

Chapter 1 : Physical Activity | Healthy People

Physical Activity Scale for the Elderly (PASE) is a simple, valid and reliable questionnaire that can be administered to quantify older adults' physical activity levels during daily living.

Advanced Search Abstract Sedentary behavior is an important risk factor for chronic disease morbidity and mortality in aging. However, there is a limited amount of information on the type and amount of activity needed to promote optimal health and function in older people. The purpose of this review is to describe the change in patterns of habitual physical activity in aging and the relationship of these changes to physical function and selected chronic diseases. We undertook a literature review of large population-based studies of physical activity in older people, and there is encouraging evidence that moderate levels of physical activity may provide protection from certain chronic diseases. Additionally, substantial health effects can be accrued independent of the fitness effects achieved through sustained vigorous activity. Thus, regular participation i. Public policy should focus on ways of increasing volitional and lifestyle activity in older people, as well as on increasing the availability and accessibility of senior and community center programs for promoting physical activity throughout the life span. INTEREST in the determinants of successful aging has led to the investigation of the heterogeneity in health and physical performance abilities within groups of higher functioning older people 1. A primary goal of these studies is to determine the modifiable factors related to the plasticity of higher physical function, as opposed to merely the presence or absence of disability 2 3. Exercise and other forms of physical activity are known to provide a myriad of specific physiologic and psychosocial benefits to older people 4 , 5 , 6 for review. While data from intervention studies demonstrate the effect of more vigorous aerobic or strength training on changes in physiologic variables in older people see 7 for review , the benefits of more moderate activity, such as that performed as part of an active lifestyle, are less clear. This is due in part to the difficulty inherent in the assessment of habitual activity in older people. Physical activity in older age tends to be of lower intensity and highly variable. In addition, issues of recall of such activity patterns in older people lead to less than precise estimates. Problems in the definition and measurement of physical activity limit the ability to assess physical activity properly and, therefore, to determine the health consequences associated with a healthy lifestyle. The purpose of this article is to describe the physical activities common to older people and how patterns of habitual physical activity change with age. Further, the epidemiologic relationship of regular physical activity to physical function and selected chronic disease outcomes, based on data from large population-based studies, will be described. Surveillance data from 29 states in the United States suggest that inactivity rates i. When the data are stratified further by age groups, they show that this overall decline in reported inactivity is explained primarily by reduced inactivity among people more than 55 years old. Level of leisure-time activity appears to vary by gender and race among adults in the United States 11 Women are less likely than men to report regular leisure time physical activity see 13 for review , and the lowest activity levels typically are reported among women of Hispanic or African American descent 11 14 15 Among adults, racial comparisons tend to be distorted by the influence of socioeconomic status and education, however. Results from several studies 14 15 16 17 show a strong positive correlation between years of educational attainment and level of habitual physical activity in both men and women, particularly with regard to the prevalence of regular i. Reported participation varied substantially by race, income, and education level, with African American women at every age the least likely to participate in these recommended levels of physical activity. Changes in Physical Activity with Age The prevalence of specific higher intensity activities decreases with older age among adults, while the prevalence of reported inactivity shows an age-related increase 20 21 , which is especially evident among women 11 Recent cross-sectional data from the Aerobics Center Longitudinal Study 23 suggest that exercise-related weekly energy expenditure is significantly lower in higher age groups than in younger groupsâ€”especially among the most fit members of this healthy cohort aged 20 to 87 years. Verbrugge and colleagues 24 report a curvilinear pattern in volitional i. Time spent in activities such as transportation, socializing, entertainment, sports, and walking for leisure men only also showed cross-sectional decreases across age groups. Longitudinal data from

