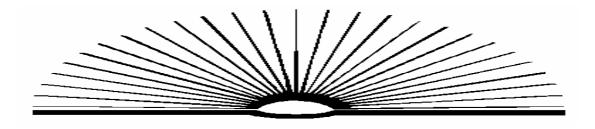
# **The Normal Aging Process**

#### Introduction

Society has taught us all kinds of "things" regarding aging, including the process of aging and "normal" changes that occur. Most of what we hear from others comes in the form of "myths" of normal aging. Knowledge of these myths makes aging a fearful, unhappy approaching event for many of us. However, it should be the sight of a new beginning. Understanding the aging process; what, why, and how changes occur; and strategies to prepare ourselves for these changes gives new life and appeal to a very special time in all our lives.

There is a growing appreciation that everyone does not age in the same way or at the same rate. Many of the changes that occur from aging result from a gradual loss. These losses often begin in early adulthood, but thanks to the ability of our organs to adjust and maintain health, the actual loss is not experienced until it is fairly extensive. Most organs seem to lose function at about one percent a year, beginning around age 30. Interestingly enough, the majority of these changes are not seen until after age 70. The biggest difference in the rate of aging and organ efficiency lies in the presence of disease and/or the ability of the body to adapt to external stress.

Changes that occur with aging fall into three categories: physical, psychological, and social. As changes begin to happen in one area of a person's life, most likely the other two will be affected as well. There is a wide variation among individuals in the rate of aging and, within the same person, different organ systems age at different rates. However, we all experience common changes to some degree. How we age can be a result of our diet, exercise, personal habits, and psychosocial factors. An important fact to remember is that biological age does not equal chronological age.



## **Physical Changes**

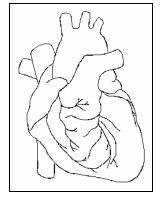
#### Decrease in Physical Strength, Endurance, and Flexibility

Muscle strength and flexibility decrease with age. A major reason muscles tend to become weaker is that there is less lean muscle mass and they shrink from lack of use. It happens whether a person is young or old. As muscles are not used, they don't work as well. The capacity to assure strenuous effort gradually declines. You eventually become less able to walk as far or lift as much as you used to. This is because skeletal muscles atrophy (shrink with age). Conditioning is the most dominant factor influencing this rate of decline.

#### Decline in Efficiency of Body Organs

Functioning of all body organs is not as efficient as before. Examples include:

▼ The heart becomes a less efficient pump. It requires more oxygen to do the same work it used to do with less oxygen. When you reach your fifties, there also is an increased thickness and hardening of the arteries causing blood pressure to rise slightly and then level off.



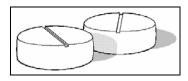
- ◆ Other problems associated with heart disease can cause blood pressure to continue to rise to a point of needing medication. Taking medication as ordered is very important when you are diagnosed with high blood pressure, even if you "feel
  - fine." Generally, high blood pressure affects the organs inside without giving us any physical warning signs. This is the danger of not being treated and maintaining proper medical care which could result in a stroke and/or heart attack.
- ▶ Lungs become less elastic, and do not expand as well; thus, less oxygen gets into them. Smoking makes this problem worse at a much earlier age in people that smoke versus those who do not.



◆ As you age, it takes longer for your kidneys to get rid of waste products. These substances tend to remain in the body for a longer period of time. This is particularly the case with medications.

- ♥ Urinary incontinence is <u>not</u> a normal change with aging. Not being able to "hold your water" is due to many other problems, such as enlarged prostate, weak muscles, limited fluid intake, or constipation. Your medical provider is the best person to evaluate your particular problem. Don't feel embarrassed! Almost 60 percent of the time, this problem can be improved easily and economically.
- ▼ The reproductive system is affected in many ways. However, it is important to note that sex, including intercourse, continues to be pleasurable as you age. In both men and women there is a slowing sexual response, but desire should be no different than in years past. In men, there may be delayed penile erection, infrequent orgasm, and decreased sperm motility, causing decreased reproductive capacity. Impotence is not a normal change in aging, but can be caused from different medications that may be prescribed. Ask your doctor about possible causes and treatment for male impotence. There may be a very simple solution.
- ▼ In women, after menopause there is decreased blood flow to the vagina, delayed vaginal lubrication, and diminished orgasm. Estrogen therapy not only helps in minimizing these occurrences in women, but also helps to keep the heart and bones healthier, longer. Ask your doctor if estrogen therapy is right for you. Ovarian atrophy (shrinking) prevents women from reproducing from the onset of menopause.
- ◆ Alterations in skin become very obvious early on if you have not taken care of yourself. Wrinkling is the most common and most notable. Increased wrinkling is due to a normal loss of elastic tissue, excessive sun exposure, smoking, and heredity. Small skin hemorrhages are noted; these may look like small red dots just about anywhere on your body. A few of these are normal. The sweat glands also shrink, reducing sweating and making it more difficult for your medical provider to assess dehydration by skin alone.

