Dealing with the Challenges of an Aging Body

THOMAS DAY
NATIONAL CARE PLANNING COUNCIL

Part 1 – Maintaining Good Personal Health

- Ageism in American society
- The older person's attitude towards his or her health
- Aging and the attitude of many healthcare providers
- Medications and the elderly
- Advice from Geriatrician Robert Stall

Ageism in American Society

American society in general glorifies youth and fears or even despises old age. This is not the case in many other societies where age is associated with wisdom, knowledge and special status. We see evidence of this bias towards older Americans especially in the media. In films and on TV old people are very often depicted as weak, indecisive, bumbling or even comic. We laugh at their misdeeds and forgive their mistakes knowing in the back of our minds that they are old and can't help themselves. We view them not as capable as younger people. It is rarely that we see older people depicted as decisive, strong or as leaders. We see this same attitude with large corporations and government employers. At a certain age, employees are encouraged or expected to "retire" to a new phase of their lives where they are not required to work for a living any longer. Retirement is presumably a reward for many years of dedication and hard work, but the underlying philosophy is more likely based on the idea that older workers are no longer productive or useful.

As Americans age we fear the deterioration of our bodies and the possible lack of security due to low income -- a byproduct of old-age. Some people in our country fight old age through cosmetic surgery, use of supplements, aggressive weight-loss programs or through overzealous physical training programs. Other people accept old age gracefully and adapt as well as they can. Still others refuse to grow old and resist aging by adopting social strategies such as denial, refusal to participate in life or becoming belligerent. (The angry old codger image)

Instead of taking the role as leaders in their families or in the community as is the case in some countries, the elderly in our country, even after successful careers in earlier years, simply become invisible. They waste their prodigious talents traveling, entertaining, socializing, watching TV or playing golf. They are rarely asked to assume responsible roles in the community. And unlike other cultures, older Americans often abandon themselves to control by other people, often their children and their health care providers. Instead of taking responsibility for their own decisions, they will rely on children or others to make decisions for them. Many of them seem to enjoy the role of becoming dependent on others. And it is all too often the case that family and others pander to this submissive role of the elderly and we begin treating them like children.

This generally accepted perception of aging in our country has resulted in the elderly themselves and in the community at large regarding older people as less valuable than younger people. The assumption is that the elderly have lost the ability to think clearly, to learn new things and they are generally incapable of any physical activity other than walking or sitting. This attitude also carries over into the health treatment that older Americans receive.

The Older Person's Attitude towards His or Her Own Health

Many elderly people buy into the notion that they themselves are no longer useful and as a result make little attempt to keep themselves healthy and active. After all, they are getting closer to the end of their lives and have no desire to try new things or to challenge themselves or to eat or exercise properly.

There is a great deal of anecdotal and research evidence that demonstrates older people can learn, can retain memory and can be actively involved in business and in the community. The lack of physical exercise, social involvement and mental stimulation in older Americans often leads to these people losing the ability to use their minds and their bodies. The older person's negative attitude towards aging becomes self-fulfilling.

Many reason that they have missed their opportunities in life when they were younger and it's too late to start over. As a result, many older people are intimidated by new ideas or by technology such as computers, not because they are incapable but simply because of their attitude. The idea of not being able to "teach an old dog new tricks" is in most cases an excuse. Obviously this mindset of failure and inability to perform becomes self-fulfilling. Not surprisingly, depression and suicide are more common in the elderly than in the younger population.

The negative attitude towards aging on the part of an older person has a direct impact on that person's health. Many studies show that people who are physically active have less joint pain, lower blood pressure, less depression, fewer heart attacks and a lower incidence of cancer. Proper nutrition also has the same affect on the aging process; it delays the onset of debilitating illness or disability.

According to James S. Marks, M.D., M.P.H., Director of the National Center for Chronic Disease Prevention and Health Promotion

".... Research has shown that poor health does not have to be an inevitable consequence of growing older. Death is inevitable, but, for many people, it need not be preceded by a slow, painful, and disability- ridden decline. Our nation will continue to age -- that we cannot change -- but we can delay and in many cases prevent illness and disability."

A study in 2000 from the Journal of the American Geriatric Society reports that inactive women at age 65 have a life expectancy of 12.7 years whereas highly active, non-smoking women at 65 have a life expectancy of 18.4 years.

A report from the CDC indicates that very few older Americans get 30 minutes or more exercise for five days a week or more. The report states that up to 34% of adults age 65 to 74 are inactive and up to 44% or almost half of adults age 75 are inactive.

A study From the US Preventative Services Task Force reveals that regular exercise can reduce life-threatening falls in the elderly by 58%. Another study showed that regular exercise reduced pain and increased function in joints of older Americans suffering from osteoarthritis. (Reduced the need for pain medications)

Yet another study found that strength training was as effective as medication in reducing depressive symptoms in older adults. Other studies from the Department of Health and Human Services support the idea that older people who are responsible for their own health and their own health decisions are healthier than people who rely on others to make decisions for them. Lack of activity and poor nutrition often lead to obesity.

More than any other problem facing older people, obesity can have the worst effect on their health. It leads to joint degeneration, heart problems, stroke, congestive heart failure, diabetes and a whole raft of other chronic medical conditions. And obesity among all ages is becoming a national crisis.

Another health problem with the elderly is the overuse of alcohol, cigarettes and addictive medicines such as pain killers or tranquilizers. It is assumed by the elderly and by their family that long term use of these substances has gotten to a point where it would be pointless or impossible to get the elder person to discontinue or cut back on their use. In other words older people are no longer useful so let them have their bad ways. "Everyone dies at some point; what does it matter what causes the death."

For instance it is assumed that smoking has already done its damage and little could be achieved in stopping. Actually recent evidence indicates that no matter what the age, cessation of smoking can reduce the incidence of chronic lung disorders and improve lung function even after a few weeks.

No one knows the extent of abuse of alcohol or other addictive substances among the elderly simply because no definitive studies have ever been done and older abusers remain hidden and invisible to the public. Again this is reflective of our society's attitude towards the elderly. It is commonly felt, especially by doctors who prescribe addictive medications, that we should, "Let them have their vices, it gives them comfort and relief from pain and they are old and are going to die anyway".

Because of this public attitude many elderly people waste the remainder of their lives living in alcohol or drug induced stupor. And their health suffers as well due to lack of activity and poor nutrition.

Aging and the Attitude of Health Care Providers

In many cultures in the world, elderly people are revered and their advice is sought and respected. In our culture, the wisdom, the knowledge and the social skills of the elderly are often overlooked and instead we focus on the mental and physical deficits of our older generation. Because of this prevailing attitude, older people are generally regarded as less valuable than younger people. The younger person has responsibilities of raising a family, maintaining a career and supporting the economy. The older person generally has no responsibilities and in addition is a drag on the economy since a great part of the tax base must go towards the support of older Americans.

It is inevitable that medical care providers will unconsciously have this same attitude towards their older patients. As a result, if an older person has a medical complaint and the cause is not readily apparent, a medical practitioner is more likely to accept the condition as a consequence of old age and treat the symptoms with medication as opposed to aggressively trying to identify the problem. In younger people, if the medical complaint is interfering with normal daily function, typically a more concerted effort will be made to identify and correct the problem.

A 90 year old man meets with his doctor and complains about pain in his right knee. The doctor tells him,

"Well Henry, what do you expect? You're 90 years old."

Henry replies,

"But doctor my left knee is the same age as my right knee, there's no pain and it feels just fine!"

Many in the health-care profession consider old age to be a disease itself. Any medical problems are inappropriately attributed to old age as if it were a medical condition. And since there is no cure for old age, appropriate tests and treatment are never performed. Thus, medical problems that may not be related to age and may just as frequently occur in younger people are often not treated. As an example a recent survey of physicians involved in the health-care of the elderly reported that 35% of the doctors considered hypertension a result of the aging process and that 25% of them felt that treating an 85-year-old for symptoms of hypertension would cause more harm than the benefits it would produce.

Consider these real-life examples.

First Example

A 71 year old woman has surgery on her shoulder for a bone spur that is causing her considerable pain. The surgery is successful and she goes through several months of physical therapy to help her recover. But she is not recovering as expected. She continues to experience pain that radiates through her entire back. Her physical therapist does not know how to help her and attributes her failure to recover to old age. She visits her family care doctor at least twice over the next six months complaining of extreme tiredness and lack of energy. Her skin color is gray and she does not look healthy. Finally she visits her doctor and insists he check her for some problem since she is not recovering from the surgery and she feels awful. After her insistence, he does a CBC blood lab and discovers she is severely anemic. He puts her in outpatient care and gives her four units of red blood cells and puts her on iron supplementation.

Within two weeks the pain has disappeared and within a month she has recovered fully from the surgery. Numerous tests are done but there is no explanation for the anemia. Six months later she is healthy and active and her cheeks are ruddy. When she asks her doctor why he did not suspect anemia he tells her that she has never had anemia and based on her history he would never expect her to develop it. (He obviously has no training in geriatric care.) He then tells her, in an obvious contradiction of his previous position, that older people sometimes fail to absorb iron. Ironically, she defends the action of her doctor and does not feel he acted inappropriately.

Second Example
Susan and John have been married for 46 years. Susan has always demonstrated a tendency for depression but it has generally been kept under control with medication. John's health begins to deteriorate and within a year he is dead. Several months after her husband's death, Susan is exhibiting signs of severe depression. She is given ever-increasing levels of various antidepressants but they have no effect. She is also exhibiting signs of a psychosis and is inflicting wounds upon herself.

The family puts her in an assisted-living facility but the facility is unable to deal with her aberrant behavior. Her son who lives in New York decides to bring her to live with him and he admits her to a hospital in New York City . Tests indicate she is suffering from severe hypothyroidism and she is put on appropriate treatment. Apparently no health practitioner had to this point suspected there may be another condition contributing to the depression other than old age. The low thyroid undoubtedly was a significant factor in the development of her depression.

But treatment of the depression is not addressed in the hospital and it has progressed considerably. She is transferred to a nursing home and wrongly diagnosed with dementia and placed in the dementia unit. She is deteriorating rapidly, she continues to abuse herself and she refuses to speak or acknowledge anyone. Within a few months she will probably be dead.

At this point an experienced geriatric care physician steps forward and correctly diagnoses her condition as clinical depression. She is hospitalized for six months and undergoes aggressive treatment for depression. They also discover she is severely malnourished and correct that problem as well. She has now moved back into the home of her son. She is a normal functioning person and is even volunteering to work in the local library. The elderly health care system almost dropped the ball on this one.

Third Example
A 65 year old woman, who has been active all of her life, has a small stroke which leaves her with some discomfort and pain in her right arm but does not limit her in any other way. She is anxious and nervous about her condition and the possibility of another stroke and the doctor prescribes pain pills and Valium to help her with her anxiety. Over a period of 15 years, she becomes addicted to Valium and does little else except sit in front of the TV all day long. She makes sure she maintains contact with a doctor who will provide her need for Valium. (No doctor or pharmacist would allow this abuse to go on with a younger person without intervention. Older people are often ignored and allowed their vices.)

Early on, her family can see the problem and they decide to intercede. On the advice of friends they contact the geriatric care unit at a local university hospital. A geriatric care physician is alarmed at her addiction and insists they wean her off of the mood altering drug. He is willing to treat her and help her. She refuses to cooperate and in deference the family backs off. Over a period of 15 years she gets no exercise except for trips to the bathroom or trips to the living room to visit occasionally with her family. But family and grandchildren over the years visit less and less often.

After many years of sitting in the same position her knees deteriorate and she finds it difficult to walk. In order to avoid getting up from her chair to walk to the bathroom, she drinks very little fluid and becomes chronically dehydrated. This does not help her mental or physical condition.

She has the joints in both knees replaced but does no exercise and the combination of the invasion of muscle tissue through surgery and lack of use of her legs causes muscles around her knees to atrophy. No follow-up is done by the orthopedic surgeon to make sure she remains active, after all she is old.

She can now barely walk at all. She spends her final three years confined to one room in her daughter's house, refusing the use of a wheelchair and refusing to go anywhere beyond the bathroom.

In this case, a general lack of concern by all involved demonstrates the apathy of family and the healthcare community to making sure elderly people can experience a meaningful existence in their remaining years. Had this been a younger person, say in her 40's, everyone involved would have been more aggressive in helping her solve her addiction and in making sure she had a better quality of life.

A Holistic Treatment Approach

Most practitioners who specialize in care for the elderly are aware of the above-mentioned problems with older patients and they take a holistic approach with the medical treatment of these people. An attempt is made not only to treat the specific condition or conditions but to make sure there are sufficient activity, proper nutrition and family support at home.

They work closely with family members to make sure their loved ones are taking medications properly and are reporting their symptoms. They require those caring for the elderly to closely monitor health conditions and report any changes before things get worse. They meet with their patients regularly enough to monitor their health. This broad-based approach results in better health and in fewer visits to the emergency room because intervention for a worsening condition is achieved at an earlier stage.

A significant problem with providing holistic treatment is many health insurance providers, including Medicare, will not pay for routine office visits without an underlying medical complaint. Some private health plans are starting to use so-called "pay for performance" or "outcome based care" where the overall health of the patient takes precedence over the procedures used to get there. But Medicare, up to this point, has not made this change. This makes it extremely difficult for the geriatric care provider to monitor his patients and intervene before a health problem becomes bad enough to require hospitalization or major surgery.

Doctors practicing a holistic form of medicine have to be inventive in order to provide adequate treatment. Family of the elderly can also help in this respect by "finding" medical complaints to justify setting regular appointments with the doctor.

Medications and the Elderly

Facts about Medications and the Elderly

- Older Americans comprise about 13% of the population but they consume over 30% of all prescription drugs.
- It is estimated that 30% of the older population taking medications have had an adverse drug reaction.
- Up to 20% of hospital admissions for the elderly are due to adverse drug reactions.
- It is estimated that over half of the deaths attributed to adverse drug reaction are for people age 60 and above.

The Journal of the American Medical Association recently reported that if adverse drug reactions were classified as a disease it would rank as the fifth leading cause of death in the United States.

A major problem with medical treatment for the elderly is the large number of prescription medications the average older person is taking. On average a person over age 75 has five prescription drug medications and is using at least two over-the-counter medications as well is taking herbal supplements.

Due to impaired ability to "clear" medications from the body, recommended dosages of prescription drugs are generally too much for older people. This can result in over-dosage and drug reaction and in some cases even death. The medical community is well aware of this problem, but finding the right dosage is often a problem because drug reactions are often masked by symptoms of the many chronic medical problems most elderly endure. In addition older people often don't recognize or they fail to report drug reactions.

Another huge problem is that the primary care provider may not be aware of all of the prescriptions being taken and some of these drugs may be causing interaction with each other.

Finally, many elderly either over-dose or under-dose or fail to take medications.

The most common problem with medications is that the doctor or the pharmacist may not be aware that a patient is taking a number of drugs prescribed by other doctors. Many older patients continue prescriptions with a number of doctors and specialists and no one doctor, not even the primary care physician, often knows the number or extent of medications being taken. Add onto this the fact that the elderly are most likely consuming a variety of over-the-counter medications as well as herbal supplements and it is not surprising to see the large number of adverse drug reactions and hospitalizations and deaths due to drug reactions among the elderly.

Elderly people also often fail to adhere to proper dosage and frequency of dosage with their medications. Some will take more pills than prescribed because they think more is better and will cure the condition faster. Others have a noncompliant attitude towards medical treatment in general and often refuse to take any drugs prescribed for them. Many are confused or have memory problems and aren't even aware they have taken pills or need to take pills. Oversight and administration of medications by a responsible person is an extremely important duty for caregivers of the elderly.

Medication Interactions
Here is a list of herbal supplements that may interact or interfere with prescription drugs.

- Ginkgo Biloba
- St. John's Wort
- Saw Palmetto
- Ginseng
- Yohimbine
- Senna Or Cascara

There are also a number of prescription drugs that should be avoided with the elderly. The elderly person or a responsible family member should always consult with the doctor and asked that doctor if he or she is sure that the medication is safe for an older person. It is not inappropriate to challenge a physician. If prescription drugs are bought through a trusted pharmacist, the pharmacist may also be willing to consult on the safety of the medications for an older person.