this same cohort showed similar patterns of change with aging. Walking is the most prevalent activity reported among adults of all sociodemographic strata in the United States 14 15 22 23 26 , Canada 17 27 , and Europe 21 25 Following walking, running, team sports, and weight lifting are more common activities among younger men, while participation in aerobics is more prevalent among younger women Although time spent bicycling and gardening showed a significant year decline, time spent walking remained relatively stable over the survey years Fig. Physical activity is a complex behavior and is often difficult to describe. There are important sex and race differences in reported physical activity patterns, which are evident even in older adulthood. Typically, reported levels of leisure-time physical activity appear lowest among girls and women of minority status and older adult women. The ever-widening racial disparity in activity level may well be explained by socioeconomic status among children and by level of educational attainment among younger and older adults, although data from the CARDIA Study show that important racial differences remained between women even after adjustment for several important sociodemographic factors There is encouraging, albeit limited, evidence that the prevalence of reported inactivity is decreasing over time among some sectors namely, older adults of the general U. It is important to consider, however, that leisure-time physical activity is only a portion of total activity. The other components of total activity involve work or household activity and transportation. Although surveillance data are not available for these other components, one can reasonably assume that energy spent in work and household tasks, as well as in transportation, has progressively declined over the years with increasing automation. This time-related decline is further accelerated by aging-related declines in physical activity. It therefore is possible that overall physical activity has declined substantially among our older population in spite of increases in their leisure-time activity The decline in overall physical activity has tremendous public health implications for older people, since there is increasing evidence that the health effects of physical activity are linked specifically to the total amount of kilocalorie expenditure or activity time accrued per day or week, rather than the actual duration or intensity of the exercise bout Recommendations for adults 30 call for a lifestyle approach to increasing activity levels among the public by incorporating any activity of at least moderate intensity into the day. Determinants of Physical Activity Of recent interest in the study of physical activity and exercise among the general population are the determinants of regular participation see 31 32 33 for reviews. Physiological Factors Heredity, or genetic predisposition, is an important component of physical fitness or functional capacity 34 , which contributes substantially to physical activity level in older people 35 Among adults, especially older adults, speed, flexibility, balance, and strength may also be important determinants of participation in a particular activity as simple as walking Indeed, the relationship between muscle strength and preferred walking speed has been reported for both men and women 38 , and the magnitude of this relationship is especially strong among frailer institutionalized adults over age 85 39 Thus, physiological differences may be associated with age differences in physical activity level and choice of activity, since they may act as incentives for persons to participate in activities at which they are more competent and in which they feel safe Characteristics such as motivation, stress tolerance, social adequacy, and independence do not strongly influence physical activity levels in children 42 , although self-motivation has consistently correlated with physical activity level in several adult populations 43 44 Affective disorders such as anxiety and depression tend to be inversely associated with physical activity participation at any age 50 51 While limited data show that various mood disturbances and depressive personality are associated with inactivity, or actually predictive of adherence to fitness or rehabilitation programs in middle-aged and older people 53 54 55 , it remains unclear whether affective states are a determinant or a consequence of physical activity behavior. Studies among adults suggest that knowledge and beliefs about the health effects of physical activity are positively associated with current physical activity levels Perceived enjoyment and satisfaction are positive predictors of physical activity in both men and women of all ages 58 ; however, intentions to be physically active do not necessarily predict subsequent participation Social influences on physical activity patterns appear to be strong throughout the life span. Peer reinforcement is especially important to physical activity patterns in youth 60 , and social support from friends and spouses has correlated with vigorous activity in younger and older adult populations 60 Environmental Factors Safety and accessibility. Safety and accessibility are two important environmental

factors associated with activity participation across the age span, although these two factors have not been studied extensively 14 Fear of crime is an important barrier to physical activity and functional ability in older populations 62 , DiPietro and Hartman, unpublished data, Also, among older adults, membership fees or lack of transportation often present insurmountable barriers to supervised programs in health clubs or recreational facilities. Thus, unequal access to safe, supervised exercise programs and facilities may serve as an important mediating factor in the relationship between age, sex, and race and physical activity level. Thus, an array of physiological, psychosocial, and environmental factors may determine physical activity behavior throughout the life span, and these factors become even more important in older age. Many of these determinants, particularly some of the psychosocial and environmental factors, are particularly amenable to change and should be the focus of community intervention efforts. Strategies for increasing physical activity among the older sectors of the community include the following: Physical Activity, Chronic Disease, and Disability Physical activity and fitness have been associated with a lower incidence of morbidity and mortality from a number of major chronic diseases affecting older people see 63 for review , namely, coronary heart disease CHD; see 7 for review and 64 , breast cancer 65 66 67 , and type 2 diabetes 68 69 ; see 70 for review. Physical activity has also demonstrated a significant, independent protective effect on the risk of being overweight see 71 for review; 72 , 73 , bone loss see 74 , 75 for reviews and 76 , hip fracture 77 78 79 , and factors associated with falls 80 81 , as well as on the rate of functional decline see 6 , 82 ,83, 84 for review so common with aging. There is evidence to suggest that current activity is more protective than past activity; however,.

Physical activity is any activity that involves moving your body. This includes housework, climbing the stairs, gardening, etc. This includes housework, climbing the stairs, gardening, etc. Exercise is a type of physical activity that is planned, structured, and focused on attaining physical fitness.