The result of changes in the functioning of critical body organs means that the elderly tend to become more sensitive to drugs. This emphasizes why taking other people's medications can be extremely dangerous. Let



your doctor or nurse practitioner make the changes that best suit your individual needs.

#### Loss of Bone Mass

Thinning and shrinkage occurs in the bone, most noticeably in the vertebrae (the back) and the long bones of the arms and legs. The compression of the spinal column is responsible for many people getting shorter as they age. It also may account for the stooping posture of many older people.





Average height loss for most people is about two inches by age 80. The severe extreme of this change in bone is called osteoporosis. Mostly women are affected; however, current research has shown that men, too, are being affected in growing numbers. Prevention is the best medicine. Adequate intake of calcium (1500 mg./day), maintaining average body weight, and engaging in a regular weight bearing activity, such as walking, are the best preventative measures you can take to avoid the dangers of osteoporosis which, in turn, can result in bone deformities as well as being prone to fractures.

## Slower Reflexes

Joint movements slow with age because of changes within the joints themselves. Reaction time also is slower because of changes in the central nervous system. The time lapse between the brain receiving the signal and the person responding to the signal increases with age. This is a major reason why driving becomes an issue as you age. Being unaware of the changes as they occur may cause accidents and injury to yourself or others. Many places offer driving competency evaluations. If friends or family insist that you can no longer drive safely, an assessment from these experts will save a lot of anger, frustration, and arguments. Ask your primary medical provider for the evaluation site closest to you.

## Taking Longer to Return to Equilibrium

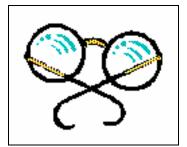
It takes longer for the body to return to balance following a stress. The older person's body does not bounce back as readily as a younger person's body does from exercise, illness, surgery, or situational stress. Recovery/recuperation time usually is longer for older adults than for younger adults. Prevention, planning, and regular exercise are the keys to feeling better as you age.

#### Decline in the Senses

All the senses are affected to some degree as people age. The changes are particularly important because it is through your senses that you keep in contact with the world. The most impactful changes are those in hearing and vision. When losses in these senses are significant, they can affect a person in several ways.

- > Communication and interaction with others
- ➤ Mobility and independence
- ➤ Perception of and response to the environment
- ➤ Ease in accomplishing tasks
- ➤ How you feel about yourself

Regular check-ups with your ear and eye specialists can head off major problems. Wearing eye glasses and/or a hearing aide can only help with communication and maintaining independence -- the cornerstones of effective aging. Most eye problems are reversible if found and treated early enough, especially cataracts. Other eye problems, such as glaucoma, must be treated immediately



to prevent further complications, including blindness. Changes that you might gradually experience include decreased acuity, color sensitivity, depth perception, and diminished near vision.

Hearing gradually diminishes due to decreased perception in high frequencies and pitch discrimination. These problems often can be resolved with a hearing aide. Although vanity becomes a central issue as you age, nothing outweighs the ability to continue to properly communicate through adequate hearing.

Taste declines after the fifth decade. Fifty percent of our normal taste buds disappear by age 80. This can cause loss of interest in food and, in turn, affect weight loss and malnutrition. Maintaining adequate calories and making proper food choices can prevent this from happening.

Decline in the sensation of smell has an effect on an inability to smell bad food, body, and household odors. Rotating food from your refrigerator, good body hygiene, and keeping your home neat and clean can help ensure safety and prevent embarrassment as you age.

# **Factors Influencing Physical Aging**

Genetics: If you want to live a long healthy life, begin by choosing

your parents well!