Doctors and pharmacists are generally careful about overdosing or using harmful mixtures of drugs; but other than dosages based on body weight, most prescription drugs do not have recommended dosages for older people. Often the doctor must experiment to find the right dosage and the problem is that many older people or their families fail to recognize drug reactions or they fail to report them. Without the proper feedback, under-dosage or over-dosage might occur and effective treatment of the condition is not possible. And of course over-dosage may cause more severe problems than the condition being treated.

Multiple Medications
In order to control the problem with an older person taking multiple prescriptions from many doctors, the older person or a responsible family member should bring all medications being taken by the patient to a doctor's appointment. This definitely includes all herbal supplements and over-the-counter medications as well. It is useful to go over with the doctor what each medication is for. If there is no reason to take that medication or if it may be causing interaction the doctor should indicate that and should withdraw the prescription. As a general rule the more the medications the more the potential problems. A concerted effort should be made to prescribe the fewest medications possible to control a medical problem.

One way to combat the problem with an older person not complying with taking pills at the proper time or not taking enough or taking too many is to use the popular "pill calendar box". Most people have adopted this idea but for those who haven't this is an extremely effective way to administer medications.

Many elderly order their medications through the mail and some may even obtain prescriptions on the Internet. Internet prescriptions might be a common practice for very popular medications such as phetermine or Viagra.

It is recommended that all medications be ordered through one pharmacist particularly a pharmacist that has a certification in geriatric pharmacy. By controlling all medications through

one database, the pharmacist can alert the older person or his or her family about a possible drug interaction or adverse drug reaction. This central database approach should become much easier for those older people enrolled under the Medicare part D drug program. Presumably the company offering the drug benefit will have a database for its insureds.

Helping Your Older Parents Stay Happy and Healthy
by Robert Stall MD, Geriatrician
April 23, 2009

If you're fortunate enough to have one or both parents still living, you may have noticed a role reversal taking place in your relationship. Remember the days when Mom shuttled you to the doctor whenever you were sick? Now, it may be you who's driving her to her medical appointments. Perhaps you've become even more involved in managing her healthcare needs – serving as her healthcare proxy, moving her into your home to care for her, or even having to select a nursing home for her to live in.

Whatever the case, it's natural to feel challenged – and, yes, intimidated – in the role you've undertaken. But if you stay positive and proactive, you'll be in a great position to advocate for your parents' optimal care. And, really, what better way is there to say "Thank You" for all they've done for you over the years?

The following six recommendations will help you understand what may be happening to your parents as they age – and what you can do to help.

1. Stay vigilant to sudden changes.
Typically, sudden changes arise from sudden problems. Your elderly father who becomes confused one week but was alert and oriented the week before, or becomes unsteady walking and starts falling, is likely experiencing an acute problem – an infection, medication side effect, or perhaps, a heart attack or stroke.
If you pay attention to your parent's baseline health and behavior, you'll be alert to sudden, and subtle, fluctuations. Being attuned to what's “normal” for your parent is critical in advocating for his care. By informing his physician of these changes, you help ensure that he receives a proper diagnosis and timely treatment – especially important in acute conditions.

2. Investigate the source of gradual decline.
Several years ago, I met an elderly woman living in a nursing home. Her family, assuming she had dementia, had moved her there after she had gradually stopped speaking.
After performing a brief procedure on her, I asked how she was doing. “I'm OK,” she replied.
A miracle? Not exactly. I'd removed bullet-sized pieces of wax from her ears. She'd stopped speaking because her ears were too plugged to hear.

A host of conditions can cause gradual decline. Before jumping to the conclusion – as many people do – that Alzheimer's disease is the culprit, recognize that your parent may be experiencing an altogether different problem: a vitamin B12 deficiency, an underactive thyroid, Parkinson's disease or depression, to name a few.

When discussing your parent's decline with her physician, make sure the two of you consider all the possibilities. To prepare for the appointment, make notes detailing how her decline has manifested itself – loss of appetite, a failing short-term memory and so forth – and how long you've noticed these changes. That way, you won't leave anything out. To help you, I've created a free checklist that either you or your parent can complete at seniorselfassessment.com – make sure you print or email the "Test Result Details" at the bottom of the page to analyze your responses and give you advice based on your answers.

3. Know thy parent's medicine cabinet.
Familiarize yourself with the medications your parent takes: what each one is for and how often he takes them. Make sure you notify each doctor your parent visits of all the medicine he takes, including over-the-counter products. Ask what side effects you might observe from each medication and whether it's potentially dangerous if your parent takes them together. You also want to tell the doctor whether your parent drinks alcohol or caffeinated drinks and whether he smokes, as these substances can affect some medications' efficacy and safety. To recognize which medications might cause the symptoms your parent experiences, check out drugscanmakeyousick.com.

4. Discourage ageist attitudes.
Simply put, ageism is prejudice against the elderly. It exists in many forms but can be particularly damaging to an older person's self-esteem when it assumes that all of her woes are age-related. Here are a couple of ways of expressing ageism to an elderly parent:

"What do you expect at your age?"
"You're not getting any younger."

If you're ever tempted to utter something similar, remind yourself that by chalking up everything that ails her to her age, you sell your parent short. If she's depressed, it may have nothing to do with the fact that she's 80 and everything to do with a biological predisposition to depression. And remember that right-knee pain in a 90 year-old can't be just from age if there's no problem with her left knee.

5. Address not just symptoms—but emotions, too.
There is disease and then there is "dis-ease" – that is, a lack of ease, security or well-being. "Dis-ease" can manifest itself as myriad emotions in an elderly person: fear, grief, boredom, embarrassment and sadness among them. The fact is, these emotions can be every bit as debilitating as disease.

Take the case of a parent who's incontinent. Too embarrassed to socialize, she cuts herself off from friends. Without companionship, she becomes lonely. Instead of allowing her to become a hermit, discuss with her doctor how to address the incontinence. Together, you can consider different solutions that will ease her embarrassment and reinvigorate her social life.

6. Strive to maximize your parent's quality of life.
No matter our age, we all want to enjoy life to the fullest and have the capability to do the things we want to. Improving the enjoyment of life and a patient's functional ability are the cardinal

goals of geriatric care. But you don't need a medical diploma on your wall to help your parent achieve either of those goals.

Being there to solve a problem or provide company are tremendously worthwhile services you can provide – no expertise required. Remember, as your parent gets older, his quality of life becomes more important to him than how much longer he lives. And he doesn't necessarily need medications or surgery to ensure that he's living the latter part of his life to the fullest. If he enjoys books but has difficulty reading regular-sized type, check out sight-saving titles at the library. If he's grieving the loss of his best buddy, introduce him to new acquaintances at the senior center. If he's living in a nursing home, bring your kids there to share a meal with him. Sometimes, it's the small gestures that have the most profound impact. As the child of an elderly parent, you are uniquely positioned to deliver these life-changing gifts.

Dr. Robert Stall is a geriatrician practicing in Tonawanda, New York and a clinical associate professor at the University of Buffalo's School of Medicine and Biomedical Sciences. He serves as medical director and attending physician at Beechwood Homes in Getzville and Blocher Homes in Williamsville. To learn more about senior care issues, visit his website at stallgeriatrics.com or call 716-213-4345. For information on a new program offering balance assessment and fall prevention tips, call 716-213-0772.

Part 2 – Strategies for Successful Aging

- Understanding aging issues
- Importance of a positive attitude
- Dealing with dementia and Alzheimer's
- Realizing the benefits of exercise
- Maintaining proper nutrition and sleep
- Dealing with stress
- Dealing with depression

Understanding Aging Issues

Aging and death are an inevitable consequence of being part of an earthly existence. But not all people are the same when it comes to aging. Some people are "old" well before their time and well before that magical and totally arbitrary age of 65. Others remain active and healthy well into their 80s and 90s. Many would argue that those who age prematurely and who die early do so because of the genetic disposition that dictates the outcome. In some cases this may be true. In many cases this is not true. There are a number of factors that affect the health and longevity of aging seniors. Here are some social factors that have been shown to affect the aging process.

- Socioeconomic status
- Level of education
- Level of physical and cognitive functioning
- Living arrangement such as one of high social status or living arrangement of very low social status
- Ethnicity
- A mental and emotionally challenging lifestyle

Longevity and quality of life are also very much determined by what a person does to maintain his or her own physical and mental health. Examples of this might include

- Receiving timely and effective medical care
- Maintaining a healthy weight
- Eating nutritious meals
- Getting the right amount of sleep
- Consistently getting adequate exercise
- Avoiding excessive use of alcohol, smoking and other non-healthy habits
- Maintaining social stimulation
- Maintaining mental stimulation
- Maintaining a positive attitude towards life
- Avoiding stress
- Getting help with depression

We will discuss below in further detail how some of these issues profoundly affect the aging process and also affect the quality of life in later years.

The Older Person's Lack of Self Esteem

Many elderly people buy into the notion that they themselves are no longer useful and as a result make little attempt to keep themselves healthy and active. After all, they are getting closer to the end of their lives and have no desire to try new things or to challenge themselves or to eat or exercise properly.

There is a great deal of anecdotal and research evidence that demonstrates older people can learn, can retain memory and can be actively involved in business and in the community. The lack of physical exercise, social involvement and mental stimulation in older Americans often leads to these people losing the ability to use their minds and their bodies. The older person's negative attitude towards aging becomes self-fulfilling.

Many reason that they have missed their opportunities in life when they were younger and it's too late to start over. As a result, many older people are intimidated by new ideas or by technology such as computers, not because they are incapable but simply because of their attitude. The idea of not being able to "teach an old dog new tricks" is in most cases an excuse. Obviously this mindset of failure and inability to perform becomes self-fulfilling. Not surprisingly, depression and suicide are more common in the elderly than in the younger population.

The negative attitude towards aging on the part of an older person has a direct impact on that person's health. Many studies show that people who are physically active have less joint pain, lower blood pressure, less depression, fewer heart attacks and a lower incidence of cancer. Proper nutrition also has the same effect on the aging process; it delays the onset of debilitating illness or disability.

Intervention Strategies

Families or others involved with an elderly person must recognize the all too common attitude of worthlessness, defeat and resignation from elderly loved ones and take corrective action. They should encourage and possibly even prod the older person to be stimulated mentally, socially and physically -- to be actively involved; to give him or her a purpose for living. But families should also be very careful not to become patronizing or controlling but be genuinely supportive in this process. Here are some ideas.

- Make sure an elderly loved one has challenging activities throughout the day instead of simply watching TV or viewing videos. This might include trips to interesting places, visiting senior centers, providing challenging games or puzzles, doing volunteer work, providing an opportunity to be involved in church work, offering stimulating conversation or working on an adult education class or college degree.
- If the person is interested, encourage him or her to become involved in handcraft, genealogies, creative design, writing, scrap booking or other challenging home oriented activities.

- Give them responsibility for taking care of pets such as a dog, a cat or a friendly bird. In addition, if feasible, allow them to care for plants as well. This strategy is used often in nursing homes to reduce depression in the elderly and to actually improve their health as well. It really works.
- If a caregiver for an older person cannot be present, make arrangements to enroll a loved one in adult day care. These providers often offer the same strategies we are talking about here.
- Provide opportunities for family and friends to come by and visit and encourage or even arrange such encounters.
- Provide opportunities for the older person to interact, teach and nurture children such as grandchildren or children in a day care center. This is an extremely effective strategy for helping the older person feel that he or she has a meaningful existence. And it has a dramatic impact on improving and maintaining health.
- Design or arrange an exercise program and come up with a way to encourage the older person to follow it.
- Understand the nutrition needs of an older loved one, especially the need for vitamins and minerals including iron. Get some books on the subject or go to the Internet. Make sure the person takes care of him or herself and eats properly. Fixing special meals, providing treats, getting takeout or going out to dinner can be fun and exciting for anyone regardless of age. Many elderly people neglect their own nutrition. Poor nutrition can cause all kinds of mental and physical problems in the elderly.
- Make sure an older person has opportunity to look good and have nice clothing. Make sure the person gets out in public, and tries dining out or going to a public event and can feel good about his or her appearance.

Importance of a Positive Attitude

How Attitude Affects Our Health, Quality of Life and Longevity

Empirical evidence seems to substantiate a general observation that individuals who are upbeat and sunny also appear to be healthy and actively engaged in good things. Longitudinal studies – particularly of seniors – generally back up the empirical observations. Numerous studies have followed cohorts of US seniors over the years and surveyed attitude and health. In general, the better the attitude the better the health and the longer the life.

These studies, however, have to be carefully designed. There can be anomalies in this assumption that attitude affects our health, quality of life and longevity. This is particularly true when a major life change occurs such as retirement. Some individuals hate their jobs and their attitude is not good. Retirement brings an opportunity for new challenges and possibly a different career. For these people, there is generally an improvement in health, quality of life and longevity.

For others, retirement or the death of a spouse may bring on an unfavorable attitude towards life. Depression may set in and quality of life, health and longevity suffer as a result. Even without depression, a lack of zest for life will have negative impact for the future.

How Religious or Spiritual Activities Affect Our Health and Quality of Life
There is some evidence that people who are highly religious or who attend church services regularly or who pray regularly seem to do better with the aging process. A gerontology study done in 1999 examined almost 4,000 North Carolina residents who were ages 64 to 101. This six-year study examined the incidence of death and how it correlated to attending church services. Findings were that people who attended religious services at least once a week were 46% less likely to die during this six-year period of the study.

Other studies that have been done reveal that people who attend religious services or who feel that they are spiritual, experience less depression and anxiety, have better health such as lower blood pressure and fewer strokes and these people say that they are more healthy

It's not known whether the actual state of mind produces a better aging process or whether being religious results in a healthier lifestyle. Or perhaps it is that certain personality types are those who attend services regularly and those personality types handle aging better. This then brings up the question of whether someone later in life can "get religion" and improve the aging process. More studies are needed to determine whether religion and spirituality are a personality or lifestyle trait that results in healthy aging or whether a religious state of mind produces better aging, regardless of the psychological makeup of the person who is considered religious.

The Benefits of an Optimistic Outlook
Research has found that feeling happy or optimistic about life can lessen the burden of chronic pain and possibly reduce the chances of developing cardiovascular disease. A study done by the Mayo Clinic followed a selected group over 30 years. The study found that those individuals in the group who were determined to be "optimistic" on a standard personality test had a death rate that was 80% of those whom the test determined to be "pessimistic."

Staying positive also reduces the risk of developing prolonged depression in later years. Depression has been found to be associated with dementia or Alzheimer's disease. Depression has other effects on aging seniors as well. A depressed state often results in poor nutrition, lack of exercise and lack of mental stimulation through socialization with others. All of these have a debilitating effect on health, on the possibility of developing cancer or cardiovascular disease and possibly accelerate the risk of developing some sort of dementia.

All of the issues related to the aging process are interrelated with each other. For example, exercise improves mood and makes a person feel more positive which then leads to better health. Or as another example, reducing stress can lead to a more positive attitude which again leads to better health and longevity. The beauty of understanding this interrelatedness is that even though there are a number of different negative influences that affect the aging process, attacking them one at a time will also mitigate the effect of some or all of the other negative influences. It's a synergistic effect that allows one to improve prospects without having to address all of the negative influences at the same time.

The Effect of Retirement

As discussed previously, retirement can have either a positive or a negative effect on the aging process. The individual who has struggled for years hating his or her job and is looking forward to retirement has the opportunity at retirement to develop a better attitude – a more positive attitude – which could have a positive effect on future health and longevity. There is however a major caveat. If the person is going into retirement without adequate retirement income and without a plan to engage in productive postretirement activities, attitude will change temporarily and positively for a few years, but lack of stimulus and lack of income to do anything will eventually result in a negative attitude, possible depression and an acceleration of the aging process.

Despite the sometimes positive aspect of retirement discussed above, as a general rule, retirement has a negative impact on aging. A new report from the Institute of Economic Affairs reveals that at retirement there is an initial boost in health, but after a certain period of time the retiree has an increased 40% risk of developing depression as compared with pre-retirement. In addition, the report indicates that the risk for developing a physical health condition is increased by 60% after retirement. The report goes on that self-reported excellent or very good health decreases by 40% in retirement and the risk for needing medication for a diagnosed physical condition increases by 60%. Based on this study, the researchers suggest that potential retirees should seriously consider postponing their retirement.

Retirement is not much different from losing a job in that many individuals struggle with a loss of identity and structure. Those who retire must replace that daily challenge of going to work and being productive with something else that provides fulfillment. Otherwise, negative outlook, depression, lethargy, poor health and other factors that increase the aging process will come into play and result in a poor quality of life for the future of the retiree.