Key Messages Older adults, both male and female, can benefit from regular physical activity. Physical activity need not be strenuous to achieve health benefits. Older adults can obtain significant health benefits with a moderate amount of physical activity, preferably daily. A moderate amount of activity can be obtained in longer sessions of moderately intense activities such as walking or in shorter sessions of more vigorous activities such as fast walking or stairwalking. Additional health benefits can be gained through greater amounts of physical activity, either by increasing the duration, intensity, or frequency. Because risk of injury increases at high levels of physical activity, care should be taken not to engage in excessive amounts of activity. Previously sedentary older adults who begin physical activity programs should start with short intervals of moderate physical activity minutes and gradually build up to the desired amount. Older adults should consult with a physician before beginning a new physical activity program. In addition to cardiorespiratory endurance aerobic activity, older adults can benefit from muscle-strengthening activities. Stronger muscles help reduce the risk of falling and improve the ability to perform the routine tasks of daily life. **Facts** The loss of strength and stamina attributed to aging is in part caused by reduced physical activity. Inactivity increases with age. By age 75, about one in three men and one in two women engage in no physical activity. Among adults aged 65 years and older, walking and gardening or yard work are, by far, the most popular physical activities. Social support from family and friends has been consistently and positively related to regular physical activity. **Benefits of Physical Activity** Helps maintain the ability to live independently and reduces the risk of falling and fracturing bones. Reduces the risk of dying from coronary heart disease and of developing high blood pressure, colon cancer, and diabetes. Can help reduce blood pressure in some people with hypertension. Helps people with chronic, disabling conditions improve their stamina and muscle strength. Reduces symptoms of anxiety and depression and fosters improvements in mood and feelings of well-being. Helps maintain healthy bones, muscles, and joints. Helps control joint swelling and pain associated with arthritis. **What Communities Can Do** Provide community-based physical activity programs that offer aerobic, strengthening, and flexibility components specifically designed for older adults. Encourage malls and other indoor or protected locations to provide safe places for walking in any weather. Ensure that facilities for physical activity accommodate and encourage participation by older adults. Provide transportation for older adults to parks or facilities that provide physical activity programs. Encourage health care providers to talk routinely to their older adult patients about incorporating physical activity into their lives. Plan community activities that include opportunities for older adults to be physically active.

Chapter 3 : Senior Fitness & Exercise Programs | NCOA

Physical activity is an important part of healthy aging. To help you fit exercise and physical activity into your daily life, NIA created the Go4Life campaign.

This is an open access article distributed under the Creative Commons Attribution License , which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited. Sociodemographic changes have led to an increase of aging in the society [1]. Furthermore, the prevalence and incidence of cardiovascular diseases, diabetes mellitus, osteoarthritis, and neurodegenerative diseases rise with age resulting in a slowing of movements, imbalance, immobility, falls, and disability. Recent studies revealed an increase of disability among the older population [3 , 4]. Age older than 84 years, lower education levels, obesity, comorbid conditions, not practicing physical activity, and sleeping more than 8 hours per day have been associated with higher disability [4]. Some studies have shown that elderly women are less active as well. Self-perceived health is worse in subjects with a greater number of comorbid conditions and disability and is considered a barrier for participation in exercise programmes [5]. Age of 80 years and beyond, more than 2 comorbid chronic conditions, and obesity have been shown to be associated with a lower likelihood of practicing leisure time physical activity [6]. Besides health conditions, other factors might also affect physical activity. Some studies have shown that people who were physically active throughout their life keep the habit of exercising in old age. However, the time potentially available for leisure time physical activity depends on the amount of time required for paid employment, family, and daily mobility requirements. The time budget seems to be the most limited for middle-aged adults with job and family. Thus, many middle-aged adults give up leisure time sports and do not start participating in sports again [7 , 8]. A sedentary life style is an independent risk factor for cardiovascular diseases, diabetes mellitus and musculoskeletal disorders [9]. There is a growing body of literature showing that regular exercise benefits well-being and health condition and leads to an increasing quality of life. Physical activity PA has been considered one key element for determining health status [3 , 10]. Furthermore, physical activity improves mood and cognitive function [11]. Older adults who are physically active are c. Thus, vigorous physical activity may reduce the risk for dementia independently of other risk factors. While Chen et al. However, there is growing evidence that patients suffering from PD benefit from exercise therapy [15]. An active life style also influences poor habits such as smoking, alcohol consumption, and fat nutrition. Physical activity is defined as any bodily movement produced by skeletal muscles that result in energy expenditure and encompasses both leisure time activity sports, exercise [16] and activities of daily life [17]. The WHO has published guidelines for elderly in order to improve cardio-respiratory and muscular fitness [18], bone and functional health, depression, and cognitive decline. According to the WHO, physical activity includes leisure time physical activity, transportation e. Older adults should be engaged at least in minutes aerobic physical activity of moderate intensity or 75 min of vigorous physical activity throughout the week. To obtain additional health benefits, older adults should increase their moderate intensity of aerobic physical activity to minutes per week, or engage in minutes of vigorous intensity aerobic physical activity per week, or an equivalent combination of moderate and vigorous intensity activity. It has been shown that 20â€”30 min moderate intensity physical activity on most days result in better physical functions in older adults [19]. The minority of healthy elderly people meet these criteria for activity and even fewer older adults with concomitant diseases exercise regularly with sufficient intensity and frequency [20]. Although there are studies showing an increase in leisure time physical activity among elderly in Spain [5], the increase of physical activity did not lead to an increased physical fitness. It is still an ongoing debate whether a certain intensity of exercises is necessary to obtain a morbidity lowering effect for cardiovascular and cerebrovascular accidents. While some researchers claim that low intensity exercise such as regular walking, biking, or gardening have a preventive effect [21], other study results indicate that the preventive effect of exercising depends on the intensity of the exercise [22] and an increase of physical fitness. According to Lee the additional use of on average â€” kcal lowers mortality significantly [23]. Some authors found a graded dose

