



PHYSICAL ACTIVITY FOR OLDER ADULTS

Why Exercise?

Whilst the continuation of relatively high levels of intellectual activity is linked with the maintenance of cognitive skills in older age, exercise is important to maintain physical fitness of the body as we age. Exercise keeps some lifestyle-associated diseases at bay, such as osteoporosis (softening of the bones), heart disease and type II diabetes. In short, **'Use it or Lose it!'**

Exercise has a positive effect on all systems of the body including heart-lung performance, musculo-skeletal activity, neuronal efficiency and body composition.

With exercise, the heart muscle strengthens, allowing the heart to pump a larger volume of blood with each beat. This helps to reduce resting blood pressure. Regular aerobic exercise, that is exercise that can be carried out continuously at a sustained rate (e.g. swimming, brisk walking, dancing), increases the capacity of the lungs. Therefore, if the lungs are ageing but regularly exercised, they are more likely to retain their function. By strengthening large muscle groups (e.g. legs, back) we improve our ability to perform in reflex contractions and muscle endurance. Improving bone strength provides better support for the body, and better posture which in itself reduces the potential for injury. Weight bearing exercise (e.g. walking, weights program) helps to keep bones strong and reduces the risk of osteoporosis. Exercise promotes better neuromuscular (nervous control) function. As we age it is important to maintain our Central Nervous Control for balance and skilled movement. Lastly our body composition or physical appearance is not only a health issue but also a self esteem one. Our body size and shape can affect how we feel about ourselves no matter what age we are. Therefore, the benefit of exercise is not only physical (actual body size) but also encompasses physiological and psychological well-being.

Aches and pains together with an increase in disease conditions were once considered a part of 'just getting old'. Whilst ageing is characterised by a steady decline in functionality of the various body systems, exercise can reduce this functional decline. It is now believed that much so called **'inevitable ageing'** is brought on by inactivity and disuse rather than the ageing process itself.

A major concern associated with ageing is the increased risk of falls as we get older, which sometimes lead to fracture. Fractures can alter mobility for an extended period of time, even indefinitely. Whether falls occur from an uneven footpath, wet shopping mall surface or tripping down stairs, these accidents can sometimes be avoided with better physical conditioning.

It's Never too Late to Start an Exercise Program

Simple exercises that enhance strength, balance, core stability and general aerobic fitness can have a great effect on reducing your chances of a fall. The structure and functions of the body are critical in assisting the older adult to minimise the risk of falling. An exercise program adapted to reduce this risks would include:

- Strength Training
- General/Aerobic Fitness
- Core Stability
- Balance and Coordination

Strength Training

The focus here should be on the legs and abdomen. Most people fall from a standing position, so strong agile legs which are slow to fatigue are best for supporting the body and preventing a fall from occurring. The stomach muscles act like a corset around the spine, and strong deep stomach muscles will help support the back.

Functional exercises like squats, lunges, and step ups are great for increasing strength. Using weight machines at a gym is not always the best idea as they do not provide multi-directional movement similar to what we perform in daily activity.

Abdominal sit ups and stomach crunches are good external stomach exercises but it is really important to also strengthen the deep 'corset' spinal supporting muscles. For this kind of strengthening, classes in yoga or pilates or a few sessions with a trained professional is a great investment.

General/Aerobic Fitness

A simple free activity such as walking can help reduce the risk of falling simply by increasing the amount of time spent 'training' the feet in a controlled fatigued state. People who exercise regularly generally get tired at a slower rate. Falling can occur for the simplest reason, such as being too tired to lift your feet high enough to take another step. People who exercise also have a greater awareness of the environment, which in itself decreases the chances of a fall.

Core Stability

Core stability means having balance from the 'core' or trunk of the body. The trunk (torso) is like the powerhouse (strength), or should be, the powerhouse of the body. So many people of all ages who attend gyms very often strengthen their body from the 'outside-in' rather than from the 'inside-out'. When pumping weights to achieve big strong arms and legs, it's important to be aware of the extra stress that these heavier appendages might transfer to the torso. It certainly is important to strengthen these muscle groups but it is equally important to strengthen the deep abdominal muscles which aid in spinal stability. After all, it is the spine that holds the weight of the body upright.

Every time you move your body, it tends to sway in the direction of movement until sub-conscious muscle control returns the body back to its normal position. For example, as you walk, you are exposing your body to a series of 'falling overs' in a forward direction. Someone with good core stability has the ability to control this natural body sway.

Good core stability strongly relates to good balance and good posture.

You don't need to go to a gym to perform Core Stability exercises. They can be done in a chair, lying on the floor or using a fitball. Yoga and pilates are good ways to learn exercises for core stability. Having a few sessions with a physiotherapist or exercise professional would be very useful. It's always a good idea to seek professional advice when using a fitball to make sure it is being used correctly.

Balance

Balance involves brain-muscle coordination, which is essential when trying to prevent falls. It is very important to obtain professional assistance when starting a specific balance program that will ensure initial supervision. Obviously, the worst thing you could do is have a fall when you begin a balance program!

Balance is a highly trainable physical characteristic which can often improve rapidly. Many professional athletes include sport specific balancing programs to improve performance.

Variety is the key

The more you vary your exercise routine the more chance you have of exercising different muscles and joints.

It is great to take up opportunities of all types of exercise to keep the body and mind at its peak condition.

Exercise ideas

In each State and Territory of Australia you will find the Ministry of Sport and Recreation which supplies information about the types of physical activities that are available in your area. Activities may range from badminton lessons to dance classes, canoeing to self defence, tai chi to walking and bushwalking groups. You will discover that there are so many opportunities to meet with others in the community and keep active together.