GUIDELINES SERIES FOR HEALTHY AGEING - I

THE HEIDELBERG GUIDELINES FOR PROMOTING PHYSICAL ACTIVITY AMONG OLDER PERSONS

Ageing and Health Programme,
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TARGET: Older Persons

Physically active lifestyles benefit individuals throughout the lifespan. These guidelines were however developed primarily for promoting physical activity in the latter half of the life course. Although much of their content equally applies to individuals in other age groups, the scientific committee in charge of developing these guidelines selected those aged 50 years and above as the most appropriate target.

Age 50 marks a point in middle age at which the benefits of regular physical activity can be most relevant in avoiding, minimizing, and/or reversing many of the physical, psychological, and social hazzards which often accompany advancing age. These beneficial effects apply to most individuals regardless of health status and/or disease state.

Within these guidelines, physical activity is operationally defined as all movements in everyday life, including work, activities of daily living, recreation, exercise, and sporting activities. The proposed guidelines recognize that the preventative and rehabilitative effects of regular physical activity are optimized when physical activity patterns are adopted early in life, rather than when initiated in old age.

The guidelines focus on the impact of regular physical activity for both sexes. However, due to historical differences in the prevalence of physically activity lifestyles between the sexes, as well as the greater proportion of women in the older adult population, the scientific committee is careful to emphasize that the guidelines are universal and apply equally to all. Similarly, it is also clear that the guidelines must be sufficiently flexible to be of meaning to a wide variety of social and cultural groups.

AIM: To provide guidelines for facilitating the development of strategies and policies in both population and community-based interventions aimed at maintaining and/or increasing the level of physical activity for all older adults.

* These Guidelines were prepared by a scientific committee, submitted to the of participants at the 4th International Congress meeting on Healthy Ageing, Activity and Sports, August 1996 in Heidelberg, Germany, and finalized at WHO/AHE.
1. **EVIDENCE:**

'Appropriate physical activity can be fun and is good for you!'

Most people who engage in recreational physical activity do so because it is fun and enjoyable, however, there is ample evidence to show that physical activity is associated with significant improvements in functional ability and health status and may frequently prevent certain diseases or diminish their severity. However, it is important to note that many of these benefits require regular and continuous participation and can be rapidly reversed by a return to inactivity.

**Scientific evidence**

Regular physical activity.....

a. enhances general well being

b. Improves overall physical and psychological health

c. helps to preserve independent living

d. reduces the risk of developing certain non-communicable diseases (e.g. CHD, hypertension, etc...)

e. helps in the control of specific conditions (e.g. stress, obesity) and diseases (e.g. diabetes, hypercholesterolemia)

f. helps to minimize the consequences of certain disabilities and can help in the management of painful conditions

g. may help change stereotypic perspectives of old age
2. THE BENEFITS OF PHYSICAL ACTIVITY:

a. For the Individual:

i. Physiological

   i. Immediate benefits:

   a. Glucose levels: Physical activity helps regulate blood glucose levels.
   b. Catecholamine activity: Both adrenalin and noradrenalin levels are stimulated by physical activity.
   c. Improved sleep: Physical activity has been shown to enhance sleep quality and quantity in individuals of all ages.

   ii. Long term effects:

   a. Aerobic/cardiovascular endurance: Substantial improvements in almost all aspects of cardiovascular functioning have been observed following appropriate physical training.
   b. Resistive training/muscle strengthening: Individuals of all ages can benefit from muscle strengthening exercises. Resistance training can have a significant impact on the maintenance of independence in old age.
   c. Flexibility: Exercise which stimulates movement throughout the range of motion assists in the preservation and restoration of flexibility.
   d. Balance/cooordination: Regular activity helps prevent and/or postpone the age associated declines in balance and coordination that are a major risk factor for falls.
   e. Velocity of movement: Behavioral slowing is a characteristic of advancing age. Individuals who are regularly active can often postpone these age-related declines.
II. Psychological

i. Immediate benefits:

a. Relaxation: Appropriate physical activity enhances relaxation.

