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## Exercise and nutrition - Key of healthy ageing

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### Abstract

Aging takes place in a cell, an organ, or the total organism with the passage of time. It is a process that goes on over the entire adult life span of any living things. Represents the accumulation of changes in a human being over time and can encompass physical, psychological, and social changes, it is associated with changes in dynamic biological, physiological, environmental, psychological, behavioural, and social processes. For humans in industrialized countries, life expectancy has increased significantly. Indeed, at the beginning of the 20th century, life expectancy in those countries was between 30 and 45 years. At the century's close, life expectancy averaged about 67 years, thanks to the improvements in health care, nutrition, and standards of living. Aging is a gradual, continuous process of natural change that begins in early adulthood. During early middle age, many bodily functions begin to gradually decline. People do not become old or elderly at any specific age. Traditionally, age 65 has been designated as the beginning of old age. But the reason was based in history, not biology. Many years ago, age 65 was chosen as the age for retirement in Germany, the first nation to establish a retirement program, and it continues to be the retirement age for most people in developed societies, although this tradition is changing

**Keywords:** Aging, healthy, exercise

### Introduction

Substantial increases in the relative and absolute number of older persons in our society pose a challenge for biology, social and behavioural science, and medicine. Successful aging is multidimensional, encompassing the avoidance of disease and disability, the maintenance of high physical and cognitive function, and sustained engagement in social and productive activities. Research has identified factors predictive of success in these critical domains. The stage is set for intervention studies to enhance the proportion of our population aging successfully.

Healthy aging refers to postponement of or reduction in the undesired effects of aging. The goals of healthy aging are maintaining physical and mental health, avoiding disorders, and remaining active and independent. For most people, maintaining general good health requires more effort as they age. Developing certain healthy habits can help, such as Following a nutritious diet, exercising regularly, staying mentally active.

The sooner a person develops these habits, the better. However, it is never too late to begin. In this way, people can have some control over what happens to them as they age. Aging is ultimately a combination of physiological changes in our bodies and the environmental factors we are exposed to. While the latter is often beyond our control, some environmental factors are modifiable and may influence the course of aging. About half of the physical decline associated with ageing may be due to a lack of physical activity. Without regular exercise, people over the age of 50 years can experience a range of health problems including: Reduced muscle mass, strength, physical endurance, coordination and balance (Health line, 2005) [1].

### Common health conditions associated with ageing

Common conditions in older age include hearing loss, cataracts and refractive errors, back and neck pain and osteoarthritis, chronic obstructive pulmonary disease, diabetes, depression, and dementia. Furthermore, as people age, they are more likely to experience several conditions at the same time.

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Older age is also characterized by the emergence of several complex health states that tend to occur only later in life and that do not fall into discrete disease categories. These are commonly called geriatric syndromes. They are often the consequence of multiple underlying factors and include frailty, urinary incontinence, falls, delirium and pressure ulcers. Geriatric syndromes appear to be better predictors of death than the presence or number of specific diseases. As you get older, your blood vessels and arteries become stiffer. Your heart has to work harder to pump blood. This can lead to high blood pressure and other heart problems. Stay active, walk, run, swim etc. even a little moderate exercise each day can help you stay at a good weight and keep your blood pressure down .Factors influencing Healthy Ageing.

- Although some of the variations in older people's health are genetic, much is due to people's physical and social environments – including their homes, neighbourhoods, and communities, as well as their personal characteristics – such as their sex, ethnicity, or socioeconomic status.
- These factors start to influence the ageing process at an early stage. The environments that people live in as children – or even as developing foetuses – combined with their personal characteristics, have long-term effects on how they age.
- Environments also have an important influence on the development and maintenance of healthy behaviours. Maintaining healthy behaviours throughout life, particularly eating a balanced diet, engaging in regular physical activity, and refraining from tobacco use all contribute to reducing the risk of non-communicable diseases and improving physical and mental capacity.
- Behaviours also remain important in older age. Strength training to maintain muscle mass and good nutrition can both help to preserve cognitive function, delay care dependency, and reverse frailty.
- Supportive environments enable people to do what is important to them, despite losses in capacity. The availability of safe and accessible public buildings and transport, and environments that are easy to walk around are examples of supportive environments. Enjoy a better body by knowing what's natural as you age and what's not and by learning simple steps you can try to delay or lessen the changes.