Another factor to consider is the relationship with the spouse. During working years, spouses spend more time with their jobs and less time together. Retirement reverses that relationship. Being underfoot constantly – especially for a man – irritates and exasperates the other spouse (the woman) and can lead to relationship problems. It is not surprising, that the divorce rate among individuals over age 65 is quite high.

For many individuals approaching retirement years, a bad economy and lack of savings are forcing a decision to delay retirement. More than 4 in 5 older Americans expect to keep working during their later years, a sign that traditional retirement is out of reach for vast swaths of society, according to a new survey.

Among Americans ages 50 and older who currently have jobs, 82% expect to work in some form during retirement, according to the poll by the Associated Press-NORC Center for Public Affairs Research. In other words, “retirement” is increasingly becoming a misnomer.

However, this decision to delay retirement is not entirely dependent upon the need to keep working. Many older individuals simply do not want to move to a phase in their life where they have no challenge and nothing to look forward to. For these people, there is no such thing as retirement in the sense of losing current employment and doing nothing but playing, watching

TV or traveling. These people do not look forward to such a life. Many of these people will quit their current employment but will seek out other challenging employment or self-employment opportunities simply because they want to continue to remain engaged.

The days of retiring at the age of 65 are over for many. In fact, a report by the Transamerica Center for Retirement Studies found that 56 percent of Americans expect to work past age 65 or do not plan to retire at all. Further, the majority of workers – 54 percent – plan to work even after they retire from their current employment. The truth is, many people are now embracing their older years as some of the most fulfilling of their lives. Reaching age 65 no longer means that it's time to retire to your home and deal with aches and pains, forgetfulness and loneliness; instead, for many, this is a time for new beginnings. Given this new attitude towards retirement, it is actually possible for many people to see an improvement in health as they grow older. New challenges, a more positive attitude and the desire to live a more healthy life could actually improve the aging process and increase longevity.

Dealing with Dementia and Alzheimer's

Understanding Dementia and Alzheimer's

Medical experts stress the fact that there is no physiological reason for an aging senior to develop dementia through the aging process. It is a misconception that aging automatically brings on dementia. It does not have to be so. Dementia is considered a disease process that eventually will be brought under control through treatment. Currently, there is little effective treatment available for dementia. All efforts at the current time need to concentrate on strategies to prevent incurring a dementia.

"Dementia" is a general term describing a variety of diseases and conditions that affect the brain and that result in improper brain function. Alzheimer's disease is by far the most common form of dementia. Alzheimer's is characterized by a gradually decreasing ability for a person to function normally. Alzheimer's primarily affects cognitive ability and only in later stages affects motor abilities. As the disease progresses, patients eventually become bedbound and reliant on 24 hour care. At this point, the aging process accelerates rapidly and the patient usually dies of some infection – often due to pneumonia. The typical Alzheimer's patient lives an average of eight years after symptoms are diagnosed but some individuals can go as long as 20 years with Alzheimer's. Currently, there is no cure.

The most common early symptom of Alzheimer's is difficulty remembering newly learned information because Alzheimer's changes typically begin in the part of the brain that affects learning. As Alzheimer's advances through the brain it leads to increasingly severe symptoms, including disorientation, mood and behavior changes; deepening confusion about events, time and place; unfounded suspicions about family, friends and professional caregivers; more serious memory loss and behavior changes; and difficulty speaking, swallowing and walking.

In the final stage of this disease, individuals lose the ability to respond to their environment, to carry on a conversation and, eventually, to control movement. They may still say words or phrases. At this stage, individuals need help with much of their daily personal care, including

eating or using the toilet. They may also lose the ability to smile, to sit without support and to hold their heads up. Reflexes become abnormal. Muscles grow rigid. Swallowing impaired.

Here is a description of how dementia is classified and a list of most types of dementia.

Mild Cognitive Impairment
It is estimated that 10% to 20% of all individuals over age 65 exhibit mild cognitive impairment. Mild cognitive impairment is not considered dementia as it is not serious enough to interfere with daily life or independent function. The cause is not completely understood but it could be early stage Alzheimer's or early stages of other dementias.

Mixed Dementia
This is a condition where more than one type of dementia listed below is present. Mixed dementia may or may not incorporate Alzheimer's disease, since an autopsy is necessary to positively identify Alzheimer's. A common form of mixed dementia might include Alzheimer's and a concurrent dementia with Lewy Bodies.

Alzheimer's Disease
This is the most common type of dementia and accounts for 60% to 80% of all dementia cases. Alzheimer's is characterized by amyloid protein deposits in the brain tissue which induce the death of brain cells. Currently it can only be positively diagnosed after death through autopsy. Alzheimer's is a progressive disease and eventually results in death

Vascular Dementia
Vascular dementia is caused by reduced or blocked blood flow to brain cells. This results in lack of vital oxygen and nutrients and eventually results in dead brain cells. This type of dementia is considered the second most common cause of dementia and it is estimated it is responsible for about 20% to 30% of all cases. Mild vascular dementia may remain undiagnosed as it may not result in significant enough disability to warrant treatment. Vascular dementia may also occur as a result of a stroke or a result of multiple tiny strokes called TIAs (transient ischemic attacks)

Dementia with Lewy Bodies
This is the third most common type of dementia and it is estimated it may occur in about 10% to 25% of all dementia cases. It is caused by microscopic deposits of Alpha-synuclein protein that eventually kill brain cells. This type of dementia is generally more profound and more disabling from the outset than is Alzheimer's.

Fronto-temporal Dementia
This is a group of disorders that are caused by progressive cell degeneration in the frontal lobes of the brain. It is believed that it accounts for 10% to 15% of all dementia cases. For individuals younger than age 65 it may account for 20% to 50% of all dementia cases. This type of dementia is usually developed earlier in life as compared with the other types of dementia. Since the frontal lobe of the brain is responsible for personality and behavior, this dementia will primarily affect behavior, personality, language skills or the ability to speak. This dementia may also result in tremor, balance problems, stiffness and other movement coordination.

Parkinson's Disease Dementia

Parkinson's disease is a fairly common disorder with older adults and may affect up to 2% of seniors 65 and older. Approximately 1 million people have Parkinson's. It is estimated that 50% to 80% of those with Parkinson's disease eventually develop Parkinson's disease dementia. Even though Parkinson's is primarily a movement disorder, it is characterized by a brain that does not work properly and as such a Parkinson's brain can induce other disabilities. As the disease progresses, the same protein deposits that are found in Lewy Body dementia also develop in someone with Parkinson's. Thus, Parkinson's often leads to a form of Lewy Body dementia.

Below are listed other less common dementias that are typically caused by other physical conditions, diseases or injuries.

- Down Syndrome
- Huntington's Disease
- Normal Pressure Hydrocephalus
- Posterior Cortical Atrophy
- Traumatic Brain Injury
- Korsakoff Syndrome
- Creutzfeldt-Jakob Disease

An Epidemic of Alzheimer's Disease

Here are some facts taken from the Alzheimer's Association website.

Some Alarming Facts

- One in every three seniors dies with Alzheimer's or another dementia. Even though the cause of death may be attributed to some other disorder or disease, dementia is still present.
- An estimated 5.4 million Americans of all ages have Alzheimer's disease in 2012. This figure includes 5.2 million people age 65 and older(and 200,000 individuals under age 65 who have younger-onset Alzheimer's
- One in eight people age 65 and older (13 percent) has Alzheimer's disease.
- Nearly half of people age 85 and older (45 percent) have Alzheimer's disease.
- Of those with Alzheimer's disease, an estimated 4 percent are under age 65, 6 percent are 65 to 74, 44 percent are 75 to 84, and 46 percent are 85 or older
- Most individuals with the disease are age 65 or older. The likelihood of developing Alzheimer's doubles about every five years after age 65.
- Of the 5.2 million people over age 65 with Alzheimer's in the United States, 3.4 million are women and 1.8 million are men. 16 percent of women age 71 and older have Alzheimer's disease or other dementias compared with 11 percent of men. The larger proportion of older women who have Alzheimer's disease or other dementias is primarily explained by the fact that women live longer on average than men.
- Many studies of the age specific incidence (development of new cases) of Alzheimer's disease or any dementia have found no significant difference by gender. Thus, women are **not** more likely than men to develop dementia at any given age.

- People with fewer years of education appear to be at higher risk for Alzheimer's and other dementias than those with more years of education. Prevalence and incidence studies show that having fewer years of education is associated with a greater likelihood of having dementia and a greater risk of developing dementia
- Alzheimer's disease is the 6th leading cause of death in the United States overall and the 5th leading cause of death for those aged 65 and older. It is the only cause of death among the top 10 in America without a way to prevent it, cure it or even slow its progression.
- Deaths from Alzheimer's increased 68 percent between 2000 and 2010, while deaths from other major diseases, including the number one cause of death (heart disease), decreased.
- While ambiguity about the underlying cause of death can make it difficult to determine how many people die from Alzheimer's, there are no survivors. If you do not die from Alzheimer's disease, you die with it.

Impact on Caregivers

- In 2012, 15.4 million family and friends provided 17.5 billion hours of unpaid care to those with Alzheimer's and other dementias – care valued at $216.4 billion, which is more than eight times the total sales of McDonald's in 2011.
- Eighty percent of care provided in the community is provided by unpaid caregivers.
- Nearly 15 percent of caregivers are long-distance caregivers, living an hour or more away from their loved ones. Out-of-pocket expenses for long-distance caregivers are nearly twice as much as local caregivers.
- More than 60 percent of Alzheimer's and dementia caregivers rate the emotional stress of caregiving as high or very high; more than one-third report symptoms of depression.
- Due to the physical and emotional toll of caregiving, Alzheimer's and dementia caregivers had $9.1 billion in additional health care costs of their own in 2012.

Cost to the Nation

- In 2013, the direct costs of caring for those with Alzheimer's to American society will total an estimated $203 billion, including $142 billion in costs to Medicare and Medicaid.
- Total payments for health care, long-term care and hospice for people with Alzheimer's and other dementias are projected to increase from $203 billion in 2013 to $1.2 trillion in 2050 (in current dollars). This dramatic rise includes a 500% increase in combined Medicare and Medicaid spending.
- The average per-person Medicare costs for those with Alzheimer's and other dementias are three times higher than for those without these conditions
- The average per-person Medicaid spending for seniors with Alzheimer's and other dementias is 19 times higher than average per-person Medicaid spending for all other seniors.

Strategies to Lessen the Risk

Stimulate the Brain

Numerous studies have established a link between mental activity and education level and the risk of contracting Alzheimer's. One study of nuns found that the more educated women had fewer cases of Alzheimer's disease. Autopsy analysis found that even though amyloid deposits were evident in individuals who did not have Alzheimer's, those who were active mentally or highly educated seemed not to have been afflicted by symptoms. Amyloid deposits in brain tissue are currently used as a marker for identifying Alzheimer's disease. Other studies have found similar results. Individuals who keep their brains stimulated have a lower risk of developing Alzheimer's disease.

Another study found that people who remain engaged reading or playing games throughout their life have a lower level of amyloid deposits in the brain. Other strategies for lessening the risk include being involved in occupational, recreational and social activities that require using our brains.

A long-term study recently published in the "Archives of Neurology" followed a number of aging seniors over a period of years. Imaging equipment tested the level of amyloid deposits in the participant's brains. Neuropsychological tests were also conducted to see what effect cognitive stimulation had on Alzheimer's risk and that was correlated with deposits of beta amyloid protein. The researchers found that people who engaged in brain stimulating activities, particularly when they were young and middle-aged, had the least amount of beta amyloid. Those who were most active mentally had the least amount of amyloid while those who were less active mentally had amyloid levels similar to Alzheimer's patients. Empirical testing and interviews to determine the level of cognitive stimulation correlated with higher amyloid levels and Alzheimer's symptoms in participants who were less active mentally.

This study would tend to suggest that there is a physiological process going on where stimulating the brain through activities such as reading, playing games, engaging in social interaction, learning a new language, learning new information and so on seems to create a cellular response where deposition of toxic amyloid protein in the brain is reduced.

Remain Physically Active

In one study, published in Lancet Neurology, researchers followed the lifestyles of people in Finland from when they were 50 to when they were 70 years old. Those who were active, meaning that they exercised more than twice a week for 20-30 minutes to the point of breathlessness and sweating, reduced their risk of Alzheimer's by 60 percent. Turning this around, this means that given 100 people who would eventually develop dementia, engaging and vigorous exercise would result in only 40 of those people developing dementia. The age of the participants in the study indicates that it's never too late to get started with physical activity.

Another more appealing physical activity might be dancing. Experts at the University of Stirling's Dementia Services Development Centre suggest that seniors who don't like the pressure of having to exercise regularly may find it easier to engage in ballroom dancing. This

not only provides a form of exercise but also helps to stimulate the brain through learning activities.

Reduce Stress

A recently released study from researchers in Sweden followed 800 women ages 38 to 54. Beginning in 1968, the study tracked their health over 38 years. The participants were periodically given neuropsychiatric exams and a battery of standardized tests. The data collected included information on 18 common stressors, including divorce, serious illness or death of a child or spouse, mental illness or alcohol abuse in a close relative and job loss or other work-related problems. The researchers also collected information on symptoms of distress the women experienced, including irritability, fear and sleep problems.

During the period of the study, over half of the women died – 425 of them. During the next 38 years, 153 of the women developed dementia, at an average age of 78, including 104 cases of Alzheimer's disease. Those who had experienced the most stress in midlife were 15 percent more likely than the others to have developed any type of dementia, and 21 percent more likely to have developed Alzheimer's nearly four decades later.

Although the study cannot conclusively correlate stress to the development of dementia, other studies on the impact of stress on health support the idea there is a linkage. The study did not go into any detail on what type of stress may have had an impact on developing dementia or whether stress relieving strategies had an effect. Drawing conclusions before more detailed studies have been done, might be premature; however, there does appear to be a relationship between stress and the development of dementia.

If this is the case, then using strategies to reduce stress, might have a profound effect on the risk of developing dementia or Alzheimer's. In addition, stress reduction activities have been shown by other studies to reduce the impact of health problems in later years and to slow down the process of aging. There is a decided advantage in using stress reduction strategies not only to potentially reduce the risk of dementia but also to improve health.

Lose Weight

Researchers at Rush University Medical Center have found that middle-aged people with high abdominal fat are 3.6 times as likely to suffer from memory loss and dementia later in life as those who are thinner. A protein responsible for metabolizing fat in the liver is the same protein found in the part of the brain that controls memory and learning. The researchers found that people with higher abdominal fat deplete this fat metabolizing protein.

Researching with mice, the staff found that mice deficient in the protein are poor with memory and learning capabilities. Injecting the protein into the brains of the mice improved learning and memory. The researchers hypothesize that mice and humans share the same physiological traits when it comes to fat and memory proteins. The assumption is that weight loss can improve the risk of not developing dementia in later life.

In addition, high levels of abdominal fat are also correlated with developing high blood sugar and contracting type II diabetes. As we discuss below, there is a link between blood sugar, diabetes and the risk of developing dementia in later life.

Maintain Proper Sleep

A recent study from the Stanford Sleep Medicine Center has found that when we sleep, our brains rid themselves of harmful chemicals that accumulate while we are awake. This cleaning process was detected in the brains of sleeping mice, but researchers indicate that there is no reason to doubt that it can happen in people as well. If so, this finding may indicate that adequate sleep could help slow the process of people with dementia or other brain disorders.

It is a well-established fact that individuals who don't get enough sleep have trouble learning and making decisions and are slower to react. Although the purpose for sleep has not yet been determined in humans or other animals, one reason might be the need to flush out harmful chemicals that interfere with proper operation of the brain. Research at the University of Rochester Medical Center also substantiates this theory. These researchers found that injecting beta amyloid – the protein directly related to the development of Alzheimer's disease – into the brains of mice did result in symptoms of Alzheimer's. They also found that amyloid was removed faster from the brains of sleeping mice than from the brains of mice that were awake.

Another study from Johns Hopkins Bloomberg School of Public health published in JAMA Neurology followed 70 senior adults who slept five hours or less or who reported poor sleep quality. The average age was 76. Brain scans revealed abnormal amyloid deposits found in Alzheimer's disease. Whether the sleep was a result of the abnormal amyloid or whether the amyloid resulted in poor sleep needs further investigation.