Lifestyle: Certain habits predispose you to early aging. For

instance, smoking can make your skin wrinkle, cause your eyes to droop, and give you lung cancer at an early age. Alcohol accelerates the aging of your skin, liver,

heart, brain, and pancreas.

**Nutrition:** Good eating habits and proper weight control is very

important. Nutrition is the key ingredient in making all

body systems work.

Medical Care: Health maintenance practices, such as regular medical

check-ups, flu shots, pneumonia vaccine, annual mammograms, pap smears, prostate checks, and checking for blood in the stool, are very important health promotion activities that help to maintain health and well-being. Taking medication as prescribed by your

health care provider is equally important.

## **Aging and Chronic Disease**

Normal age-related changes often are exacerbated by the presence of chronic disease. Chronic health problems confuse normal aging with aging by disease. The risk of these problems increases with age. Chronic disease is sometimes a fact of life with older people, whereas with younger people acute illness is more prevalent. Some people have long standing chronic illnesses that they bring along with them into older adulthood, such as diabetes, arthritis, and hypertension. These diseases already may have caused deterioration of body organs through their own mechanisms and your non-compliance with medical orders as required by your health care providers. Some of the normal aging changes also make you vulnerable to developing medical problems. Chronic illness itself often can make carrying out activities of daily living difficult, can interfere with your loss of control, and can cause depression and/or social isolation. Expenses for medical care are increased. Multiple medications are prescribed, sometimes creating more problems for the elderly person. Eighty percent (80%) of older adults have at least one chronic health condition.

Some of the more common health problems include:

- > Arthritis (49%)
- > Hypertension (37%)
- ➤ Hearing Impairments (32%)
- ➤ Heart Disease (30%)
- ➤ Sinusitis (17%)
- > Cataracts (17%)
- ➤ Orthopedic Impairments (16%)
- ➤ Diabetes (9%)
- ➤ Visual Impairments (9%)
- > Tinnitus (ringing in the ears) (8%)
- ➤ Varicose Veins (8%)

Source: AARP, A Profile of Older Americans

Most physical illnesses of old age are chronic, meaning they will not be "cured." Flare-ups will occur and planning needs to be done for long term management, including regular visits to your physician and/or nurse practitioner. Symptoms

should not be attributed to "growing old." However, even complaints that seem relatively "minor" and do not go away should be investigated for underlying disease processes.

Growing old is an individual process. There probably is no other age group that is more different from one another than the elderly.

## **Psychological Changes**

#### How the Brain Works

In later life, the intelligence that you have gained throughout the years remains intact -- vocabulary, general knowledge, and understanding. These functions may even improve with age! Learning may not be as easy as in earlier years and may take longer; however, information can be learned just as well. It also may take longer to recall facts in your memory bank, but they are still there. At times, it is much easier to remember what happened 40-50 years ago versus what you had for dinner last night. Don't forget, when you were younger you probably had to keep

calendars, date books, and employ other means to

maintain your memory.

Today, so much is going on around you. Stimuli are coming at you all the time. Parties and gatherings with a lot of people may have, at one time, been a lot of fun. Now, for reasons unknown to the majority of folks, smaller gettogethers are far more enjoyable. As you age, you lose the capacity to process information from many sources at one time. Having conversations one-on-one makes communication more positive by allowing your brain to respond to one stimulus at a time.



#### How Do I Know I'm Not Getting Alzheimer's Disease?

Although Alzheimer's Disease seems to be the catch-all phrase for anyone who has become disoriented or confused, it really is a disease state in its own right. "Dementia" is the proper terminology that refers to a group of symptoms, such as confusion, disorientation, memory loss, and behavior changes that characterize certain diseases and conditions. Dementia has a gradual onset involving the loss of brain cells that interfere with a person's intellectual capacity and her ability to function in routine daily activities. Dementia is *not* normal in later life. When these types of symptoms occur, a complete check-up by your physician is critical. Dementia-like symptoms can be caused by many other problems that are reversible and treatable.

## Potential Causes of Dementia-Like Symptoms

The common acronym *D-E-M-E-N-T-I-A* describes the frequent associations of other problems to sudden memory and behavioral changes.

