Prevention and Aging: Basics

Consider two drivers. Mr. Careful drives just a few miles a day, always stays within the speed limit, always stops when the light turns yellow, and wears his seat belt. Ms. Reckless is on the road many hours every day. She drives as fast as she can manage, always tries to beat the red light (but doesn't always succeed), and never wears a seat belt.

There is no guarantee that Mr. Careful could not be killed in an auto accident. There is also no guarantee that Ms. Reckless will get killed in a car wreck (as a matter of fact, she probably won't). However, the ***risk*** of a large number of people who drive like Ms. Reckless dying in a car accident is much higher than the risk of those who behave like Mr. Careful.

Prevention decisions are about ***lowering your risk*** of disease and disability. Good decisions about lifestyle changes, tests, and treatments can help lower your risk of health problems, make treatments more successful, and sometimes save your life.

Taking steps to live a healthier life can help you to prevent disease, improve your health and energy, function better, and remain independent for as long as possible in your later years.

To make good choices about your health, you also need to think about the following:

- The diseases most likely to affect you, and the risk factors for these diseases
- Your interest in accepting the medical tests and treatments that would be needed to lower your risk
- The facts about your age and life expectancy

Risk Factors

Most of the diseases that affect us as we grow older are chronic diseases such as heart conditions, cancer, or diabetes. Chronic diseases are usually caused by a combination of many different risk factors. Scientists have done a lot of research to discover which factors — or combination of factors — cause particular diseases.

Risk Factors, continued

For example, they have learned that smoking is a risk factor for lung cancer. Knowing what these risk factors are is one of the first steps in understanding how to reduce the chances of getting a disease or how to slow the progression of a disease.

Risk factors are based on statistical information, for example, how many people of a certain age, sex, race, blood pressure, and cholesterol level have had heart attacks. This can give us a general idea about who is at risk of getting a heart attack. For each disease, specific things about you will determine your risk of getting that disease.

Preventing disease involves taking steps to control these risk factors. We can control certain risk factors such as obesity or heart and lung problems by losing weight, quitting smoking, and exercising regularly. However, we cannot control other risk factors such as our age, sex, race, or family history of having a particular disease. Looking at all of these risk factors can tell us which diseases we are most likely to get, and which risk factors are most important for us to control to improve our health.

There is a lot of information available on what the major risk factors are for different diseases. Some of this information is presented in handouts your doctor may give you about recommended prevention tests and treatments for people like you. If you want additional information, you can look on the Internet, go to the library, or call organizations such as the American Heart Association or the American Cancer Society.

Understanding Tests and Treatments

Medical research has led to a greater understanding of how to prevent and treat diseases. With this knowledge comes more numerous and complicated treatment choices for both doctors and patients. At the same time, doctors often have less time to explain and discuss all these choices with you. Fortunately, the public has greater access to health information, and many people want to take a more active role in their health care. Good decisions need to take into account your personal values, risk factors, and the possible benefits of a particular test or treatment. Some people are willing, even anxious, to get tests or treatments that have little benefit. Others would rather be left alone unless the problem is very important, or very likely to affect them. Your willingness to undergo certain tests or treatments to improve your health is an important factor in making prevention choices.

Understanding Tests and Treatments, continued

What Are Screening Tests?

Screening tests are medical tests that can detect early signs of an existing disease before symptoms appear. Some screening tests can play a role in preventing diseases before they start.

For example, if a screening test shows that you have high cholesterol, which is a risk factor for heart disease, you can take steps to lower your cholesterol to try to prevent heart disease from developing. If you have your blood pressure checked regularly and it is found to be high, it can be lowered through diet or medication to try to prevent the development of diseases that are caused by high blood pressure.

Other screening tests can find diseases early when they are easier to treat, such as a mammogram for breast cancer.

Screening tests are designed to identify people who ***may*** have a disease. With most screening tests for cancer, a positive result does not usually mean that the person has cancer. More tests are needed to decide. A "false positive" cancer test is a screening test that suggests there is cancer but turns out to be wrong. "False positives" are very common in cancer screening, depending on your age and the test. Knowing how often a screening test is a "false positive" may be important to your decision about whether to have the test

Evidence, Risks, and Benefits

Another part of clear thinking about prevention looks at the difference between what we think is true and how sure we are about certain prevention choices. The best scientific medical ***evidence*** for doing a prevention test comes from an experiment (called a randomized controlled trial) in which some people have the test and others do not, while watching closely for what happens to each group. Not everything that is recommended has this kind of strong ***evidence***. While all recommended prevention choices have some evidence of being helpful, that evidence may be very strong or very weak when applied to you. You should understand the evidence, risks, and benefits of a screening test before you agree to it. You can then decide, based on your age and your health, whether the screening test is right for you.

Age and Life Expectancy

Much of the benefit that you get from lifestyle changes, medical tests, and treatments depends not only on risk factors, but also on your life expectancy. Ms. Reckless, despite her bad driving, has only a very small chance of a fatal accident on any given day, or even any given year. Her bad behavior, with its high risk of an accident, will take time to catch up with her. Changing risk by good prevention choices will also often take time to pay off (the actual amount of time depends on the test or treatment). Your life expectancy will change the benefits that you can expect from prevention choices.