Ironically, oversleeping may also contribute to the risk for developing cognitive impairment. It looks like we just can't win either way. A Spanish study involving 2,700 participants in their 60s and 70s, over a three-year period, analyzed the changes in brain function for these participants who detailed records of their sleeping patterns including how much time they spent in bed.

Prior to starting the study, all participants took the Mini-Mental State Examination to assess their cognitive state. After the study was completed all participants took the same examination. Beginning assessments were compared with ending assessments. Those individuals who slept more than nine hours a day did more poorly than did the individuals who slept 6 to 8 hours a day. This study does not necessarily prove that oversleeping can lead to dementia, but it does make us aware that sleep is an important issue in mental function.

Strive for Proper Heart Health

The risk of developing Alzheimer's or vascular dementia appears to increase as a result of many conditions that damage the heart or blood vessels. These include high blood pressure, heart disease, stroke, diabetes and high cholesterol. Some autopsy studies show that as many as 80% of individuals with Alzheimer's disease also have cardiovascular disease.

A longstanding question is why some people develop hallmark Alzheimer's plaques and tangles but do not develop the symptoms of Alzheimer's. Vascular disease may help researchers eventually find an answer. Autopsy studies suggest that plaques and tangles may be present in the brain without causing symptoms of cognitive decline unless the brain also shows evidence of vascular disease. Many experts believe that controlling cardiovascular risk factors may be the most cost-effective and helpful approach to protecting brain health.

Considerable evidence also suggests that Alzheimer's disease could be considered primarily a vascular disorder in which the brain does not receive enough blood flow to function optimally. This hypothesis is supported by numerous observations: 1) impaired blood flow to the brain can set in motion cognitive and neurodegenerative changes similar to those seen in Alzheimer's disease; 2) medications that improve cerebral blood flow improve Alzheimer's disease symptoms; and 3) decreased cerebral blood flow may be detectable even before symptoms of Alzheimer's disease manifest.

A recent report in the Proceedings of the New York Academy of Sciences has shown that hypoxia—the reduction in oxygen received by the brain due to decreased blood flow—may be a "trigger" that contributes to the pathogenesis of Alzheimer's disease. The authors of this important research have shown that hypoxia increases the activity of a gene called BACE1, which is involved in the production of damaging amyloid-beta plaques found in the brains of Alzheimer's patients. The researchers found that hypoxia markedly increased amyloid-beta deposition and plaque formation in central neurons. Since a decrease in the amount of oxygen delivered to the brain may very well set off a cascade of events that culminates in Alzheimer's disease, conditions like heart disease—a cause of brain hypoxia—provide a stark connection between heart disease and Alzheimer's.

Maintaining a healthy heart and cardiovascular system is compatible with all of the other activities that can be done to reduce risk of developing dementia. This includes proper nutrition, proper hydration, exercise, reducing chronic stress which causes inflammation of the arteries, maintaining a proper weight and controlling blood pressure. All of these activities for a healthy cardiovascular system have also been proven individually to reduce the risk of Alzheimer's.

Control Blood Sugar

High blood sugar as either a precursor to diabetes or as full-blown type II diabetes contributes to cardiovascular disease. As mentioned in the section above, cardiovascular disease is linked to an increased risk for vascular dementia and possibly Alzheimer's disease. Many people with diabetes also have brain changes that are hallmarks of both Alzheimer's disease and vascular dementia. Some researchers think that each condition – Alzheimer's and vascular dementia – fuels the damage caused by the other.

Research also points to a direct link between high blood sugar, dementia and the inability of the body to respond to insulin to use that blood sugar. There may be some triggering mechanism associated with insulin resistance in the brain. A recent study examined a medication used to treat type II diabetes to determine whether the medication would also improve cognitive function in people with mild Alzheimer's disease. Results showed a positive change in cognitive function.

A study involving 2,067 people 65 and older was conducted by the Group Health Cooperative – a Seattle-area health care system. At the start, 232 participants had diabetes; the rest did not. They each had at least five blood-sugar tests within a few years of starting the study and more after it was underway. Researchers averaged these levels over time to even out spikes and dips from testing at various times of day or before or after a meal.

Participants were given standard tests for thinking skills every two years and asked about smoking, exercise and other things that affect dementia risk.

After nearly seven years of follow-up, 524, or one quarter of the cohort, had developed dementia – mostly Alzheimer's disease. Among participants who started out without diabetes, those with higher glucose levels over the previous five years had an 18 percent greater risk of developing dementia than those with lower glucose levels.

Among participants with diabetes at the outset, those with higher blood sugar were 40 percent more likely to develop dementia than diabetics at the lower end of the glucose spectrum.

The effect of blood sugar on dementia risk was seen even when researchers took into account whether participants had the apoE4 gene, which raises the risk for Alzheimer's.

At least for diabetics, the results suggest that good blood-sugar control is important for cognition.

For those without diabetes, it may be that with the brain, every additional bit of blood sugar that shows up as above normal is associated with higher risk. It changes how we think about thresholds, how we think about what is normal and what is abnormal.

The results of this study would indicate that all individuals should have blood sugar tests done on a regular basis and if blood sugar is high, even though diabetes is not yet diagnosed, steps should be taken to lower that blood sugar level. This can be done through diet, exercise and weight loss.

Get Checked for Anemia

Anemia is common in adults 65 and older, and has been linked to early death. Now it's also being linked to a higher risk of dementia.

In a new study, more than 2,500 seniors, ages 70 to 79 were checked for anemia, then put through a series of thinking tests for more than a decade.

393 of the participants had anemia at the start of the study. By the end, 23% of them had developed dementia compared to just 17% of the people who did not have anemia.

Drilling deeper, the data showed that people who had anemia at the start had a nearly 41% higher risk of developing dementia than those who did not.

Anemia is when the blood has a lower than normal number of red blood cells, or less Hemoglobin, affecting delivery of oxygen to your body and brain. The researchers say this could have an impact on memory and thinking.

If an individual has anemia, the blood does not carry enough oxygen to the rest of the body. The most common cause of anemia is not having enough iron. The body needs iron to make hemoglobin. Hemoglobin is an iron-rich protein that gives the red color to blood. It carries oxygen from the lungs to the rest of the body.

Anemia has three main causes: blood loss, lack of red blood cell production, and high rates of red blood cell destruction.

Conditions that may lead to anemia include

- Ulcers
- Colon polyps or colon cancer
- Inherited disorders
- A diet that does not have enough iron, folic acid or vitamin B12
- Blood disorders such as sickle cell anemia and thalassemia, or cancer
- Aplastic anemia, a condition that can be inherited or acquired
- G6PD deficiency, a metabolic disorder

Symptoms of anemia include feeling tired, cold, dizzy, and irritable. The person may be short of breath or have a headache. Anemia is diagnosed through a physical exam and blood tests. Treatment is often simple but may depend on the type of anemia.

Eliminate the Use of Tobacco

The following was taken from the WebMD website

By Bill Hendrick
WebMD Health News
Reviewed by Laura J. Martin, MD

Oct. 25, 2010 -- People who are heavy smokers in their midlife years are more than doubling their risk of developing Alzheimer's disease or other forms of dementia two decades later, a new study shows.

While smoking has long been known to increase the risk of dying from cancer and heart disease, researchers in Finland say they've found strong reason to believe that smoking more than two packs of cigarettes daily from age 50 to 60 increases risk of dementia later in life.

Scientists at the University of Eastern Finland and at Kuopio University Hospital, Finland, analyzed data from 21,123 members of a health care system who took part in a survey between 1978 and 1985, when they were between ages 50 and 60.

Diagnoses of dementia, Alzheimer's disease, and vascular dementia were tracked from Jan. 1, 1994, when participants were 71.6 years old, on average, through July 31, 2008.

Among the key findings:

- 25.4% of the participants, or 5,367 people, were diagnosed with dementia an average of 23 years later.
- Of patients with dementia, 1,136 were diagnosed with Alzheimer's disease and 416 with vascular dementia.

Researchers say that people who smoked more than two packs of cigarettes a day in middle age had an elevated risk of dementia overall and also of each subtype, Alzheimer's and vascular dementia, compared with nonsmokers.

On the other hand, former smokers or people who smoked less than half a pack per day did not appear to be at increased risk of developing dementia. And associations between dementia and smoking did not vary by race or sex.

Smoking is considered a well-established risk factor for stroke and may contribute to the risk of vascular dementia through similar mechanisms, the researchers say.

In addition, they say that smoking contributes to oxidative stress and inflammation, which are believed to be important in the development of Alzheimer's disease.

"It is possible that smoking affects the development of dementia via vascular and neurodegenerative pathways," the researchers write.

Previously, a link between smoking and the risk of Alzheimer's disease has been considered controversial, with some studies even suggesting that smoking reduces the risk of cognitive impairment, Parkinson's disease, and other neurodegenerative conditions.

Although smoking's ill effect on public health has been well established, the researcher say, this study shows its impact is likely to become even greater as the population ages and dementia prevalence increases.

The study shows heavy smoking was found to be associated with a greater than 100% increase in risk of dementia and its forms 20 years after midlife, and that the brain is thus "not immune to long-term consequences of heavy smoking."

Discerning Dementia from Mild Cognitive Impairment

The Brown family reunion has always been an event everyone looks forward to. Family visits, games, stories and everyone's favorite foods are always on the agenda. On the top of the menu is Grandmas Lemon Coconut Cake. Grandma always makes the traditional cake from her old family recipe. This year, however, the cake tasted a little on the salty side, perhaps a half cup full of salty.

Though the family was disappointed over the cake, of more concern was Grandma's confusion with the recipe and her similar confusion about the loved ones around her. Could something be wrong with grandma's mental state?

One might say that for an elder person a little forgetfulness or confusion is normal, but when do you know if there is a serious problem, such as dementia?

An online article from FamilyDoctor.org outlines some common symptoms in recognizing dementia.

> Dementia causes many problems for the person who has it and for the person's family. Many of the problems are caused by memory loss. Some common symptoms of dementia are listed below. Not everyone who has dementia will experience all of these symptoms.
>
> **Recent memory loss.** All of us forget things for a while and then remember them later. People who have dementia often forget things, but they never remember them. They might ask you the same question over and over, each time forgetting that you've already given them the answer. They won't even remember that they already asked the question.
>
> **Difficulty performing familiar tasks.** People who have dementia might cook a meal but forget to serve it. They might even forget that they cooked it.
>
> **Problems with language.** People who have dementia may forget simple words or use the wrong words. This makes it hard to understand what they want.
>
> **Time and place disorientation**. People who have dementia may get lost on their own street. They may forget how they got to a certain place and how to get back home. Poor judgment. Even a person who doesn't have dementia might get distracted. But people who have dementia can forget simple things, like forgetting to put on a coat before going out in cold weather.
>
> **Problems with abstract thinking**. Anybody might have trouble balancing a checkbook, but people who have dementia may forget what the numbers are and what has to be done with them.
>
> **Misplacing things**. People who have dementia may put things in the wrong places. They might put an iron in the freezer or a wristwatch in the sugar bowl. Then they can't find these things later.
>
> **Changes in mood**. Everyone is moody at times, but people who have dementia may have fast mood swings, going from calm to tears to anger in a few minutes.
>
> **Personality changes**. People who have dementia may have drastic changes in personality. They might become irritable, suspicious or fearful.

Loss of initiative. People who have dementia may become passive. They might not want to go places or see other people.

Fixation and obsession. A common symptom of the beginning stages of Alzheimer's is often seen with older people who within a few months time become fixated on something that bothers them or something that they need to perform. In many cases, it becomes obsessive behavior and they talk about it constantly and even stay up at night and brood over it.

Dementia is caused by change or destruction of brain cells. Often this change is a result of small strokes or blockage of blood cells, severe hypothyroidism or Alzheimer's disease. There is a continuous decline in ability to perform normal daily activities. Personal care including dressing, bathing, preparing meals and even eating a meal eventually becomes impossible.

What can family members do if they suspect dementia? An appointment with the doctor or geriatric clinic is the first step to take. Depending on the cause and severity of the problem there are some medications that may help slow the process. Your doctor may recommend a care facility that specializes in dementia and Alzheimer's. These facilities offer a variety of care options from day care with stimulating activities to part or full-time live-in options. Sometimes if patients tend to wander off, a locked facility is needed.

In the beginning, family members find part time caregivers for their loved one. At first, loved ones need only a little help with remembering to do daily activities or prepare meals. As dementia progresses, caregiving demands often progress to 24 hour care. Night and day become confused and normal routines of sleeping, eating and functioning become more difficult for the patient. The demented person feels frustrated and may lash out in anger or fear. It is not uncommon for a child or spouse giving the care to quickly become overwhelmed and discouraged.

Family gatherings provide an excellent opportunity to discuss caregiving plans and whole family support. It is most helpful if everyone in the family is united in supporting a family caregiver in some meaningful way.

Realizing the Benefits of Exercise

Exercise Is the Single Most Important Component of Successful Aging
The following is taken from the University of Southern California, Leonard Davis School of Gerontology.

Exercise is the single most important component of successful aging. This is because exercise more than anything else enhances all of the other strategies for successful aging.

- exercise improves mood and attitude,
- it directly decreases the risk of dementia and Alzheimer's,
- it demands better nutrition due to improved appetite and results in better sleep,

- it reduces stress and
- it often does away with depression.

In order to be effective, the exercise must be frequent and it must be demanding. Simply sitting in a chair and waving one's arms or legs for a few minutes is ineffective. The person who exercises must breathe heavily, must sweat, must use weight-bearing routines (to offset the effects of osteoporosis) and must keep it up for a reasonable period of time. It should be done at least 4 to 6 days a week for a total accumulated time of 30 to 60 minutes each day. Exercise should be hard and should not be easy.

It is interesting to note that numerous studies have come to the conclusion that in order for exercise to be effective it must be done to the point of breaking a sweat. So many exercise programs for seniors are nothing more than non-demanding movement programs which may speed up the heart rate and free up stiff joints but which do little to improve cardiovascular function, grow muscle tissue and induce the other benefits that retard the aging process. Exercise must be challenging and it must be frequent.

Studies of the effects of exercise on older adults have shown that many physical problems that people think are inevitable with old age are usually the results of inactivity. According to the President's Council on Physical Fitness, about 25% of the population of the United States is physically inactive. Studies have shown that inactivity increases with age. By age 75, about 33% of men and 50% of women do not engage in any kind of physical activity.

Older people do not exercise for many of the same reasons younger people don't exercise – lack of interest, time and energy to name a few. Socioeconomic conditions present obstacles to some older persons. Studies have found that there are relationships between "less advantaged" demographic groups and poor health outcomes. Lower socioeconomic status is related to being overweight, having high blood pressure and having diabetes. Many of these are the direct result of lack of exercise. Being older and having an income of less than $10,000/year are also associated with greater likelihood of a decline in physical activity – which is probably a major factor in poor health profiles.

Without sufficient exercise people begin to gain weight, putting additional stress on the heart and lungs and on the weight bearing joints of the knees, hips, ankles, and feet. The joints become stiff, creating a greater risk of losing balance, falling and breaking bones. Inactivity also causes a loss of muscle mass and strength which causes yet another situation in which the individual is at risk of losing balance and falling. Cardiovascular performance becomes impaired without adequate exercise, and as a result, the risk of heart disease increases. Inactive persons will also feel less energetic, less motivated to seek social and intellectual stimulation, and may experience symptoms of depression.

Seniors also deceive themselves about the need for exercise and maintaining good health. They generally think they are healthier than they really are. The United Health Foundation released a report in 2013 entitled America's Health Rankings Senior Report. Here are a few of the findings.

- approximately 30% of all seniors report complete physical inactivity

- approximately 25% of all seniors report being obese, but insurance companies report that senior applicants for life insurance who do not meet insurance company weight requirements represent about 85% of all applications
- only 37% of seniors report good health status
- nearly 8 in 10 seniors are living with at least one chronic health condition and 50% have two or more, according to the Centers for Disease Control and Prevention
- about 20% of older Americans have been diagnosed with diabetes
- more than 70% of seniors have heart disease
- nearly 60% of seniors have arthritis, a leading cause of disability.