### **Physical activity is essential to healthy aging**

As an older adult, regular physical activity is one of the most important things you can do for your health. It can prevent many of the health problems that seem to come with age. It also helps your muscles grow stronger so you can keep doing your day-to-day activities without becoming dependent on others.

Keep in mind, some physical activity is better than none at all. Your health benefits will also increase with the more physical activity that you do. Older adults with chronic conditions should understand whether and how their conditions affect their ability to do regular physical activity safely. When older adults cannot do 150 minutes of moderate-intensity aerobic activity a week (for example, 30 minutes a day, 5 days a week) because of chronic conditions, they should be as physically active as their abilities and conditions allow.

No amount of physical activity can stop the aging process, a moderate amount of regular exercise can minimize the

physiological effects of an otherwise sedentary lifestyle and increase active life expectancy by limiting the development and progression of chronic disease and disabling conditions. Ideally, exercise prescription for older adults should include aerobic, muscle strengthening, and flexibility exercises. In addition, individuals at risk for falling or mobility impairment should also perform specific exercises to improve balance.

The intensity and duration of physical activity should be low at the outset for those who are highly deconditioned, are functionally limited, or have chronic conditions affecting their ability to perform physical tasks. Furthermore, the progression of activities should be individualized and tailored to tolerance and preference.

Incorporating principles of behavioural change into the design and application of exercise and physical activity programs will increase the likelihood of an individual initiating and maintaining a regular program of exercise and/or physical activity. All older adults with and without disabilities should be encouraged to develop a personalized physical activity plan that meets their needs and personal preferences.

As an older adult, regular physical activity is one of the most important things you can do for your health. It can prevent many of the health problems that seem to come with age. As we age, our bones shrink in size and density. Some people actually become shorter! Others are more prone to fractures because of bone loss. Muscles, tendons, and joints may lose strength and flexibility. Exercise is a great way to slow or prevent the problems with bones, muscles and joints. Exercise strengthens your heart and improves your circulation. The increased blood flow raises the oxygen levels in your body. This helps lower your risk of heart diseases such as high cholesterol, coronary artery disease, and heart attack. Regular exercise can also lower your blood pressure and triglyceride levels. Exercise helps circulation as it increases blood flow, gets the heart pumping blood around your body faster and helps flush the blood through your arteries. And it's never too early or too late to start proactively looking after your cardiovascular health.

### **Benefits of exercise for aging adults**

Physical activity and exercise are good for aged people, and should aim to make them as a part of the routine. There are countless studies that prove the important health benefits associated with exercise, and it becomes more important as age. Regular physical activity and exercise for aged helps to improve mental and physical health, both of which will help you maintain your independence as you age. Some of the exercise listed below are the benefits of exercise for seniors and aging adults (Aging, N.D.).

#### **1) Prevent disease**

Studies have shown that maintaining regular physical activity can help prevent many common diseases, such as heart disease and diabetes. Exercise improves overall immune function, which is important for seniors as their immune systems are often compromised. Even light exercise, such as walking, can be a powerful tool for preventable disease management.

#### **2) Improved mental health**

The mental health benefits of exercise are nearly endless. Exercise produces endorphins (the "Feel Good" hormone),

which act as a stress reliever and leaves you feeling happy and satisfied. In addition, exercise has been linked to improving sleep, which is especially important for older adults who often suffer from insomnia and disrupted sleep patterns.

### **3) Decreased risks of falls**

Older adults are at a higher risk of falls, which can prove to be potentially disastrous for maintaining independence. Exercise improves strength and flexibility, which also help improve balance and coordination, reducing the risk of falls. Seniors take much longer to recover from falls, so anything that helps avoid them in the first place is critical.