response of the volume of physical activity with all-cause mortality, stroke, and several coronary heart disease factors [24]. However, the energy expenditure of leisure time physical activity did not correlate with the risk of decline in perceived health [21]. Exercise therapy has now been widely accepted as useful tool in the prevention and treatment of several diseases, thus this special issue on aging, physical activity, and disease prevention will now appear annually. Comparable to the first special issue on aging, physical activity and age prevention the current issue covers a wide range of topics. Ten papers have been accepted for publication. One paper investigates the role of exercise therapy in the prevention of decline in aging muscle function and in the prevention of glucocorticoid myopathy and muscle unloading. The paper reviews the effects of muscle wasting and the possibilities of exercise therapy. The authors explore the potential molecular effects of exercise therapy on muscle protein metabolism. They postulate that strength exercise can change the renewal of contractile proteins in accordance with the needs of muscle contractile apparatus and endurance exercise might restore the oxidative capacity by stimulation of mitochondrial biogenesis. Thus, both, strength and endurance exercise seem to be promising tools for aging-related disease prevention. The authors found that nonfrail patients recorded more physical activity than frail, self-reported physical activity was greater in PD patients than in non-PD subjects. However, physical activity was related to frailty in non-PD subjects only. In PD patients, frailty was rather related to disease associated factors; hence, disease management might be more important. The impact of positive and negative social control, support, and perceived strain on physical activity is discussed in another paper. Hierarchical regression analyses revealed that perceived support and perceived strain were not correlated with physical activity. However, age and sex interacted with social control, such that more positive social control was associated with more frequent physical activity for younger men, while more positive and negative social control were significantly associated with less frequent physical activity for older men. There was no association between social control and physical activity among women. The authors concluded that health professionals and social partners should be discouraged from using negative social control because these strategies may be ineffective for women and younger men and may be counter productive for older men. Positive social control strategies might be appropriate for young men and alternative strategies have to be pursued for women. Social groups can be crucial for health and well-being in old age. A variety of programmes for older adults supported by the Brazilian National Public Policy in and established since were designed to enhance social activities among the older adult population. The purpose of one of the papers was to quantify the extent to which physical activity differed between Veterans and non-Veterans and to determine how diabetes and age influenced this association. After adjusting for age, sex, race and ethnicity, household income, education level, body mass index BMI , and recent health checkup, Veteran status was associated with a small but significantly larger amount of average weekly moderate physical activity. Diabetes and prediabetes were associated with significantly lower mean levels of both moderate and vigorous intensity physical activity as was increasing age. Veteran status had no impact on the association between diabetes, age, and physical activity. There is a paper that provides a review on the increase of life expectancy by physical exercise. The authors performed a systematic PubMed search on life expectancy in physically active and inactive subjects, in addition articles comparing life expectancy of athletes compared to that of nonathletes were reviewed. Physical activity reduces many major mortality risk factors including arterial hypertension, diabetes mellitus type 2, dyslipidemia, coronary heart disease, stroke, and cancer. The studies suggest that regular physical activity is associated with an increase of life expectancy by 0. Aerobic endurance athletes showed a greater life expectancy, but it remains unclear if high-intensity sports activities further increase life expectancy. The meaning of aging and the development of osteoarthritis is highlighted in another paper. Osteoarthritis OA is a major health burden leading to progressive pain and reduced mobility with age as the most prominent risk factor for the development and progression of OA. Inflammatory cytokines play a role in the development of osteoarthritis. Joint movement has been shown to exhibit anti-inflammatory mechanisms. Therefore, physical activity or physiotherapy in the elderly might reduce inflammatory processes and increase muscle mass. The surgical treatment of end-stage osteoarthritis in elderly patients was the focus of one of the papers. The authors emphasized that elderly patients may benefit more by total ankle replacement TAR than by the alternative ankle arthrodesis, since rehabilitation after TAR is easier than that after ankle arthrodesis.

