the "Quit eating crap" rule, except that it's right on the money. It's not a diet, but a nutrition philosophy geared to our Darwinian past. It's basically the diet I have followed--and enjoyed--for many years. You'll definitely want to read Chris' chapter "Don't You Lose a Goddamn Pound!" and Harry's "The Biology of Nutrition: Thinner Next Year." You'll learn a thing or two. I did.

As you no doubt guessed by now, I recommend **Younger Next Year**. You'll find it at your local bookstore or on Amazon.com. While you're at it, check out the authors' website: www.youngernextyear.com.