- Drugs, even common over-the-counter drugs and those prescribed by your doctor, can cause confusion. All drugs in and of themselves can cause side effects of confusion. Drug-drug interactions (combinations of drugs including over-the-counter drugs and prescribed drugs) along with medications taken incorrectly can cause confusion and disorientation. Drug toxicity (more drug than your body can handle) is one of the most common causes of confusion in older people.
- E Emotions, especially depression, have a major impact on memory. An important difference to note is that depressed people usually complain about their memory problems; people suffering from a dementia often do not.
- Medical problems related to thyroid and kidneys, dehydration (lack of fluid in the body), and hypoxia (lack of oxygen to the brain) can commonly cause confusion and disorientation.

E - Eyes, ears, and environmental changes also may affect behavior. Visual problems can lead to disorientation. Hearing loss can result in confused responses and paranoid-like behavior. Environmental change, such as when an older person is transferred from home to hospital to nursing home and back home, or after surgery, many older adults experience a temporary state of confusion and/or disorientation.

Nutritional deficiency, such as a lack of  $B_{12}$  or "pernicious anemia" and poor diet habits, for example, the older person who has been on a "tea and toast" diet for several months, is at high risk for entering states of confusion.

Т-

Ι-

Trauma or a head injury from any type of accident, including a fall or a brain tumor, can cause confusion and disorientation.

Infection, such as pneumonia or urinary tract infection, a high fever, or syphilis can cause dementia.

A - Alcoholism, whether a recent or long-standing problem, can cause temporary confusion and disorientation or permanent brain damage. Atherosclerotic disease, including congestive heart failure, heart attack, cardiac arrythmias, and TIA's (trans ischemic attacks -- little black outs) can cause decreased blood flow to the brain, therefore causing disturbances in brain function. Having these problems under control with medications and regular visits to your medical provider will help in keeping you free from these complications.

Remember, any sudden change in your mental or physical health demands a visit to your medical provider -- whether it be a physician or nurse practitioner -- for evaluation of the problem.

#### Social

#### Loss, Grief, and Bereavement

In later life we begin to experience many different types of losses, such as health, job, money, home, and death of friends and family. At times they seem to come in rapid succession. Before you have had time to grieve one loss, another is upon you. Coping then becomes very difficult. Even the most well adjusted older person can be overwhelmed. This can cause "bereavement overload" which, in turn, can result in physical problems, mental confusion, disorientation, and a variety of physical and emotional behaviors.

Grief is a normal response to loss. We grieve over any perceived loss, not just the death of a loved one. Mourning is the process we go through to try to diminish the pain of loss and look to "let go." Grieving is a very personal, individualized process. It is not the same for any two people. No one can tell us how long or in what way we should be grieving. It takes time and energy, sometimes energy that we don't have. Grieving is to loss as a cast is to a fractured bone. Without support and time to get better, healing may never occur. It is not realistic to think that a significant loss can be replaced. However, people need to vent their emotions in some way in order to get through the grief period and on with life.

What happens when grieving is avoided or blocked?

- → Grieving may be delayed and the pain may erupt later
- → Health problems may develop
- → Behavioral problems may develop
- → Relationships can be negatively affected
- → Drug or alcohol problems may develop
- → Depression may develop

Successful grieving requires acknowledging the pain in the way most comfortable and soothing for you. Positive ways to get through the grieving period include:

- → Avoiding alcohol and drugs which can only cause more problems and actually inhibit the healing process
- → Support of a friend or family member

#### Emotional Needs Later in Life

Emotional needs do not necessarily change as we age. In fact, our needs become more apparent as we become less able to be totally independent and must rely on others for support.

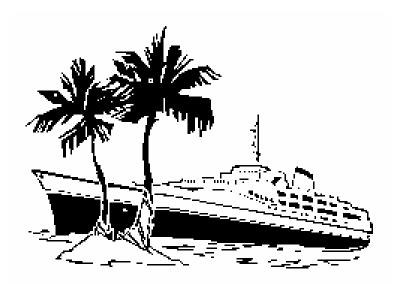
Two of the most important emotional needs of older adults include having a sense of control and being involved in decisions. At times, these are very difficult to be carried out, especially if you are frail or have physical or mental problems. Yet these needs remain important no matter what age you are. Elders who perceive no sense of control in their lives tend to be more discouraged and less satisfied. They may become depressed and less functional as a result of not being in control. Even the most frail elderly are healthier and happier when they feel some mastery over their own environment and some responsibility for their own lives.