b. Reduces stress and anxiety: There is evidence that regular physical activity can reduce stress and anxiety.

c. Enhanced mood state: Numerous people report improvement in mood state following appropriate physical activity.

ii. Long term effects:

a. General well being: Improvements in almost all aspects of psychological functioning have been observed following periods of extended physical activity.

b. Improved mental health: Regular exercise can make an important contribution in the treatment of several mental illnesses, including depression and anxiety neurosis.

c. Cognitive improvements: Regular physical activity may help postpone age related declines in Central Nervous System processing speed and improve reaction time.

d. Motor control and performance: Regular activity helps prevent and/or postpone the age associated declines in both fine and gross motor performance.

e. Skills acquisition: New skills can be learned and existing skills refined by all individuals regardless of age.
III. Social

i. Immediate benefits:

a. **Empowering older individuals:** A large proportion of the older adult population gradually adopts a sedentary lifestyle which eventually threatens to reduce independence and self-sufficiency. Participation in appropriate physical activity can help empower older individuals and assist them in playing a more active role in society.

b. **Enhanced social integration:** Physical activity programs, particularly when carried out in small groups and/or in social environments enhance social and intercultural interactions for many older adults.

ii. Long term effects:

a. **Enhanced integration:** Regularly active individuals are less likely to withdraw from society and more likely to actively contribute to the social milieu.

b. **Formation of new friendships:** Participation in physical activity, particularly in small groups and other social environments stimulates new friendships and acquaintanceships.

c. **Widened social networks:** Physical activity frequently provides individuals with an opportunity to widen available social networks.

d. **Role maintenance and new role acquisition:** A physically active lifestyle helps foster the stimulating environments necessary for maintaining an active role in society, as well as for acquiring positive new roles.

e. **Enhanced intergenerational activity:** In many societies, physical activity is a shared activity which provides opportunities for intergenerational contact thereby diminishing stereotypic perceptions about aging and the elderly.
(THE BENEFITS OF PHYSICAL ACTIVITY)

b. For Society:

i. **Reduced health and social care costs:** Physical inactivity and sedentary living contributes to a decrease in independence and the onset of many chronic diseases. Physically active lifestyles can help postpone the onset of physical frailty and disease thereby significantly reducing health and social care costs.

ii. **Enhancing the productivity of older adults:** Older individuals have much to contribute to society. Physically active lifestyles help older adults maintain functional independence and optimize the extent to which they are able to actively participate in society.

iii. **Promoting a positive and active image of older persons:** A society which promotes a physically active lifestyle for older adults is more likely to reap the benefits of the wealth of experience and wisdom possessed by the older individuals in the community.
3. WHO SHOULD BE PHYSICALLY ACTIVE?

‘PHYSICAL ACTIVITY AND SPORTS FOR ALL’

I. Individuals of all ages can begin to enjoy physical activity at any age and reap the benefits.

II. Regular physical activity has significant physical, psychological, social and cultural benefits for individuals of all ages, including those with specific limitations and disabilities.

III. There are individuals and groups with special needs who may have particular requirements which will have to be met in order to optimize the effectiveness of both acute and long term physical activity (e.g. need for special access, reduction of environmental obstacles, modified programs and equipment). Implementation strategies, policies, and educational programmes must take into consideration the exceptional needs and requirements of these populations.

Specific physical activity needs will vary as a function of the individual’s position along a Health-Fitness Gradient.

(See Figure One).
**Group One: Physically Fit - Healthy:**

These individuals regularly engage in appropriate physical activity, they can be described as physically fit and can participate in all activities of daily living.

**Group Two: Physically Unfit - Unhealthy Independent:**

These individuals are not engaged in physical activity. While they are still living independently, they are beginning to develop multiple chronic medical conditions which threaten their independence. Regular physical activity can help improve functional capacity and prevent loss of independence.