Immobilisation and protection time is shorter and articular and muscle function less affected. Total ankle replacement might be an option to regain mobility and quality of life in elderly patients. There is a paper that explores the role of barriers as limiting factor to participation in physical activity in Canadian seniors. The identification of barriers to physical activity and exercise has been used for many decades to explain exercise behaviour in older adults. Typically health concerns are the number one barrier to participation. In contrast to earlier results the current research did not identify a health condition limitation, illness, or injury as a barrier to participation in physical activity. Barriers are not the limiting factor and physical activity programming has to be focused on the health needs of our aging population. The aim of the study was to compare three different cognitive training programmes. The results showed that the multimodal cognitive rehabilitation programme which included physical exercises has been more successful than the other cognitive training programmes. In addition some translation of the improvements into real life has been obtained. [View at Google Scholar D.](#) [View at Google Scholar T.](#) [View at Google Scholar C.](#)

Chapter 4 : Physical activity in older age: perspectives for healthy ageing and frailty

In Aging, Physical Activity, and Health, Roy J. Shephard, one of the world's leading authorities on exercise science, reviews and synthesizes the scientific literature on the physiological changes of aging and how regular physical activity affects the aging process.

Received Apr 21; Accepted Apr This is an open access article distributed under the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited. This article has been cited by other articles in PMC. Although no amount of physical activity can stop the biological aging process, regular exercise can counteract some of the adverse physiological, psychological, and cognitive consequences of aging [1]. Age and physical inactivity are primary and secondary indirect risk factors for a long list of adverse chronic conditions [2 , 3], whereas increasing physical activity from midlife to old age results in reduced rates of chronic disease and death [3 , 4]. Our Call for Papers was driven by a growing body of evidence showing strong associations between physical inactivity and age-related chronic disease, as well as reductions in risks or incidence of chronic disease with exercise training [1]. Despite the overwhelming evidence for the role of physical activity in reducing the incidence of mortality, morbidity, and quality of life in chronic disease, a relatively small portion of the population are physically active worldwide [5] and even fewer older adults exercise regularly with sufficient intensity, duration, and frequency to receive optimal benefits for disease prevention [1]. Physical inactivity is especially prevalent in highly developed countries [5]. For this reason, more research is needed to understand and overcome barriers for habitual exercise and sport participation see 3rd paper in this issue. With the increasing number of elderly, especially in the highly developed countries, it is important, yet challenging, to offer attractive and accessible physical activity programs to elderly. Qualified supervision, medical evaluations, and evidence-based individualized exercise prescriptions are also important for older sedentary adults, particularly those with underlying cardiovascular disease [6]. Besides cardiovascular and metabolic disease prevention, physical activity might also help reduce the risk of dementia [7 , 8] and maintain cognitive function [9]. Since the risk of dementia is strongly associated with age and the number of adults surviving to advanced age will increase markedly in the near future, preventive measures become increasingly important. In this context, there is even some evidence that biological aging of the brain might be slowed down and that brain areas most affected by the aging process might benefit most from regular exercise [10]. This special issue covers a wide array of topics on the aging and physical activity and their relationship to disease and disability prevention. The first paper investigates the impact of physical activity on disability in Mexico and the USA The second paper focuses on the relationship between physical activity and mortality rates over a 7-year period in the UK The influence of aging on social cognitive characteristics associated with physical activity and whether improvements in psychosocial factors influence age-related declines in physical activity are discussed in the third paper. The fourth paper assessed the qualities of a counseling intervention on sustaining a physically active lifestyle. The authors of the fifth paper provide a review of the potential benefits of aerobic exercise training and whole-body vibration training on bone mineral density in older populations and discuss possible mechanisms for effects of each intervention. A review of the bone mineral density literature is also highlighted in the sixth paper, but with a focus on how it applies to physical performance and other components of body composition. The risk of osteoporosis is described in the seventh paper by assessing the relationship of physical activity, hip fractures, and disability from hip fractures. The eighth paper highlights the role of exercise on the prevention and treatment of osteoarthritis, whereas the ninth paper explains the benefits of both aerobic and resistance exercise training for patients with rheumatoid arthritis. The authors of the tenth paper show how physical and leisure activity can help counteract the association of wheelchair use and poor health perception. The eleventh papre describes the relationship between physical activity and telomere biology as it applies to age-related diseases and longevity. The authors of the thirteenth paper review the literature on resistance training and glucose tolerance with applications to diabetes risk in older adults and potential mechanisms of action. The fourteenth paper investigates the effects of aerobic