The Benefits of Exercise on the Aging Process
Some of the benefits of remaining physically active for older people include

- reducing the risk of losing balance, falling and fracturing bones
- reducing high blood pressure which in turn reduces the risk of heart failure, stroke and kidney failure
- reducing stress
- reducing symptoms of depression
- alleviating joint pain and swelling from arthritis
- improving sleep
- elevating mood
- forestalling or eliminating the development of cancer or other debilitating diseases
- forestalling or eliminating the development of dementia

Researchers at Tufts University suggest that exercise is the single most important factor in maintaining healthy functioning as individuals age. The body simply works better and regenerates better with exercise. It is likely that challenging, frequent exercise postpones the development of major diseases and body disorders. It may even eliminate them altogether. One study found that after one year of regular physical activity, men aged 55-65 were found to have significant increases in several lung functions including forced expiratory volume, ventilation, and oxygen uptake. There were also improvements in flexibility, and a greater level of high-intensity leisure time activity.

A study examined the subjective effects of aerobic exercise training on psychological, cognitive, and physiological functioning among healthy older adults. The study found that those who participated in 4 months of aerobic exercise or yoga perceived significant improvements in sleep patterns, self-confidence, social life, loneliness, family relations and their sex life (Emery and Blumenthal, 1990).

It has been found that older people who are physically active are faster at cognitive tasks such as encoding, recognition, rehearsal, and initiating commands than non-active older persons. This suggests that aerobic fitness has positive effects on cognitive aging (Toole et. al., 1993).

It used to be accepted that older people could not increase their muscle strength or muscle mass. However, recent research has shown that even very old people who are frail could increase their strength through regular exercise. At the end of a 6-week weight training program, frail older

individuals whose average age was 90 had increased their muscle strength by 180 percent. Two participants no longer needed canes and average walking speed increased 48%. Remarkably, they found that weight bearing exercise increased muscle mass at about the same rate as in younger people and non-weight bearing exercise resulted in increased flexibility in these nonagenarians.

In the past few years, the term "physical gerontology" has been introduced to describe physical activity programming for older adults that incorporates sport and exercise. A balanced mix of physical activity and stimulating recreation with social aspects is an important part of a preventive health model aimed at promoting successful aging.

There are many settings for older persons to exercise. Exercise programs for older people may take place in senior and community centers, adult day health care, and even nursing homes have recreational activities geared toward the needs of their residents. Planned communities for the elderly have even started to add exercise programs that go above and beyond targeted physical therapy.

For those who have known medical issues, the first step to starting an exercising program is to get a clearance from the doctor. The doctor may also suggest what types of exercise would be appropriate if his or her patient is suffering from a disorder where certain types of exercise would be harmful.

All new exercise programs must start out gradually. Overdoing it can actually harm muscle tissue and injure joints. As the body adapts to the new challenge, the intensity, frequency and duration should be increased. Here are some suggestions on how to get started before moving on to a more regimented exercise program.

- where possible take casual walks
- use video programs for low-impact activities such as yoga or tai chi
- deliberately use the stairs more often even as a form of intended exercise
- spend more time gardening or golfing

We won't take the time here to describe the various types of exercise programs that seniors could engage in. There is plenty of supportive information in the community to help with exercise activities. Promotion of physical activity is big business and there are plenty of magazines, community programs, advisers, personal trainers and all kinds of other support.

More than 40% of senior exercise clients drop out of recommended exercise programs within the first 6 months so it is very important to clearly understand the benefits of exercising to reinforce sticking with it.

For individuals who are in a care setting and suffering from dementia or debilitating disabilities, routine exercise may not work. In this case, activity programs should be designed to improve the overall wellbeing and reduce isolation and depression. This can include group recreational programs. An example is group movement therapy programs. Group movement therapy programs take place in a variety of settings such as adult day care centers, senior centers, nursing

homes, and other group settings. They are designed to accommodate different levels of abilities by incorporating activities that stress involvement of the body, mind and spirit.

Examples of activities in a group movement therapy program might include dance, deep breathing and relaxation techniques, theater games, memory reinforcements, sensory training, and intergenerational games. Warm up activities might include using musical instruments, deep breathing, creative dance, or muscle warm-ups. There is a heavy emphasis on relaxation techniques, imagery, and touch.

Maintaining Proper Nutrition and Sleep

Malnutrition and Aging

Estimates are that one out of four older Americans suffer from poor nutrition. Proper nutrition is important for the older person to remain healthy and functioning. Unfortunately, many older Americans aren't eating right. And for some older Americans it's not whether they are eating right or not but whether they are eating at all. Consider the following true examples

- A man in his late 70s has four small cans of string beans and one pork chop--his food for the next two weeks.
- An 80-year-old woman eats only half her meal at the senior center because she's made a pledge to feed a 90-year-old Asian couple who receive only a home-delivered lunch--her half-eaten lunch is their dinner.
- An elderly widow has to choose between buying winter boots and buying food--she buys the boots.
- An 80-year-old woman was found alone and eating dog food before her neighbor brought her to an emergency food pantry.
- An 82-year-old woman's grandson steals her money and her home-delivered meals.

Malnutrition occurs when a person doesn't eat adequate calories, protein, vitamins or minerals. Adequate calories and protein are necessary for overall good health, for maintaining activity and for tissue building, maintenance and repair. A balanced diet is necessary to provide essential vitamins and minerals for proper body functioning.

<u>It is estimated that 30% to 50% of health problems in aging seniors are a result of poor nutrition.</u> Surveys indicate that many elderly only consume 40% of the daily recommended calories and take in only about 60% of the recommended levels of vitamin A and E, calcium and zinc. A great deal of this deficiency is attributed to dietary restrictions for treatment of multiple chronic diseases. A recent survey of over 3,000 rural older adults found that nearly 44% were following a special diet related to a healthcare condition and these people were only consuming about 66% of their recommended daily calories.

Ironically malnutrition is more prevalent among the elderly living in long-term care settings or staying for long periods in hospitals. This is surprising, because it is assumed those formal caregivers providing care in these facilities are making sure that their residents or patients are adequately fed. Apparently, this is not happening. One study found that for elderly under the

supervision of healthcare professionals, 97% were either under-nourished or suffering from malnutrition, but only 19% of these people were actually recognized by the health care professionals as needing more nutrition. Another study of geriatric rehab patients found that 81% of these patients were at risk for under-nutrition and 13% were significantly malnourished.

The problem is not just confined to the United States. Unrecognized malnutrition was detected in 60% to 85% of patients in British hospitals, 64% in a Norwegian hospital and 73% in a hospital in Singapore.

The bottom line is that healthcare professionals are not doing proper assessments of nutritional needs for elderly people in their charge. Many of these older people are falling through the cracks and as a result are not as healthy as they should be.

Malnutrition can be both a cause for bad health and at the same time a result of bad health. Serious consequences can result from unattended malnutrition. These include the following.

- impairment of the immune system
- delayed wound healing
- more infections
- weight loss and decreased muscle strength resulting in greater inactivity
- altered body response to medications
- mental confusion and disorientation
- longer hospital stays
- electrolyte imbalances
- altered skin integrity
- anemia
- sensory loss
- dry and red eyes
- receding gums and loss of teeth
- motor weakness and fatigue leading to fall risk

Malnutrition results in more visits to physicians, hospitals and emergency rooms. Malnourished patients stay in the hospital twice as long as those who are well-nourished and readmissions are more frequent for malnourished patients. In fact, nutritional risk has been found to be the most important predictor of hospital visits, visits to the emergency room and visits to physicians. For some older individuals, who have severe chronic conditions, improved nutrition has not been found to reverse those conditions. In other cases better nutrition can help. Pressure sores for bedridden individuals respond well to better nutrition. Improved nutrition can sometimes alter the course of osteoporosis which is a major problem with many older people. Rates of healing from bone fractures are improved with better nutrition. Older clients receiving home delivered meals are reported to have fewer hospitalizations and fewer deaths compared with those who do not have this service.

How Seniors Become Malnourished

Loss of Appetite

Loss of appetite among seniors can be attributed to mood or disease or medication. In some cases, there is no explanation for loss of appetite. Sadness, depression grief and anxiety are common psychological reasons for loss of appetite. Diseases such as cancer, liver disease, dementia, heart failure, COPD and kidney failure may also contribute to appetite loss. Medical treatment for these diseases may also be a reason for losing appetite. In addition some medications such as antibiotics, codeine, morphine or the use of illegal drugs can result in appetite loss.

Aging Anorexia – Feeling Full Too Soon

Aging seniors can often experience a phenomenon of feeling full even though they have not taken in enough food to meet their nutritional requirements. This is often called aging anorexia. One cause of this is a condition called gastroparesis which typically is common with individuals who have long-lasting diabetes. Food does not move through the digestive tract as in normal people and tends to back up into the stomach. Approximately 20% of all seniors have diabetes. Some diabetes medicines may also delay the ability of the stomach to empty itself. Researchers have also found that certain hormones that signal the brain regarding whether one is full or not are altered in aging seniors. In other cases, the desire not to eat because of satiety – feeling full – cannot be attributed to any particular cause.

Diseases and Disorders

Eighty percent of adults over 65 suffer from one or more of the following chronic conditions: high blood pressure, heart disease or diabetes and 35% of these adults suffer from all three. Chronic disorders directly affect nutrition in numerous ways often affecting appetite. In addition, acute conditions such as infection, injury, surgery, radiation, chemotherapy and other medical therapies can directly affect maintaining proper nutrition.

Specially Prescribed Diets

As part of medical treatment, many older adults are placed on specially prescribed diets with little or no nutritional counseling or education to help them with nutrition. This is primarily due to the fact that medical insurance does not cover nutritional counseling. These diets usually restrict salt, fat and sugar. Unfortunately, it is difficult to find nutritional recipes and replacement foods for the three ingredients that usually make food attractive to the taste in the first place. As a result, seniors are less satisfied with eating and consume less.

Mouth and Tooth Problems

Oral health problems commonly found in older adults include dental caries (cavities), periodontal (gum, soft tissue and bone) disease, dry mouth, lack of teeth for adequate chewing, lack of or poor fitting dentures, medication side effects, disease of the oral tissues, and pain. According to the Institute of Medicine, around120 physical or mental diseases produce symptoms in the mouth or affect oral function. Elders with mouth and tooth problems may eliminate foods they can no longer bite, chew, or easily swallow and those that irritate an already irritated and painful mouth. The more foods older adults eliminate from their diet, the greater their chance of developing nutritional deficiencies.

Reduced Saliva Flow
Normal saliva flow is necessary for oral health as it protects teeth and tissues from microorganisms, facilitates chewing and swallowing and is essential for taste. Nearly one in five older adults is said to suffer dry mouth (xerostomia) – a side effect of some diseases and medications. In general, elders with dry mouth may have difficulty wearing dentures, may have altered taste, and may have difficulty eating. They may also experience pain due to deteriorating mouth tissues. Older adults with decreased saliva flow and those with diabetes are at special risk for periodontal disease. All of these problems can contribute to poor nutrition.

Swallowing Problems
In a study of homebound elders in New York, difficulty in swallowing was positively related to not eating for one or more days. Lack of assessment or lack of effective treatment of swallowing problems have been identified as avoidable causes of malnutrition in nursing home residents.

Disability and Functional Impairment
The ability to shop, cook and feed oneself are necessary if older people are to take care of themselves without assistance from others. Many aging seniors are living at home and for various physical or emotional reasons cannot obtain food nor do they have a desire to prepare it for themselves. They simply forgo eating. This is an all too common scenario especially for single men living alone.

Eating the Wrong Kind of Food
Some seniors rely on fast foods, snack foods or other foods low in nutritional value, because the seniors have no desire to cook for themselves. It is much more convenient to pay a little extra money and have pre-prepared foods. A steady diet of this could be very detrimental to a person's health. A 2004 documentary entitled "Supersize Me" tracked an individual who ate nothing but food from a popular hamburger chain all day as a study on nutrition. Based on a thorough physical examination prior to the experiment, he was in good health. He stayed on the diet for 30 days. He also maintained the same physical activity as any other individual his age – about 5,000 steps a day. His daily calorie intake was over 5,000 calories a day – well over what someone in his situation should have consumed – but he only ordered food that any typical customer would order and ate it all. At the end of 30 days he had a thorough physical examination He had gained 24 pounds and had experienced mood swings, sexual dysfunction and developed a fatty liver. His doctor declared he was at risk for dying. It took him 14 months to reverse the ill effects. Although this is an extreme case and is likely not be typical of most people, it shows that malnutrition is not just attributed to eating less but can also be attributed to eating too much of the wrong kind of food.

Prolonged Use of Multiple Medications
it is estimated that older adults living at home take three or more medications per day and those in nursing homes and hospitals take from 8 to 10 medications per day. Aging seniors also consume vast quantities of over-the-counter medications for pain, cold, flu, sinus, indigestion, acid reflux, constipation, gas and diarrhea. In addition they consume large quantities of health supplements. Not only do these combinations affect appetite through less desire to eat or because of nausea or upset stomach, but over a period of time, certain drug combinations can affect how the body uses nutrients.

Excessive Alcohol Consumption
Alcohol is a depressant and in large quantities over time destroy brain cells and liver cells. Alcoholics are particularly prone to a loss of appetite and suffer from malnutrition. In addition, alcohol causes all kinds of other physical problems such as osteoporosis, diabetes, high blood pressure, cancer and liver disease in these conditions can also contribute to malnutrition

Poverty
Approximately 20% of the 65+ population are at or near the property line. Low income elders are more likely to be malnourished. They simply don't have the dollars to buy nutritious food or to buy very much of it. Other costs are considered more important such as paying utility bills, paying rent and paying medical bills. What is left over can go towards food. Some seniors even go hungry because of lack of money for food.

Social Isolation
Social isolation is another problem. One study shows that 84% of seniors who lose a spouse suffer unintentional weight loss due to less eating. Living alone and without support from family or others contributes to so-called "food insecurity" in older people. It is harder to obtain food, harder to prepare it and there is less interest in eating. Many people who live alone skip meals and don't even realize it.

Loss of Taste and Smell
Old age, changes in the brain, consumption of multiple medications, surgery or certain diseases often affect an aging senior's ability to taste or smell or both at the same time. Taste and smell are essential to inducing us to eat. Without the pleasure of tasting and smelling – which is an element of the tasting process – the incentive to eat decreases considerably. Eating is indeed a pleasure because of our ability to taste food and people look forward to it. Taste and smell are also important to preparing the body to digest food by triggering secretions from the pancreas, intestines, stomach and salivary glands. In addition, without being able to taste salt or sugar, older individuals are susceptible to overdosing on these two substances which can have dramatic negative health effects.

Maintaining Proper Nutrition
There is plenty of information in the community and on the Internet to help individuals maintain proper nutrition and to purchase and prepare wholesome meals. It is not necessary to repeat that information here. What is important is finding solutions to deal with the problems outlined above that result in malnutrition.

Many of the reasons for malnutrition in the elderly stem from lack of socialization or oversight from family or friends. We cannot assume that our elderly loved ones are properly taking care of themselves and sometimes we have to provide a little supervision. Taking their word for the fact that they are okay is not enough. We must look for signs of malnutrition or vitamin deficiency or lack of hydration. The fact that a large majority of individuals in long-term care facilities suffer from malnutrition, vitamin deficiency and dehydration has to tell us that observation alone is not sufficient. We must look for the signs and actually question our loved ones thoroughly to

find out how they are taking care of themselves. We can also look around their living environment and observe how they are utilizing their food and if they are drinking enough fluids.

Another important strategy for dealing with malnutrition is to do more exercising. As mentioned previously, exercise is probably the single most important intervention that seniors can do to improve all aspects of aging. Exercise overcomes many of the problems associated with loss of smell, loss of taste, poor digestion, development of debilitating diseases, loss of appetite and a whole host of other issues mentioned above that contribute to malnutrition.

For seniors who are isolated at home in the community or who are poor or who cannot get out and purchase food or prepare it, the government has a number of community meal programs. Government and private organizations have recognized for over 100 years that seniors need adequate nutrition. Community and government sponsored meal programs have been around for a long time. These programs are supervised by dietitians and they are designed to provide proper nutrition. They are available in the form of home delivered meals that are free for indigent recipients or for the cost of a small contribution for others. They are also available in community centers such as senior centers where seniors can meet together and socialize and have a good meal together.