**Group Three: Physically Unfit - Unhealthy Dependent:**

These individuals are no longer able to function independently in society due to a variety of physical and/or psychological reasons. Appropriate physical activity can significantly enhance the quality of life and restore independence in some areas of functioning.
4. PROMOTING AND FACILITATING INCREASED PHYSICAL ACTIVITY:

There is a need to develop strategies which will lead to increased levels of physical activity throughout all segments of the population. Such a healthy public policy can only be achieved by influencing ...

I. Health Policy:

There is a need to stimulate greater appreciation for the importance of regular physical activity among policy makers at all levels of administration.

i. International
ii. National
iii. Regional
iv. Local

II. Educating, disseminating, and creating conducive environments:

There is also a need to involve a wide variety of sectors in the dissemination of information on healthy ageing and in supporting favourable environments in the promotion of physical activity, such as:

i. Family support
ii. Peer support groups (e.g. National Councils on Aging).
iii. Community and social service providers
iv. The media
v. Non-Governmental Organizations (NGO’s)
vi. Self-help groups
vii. Health care providers
   a. Primary care team
   b. Hospital
   c. Nursing home
   d. Health insurers
viii. Universities
ix. Adult education institutions
x. Rehabilitation and therapeutic centers
xi. Residential facilities
xii. Private and public sector organizations (e.g. workplace)
xiii. Sporting and social clubs
5. IMPLEMENTING PHYSICAL ACTIVITY:

I. THE SETTING:
   i. It is not necessary to have expensive facilities and equipment
   ii. Physical activity can be effective in environments with limited space and resources (e.g. home environments).
   iii. The workplace can be an appropriate site for providing physical activity programmes.

II. SAFETY ISSUES:
   i. Medical advice may be desirable for some individuals before beginning an activity programme
   ii. Appropriately training at all levels (participants, trainers, programme planners and evaluators) is recommended
   iii. Safe environments are important (e.g. adequate lighting, ramps)
   iv. Reduction of environmental obstacles

III. THE MOTIVATING FACTORS:
   i. Physical activity can be fun
   ii. Companionship
   iii. Enhanced control over one's own life
   iv. Lifelong activity (sport biography)
   v. Improved health status and well-being
IV. THE BARRIERS:

i. Lack of information about physical activity and aging
   a. among the elderly
   b. among family members
   c. among primary care givers and other health service providers
   d. in society

ii. Stereotypic images of ageing

iii. Low social support

iv. Inadequate environmental support for physical activity (e.g. transportation, access, urban planning)

v. Life history/biographic aspects, including bad experiences with sports

vi. Negative attitudes towards sports and exercise

vii. Imbalance of expected effort and perceived gains

viii. Social obstacles towards a healthy lifestyle

ix. Inappropriate social and cultural settings

x. Certain medical conditions may require modified activity programmes
6. **THE TYPES OF PHYSICAL ACTIVITY:**

Many individuals have a physically active lifestyle without necessarily participating in formal exercise programmes. Through usual activities of daily living - such as working, shopping, cooking and cleaning etc., one can maintain an adequate level of activity, even without a high degree of aerobic performance. The first message to be given to individuals as they age is that they should be active in their everyday life. However, in industrialized societies, lifestyles are often associated with a level of physical activity below adequate levels.

Structured activity programmes provide ways for individuals to promote a physically active lifestyle. The recommendations for these programmes include:

i. Individual and/or group activity, need not necessarily be performed in supervised settings

ii. There are benefits associated with various types of physical activity including stretching, relaxation, calisthenics, aerobic exercise, and strength training among others

iii. The focus should be on simple and moderate forms of physical activity (e.g. walking, dancing, stair climbing, swimming, cycling, chair exercises, etc.)

iv. Important components to consider in an exercise program include: aerobic exercise, muscular strength, flexibility, and balance

v. Exercise must meet individual and group needs and expectations

vi. Exercise should be relaxing and enjoyable. Have fun!

vii. Exercise should be regular, if possible daily

7. **RESEARCH**

Additional research for the promotion of physical activity in older persons is required. This implies appropriate levels of funding. Research of special interest include outcomes assessment, and evaluation of interventions which reflect the different dimensions specified in these guidelines.