

**THE PROMOTION OF  
PHYSICAL ACTIVITY IN OLDER  
PERSONS**

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### ANNEXURE A - PHYSICAL EXERCISE PROGRAMMES FOR OLDER PERSONS

### ACKNOWLEDGEMENTS

## 1. INTRODUCTION

The World Health Organization suggests that due to the increasing life expectancy policies and programmes in developing countries should urgently address the burden of disabilities associated with old age. This can be achieved by “enabling programmes” that promote healthy and active ageing, e.g. physical exercise programmes that will assist with the prevention and reduction of old age associated disabilities. These programmes should aim to restore function and to maintain mobility by recovering or maintaining the leg strength that older persons need to be mobile.

Active ageing policies and programmes are needed to enable people to continue to work according to their capacities and preferences as they grow older, and to prevent or delay disabilities and chronic diseases that are costly to individuals, families and the health care system. Thus active ageing programmes needs to be implemented that will not only improve the health of older persons, but also their participation in their families, communities and life at large.

The goal of active ageing for older persons is to maintain mobility and functional independency for as long as possible. It should be emphasized that active ageing should not exclude persons who are frail, disabled and in need of care.

The potential outcomes of the implementation of active ageing programmes are:

- a decrease in premature deaths;
- a decrease in disabilities that are associated with chronic diseases;
- a decrease in costs related to medical and treatment care;
- an increase in people enjoying a quality of life; and
- an increase in people participating actively social, cultural, economical and political as they age.

From the above, it is clear that active ageing and more specifically the promotion of physical activity in older persons should be regarded as a national public health priority.

The Golden Games was launched in 2005 by the Western Cape Department of Social Development with the aim of promoting active ageing in older persons. The Golden Games focuses on sport activities and events and targets older persons who are 60 years and older from community based facilities such as service clubs and centers. Older Persons in rural areas, informal settlements and disadvantaged communities are also involved and encouraged to participate.

In October 2008 an inter-provincial Golden Games event was held where the Western Cape Province competed against the Eastern Cape Province and due to the extensive and positive media coverage that this event has received on both national and provincial level, the Active Ageing Programme for Older Persons

was established in the Western Cape. This event then also led to the further establishment of the Golden Games for older persons.

*(For the purpose of this document, the “older person” will be referred to as “him” bearing in mind that it also includes “her”.)*

## **2. ACTIVE AGEING**

The word “active” refers to continuing participation in social, economic, cultural, spiritual and community affairs, not just the ability to be physically active or to participate in the labour force.

“Active ageing” is the process of optimising opportunities for health participation and securing in order to enhance quality of life as people age.

The **goal** of active ageing is:

- disease prevention and/or effective disease management;
- to extend a person’s healthy life expectancy; and
- to improve a person’s quality of life

## **3. AGEING AND FUNCTIONAL HEALTH**

Functional health includes the person’s muscle strength, cardiovascular strength and endurance, bone density, flexibility, balance and coordination and it deteriorates due to the aging process, disease or an inactive lifestyle.

A person’s functional health status can then also be described as a person’s functional ability to perform the “activities of daily living”. These “activities of daily living” are necessary for independent living and ultimately affects the person’s general well-being and quality of life.

“Activities of daily living” includes:

- “self care activities of daily living”, i.e. bathing, dressing, feeding, mobility, continence and ambulation; and
- “instrumental activities of daily living”, i.e. housekeeping, shopping, taking medication, cooking, managing money.

From the above it is clear that a person’s functional health has an effect on his independent living and quality of life.

An inactive or sedentary lifestyle is not only a risk factor for poor health, but it also reduces the older person’s functional health and as a result impact on their level of independence. Fatigue is often one of the signs of an already lowered functional health.

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Because of the “ageing population” phenomenon it becomes increasingly important to explore all possible ways to maintain and improve the functional health of older persons to enable them to cope independently in the community for as long as possible, while living a quality life.

#### **4. AGEING AND MOBILITY**

A person’s mobility plays an important role in the person’s functional health. With ageing, a person’s mobility decreases due to the deterioration of the muscular-skeletal system which ultimately also has a negative effect on the older person’s ability to cope independently in the community.

Studies have shown that regular, moderate physical activity can delay the functional health decline in older persons as well as improve their mobility, so the answer clearly lies in the promotion of physical activity in older persons.

#### **5. AGEING AND PHYSICAL ACTIVITY**

For older persons to maintain their functional health, mobility and independence, they need to become physically active. Physical activity programmes for older persons should focus on the older person’s **endurance, strength, balance and flexibility** as research has shown that older persons can maintain or at least partially restore these four areas of functioning through physical exercise programmes.

##### **5.1 The benefits of physical activity**

Physical activity improves the older person’s health, functional health and mobility and improvement of these functions gives him greater functional freedom or independence that results in quality of life. In other words, physical activity has a positive influence on the older person’s independence and consequently quality of life.

On the other hand, the older person’s independence and quality of life are threatened when physical disabilities associated with ageing, prevents him to carry out his activities of daily living.

These age associated disabilities as well as the onset of chronic diseases, can be prevented or delayed by becoming physical active.

##### **5.1.1 Physical benefits**

Regular, moderate physical activity has the possibility of delaying the process of functional loss while at the same time it also has the possibility of reducing the onset of chronic illnesses.

