

Assessment

The two pillars that will help you to live--and remain in optimal health--long enough to take full advantage of the phenomenal breakthroughs that will occur in technology and medicine in the next couple of decades are *prevention* and *early detection* of disease. Prevention is assessment of yourself and Early Detection is most often assessment done with the help of your healthcare providers, but here we will focus on self-assessment test that you can do on yourself.

The way in which preventive medicine is typically practiced today is rarely effective. Mainstream health recommendations are often so watered down or misleading as to be ineffective. In addition, people often defeat their own health programs by telling themselves, “It’s too hard to reduce calories,” “I don’t have time to exercise,” or “I’m addicted to sugar.” We feel that people *are* willing to take the steps needed to stay healthy and extend their lives--particularly, when they know that doing so may enable them to live far, far longer. There are some health-promoting changes that quickly become self-sustaining because of the feelings of well-being that they generate. We will also describe a program for early detection of disease---how to get the type of medical care is powerful enough to detect disease very early this course--at a point where stopping these conditions is relatively easy. It is like stepping away from the edge of the cliff before you fall off. Someday soon these interventions will be relatively automatic, but today, it still requires some effort on your part.

Prevention

Prevention is the first of our two pillars and consists largely of the things you can do yourself--the lifestyle choices you make day in and day out. In some ways, prevention is even more important than early detection. After all, who wouldn’t prefer to prevent a disease entirely rather than detect it--no matter how early?

Your keys to disease prevention are based primarily on the lifestyle choices you make--diet, exercise, sleep, care of the brain, and management of stress. Recent studies have confirmed how important lifestyle choices you make can be on how long you live. The Female Nurses’ Study has been tracking 77, 782 female US nurses (age range, 34 to 59) since 1980. Five lifestyle risk

factors were found to profoundly influence mortality from all causes as well as cancer and cardiovascular mortality in particular. The overall risks were as follows:

- Smoking--linked to 28% of deaths
- Low physical activity--17%
- Overweight--14%
- Poor diet--13%
- Alcohol (either none or excess)--7%

Each of these risk factors increases a woman's risk of dying prematurely. These risk factors were independent of one another and were additive--the more unhealthful lifestyle choices the greater the effect. Having all five of these risky behaviors increases the overall risk of death 43% more than having none of the five. Cardiovascular mortality increased more than eight fold and cancer mortality by a factor of 3.26. The lifestyle choices you make play a profound role in how long you will live. Remember that by living longer now, you'll get to a point in time with the clock will tick much longer.

Yet, another of our major theses is that our genetic code, our biological software, is better suited to Paleolithic times than the world of today. If we were to wait for our genes to adapt to modern times using natural selection, it would take many thousands of years. Biotech breakthroughs-- what we have referred to as "bridge two" recommendations -- are going to accomplish this in a matter of several decades. So in the meantime, we need to follow present-day or "bridge one" recommendations including the use of proper diet, exercise, stress management, nutritional supplementation, prescription medications and other therapies. Targeted use of these interventions will enable us to reprogram--that is, to *transcend*-- many aspects of our outdated biological "software" to make them more applicable to life in the Information Age.

Early Detection

Early detection is the second pillar that will enable you to live and remain healthy long enough to be able to take full advantage of the next stages of technological evolution. If you cannot prevent disease, at the very least, you want to detect it at the earliest possible stage, when effective treatment and full recovery are still possible.

Most of the testing used for Early Detection will be done by your doctor. There are many tests, however, that you can do at home on yourself and that you should get in the habit of doing regularly. These include breast self-exams for women and testicular self-exams for men, along with heart rate and blood pressure measurement, body fat, waist-to-hip ratio, and fitness testing for everyone. Let's look at how you can perform some of these assessment tests for yourself.