The Issue of Vitamins and Minerals

As a general rule, maintaining the proper caloric intake and eating a balanced diet will generally ensure an adequate intake of all of the necessary vitamins and minerals. This is not necessarily true for aging seniors especially those who are in their 80s or older. Vitamin deficiency in these folks can occur even when maintaining a proper diet. Older seniors often lack the ability to properly absorb certain vitamins from their food. Or they may have reduced ability to synthesize certain vitamins in their bodies. In other cases, they need larger amounts of a certain vitamin because their bodies don't utilize it as well as younger people. Vitamin supplementation with minerals is always recommended for the elderly to avoid this problem.

Despite supplementation, there are two vitamins that still might cause problems – sometimes very severe problems. Some researchers consider a deficiency in these vitamins in the elderly to be a malnutrition epidemic that must be addressed with every elder. These two vitamins are vitamin B12 and vitamin D.

Vitamin B12

Vitamin B12 is one of four vitamins stored by the liver. Generally the liver can hold up to a 1 to 3 year supply of vitamin B12. Unfortunately, if this vitamin is not replenished through dietary intake, stores will decrease and blood level of the vitamin will plunge. At a certain point, low circulating B12 in the form of Cobolamine can cause serious problems.

What harm can having too little of a vitamin do? Consider this: Over the course of two months, a 62-year-old man developed numbness and a "pins and needles" sensation in his hands, had trouble walking, experienced severe joint pain, began turning yellow, and became progressively short of breath. The cause was lack of vitamin B12 in his bloodstream, according to a case report from Harvard-affiliated Massachusetts General Hospital published in The New England Journal of Medicine. It could have been worse—a severe vitamin B12 deficiency can lead to

deep depression, paranoia and delusions, memory loss, incontinence, loss of taste and smell, and more, according to another article in the New England Journal.

The human body needs vitamin B12 to make red blood cells, nerves, DNA, and carry out other functions. The average adult should get 2.4 micrograms a day. Like most vitamins, B12 can't be made by the body. Instead, it must be gotten from food or supplements.

Some people don't consume enough vitamin B12 to meet their needs, while others can't absorb enough, no matter how much they take in. As a result, vitamin B12 deficiency is relatively common, especially among older people. The National Health and Nutrition Examination Survey estimated that 3.2% of adults over age 50 have a seriously low B12 level, and up to 20% may have a borderline deficiency.

Data from the Tufts University Framingham Offspring Study suggest that 40 percent of people between the ages of 26 and 83 have plasma B12 levels in the low normal range – a range at which many experience neurological symptoms. Nine percent had outright deficiency, and 16 percent exhibited "near deficiency." Most surprising to the researchers was the fact that low B12 levels were as common in younger people as they were in the elderly.

Vitamin B12 deficiency has been estimated to create some sort of adverse symptoms for about 40% of people over 60 years of age. It's entirely possible that at least some of the symptoms we attribute to "normal" aging – such as memory loss, cognitive decline, decreased mobility, etc. – are at least in part caused by B12 deficiency.

Severe deficiency can actually mimic or exacerbate the following diseases and disorders:

- Alzheimer's, dementia, cognitive decline and memory loss (collectively referred to as "aging")
- Multiple sclerosis (MS) and other neurological disorders
- Mental illness (depression, anxiety, bipolar disorder, psychosis)
- Cardiovascular disease
- Autoimmune disease and immune dysregulation
- Cancer

B12 deficiency is often missed for two reasons. First, it's not routinely tested by most physicians. Second, the low end of the laboratory reference range is too low. This is why most studies underestimate true levels of deficiency. Many B12 deficient people have so-called "normal" levels of B12.

It is well-established in the scientific literature that people with B12 levels between 200 pg/mL and 350 pg/mL – levels considered "normal" in the U.S. – have clear B12 deficiency symptoms. Experts who specialize in the diagnosis and treatment of B12 deficiency, suggest treating all patients that are symptomatic and have B12 levels less than 450 pg/mL. They also recommend treating patients with normal B12, but elevated urinary methylmalonic acid (MMA), homocysteine and/or holotranscobalamin. These markers are a reliable measure of B12 deficiency even if blood levels of B12 seem normal.

In Japan and Europe, the lower limit for B12 is between 500-550 pg/mL, the level associated with psychological and behavioral manifestations such as cognitive decline, dementia and memory loss. Some experts have speculated that the acceptance of higher levels as normal in Japan and the willingness to treat levels considered "normal" explain the low rates of Alzheimer's and dementia in that country.

Plants don't make vitamin B12. The only foods that deliver it are meat, eggs, poultry, dairy products, and other foods from animals. Strict vegetarians and vegans are at high risk for developing a B12 deficiency if they don't eat grains that have been fortified with the vitamin or take a vitamin supplement. People who have stomach stapling or other forms of weight-loss surgery are also more likely to be low in vitamin B12 because the altered condition of the stomach interferes with the body's ability to extract vitamin B12 from food.

Conditions that interfere with food absorption, such celiac or Crohn's disease, can cause B12 trouble. So can the use of commonly prescribed heartburn drugs, which reduce acid production in the stomach (acid is needed to absorb vitamin B12). These include drugs like Prevacid, Zantac or Nexium. This also includes use of antacid tablets such as Tums which cut down the production of acid. Just think of all of the people who take medication or over-the-counter drugs for acid reflux and are running the risk of vitamin B12 deficiency. Deficiency is also more likely to occur in older people due to the cutback in stomach acid production that often occurs with aging.

People with pernicious anemia have an autoimmune disorder that prevents the stomach from making intrinsic factor needed to absorb vitamin B12. Doctors usually treat pernicious anemia with vitamin B12 shots, although very high oral doses of vitamin B12 might also be effective.

Vitamin B12 deficiency can be slow to develop, causing symptoms to appear gradually and intensify over time. It can also come on relatively quickly. Given the array of symptoms it can cause, the condition can be overlooked or confused with something else. Symptoms may include:

- strange sensations, numbness, or tingling in the hands, legs, or feet
- difficulty walking (staggering, balance problems)
- anemia
- a swollen, inflamed tongue
- yellowed skin (jaundice)
- difficulty thinking and reasoning (cognitive difficulties), or memory loss
- paranoia or hallucinations
- weakness
- fatigue

Vitamin B12 is not toxic to the systems of healthy individuals, even when taken in large dosages, the Linus Pauling Institute reports. For these reasons, there is no established upper limit for vitamin B12 intake. Any excess vitamin B12 in the body is either stored in the liver or washed out through the kidneys. This is because, unlike most vitamins, it is water-soluble. Because of

these properties, the best way to prevent low B12 levels as well as to treat existing low levels is to take huge doses of the vitamin. Research on megadoses has found that even with malabsorption problems or pernicious anemia, individuals can absorb enough to maintain healthy blood levels.

Supplementation can take three forms. Oral pills, injections or lozenges that are placed under the tongue (sublingual) which dissolve into the saliva glands and are subsequently taken up by the bloodstream. The most foolproof way to ensure adequate supplementation is through the sublingual pills. This is because B12 enters directly into the bloodstream and does not encounter absorption problems in the gut. The best form of sublingual supplementation is through a form of vitamin B12 called methylcobalamin. Because vitamin B12 and folate (folic acid) and iron work together in the body, the sublingual supplementation using methylcobalamin should also contain folic acid. Iron supplementation should take the form of vitamin pills. The sublingual methylcobalamin form of supplementation is usually not available in drugstores but can be ordered on the Internet through various sources.

Injections are also foolproof because they are absorbed into the bloodstream as well. On the other hand injections can only be had through a visit to the doctor. Most people don't want to put up with the cost and hassle of getting a monthly injection in their butt.

Vitamin D

Vitamin D is one of four vitamins stored by the liver. Generally, the liver can hold up to a 1 to 4 month supply. Unfortunately, if this vitamin is not replenished through skin exposure to the ultraviolet radiation from the sun, stores will decrease and blood level of the vitamin will plunge. At a certain point, low circulating vitamin D in the bloodstream can result in serious consequences.

Vitamin D deficiency is now recognized as a national pandemic. The major cause of vitamin D deficiency is the lack of exposing the skin to the sun as this is the major source of vitamin D for humans. Historically, humans have worked outside under the sun and those who were exposed most heavily to the sun's rays have developed pigment in their skin to prevent damage from ultraviolet, but production of vitamin D is not hindered if enough sunlight is absorbed. Those in northern latitudes where there is less sun and clothing is required to stay warm, have light skin. This adaptation likely has occurred in order to encourage production of vitamin D through a conversion of 7-dehydrocholesterol in the skin.

Sunlight is the major source of vitamin D for humans. Very few foods naturally contain vitamin D, and foods that are fortified with vitamin D are often inadequate to satisfy either a child's or an adult's vitamin D requirement. The best food source is the flesh of fatty fish such as salmon, tuna and mackerel and fish liver oils. Small amounts of vitamin D are found in beef liver, cheese and egg yolks. Meat contains small amounts of vitamin D, but animal muscle flesh – which is our predominant choice for animal meat – contains very little. Most of the vitamin D supplied by eating animals is found in the internal organs and mostly in the liver.

Very few Americans spend much time in the sun and in fact the fear of skin cancer causes those who do expose their skin to use sun blockers to take out the ultraviolet rays. Unfortunately, it is

ultraviolet that produces vitamin D in the skin. As a result of less sun exposure, many people – young and old – become deficient in vitamin D. Aging is also a risk for low levels of vitamin D. The skin of aged adults has a 75% reduced capacity of making vitamin D when compared with younger adults. Obesity also puts one at risk for deficiency. Vitamin D is fat-soluble and is readily taken up by fat cells making it unavailable to the body. Medications such as anti-seizure medications and glucocorticoids and fat malabsorption are also common causes of vitamin D deficiency.

A study of 349 elderly people who had poor muscle strength in their hands, were unable to climb stairs and had recently fallen, found that blood levels of vitamin D were significantly lower compared with the levels in people without these problems. Another study showed that six months of treatment with vitamin D deficient elderly women improve knee strength and walking distance. However, there has been no evidence to suggest that vitamin D supplements improve muscle strength in those with normal vitamin D levels.

In addition to age-related deficiencies mentioned above, vitamin D deficiency in older people can also be attributed to poor absorption by the intestines or impairments in vitamin D metabolism due to liver or kidney disease.

Not only is vitamin D essential to prevent osteopenia, osteoporosis and fractures in adults, but deficiency of the vitamin has been associated with an increased risk of common cancers, adult onset diabetes, coronary heart disease, autoimmune diseases, hypertension and infectious diseases. Advocates of vitamin D supplementation claim that we would have less cancer, fewer autoimmune disorders, less heart disease and less diabetes if people would maintain adequate blood levels of vitamin D. Numerous studies show that people who live in coastal regions and eat seafood seem to have fewer autoimmune disorders. No one has yet tied this to vitamin D deficiency and more studies are needed. The same health differences are found in people who live at lower latitudes where ultraviolet sunlight is more plentiful as opposed to people who live in higher latitudes where there is less radiation.

Recommended levels of 400 IU daily supplementation may be too low. On the other hand, caution must be exercised because in large doses, vitamin D can become toxic. Some researchers suggest that vitamin D supplementation is safe up to 10,000 IU/day, but others would say that over a period of months this could result in toxicity. We are not advocating any particular level of supplementation in this article and readers must decide for themselves or consult with their physicians what is safe for them.

A reevaluation needs to take place of what the adequate intakes of vitamin D should be for children and adults. The literature over the past decade suggests that the Institute of Medicine recommendations in 1997 are inadequate, and some experts suggest that both children and adults should take daily doses of 800–1000 IU vitamin D from supplemental sources when sunlight is unable to provide it. This recommendation, however, has not yet been embraced either by official government or pediatric organizations in the United States, Canada, or Europe for either children or adults.

Dehydration

Issue of Aging and Dehydration

Dehydration – failure to consume adequate fluids to replace those that are lost – is a major problem for the elderly. About 10% of all hospitalizations are directly attributable to dehydration. Seniors are particularly susceptible to becoming dehydrated. It can even result in death if severe enough.

As we age our bodies store less water. This is because muscle mass decreases as one grows older and muscles are the primary storage site for water. This means for older people there are less reserves for the body to draw down if it needs more water. Aging seniors also have a less acute sense of thirst and they are more tolerable to warm temperatures which leads to dehydration. Typically, most people drink fluids when they eat. The elderly eat less and often don't drink fluids when they eat and the rest of the time they often forget about drinking.

Elder abuse or neglect by caregivers can also result in a senior not receiving enough fluids. Seniors receiving oversight from others are simply not given enough to drink. Chronic illnesses such as diabetes make elders specifically susceptible to dehydration. People with other chronic problems such as kidney disease, alcoholism and adrenal gland disorders are also susceptible to dehydration. For whatever reasons, many older individuals forget to drink because their body does not tell them they need to drink. In other cases, individuals who are disabled may not want to visit the bathroom that often because of the difficulty of walking and they will deliberately limit their fluid intake to avoid having to urinate. Other older individuals rely on laxatives to avoid constipation and this has a tendency to flush water out of their systems.

Hydration is needed to regulate blood electrolytes, regulate body temperature, maintain blood pressure and eliminate bodily waste through the kidneys and alimentary canal. At some point, cellular function slows down or ceases without enough water.

As with nutrition, individuals in long-term care facilities seem to suffer more. One study found that 31% of patients or residents in these facilities were dehydrated. Researchers found that 48% of older adults admitted to hospitals after treatment in emergency departments had signs of dehydration in their laboratory results.

Older people who get enough water tend to suffer less constipation, use less laxatives, have fewer falls and, for men, may have a lower risk of bladder cancer. Less constipation may also reduce the risk of colorectal cancer. Drinking a lot of water also seems to lessen the risk of fatal coronary heart disease.

Symptoms of Dehydration

If dehydration is not identified and treated, the consequences to health are significant, including confusion, disorientation, loss of consciousness, rapid but weak pulse, and lowered blood pressure. If rehydration is not started, the situation can become life-threatening.

Here are some signs of dehydration.

Mild dehydration:

- Dryness of mouth; dry tongue with thick saliva
- Unable to urinate or pass only small amounts of urine
- Dark or deep yellow urine (for someone properly hydrated, urine should normally be moderately yellow in color or even clear)
- Cramping in limbs
- Headaches
- Crying but with few or no tears
- Weakness, general feeling of being unwell
- Sleepiness or irritability

More serious dehydration:

- Low blood pressure
- Convulsions
- Severe cramping and muscle contractions in limbs, back and stomach
- Bloated stomach
- Rapid but weak pulse
- Dry and sunken eyes with few or no tears
- Wrinkled skin; no elasticity
- Breathing faster than normal

Maintaining Hydration

Individuals living alone must be aware of the need to consume fluids either through eating foods that are high in water content or drinking water or flavored drinks. A general rule of thumb is to divide the body weight in pounds by three and drink the number of ounces of water each day equivalent to the quotient. For example, for a 150 pound woman, divide by three which yields 50. This would be the number of ounces of liquid to be consumed. In this case this is equivalent to about six, 8 ounce glasses of water.

Here are some strategies to help aging seniors maintain proper hydration.

- If the elder's current intake is below the required amount, have them increase the amount they drink gradually.

- Encourage your loved one not to wait until thirsty to start drinking water: At that point dehydration has already started.

- One sign of proper hydration is the color of the urine—it should be clear or a somewhat yellow. Dark yellow urine or brown yellow urine might indicate dehydration.

- Alcohol should be avoided. Minimize the number of beverages with caffeine because of its diuretic effect, causing the kidneys to excrete more water.

- When you see early signs of dehydration, offer a sports drink to enable quick replenishment of water and electrolytes needed by the body.

- Severe dehydration requires medical attention; if you see any signs or even just suspect it, call the doctor.

Here are some tips for preventing dehydration in aging seniors by RKT published July 26, 2012

1. Variety
Having to drink the same liquid in the required amounts every day can be discouraging. Although it is important to drink water on a regular basis, the body also benefits from the liquid in other water based drinks and foods, like a glass of natural juice or a snack of watermelon wedges. The advantage of having a variety of types of liquids and water-based fruits and vegetables around the house is that it increases motivation to eat or drink and it therefore increases chances of keeping hydrated.

2. Convenience
One of the issues that can affect how much an elderly person consumes is the convenience of getting a drink. If they are upstairs and would like a drink of water but all the glasses are downstairs, they might be discouraged to go get one. Keep a bottle of water and glasses handy next to the elderly person's bedside, or consider investing in a water dispenser that will be close to their preferred place of seating. Having drinks and hydrating foods easily accessible as they move around the house or nursing home facility is important.