### **4) Social engagement**

Whether you join a walking group, go to group fitness classes or visit a gardening club, exercise can be made into a fun social event. Maintaining strong social ties is important for aging adults to feel a sense of purpose and avoid feelings of loneliness or depression. Above all, the key is to find a form of exercise you love, and it will never feel like a chore again.

### **5) Improved cognitive function**

Regular physical activity and fine-tuned motor skills benefit cognitive function. Countless studies suggest a lower risk of dementia for physically active individuals, regardless of when you begin a routine.

### **Nutrition for healthy aging**

Nutrients like protein, carbohydrates and fats can help you stay healthy as you age. Nutrition is closely associated with skin health and is required for all biological processes of skin from youth to aging or disease. Nutrition levels and eating habits can repair damaged skin and can also cause damage to the skin. Essential dietary minerals such as calcium, zinc, iron and selenium also contribute to bone density and a functioning immune system, with protein malnutrition playing a role in the development of sarcopenia. Eat a wide variety of foods from the five food groups: plenty of colourful vegetables, legumes/beans; fruit; grain (cereal) foods, mostly wholegrain and high fibre varieties; lean meats and poultry, fish, eggs, tofu, nuts and seeds; milk, yoghurt, cheese or their alternatives, mostly reduced fat. The WHO estimates that the elimination of the major risk factors for chronic disease (smoking, lack of exercise, and poor diet) would reduce the risk of CVD, stroke, and type 2 diabetes by 80% (11). Energy intake and body weight also have bearing on longevity and quality of old age.

Poor Nutrition affect the aged in the following ways: being overweight or obese, tooth decay, high blood pressure, high cholesterol, heart disease and stroke, type-2 diabetes, osteoporosis.

### **Things that damage collagen**

- Eating too much sugar and refined carbs. Sugar interferes with collagen's ability to repair itself. Minimize your consumption of added sugar and refined carbs.
- Getting too much sunshine. Ultraviolet radiation can reduce collagen production.
- Smoking. Smoking reduces collagen production.

### **Foods that speed up your body's aging process — Plus potential swaps**

Fries, White bread, White sugar, Margarine, Processed meat, Dairy, Caffeine, sugar, Alcohol.

Women are at greater risk because their bone loss accelerates after menopause. Prevention is possible with hormone therapy at menopause. Lifestyle factors – especially diet, but also physical activity and smoking – are also associated with osteoporosis, which opens the way for primary prevention. The main aim is to prevent fractures; this can be achieved by increasing bone mass at maturity, by preventing subsequent bone loss, or by restoring bone mineral. Particularly important are adequate calcium intake and physical activity, especially in adolescence and young adulthood (Food, 2004) [2].

### **Conclusion**

Exercise is good for aged people; it's just a matter of making it a priority and habit in your daily life. In the aging population, exercise has been shown to prevent disease, lower the risk of falls, improve mental health and well-being, strengthen social ties, and improve cognitive function. Regardless of your age, hope this will motivate you to incorporate exercise into your life.

Although the body begins to lose functionality and mobility in later years due to loss of muscle mass and degenerative agents in the bones and joints, these effects can be aided and counteracted by a healthy – and safe – exercise regimen. There are many ways to enjoy physical activity, and if done the right way, you'll be able to experience the benefits for years to come.

As we get older our bodies have different needs, so certain nutrients become especially important for good health. Eat a wide variety of foods from the five food groups, Calcium and vitamin D helps to maintain bone health than they did in their younger years. Some people are not able to absorb enough vitamin B12, in that cases supplement can be included. Eat fibre-rich foods to stay regular. Dietary fibre also may help lower your risk for heart disease and reduce your risk for Type 2 diabetes. Consuming adequate potassium, along with limiting sodium (salt) intake, may lower your risk of high blood pressure. Eat lots of fruits, vegetables, and whole grains to keep your heart healthy. Manage stress. Get enough sleep. 7 to 8 hours of rest each night can help repair and heal your heart and blood vessels.

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