Life expectancy is an estimate of how long, on average, a group of people with similar characteristics will live. In actuality, only a small number of people die close to their life expectancy — most either die sooner or live longer. A person's actual life expectancy depends on his or her age and state of health.

Scientists who study aging often think of older people in three different age groups, each of which has an average life expectancy.

Category	Age (Years)	Life Expectancy (Years)
Young-old	65-74	16 (at 70)
Old-old	75-84	8 (at 80)
Oldest-old	85 and over	4 (at 90)

Life expectancy is another piece of information that you can use to help make decisions about your health care. For instance, testing for and treating cancer is much more beneficial when you have many more years to live. On the other hand, it might be a poor choice if other health problems make long life unlikely. If you are in the oldest-old category or in very poor health, you may die of some other disease before a cancer found by a screening test would affect you. If this happened, cancer tests or surgery would be unnecessary. However, some very old or sick people live surprisingly long lives, and you could die of a cancer that would have been found and effectively treated if the test had been done.

Age and Life Expectancy, continued

Making good prevention choices is hard. Your doctor can help you decide, but cannot guarantee that your choice always turns out to be right.

Some general advice about prevention can be given for each of the above age groups. Life expectancy makes the most difference in which tests are recommended for each age group. If you are much healthier than average, you might consider things recommended for a younger group. If you are sicker than average, you and your doctor might choose only the things recommended for an older group.

We can talk about preventive actions in the following three categories:

- *Must Do's*: These are very important to your health and quality of life.
- *Could Do's*: These could be helpful to your health.
- *Don't Do's*: Generally, these are not good bets, although your specific risks, goals, and health could make a difference.

Young-Old (65 to 74)

The young-old have a life expectancy of many years and can usually benefit from all the recommended approaches to health promotion and disease prevention. Heart disease, stroke, and cancer are the most common causes of death in this age group.

The Must Do's. Eating the right diet, exercising regularly, and eliminating dangerous health habits, such as smoking or drinking too much alcohol, are critical to living healthy older years. Having a test for and treating osteoporosis can help prevent future broken bones and related disability. High blood pressure (hypertension) and high cholesterol levels are more common, and treatment is often very effective in preventing heart attacks and stroke. Cancer screening tests are helpful because the impact of cancer detection on reducing death rates is highest in this age group. Vaccinations (shots) for influenza (flu) and pneumonia are also important.

Age and Life Expectancy, continued

Old-Old (75 to 84)

The old-old still have a substantial life expectancy (8 years on average), but overall health status and function tend to decline in this group as a whole. A focus on individual problems and risks can help people set priorities for preventive activities.

The Must Do's. A good diet, exercise, and other healthy habits are even more important in this group because they improve physical function and fitness, both of which are critical to recovery from a serious illness. Flu and pneumonia vaccinations are increasingly important, because death rates from these diseases increase with age. Detection of memory loss, depression, osteoporosis, and hearing and vision problems is increasingly important, because these problems are more common in this age group.

The Could Do's. Screening tests for breast and colon cancer may still be beneficial, but increased treatment risk and decreased expected survival may lessen the benefits. Treatment of high blood pressure and high cholesterol still reduces risk of heart attacks and stroke in this age group, but the frequency of heart attack and stroke rises rapidly in spite of treatments. Your personal health and function may play a role in making these decisions.

The Don't Do's. Pap smears and prostate cancer screening are usually recommended only in special circumstances.

Oldest-Old (85 and older)

With a shorter life expectancy, the oldest-old may want to focus on maintaining fitness, personal function, and independence.

The Must Do's. Flu and pneumonia vaccinations are very important, because these diseases are often serious or life threatening. A healthy diet, regular exercise, and other healthy habits are still important to help maintain function and improve ability to recover from illness. Memory loss, depression, osteoporosis, hearing, and vision problems are much more common in the old-old, and early detection with effective treatment is critical to the quality of life in the years remaining.

Age and Life Expectancy, continued

Oldest-Old (85 and older), continued

The Could Do's. These are "close calls." In other words, these decisions are harder to make because scientific information is unclear or because the risks of certain tests or treatments may be greater than the possible benefits. Treatment of high blood pressure and cholesterol still has benefits, but the rate of heart disease and stroke, which rises sharply in this age group, is less affected by these treatments.

The Don't Do's. Cancer screening is generally not helpful in adding to life expectancy, although a person's specific health and personal goals could make a difference.

Considering Personal Values

When a clear cut recommendation based on the medical evidence is not possible, you need to get more involved in making decisions about your health. You're the one who must live with the test results or the side effects of a treatment. Your own ideas about having tests and treatments, and about living or dying with a disease, are important to making the decision that is right for you. Find out as much as you can about the different choices, think about how they'll affect your everyday life, and talk with your doctor about the choice that is best for you.

Summary

Keep in mind that many preventive health care decisions are not simple. Many factors, both medical and personal, should be taken into account. These factors include your specific risks, age, life expectancy, current scientific information on tests and treatments, quality of life, and personal values.

The best way to make these challenging decisions is to gather as much information as possible and to develop a list of questions to discuss with your doctor. Focus on the most important things first. Your doctor is interested in the decision that is right for you, but he or she also understands that the best decision is sometimes unclear.

Staying healthy is a lifelong activity, so take advantage of chances to learn more about your body and keeping yourself healthy.