3. Reminders and Counting Down
It can be helpful to have a daily visible reminder for an elderly person of how much liquid he or she needs to consume every day, which is generally eight glasses a day, and be able to mark down how much they have had and how much they have left to go. Be careful not to make it feel too much like a chore, however. Even for the caretaker's sake, having a way to keep track and set reminders will help ensure that the patient is getting enough liquid to prevent dehydration in the elderly.

4. Avoiding Diuretics
There are some common drinks which have caffeine and can increase the chance of dehydration in the elderly as they cause the body to release more liquid. These include tea, coffee and caffeinated soft drinks. Replace caffeinated beverages with decaffeinated versions of the same products, or offer alternatives such as water infused with electrolytes or vitamin-rich juice mixes.

5. Address the Fear of Incontinence
As people age, it's not uncommon to have weakened pelvic muscles and fear having 'accidents', especially at night. Helping the elderly to feel comfortable will make drinking enough liquids a less stressful and potentially embarrassing process. Ensuring that the bulk of liquids are consumed earlier in the day, emphasizing the importance of using the bathroom before bed, and

using incontinence-friendly undergarments are all ways to safeguard against accidents and help prevent dehydration in the elderly.

Getting Adequate Sleep

Relationship of Sleep to Aging

Estimates are that aging seniors should get from 7 to 9 hours of good sleep per night. For many elders this is not happening. A study of adults over 65 found that 13% of men and 36% of women take more than 30 minutes to fall asleep. Older people often do not get good sleep as it is often disturbed with trips to the bathroom, aches and pains, difficulty breathing and so forth. Medications, in particular can also significantly alter sleep patterns. Emotional problems or stress also have a profound effect on sleep.

Poor sleep is associated with a poor quality of life. Older adults with poor sleep are more likely to be depressed, have memory problems, have difficulty concentrating, become drowsy during the day, be at risk for nighttime falls and use more over-the-counter or prescription medicines to counteract the problems of sleep. These drugs might have an opposite effect and produce more sleep disorder.

Aging does not have to result in poor sleep. Many aging seniors report normal sleep patterns. However, the presence of insomnia is higher among older adults. According to a sleep study in 2003, 44% of older persons experience one or more of the nighttime systems of insomnia at least a few nights per week. In some elders insomnia can be chronic lasting over weeks or months and this may be due to underlying medical or mental issues.

Poor sleep can also affect physical health. We have mentioned previously that studies show lack of sleep can lead to an increased risk of dementia or Alzheimer's. Snoring is not only a consequence of sleep disruption affecting approximately 90 million Americans, but it can also lead to physical problems. Snoring accompanied by apnea – a stoppage in breathing – not only interrupts sleep constantly throughout the night but can also result in cardiovascular disease, headaches, memory loss and depression.

Some physical conditions intensify during sleep. Restlessly leg syndrome is a particularly aggravating condition that increases during sleep. This not only interferes with sleep patterns, but might even worsen the symptoms of RSL itself. Approximately 45% of all older persons have at least a mild form of RSL called limb movement disorder. Gastric reflux worsens at night. This is primarily due to the esophagus being on the same level as the stomach, which allows acid to more readily move back up the esophagus to the mouth. Severe reflux can actually be life-threatening if stomach fluids are inhaled into lungs resulting in acute respiratory conditions or pneumonia. Prolonged reflux can lead to Barrett's disease which is a precursor to esophagus cancer.

Dealing with Sleep Deficiency

The catch-22 with sleep is that if you are over-stressed, you are likely to experience a disturbed sleeping pattern, and if you are experiencing a disturbed sleeping pattern, you are likely to become over-stressed!

Sleep isn't a luxury; it's a necessity. Sleep restores the body and mind and helps us maintain our mental and physical health. Studies have shown that people who get seven to eight hours of sleep each night enjoy better health and live longer than people who get less sleep. According to the National Institutes of Health, each year approximately 60 million Americans experience frequent insomnia, the inability to get adequate sleep.

To ensure that you get enough sleep, try some of the following suggestions:

- Develop a sleep schedule and stick to it.
- Try to go to bed at the same time each night.
- Wake up at the same time, too.
- Avoid sleeping in on weekends; sleeping in will reset your body clock, making it harder to wake up on time on Monday.
- Get 30 or more minutes of physical activity each day.
- Avoid working out during the three hours before bedtime. Working out close to bedtime will energize you and may interfere with your sleep.
- Avoid caffeine, nicotine, and alcohol. These substances rob you of quality sleep. Switch to decaf or herbal tea.
- Quit smoking.
- Don't use alcohol to induce sleep. An alcoholic beverage (a "night cap") before bed may make you drowsy but it actually deprives you of deep, restorative sleep.
- Engage in relaxing activities before bed. Think of it as "wind down" time. Read a book. Soak in a hot tub. Avoid doing physically or mentally stimulating activities such as vigorous housecleaning or intense office work close to bedtime.
- Leave your troubles outside the bedroom door. Make your bedroom a worry-free zone. If you start to ruminate about problems when you are in bed, try relaxation techniques such as deep breathing or visualization (visualize that you are in a warm, breezy, tropical place, with the sun streaming down on you, nothing but sand, surf, and coconut trees for miles...).
- Change your attitude. Instead of dreading going to bed in dealing with insomnia, try changing your thinking that when you are in bed, you are in a relaxed environment and that you are comfortable. If you force yourself to adopt this attitude night after night, eventually it will become a comfortable habit – one you won't have to work so hard to maintain.
- Create a cozy sleep environment: wear comfortable pajamas, make the temperature of the room comfortable for you, darken the room, use soft, comfortable bedding that enhances your sleep experience. If your bed is too hard or lumpy or soft, invest in a new one. If noise is an issue, try to get at the root of the problem: ask your snoring partner to seek evaluation and treatment, ask your neighbors to be quieter, etc.

Dealing with Stress

Chronic Stress Accelerates the Aging Process

Stress can be defined as a physiological reaction to a threat. The greater the threat -- the greater the level of stress. A threat is a real or perceived action against our person. Threats may include

the anticipated possibility of death or injury but may also include challenges to our self-esteem, social standing or relationships to others or a threat may simply be a potential or real disruption of our established routines. What is stressful to one person may not be to another. For example, bumper-to-bumper traffic might be stressful to the woman executive who is late for an important meeting but to the delivery man who has no deadline and is being paid by the hour, it may be a welcome respite to relax and listen to the radio.

Stress produces real physical changes. In some unknown way the fears in our mind, both conscious and unconscious, cause the hypothalamus and pituitary glands, deep in our brain, to initiate a cascade of hormones and immune system proteins that temporarily alter our physical body. This is a normal physiological response inherent to the human body when a threat is perceived--real or not. It is often called the "fight-or-flight response" or the "stress response". The purpose is to give us clearer thought and increased strength as well as to activate the immune system to deal with potential injury and to repair potential wounds. When the perceived threat is removed, assuming no damage is done, the body returns to normal.

A cascade of endocrine hormones and cytokines are released when the brain signals a person is threatened with harm, injury, undue mental or physical stress or death. These proteins prepare the body to react quickly by increasing heart rate, making muscles more reactive, stimulating thought, altering sugar metabolism and producing many more changes that result in the "rush" people experience when they think they may be harmed.

A team of researchers at Ohio State University Medical Center led by Doctor Janice Kiecolt-Glaser found that one particular immune system protein acts as a blood marker under chronic stress and is linked to an impaired immune system response in aging adults. The team studied agent caregivers and found a four-fold increase in an immune system protein -- interleukin 6 (IL-6) -- as compared to an identically matched control group of non-caregivers.

The cascade of immune system proteins in the fight or flight reaction is mediated by IL-6, which takes the role of directing the immune system to gear up to prevent infection, promote wound healing and repair organs and muscles from any injury that may result from the imminent danger. The release of cytokines such as IL-1, IL-6, IL-8, TNF and other proteins such as CRP (C reactive protein) also promote development of inflammation, which is essential for blood cells to home in on injury or infection. In addition, these chemicals promote development of various types of immune system blood cells in bone marrow. This response to harm -- either real or perceived -- is an important and beneficial life-saving activity of a normally functioning body.

In most younger people, when the threat lessens or disappears, the body reacts fairly quickly to shut down the stress response and return things to normal. But numerous studies have shown, as people age, the chemical cascade from stress lingers. This is especially true when the stress response is triggered regularly over a period of time. This is called chronic stress. Eventually, this constant chemical stimulus from chronic stress impairs the immune system and results in early aging, development of debilitating disease and early death. In this altered state, the body maintains high, potentially harmful levels of IL-6. The body does not return to normal without intervention.

Prolonged high levels of IL-6 and the accompanying hormones and cytokines have been linked to: cardiovascular disease, type II diabetes, frequent viral infections, intestinal problems, stomach and colon disorders, osteoporosis, periodontal disease, various cancers and auto immune disorders such as lupus, rheumatoid arthritis and multiple sclerosis. Alzheimer's, dementia, nerve damage and mental problems are also linked to high IL-6. Wounds heal slower, vaccinations are less likely to take and recovery from infectious disease is impaired. People who have depression also have high levels of IL-6. Depression in caregivers is about 8 times higher than the non-cargiving population.

This debilitating response to chronic stress is not unique to humans. Animals are affected as well. A 2004 PBS Scientific American Frontiers Special entitled "Worried Sick", explored the effect of chronic stress on animals. Observations in the field and experiments on animals exposed to chronic stress, uncovered the same phenomenon of debilitating disease and early death found in humans. Blood tests on the affected animals confirmed high levels of IL-6. The work of Dr. Janice Kiecolt-Glaser's team was also followed in the Special.

The information above should provide a compelling reason to eliminate or reduce the stress experienced by aging seniors.

Caregiving Stress -- Hazardous to Your Health and Sometimes Deadly

The study discussed above also proves the old adage "stress can kill you" is true. The focus of the investigation was the effect the stress of caregiving had on caregivers. The team, led by Dr. Janice Kiecolt-Glaser, reported on a 6-year study of elderly people caring for spouses with Alzheimer's Disease. The study not only found a significant deterioration in the health of caregivers when compared to a similar group of non-caregivers but also found the caregivers had a 63% higher death rate than the control group.

The constant initiation of the stress response as discussed above is common among caregivers – especially those caring for loved ones with dementia. Providing supervision or physical assistance many hours a week and over a period of years turns out to be extremely stressful. This type of stress is often unrelenting – occurring day after day and week after week. And the long term effects of this type of stress are more pronounced in middle-aged and older people who are precisely the group most likely offering long term care to loved ones.

The study not only found that the caregivers had a 63% higher death rate than a control group, but 70% of the caregivers died before the end of the study and had to be replaced by new subjects. Another surprising result was that high levels of IL-6 continued even three years after the caregiving stopped. Dr. Glaser proposes the prolonged stress may have triggered a permanent abnormality of the immune system.

Strategies to Deal with Caregiver Stress

Ask for help.

Most caregivers are reluctantly thrust into their role without preparation because the need for care usually comes with little warning. Caregivers end up operating in a "crisis" mode--arranging medical care and living arrangements, scheduling care time, providing meals and

household chores and so forth. Because they are so stressed and burdened, they rarely take time to find out what resources are available to help them. Ironically, caregivers often sever ties with family, friends and support groups about this time just when help from these people is most needed.

As a caregiver you must ask for help. The stress of going it alone is dangerous to your health. If it's difficult to ask for yourself, use an advocate--a sibling, friend or professional care manager -- to arrange a meeting and get formal, written commitments from those people who are willing to help you. The extra help will give you breathing room to find all those resources that are there to help you.

Seek care management advice.
You should pay for a formal assessment and care plan from a professional geriatric care manager. Even though it may cost you a little money to hire a care manager, this could be the best money you will ever spend. Care managers are valuable in helping find supporting resources, providing respite, saving money from care providers, finding money to pay for care, making arrangements with family or government providers and providing advice on issues that you may be struggling with.

Take time off--find temporary substitutes.
Taking a break from caregiving is just as important as taking a break at work or taking that long-awaited vacation. A care manager may be of help in selecting the best temporary help to give you a break. Or you may make arrangements with family or friends to give you a break from caregiving.

Make plans for funding future care arrangements for you or for a healthy parent.
The analysis of data from three national surveys (Mature Market Institute, National Alliance for Caregiving and LifePlans, Inc) points out that employees caring for disabled elders who have long term care insurance (LTCI) are nearly two times more likely to be able to continue working than those caring for non-insured relatives. In addition, working caregivers of those with long term care insurance said that they were less likely to experience some type of stress, such as having to give constant attention to the care recipient or having to provide care while not feeling well themselves. Also, the group with insurance devoted more "quality time"--more companionship and less hands-on assistance--than the group without.

See if your healthy parent can still buy insurance. If he or she can't afford it, see if other family members might contribute to premiums. There are also useful strategies using a reverse mortgage to buy long term care insurance and life insurance for your loved ones. You should also consider insurance for yourself so when you need care someday, it won't be so stressful on your caregivers.

Use assistive technology.
There are a number of technologies to make sure your loved-ones are safe while you're away. Such things as emergency alert bracelets and pendants, GPS tracking for wandering, remote video surveillance, telehomecare, sensory augmentation and all sorts of assistive devices to help disabled people cope on their own.

Remove non-caregiving stress from your job or at home.
It's obvious if you can remove other stressors in your life, you can cope better with the stress of caregiving, which you may not want to or can't remove. The internet is your best resource here. Go to www.google.com, the most relevant non-commercial search engine on the net. Type in "work stress" and you can browse 3 million plus URL's. For home stress type in "home stress" and browse 4 million plus URL's. Everything you ever wanted to know is buried somewhere in those millions of pages.

Attend workshops or seminars to uncover additional strategies.
The Utah Eldercare Planning Council offers worksite or community presentations on various eldercare issues. Community workshops like these are available across the country. These learning experiences are an opportunity to find help with your own caregiving situation.

Exercise
Exercise is a powerful and effective way to fight stress. It is recommended you do about 30 minutes of moderate exercise at least 3 days a week. Here are a few reasons why exercise works.

- Distraction--Exercise provides time away from the stresses of the day.
- Endorphins--Endorphins are opiate-like chemicals that the body produces naturally during periods of stress or physical exertion to relieve pain. Some evidence suggests that they may be involved in the regulation of mood.
- Neurotransmitters--During exercise, the body releases higher levels of dopamine. These hormones improve the thought process by facilitating transfer of information between neurons.
- Self-esteem--Exercise can be a gratifying and fulfilling activity for people. The act of doing something good for self can promote self-esteem.
- Reduces IL-6--Although muscles temporarily produce IL-6 during heavy workouts, exercise tends to lower levels between workouts.

Do a better job of managing time
In our modern world, one of the most prevalent threats to our well-being is the improper use of time. Not meeting deadlines may cost us a promotion or our career. Failure to make appointments or to meet obligations threatens our self-image or social standing. These and many more time-related threats cause stress. Finding help with managing your time would probably go a long way to relieving your stress.

Develop a support group and maintain social contacts
Participating in a support group can help manage stress. Sharing coping strategies in a group setting lets you help others while helping yourself. It may also help you to realize that some problems have no solutions and that accepting the situation is reality. Social support has a huge impact on reducing stress. Many studies show that social support decreases the stress response hormones in our bodies. In his book, Love and Survival (Harper Perennial, 1998) Dr. Dean Ornish notes that people who have close relationships and a strong sense of connection and community enjoy better health and live longer than those who live in isolation or alienation. People who suffer alone, suffer a lot.

Stress Management Techniques

Pursue diversions, hobbies and relaxing activities
Another simple way to reduce stress is to distract yourself -- go to a movie, play a sport, immerse yourself in a hobby, listen to some favorite music or take a walk. It cannot be emphasized enough how important it is as a caregiver you spend some quality time alone every week, doing exactly what it is you like to do.

Try taking anti-depressants and anti-anxiety medications
Dr. Kiecolt-Glaser points out that anti-depressants lower IL-6 levels in chronically depressed patients, so they might be useful. She also said there have been suggestions that cholesterol-lowering statins might reduce IL-6, because they seem to reduce inflammation.