Multiple changes have a way of making their way into the lives of older adults. Change is difficult for everyone, but even more difficult as we age. Familiarity is comfort. At times others may feel they know what is best for us. It is important that we make our wishes clear and that we are involved in the decisions in our life. Friends and family have good intentions, but when an older person is excluded from the making of plans, the plans are more likely to backfire. The resulting behaviors may be anger, increased demands, helplessness, or withdrawal. What's the solution? Early on, make your wishes clear to your loved ones. Put them in writing. Talk about your feelings regarding independence and decision making. It is very important that the younger adults in your life understand your point of view.

#### Retirement

Retirement is a time often spoken about by those not approaching "the" age or others fantasizing about a life of leisure and irresponsibility. Much to your chagrin, as retirement quickly approaches, it becomes a time of hidden feelings and secret thoughts. It is life-style change and represents a major loss instead of the freedom you so eagerly talked of in your younger years. Retirement represents a loss of stature, position, money, and authority. To retire acknowledges you have become an old person. Fears of retirement are many. They include loneliness, poverty, sickness/chronic disease, death, and diminished mental capacity. So what do you do with the rest of your life? *Here is an opportunity!* 

Retirement can be everything you ever thought it to be. There is one hitch! *Planning!* This is the key to a successful retirement. It should be a time to maintain close friendships, to do things you never had time to do, and to allow yourself hidden "dreams." Successfully retired people discover that their pleasure does not come from leisure nor from activity; rather, it arises from the changed sense of self -- generated by what they have chosen to do with their freed energies. In retirement, there is no larger structure into which you must fit. Your schedule does not intersect with others, there is no catalogue of commitments, no timetables, no need for dexterity in the use of time and attention, nothing has to be done now, and, above all else, pressure is only self-generated.



The most difficult thing about retirement is change. It is a time for looking at your value system and the way you spend your time. In retirement, security does not increase, the upper limits of upward mobility already have been reached, the time for acquiring turns into a time for disposing of things no longer needed. You will not get much richer or better known than you already are, or stronger or healthier, for that matter. You don't really need the big house and everything in it. You are as secure as you will ever be. Old friends are passing away or moving away. You no longer are in charge of anything but yourself. Your list has outlived its usefulness, and you need a new one -- another value system with enough substance upon which to build a new life. To do this is not easy, for the only place inside yourself you can look for new values is among those that weren't very high on your first list. That means making fundamental changes in your reasons for living.

## **Summary**

#### Making Aging a Positive Experience

From the previous text, it is important that you generate a sense of pride and preparation in looking to a very special time in your life -- that of growing older and wiser. To be wise as you grow older takes planning -- planning in all phases of life: in sickness, health, financial security, social environment, and on being the pillars of your society -- the grandparents to us all. It is a new beginning -- a time when you can plan a life based on your many years of experience, to look back and not regret, to move forward knowing and expecting the changes that will come about. It is a time when you can rejoice that you have made it through good times and bad, happy and sad, and yet maintain a vigor that is envied by all.

Exercise, good nutrition, positive health maintenance activities, and regular visit with your health care provider are the most important factors contributing to quality of life as you age.



#### When I Am an Old Woman I Shall Wear Purple

by Jenny Joseph

When I am an old woman I shall wear purple
With a red hat which doesn't go, and doesn't suit me.
And I shall spend my pension on brandy and summer gloves
And satin sandals, and say we've no money for butter.
I shall sit down on the pavement when I'm tired
And gobble up samples in shops and press alarm bells
And run my stick along the public railings
And make up for the sobriety of my youth.
I shall go out in my slippers in the rain
And pick the flowers in other people's gardens
And learn to spit.

You can wear terrible shirts and grow more fat And eat three pounds of sausages at a go Or only bread and pickle for a week And hoard pens and pencils and beer mats and things in boxes.

But now we must have clothes that keep us dry And pay our rent and not swear in the street And set a good example for the children. We must have friends to dinner and read the papers.

But maybe I ought to practice a little now? So people who know me are not too shocked and surprised When suddenly I am old, and start to wear purple.

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