SELF-TESTING

Breast Self-Exams—Women

A review published in July 2008 of 388,000 women found that regular breast self-exams had no effect on breast cancer deaths. In fact, all it did was double number of breast biopsies that were done. For breast self-exams to be useful, you need to know what you are looking for. By examining your breasts regularly, you'll become aware of any abnormal changes, but you need to know what changes require follow-up with your doctor. Be alert for any of the following:

- A new lump or knot in the breast or one that doesn't resolve after your menstrual period-- particularly one that is hard and immobile
- Discharge from the nipple that is dark or bloody or any discharge that occurs without squeezing
- Any changes in the size or shape of your breasts
- Inversion or thickening of the nipple
- Any redness or scaling of the skin
- Any lump it doesn't go away after two months

Testicular Self-Exams — Men

Testicular cancer can occur at any age but is the leading solid cancer in men between 20 and 34 years of age. If detected early, however, it is nearly 100% treatable. Untreated testicular cancer, on the other hand, can spread to lymph nodes and lungs. Men should get in the habit of performing testicular self-exams on a regular basis. Young men should do so about once a month.

- Perform an exam after a bath or shower when the scrotum is warm and tissues relaxed
- Use one hand to support the testicle and the other to examine

- Roll the testicle between the thumb and index finger, looking for any type of lump, particularly one that is hard
- Note that normal testicle tissue has the consistency of hard-boiled egg (testicular cancer is typically painless)
- Feel the back of the testicle and examine the ropey structure called the epididymis; the epididymis is normally somewhat tender and irregular

Vital Signs

Most doctors check your vital signs each time you come in because they are just what their name implies – vital to life. The four vital signs are heart rate, blood pressure, breathing rate and temperature. Your personal wellness program should include regular measurements of your heart rate and blood pressure, which you can easily do either at home or with your health care provider.

Heart rate

It's amazing how many people don't know how to check their own pulse, but we think it's important that everyone learn how to perform this basic skill. Checking your pulse is very simple to learn and can provide you with a wealth of information about your cardiac status. Chinese medicine practitioners check 12 different types of pulses in the wrists, but luckily all you have to learn is one.

The easiest place to check your pulse is at the wrist. Simply place the index and middle fingers of your other hand on the inside of your wrist on the thumb side. Count the pulsations for 20 seconds and multiply by 3 and you have your heart rate. You might want to try it now. You may need to feel around to find it if you haven't done this before, but most people can find their wrist pulse with a little practice. A common mistake is pressing too hard, so just feel lightly.

The more physically fit you are, the lower your resting heart rate. Lance Armstrong, for instance, has a resting heart rate of only 32 beats per minute. Men typically have slower resting heart rates than women, but in general, you want your resting heart rate to be less than 84. An optimal heart rate is less than 70. If your resting heart rate is greater than 100, you may either be very unfit or there is the possibility that you may have an underlying medical problem such as heart disease, a thyroid problem or anemia and you should see your doctor.

Blood Pressure

Blood pressure is easy to measure at home with inexpensive automated devices that are widely available. Omron makes a number of reasonably priced devices for home use that are reliable and long lasting. There are four categories of blood pressure:

< 120/80 is optimal

120/80 – 130/85 is normal

130/85 – 140/90 is high normal

>140/90 is high.

About 40 percent of Americans have readings in the optimal range, 24 percent are normal, 13 percent are high normal and 23 percent have high blood pressure. Most doctors recommend medication when readings are consistently higher than 140/90, however, there are health risks anytime the blood pressure is above the optimal range of 120/80. According to a study by the National Heart, Lung and Blood Institute published in 2008, the chance of having a heart attack or stroke increases dramatically the higher your blood pressure. The table below shows the risk of a cardiovascular event such as heart attack or stroke over a 10 year period for women and men between 35 and 64 years of age:

Blood pressure range	CV event risk (women)	CV event risk (men)
	percent	percent
Optimal	1.9	5.8
Normal	2.8	7.6
High normal	4.4	10.1

This table shows that just having high normal blood pressure, which doesn't even require medication, increases heart attack and stroke risk 230 percent in women and 70 percent in men compared to optimal ranges. Weight loss, regular exercise, and reduced consumption of high glycemic foods are simple and effective ways you can move your normal or high normal blood pressure readings closer to the optimal range.