Furthermore, physical activity more specifically improves the following:

- Functional capacity
  - Respiratory capacity
  - Muscular strength and endurance
  - Cardiovascular input
- Flexibility
- Balance
- Posture

Physical activity reduces the complications associated with immobility, e.g.:

- Pressure sores
- Faecal impaction
- Thrombosis

Being physical active can also:

- prevent and decrease the risks of cardiovascular diseases, osteoporosis, diabetes;
- regulate blood pressure;
- strengthen the bones and muscles and consequently reduce the risk of falls;
- prevent excessive weight gain and improve body shape; and
- improve:
  - flexibility and joint mobility
  - stamina
  - motorial fitness and overall physical coordination
  - cognitive function
  - quality of sleep

### **5.1.2 Mental benefits**

Physical activity has a positive influence on the older person's mental health.

It prevents and reduces:

- depression
- anxiety
- stress

Physical activity also improves the older person's:

- self-esteem or self-worth
- life satisfaction, general well-being and quality of life
- cognitive function

### **5.1.3 Social benefits**

Being physical active provides opportunity for social contacts and improves involvement in the family and community. This consequently reduces isolation and loneliness while improving the formation of new friendships and social networks that leads to better social integration. Physical activity also has a positive influence on the older person's social adjustment, increases his independence and improves the person's overall quality of life.

From the above, it is clear that older persons benefit physically, mentally and socially from physical activity.

## 6. PROMOTING PHYSICAL ACTIVITY IN OLDER PERSONS

### 6.1 Physical activity programmes

Physical activity programmes can be informal and formal:

- *Informal physical activities* are daily lifestyle activities that the older person can use to benefit from and include activities such as walking to fetch water, dancing during rituals, gardening and cleaning the house.
- *Formal physical activities* are activities that are structured in a more formal way as to form part of a physical activity programme. These activities can vary from a group of older persons who performs a walking routine together to a health care worker who facilitates a structured physical activity programme for older persons at a residential care facility, community health centre or clinic.

Physical activity programmes should:

- be adapted according to the *older person's functional ability and mobility*; and
- aim to improve the older person's *endurance, strength, flexibility and balance*.

For optimal health and functioning, physical exercise programmes should include three main groups of exercises as indicated in the table below (see Annexure A for exercises).

GROUP	DESCRIPTION	BENEFIT
Aerobic or Cardio vascular exercises	<ul style="list-style-type: none"> <li>▪ This form of exercise has an impact on the heart and circulatory systems by increasing the heart rate and breathing.</li> <li>▪ Examples of aerobic or Cardio vascular exercises are walking, climbing stairs, jogging, swimming, cycling, dancing, gardening and cleaning the house.</li> </ul>	<ul style="list-style-type: none"> <li>▪ Strengthens the bones and muscles</li> <li>▪ Improves stamina or endurance and overall fitness</li> <li>▪ Improves the condition and functioning of the heart, lungs and circulatory system</li> </ul>
Strength or Resistance exercises	<ul style="list-style-type: none"> <li>▪ This form of exercise involves weight resistance and weight movement by using the muscles.</li> <li>▪ Examples of strength or</li> </ul>	<ul style="list-style-type: none"> <li>▪ Improves muscular strength and endurance</li> <li>▪ Increases the metabolism which again regulates the weight and blood sugar levels</li> </ul>

	resistance exercises are lifting hand-weights, tins of canned food or bottles filled with water.	<ul style="list-style-type: none"> <li>▪ Prevents bone loss and consequently osteoporosis and bone breakage</li> <li>▪ Improves balance and consequently assists with the prevention of falls and broken bones</li> </ul>
Stretching or Flexibility exercises	<ul style="list-style-type: none"> <li>▪ This form of exercise lengthens the muscles and keeps it flexible and increases joint movement.</li> <li>▪ Flexibility refers to the movement of the joints that enables us to stretch, bend and turn.</li> </ul>	<ul style="list-style-type: none"> <li>▪ Improves the performance of activities of daily living</li> <li>▪ Improves the posture and gait of the older person</li> <li>▪ Warms the muscles up and reduces muscle stiffness</li> <li>▪ Improves flexibility and prevents falls and injuries</li> </ul>

## 6.2 The role of the health care worker

Health care workers can play an important role in promoting physical activity in older persons by:

- identifying older persons that can benefit from being more physically active;
- encouraging older persons by praising their efforts and successes; and
- following up on the progress made by the older person.

## 6.3 The safety of the older person

Although it is safe for older persons to exercise, even older persons with chronic illnesses such as hypertension, diabetes, heart diseases and arthritis as many of these illnesses improves with exercise, older persons should not exercise if they experience the following:

- Temporary illness, e.g. flu
- Extremely tired
- The exercise causes discomfort and pain
- Extremely hot or humid weather

On the other hand, older persons with the following symptoms should be closely monitored and a health professional should be consulted if necessary:

- Chest pain or a feeling of pressure on the chest
- Experiencing trouble with breathing (breathlessness) and excessive shortness of breath
- Irregular heart beat
- Feeling light headed or dizzy
- Severe unidentified weight loss
- Fever
- Infections accompanied by fever e.g. flue
- Severe swollen joints
- Acute deep vein thrombosis

- Severe muscular and joint pain
- Excessive muscle stiffness and pain
- Feeling nauseous
- Difficulty with balance
- Excessive fatigue
- Certain eye conditions, e.g. detached retina

When older persons participate in physical activity programmes, the following protective measures should be important:

- Before an older person participates in any physical activity programme, it is very important to obtain informed consent from the older person who wants to participate in the physical programme.
- It is advisable that older persons should go for a medical check up before commencing with any physical activity programme, especially when the older person displays any of the above-mentioned symptoms or conditions or has previously been inactive.
- If the older person was previously inactive, care should be taken that the older person does not overstrain him or herself.
- It is important that a person with basic first aid training be available where older persons participate in physical activity programmes.

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