Reduce Stress through Proper Nutrition

Being overweight (eating too much)
Many people react to stress by eating. Eating too much for a long period causes obesity. This causes your heart and lungs to work harder, overloads your organs and reduces stamina. Studies show that fat cells excrete IL-6 and that overweight people have high levels of IL-6 in their blood. This in turn leads to the IL-6-associated illnesses such as heart disease, immune disorders and diabetes.

Not eating properly
Some people react to stress and stress-induced depression by not eating or eating poorly. If you eat a good, well-balanced diet, your body will be receiving all the nutrients it requires to function properly. On the other hand, if you are eating an unbalanced diet or not eating enough you may be stressing your body and contributing to stress-related complications by depriving yourself of essential nutrients.

Coffee, tea, caffeine soft drinks and chocolate
Caffeine is a stimulant. One of the reasons you probably use it is to raise your level of activity. This chemical actually enhances the stress response and thus increases your existing stress. Small quantities probably do little harm but large quantities over a long period produce excessive stress and lead to many of the physical ailments attributed to chronic stress. Too much caffeine can be dangerous. If you are drinking many cups of caffeine products a day, then you may find you can reduce a lot of stress and save your health by switching to caffeine-free products for a portion of your daily intake.

Alcohol
Some people react to stress by imbibing in alcohol. In small amounts, spirits may help you relax. In larger amounts alcohol may increase stress as it disrupts sleep. Over the long term, alcohol will damage your body. Alcohol is also a depressant. If you're prone to depression, alcohol will only make it worse. Studies show that depressed people have eight times the level of IL-6 as compared to the general population. As we have seen, high, prolonged levels of IL-6 are a marker for debilitating illness and early death.

Tobacco
In the short-term tobacco use seems to relax people but the toxic effects of nicotine raise the heart rate and enhance the stress response. If you smoke, try taking your pulse before and after a

cigarette, and notice the difference. After the initial period of giving up smoking, most ex-smokers report feeling much more calm.

Sugar and refined flour
Sugar can be a stimulant for people experiencing stress and stress-induced depression. Sugar-rich foods (the starch in refined flour is also a form of sugar) can raise your energy level in the short-term. The problem is your body copes with high levels of sugar by secreting large amounts of insulin, which in turn, quickly reduces the excess amount of sugar in your blood stream often causing blood sugar levels to swing too low.

These up and down spikes in blood sugar can cause agitation, mood swings, irritability and fatigue, which in turn can contribute to the creation of additional stress. The ups and downs of sugar spikes also contribute to depression. And of course, excess sugar is readily converted to body fat thus causing obesity. Consuming sugar in the form of complex carbohydrates--whole grains, fruits, vegetables and tubers--forces the digestive tract to release blood sugar more slowly and keeps insulin and blood sugar levels more normal. Avoid fruit drinks, sugar drinks, candy, pastas, white bread and pastries.

Nutritional supplements
There are thousands of supplement suppliers and scores of books that claim success with managing stress by using herbs, herbal extracts or synthesized biochemicals. These compounds often come with the claim of enhancing mood or strengthening the immune system. Since there are so many different competing claims, you must decide for yourself which supplements help and which don't.

Controlling Stress with Mind and Body Calming Techniques

Music therapy
Listening to music does wonders to alleviate stress. Choosing what will work for any individual is difficult; most people will choose something they 'like' instead of what might be beneficial. In doing extensive research on what any given piece of music produces as a physiological response, many unexpected things were found. Many of the so-called Meditation and Relaxation recordings actually produce adverse EEG patterns in the brain--just as bad as Hard Rock and Heavy Metal. The most profound finding: Any music performed live and even at moderately loud volumes even if it is somewhat discordant has a very a beneficial response.

Laughter therapy
Numerous studies show that laughter has the uncanny ability to wipe out stress. Here are some suggestions for caregivers:

- Look up jokes on the internet.
- Try to see the humor in being a caregiver.
- Write on a card "Have you laughed with your care-receiver today?" and place it in a conspicuous place in the bathroom or kitchen.
- Read funny books or jokes, listen to funny tapes or watch humorous movies or videos that make you laugh.
- Share something humorous with your care-receiver, a friend, or relative.
- Attend social groups where there is a lot of comeraderie, joy and fun.

- Be aware of how often you smile; it takes fewer muscles to smile than to frown.
- If you find that you are feeling hopeless, and humor or laughter is not affording you the up-lift you want. contact a counselor. And remember, laughter is the best medicine. Try it, you'll like it!

Laughter clubs

There is no medicine like laughter therapy. After 15 minutes of laughter, in the morning, at a local club, stress is relieved and you will continue to be able to handle new pressure throughout the day. Laughter has benefited many people who were on heavy tranquilizers and sleeping pills. Now they are getting better sleep and their depression is reduced. Under the Laughter Club concept, people laugh in a group without the help of any jokes. To make it more spontaneous and keep the sessions interesting and avoid boredom, laughter techniques need to be stimulating. That's the job of the club Certified Laughter Leader. These clubs are popular in India and England and are quickly catching on in the U.S. Just for laughs, you may want to start a local chapter.

Meditation

If you have ten free minutes a day, you can reduce stress, improve insomnia, lessen anxiety and depression, and decrease your chances of developing cardiovascular disease. Sound too good to be true? In fact, the meditative technique known as the "relaxation response" was described a quarter century ago by Harvard physician Herbert Benson, M.D. and has been scientifically proven not only to reduce stress and anxiety but also to improve symptoms of cancer, AIDS, and other conditions.

Just what is the relaxation response? Simply put, it is the opposite of the "adrenaline rush" we associate with stress and anxiety. Physiologically, our bodies respond to perceived threatening situations with an increased release of the hormones epinephrine and norepinephrine, leading to increased heart rate, increased blood pressure, accelerated breathing rate and increased blood flow to the muscles. Because these reactions prepare our bodies to flee the situation or to fight, this reaction has been termed the "fight-or-flight" response. The relaxation response described by Dr. Benson and his colleagues is a state in which our bodies undergo an opposite reaction - leading to decreased breathing rate, heart rate, blood pressure, and metabolism.

Almost anyone can learn to elicit the relaxation response, and no special equipment is necessary. The relaxation response technique consists of the repetition of a word, sound, phrase, etc. while sitting quietly with eyes closed. Intruding thoughts are dismissed by passively returning to the repetition. This should be practiced for 10-20 minutes a day in a quiet environment, free of distractions. A seated position is recommended to avoid falling asleep, and you may open your eyes to check the time but do not set an alarm. Don't feel discouraged in the beginning if it is difficult to banish intruding thoughts or worries; this technique requires practice. With consistency and time the relaxation response will occur effortlessly and smoothly.

For maximum benefits you should schedule time to practice the relaxation response into your daily routine. Many people find it helpful to practice this technique at approximately the same time each day; for example, upon returning home after a busy work day it may ease your transition to a relaxed and enjoyable evening.

Another technique is practicing what the Buddhists call 'mindfulness'. At various times of the day try to focus on your breathing. Notice how the air feels cool when you inhale, and then feels warm when you exhale.

You can do this while you are doing the washing up, making the beds, waiting at a red light, or even standing in a post office queue, etc. The instant benefit from this is that it brings you immediately to the present moment. It is also very effective if done during or before an important meeting, an exam, or even while sitting in the dentist's chair. As you breathe out, you will start to feel your body relax, and your mind will become more focused. So each time you feel yourself getting stressed or find that you have unexpected time on your hands, you can do a quick 60 second meditation.

Tai Chi

Tai Chi Ch'aun is a centuries old Chinese system of physical exercise based on the principles of effortless breathing. It can be practiced by an individual, alone, and in a limited space. It requires no equipment, except a loose-fitting garment that permits continuous rhythmic body movements. It can be learned by anyone regardless of age, sex, or athletic ability. Tai Chi emphasizes relaxation, receptivity and inner calm rather than strength. The flowing stretching movements make the body limber, tone up muscles, and help release muscle tension. This is accomplished by practicing movements slowly and evenly in circular patterns. Many people also report it is an excellent and effortless way to lose weight. Videotapes or DVDs are available for practicing this technique.

Yoga

Yoga is a wonderful way to release stress. Meditation, breathing exercises and sustained poses help you focus on relaxing your mind and body. Once having learned the techniques in a class, it can be done at home. Yoga also helps you develop greater control over your thoughts and worries.

Acupuncture

Acupuncture can treat a wide spectrum of ailments since it approaches injury and disease by looking at the underlying cause as well as the symptoms. Since acupuncture treats the root of the problem, it is favored over traditional therapy because with acupuncture symptoms rarely return. Although acupuncture is renowned for its effectiveness in the treatment of pain, such as back pain, frozen shoulders and migraines it is also effective for many other problems such as stress and anxiety.

Massage therapy

Massage therapy works to improve an individual's health and well-being through the hands-on manipulation of muscles and other soft tissues of the body. Massage therapy is designed to stretch and loosen muscles, improve blood flow and the movement of lymph throughout the body. It facilitates the removal of metabolic wastes resulting from exercise or inactivity, and increases the flow of oxygen and nutrients to cells and tissue. In addition, massage stimulates the release of endorphins -- the body's natural feel-good chemicals-- into the brain and nervous system. It provides a relaxed state of alertness, reduces mental stress and enhances capacity for calm thinking and creativity. Massage also satisfies the need for caring and nurturing touch, creates a feeling of well-being and reduces anxiety levels.

Aromatherapy
Aromatherapy is the art and science of using essential oils, extracted from plants, for therapeutic benefit including stress management. It's efficacy is backed up by solid scientific research. Because aromatherapy can be done as a self-help technique, its use can be very beneficial as a stress reducer while you work. Most of the workplace applications are available in hand lotions for easy use in the office. Bergamot and lavender work well for stress and anxiety reduction. Pendants are also an excellent way to utilize aromatherapy oils in public. Nebulizers and misters are used at home. There are hundreds of unique oils and scents and each has its own medicinal or theurapeutic value. Here are some common oils: Anise, Sweet Basil, Bergamot, Cedarwood, Atlas, Blue Chamomile, Cinnamon, Clary Sage, Clove, Cypress, Eucalyptus, Sweet Fennel, Geranium, Grapefruit, Juniperberry, Lavender, Lemon, Sweet Marjoram, Nutmeg, Sweet Orange, Palmerosa, Patchouli, Black Pepper, Peppermint, Pine Needle, Rosemary, Sandalwood, Tea Tree, Vetiver, Yarrow, Helichrysum, Neroli, Grapeseed oil and Ylang Ylang.

Pet therapy
There is a saying that "dog is man's best friend." This is certainly true when it comes to dealing with your body's stress response. Many people feel more relaxed when companion animals are present. Several studies have shown that pets are good for us in numerous ways. For example, petting an animal is known to lower your heart rate, lower your blood pressure and brighten your mood. Another study found that simply watching fish in an aquarium made patients waiting to undergo medical procedures less anxious. In fact,"pet therapy" is frequently used in hospitals and nursing homes to increase socialization and to reduce depression, loneliness, anger, and stress.

Having tender physical contact with your pet is also good for you. Having an animal to hold, cuddle and caress has positive effects on people. Especially those who might have limited means to give or receive physical expressions of affection. Most of us have felt a warm fuzzy feeling inside just by getting your face licked by a puppy. After a hard day at work, this kind of attention can really help you to calm down and relax.

Talking to your pet can be very therapeutic. People often talk to their pets to share their thoughts, feelings, troubles and worries. Although your pet won't give you any solutions for your problems, the very act of talking about your concerns with a good listener may help you find your own solutions. And you must admit pets are great listeners.

Finally, if you have a dog for a pet, you get to go for a walk at least 3 or four times a day. This affords you the perfect excuse to take time to yourself away from your stressors. These walks give you time to breathe fresh air, join with nature, collect your thoughts, make plans for the day, or just daydream. Also, watching your pet frolic and play can't help but bring a smile to your face and help to dry up your sea of troubles. Furthermore, the light exercise you get from walking your pet helps you to deal with the physical stress reactions you have acquired in the course of your day. Specifically, walking with your dog helps you to burn up the pent up energy your stressors have caused.

Relaxing personal retreats
Take a relaxing, scented bath with candles. Every woman knows this is a sure-fire way to relax, but how many of you take time to do it? For the guys, stay thirty minutes in a hot shower, soak in a hot tub or go to the local sauna. Take a weekend break to a spa, even the guys. Get a facial;

it's great guys. Take a weekend trip with your partner or with friends. There are tons of activities you can do to remove yourself from the daily grind, have fun and just relax.

Gardening

Gardening has an important impact on the health of individuals through direct interaction with plants and the natural environment. Horticulture promotes individual health through exercise, stress reduction, social interaction and mental stimulation. Gardening is recommended by such groups as the American Heart Association as a technique to improve general physical health and thus prevent many diseases. In addition, urban agriculture can plan a role in improved health through access to high quality fresh produce either locally produced or self-produced.
The National Care Planning Council is a nationwide alliance of eldercare experts, advisers and providers who promote and support long term care planning.

Dealing with Depression

High Incidence of Depression in the Elderly

According to the National Institutes of Health; of the 35 million Americans (as of 2006) age 65 or older, about 2 million suffer from full-blown depression. Another 5 million suffer from less severe forms of the illness. This represents about 20% of the senior population -- a significant proportion.

Depression in the elderly is difficult to diagnose and is frequently untreated. The symptoms may be confused with a medical illness, dementia, or malnutrition due to a poor diet. Many older people will not accept the idea that they have depression and refuse to seek treatment.

Depression also worsens during holidays. It is not the actual holiday that causes depression, but the fact that holidays tend to bring memories of earlier, perhaps happier times. Additional contributing factors that bring on depression may be the loss of a spouse or close friend, or a move from a home to assisted living, or a change with an older person's routine.

Depression may also be a sign of a medical problem. Chronic pain or complications of an illness or memory loss can also cause depression. In addition, diet can also be a factor when proper nutrition and vitamins are lacking.

As an example, Selma's husband passed away, a few months before Christmas. Her family lived close by and would call or drop in often to check on her. Selma seemed a little preoccupied and tired, but this was to be expected as she had been the caregiver for her husband for many years. It wasn't until the family noticed that her holiday decorations were not out and her yearly routine of Christmas card writing was not happening that they began questioning her mental and physical well being.

A trip to her physician confirmed depression, caused by not only the loss of her spouse, but a vitamin B12 deficiency. There were both mental and physical reasons for her depression.

Symptoms to look for in depression might include:

- Depressed or irritable mood
- Feelings of worthlessness or sadness
- Expressions of helplessness
- Anxiety
- Loss of interest in daily activities
- Loss of appetite
- Weight loss
- Lack of attending to personal care and hygiene
- Fatigue
- Difficulty concentrating
- Irresponsible behavior
- Obsessive thoughts about death
- Talk about suicide

Is It Depression or Dementia?
Depression and dementia share similar symptoms. A recent article on Helpguide.org gives some specific differences:

> "In depression there is a rapid mental decline, but memory of time, date and awareness of the environment remains. Motor skills are slow, but normal in depression. Concern with concentrating and worry about impaired memory may occur.
>
> On the other hand, dementia symptoms reveal a slow mental decline with confusion and loss of recognizing familiar locations. Writing, speaking and motor skills are impaired and memory loss is not acknowledged as a being problem by the person suffering dementia."

Whether it is depression or dementia, prompt treatment is recommended. A physical exam will help determine if there is a medical cause for depression. A geriatric medical practitioner is skilled in diagnosing depression and illnesses in the elderly. If you are a care taker of an elderly person it may be beneficial for you to seek out a geriatric health care specialist.

Treatment of Depression
Older Americans have a suicide rate that is four times the national average. Much of this is a result of depression. As mentioned above, it is estimated that 20% of the aging population suffers from depression.

Practitioners not trained in geriatric care automatically assume that depression is a normal part of the aging process. This is not true. Depression can be treated just as effectively in older people as it is in younger people. But sometimes medications are not as effective in older people as they are in a younger population. Unfortunately, practitioners often rely too heavily on medications and don't try other non-medical therapies.

Many doctors simply don't choose to recognize depression and help their older patients with it. It is interesting to note that over 70% of elderly suicide victims committed suicide within one month of seeing their health care practitioner. Many of these people were not referred or treated for depression by that health care practitioner.

Once the cause of depression is identified, a treatment program can be implemented. Treatment may be as simple as relieving loneliness through visitations, outings and involvement in family activities. In more severe cases antidepressant drugs have been known to improve the quality of life in depressed elderly people. Cognitive therapy sessions with a counselor may also be effective.