exercise training on the formation of a signaling molecule that influences vascular tone known as eicosanoids. The fifteenth paper reviews the literature on the use of strength training as an intervention to offset some of the deleterious side effects of hormone therapy used by prostate and breast cancer patients. The sixteenth paper studied the role of specialized G-proteins that increase cAMP known as melanocortin 3 receptors on the anti-inflammatory process of resistance training. The antioxidant potential of Tai Chi training is explained in the seventeenth paper, and the last paper describes the role of cognitive function on lower-body physical performance in older African American women. Ben Hurley Iris Reuter References 1. American college of sports medicine position stand. Exercise and physical activity for older adults. *Medicine and Science in Sports and Exercise*. The prevalence of functional limitations and disability in older persons in the US: *Journal of the American Geriatrics Society*. Cardiovascular risk factors predictive for survival and morbidity-free survival in the oldest-old Framingham Heart Study participants. Influence of individual and combined health behaviors on total and cause-specific mortality in men and women: *Archives of Internal Medicine*. Walking and dementia in physically capable elderly men. *Journal of the American Medical Association*. Exercise is associated with reduced risk for incident dementia among persons 65 years of age and older. *Annals of Internal Medicine*. A longitudinal study of cardiorespiratory fitness and cognitive function in healthy older adults. Aerobic fitness reduces brain tissue loss in aging humans. *Journals of Gerontology*â€”Series A.

Chapter 5 : Aging, Physical Activity, and Disease Prevention

An examination is presented of how regular physical activity can maintain functional abilities, well-being, and independence in the older person. The book begins by addressing issues associated with: demographics, definitions of elderly, interindividual differences in biological age and life span amongst other issues.

Physical Activity and Aging As the aging population keeps increasing, more and more older people are recognizing a growing need for exercise in their lives. Maintaining an active lifestyle is crucial for sustaining health and happiness. Exercise can help older adults achieve a higher quality of life, and it can help them live longer as well. The aging process can have an enormous impact on the human body. As people age, they may notice a loss of agility, balance, endurance and strength as well as a loss of bone density and muscle mass. Likewise, they may also notice an increase in body fat and possible joint injuries. It is estimated that four out of every five adults aged 50 years and above are suffering from at least one condition that is chronic. Positive Effects of Exercise for Older Adults However, some of the most prominent effects of aging may be mitigated by exercising regularly. Exercising can have numerous positive effects for older people because of its ability to increase balance, increase flexibility, increase mobility and lower blood pressure. It can also help people maintain a healthy weight and reduce the chance of developing diseases and disabilities. Exercise can have an especially positive effect on heart and brain health. A study reported by the Gerontological Society of America found that fitness training led to significant increases in brain volume in people between 60 and 79 years old. Regular exercise can also help treat several chronic health conditions, including arthritis, diabetes and heart disease. Since exercise can have such a positive effect on physical health, many older adults have chosen to lead an active life. Approximately 28 to 34 percent of adults between the ages of 65 and 74 have reported being physically active. And 35 to 44 percent of all adults aged 75 years or older reported keeping an active lifestyle as well. Necessary Planning Due to adverse effects that may come from exercising without first consulting a doctor and taking preventative measures, planning is a necessary precaution that most people should take to safely engage in exercise. Consulting a doctor about any unexplained symptoms and ongoing health conditions may help prevent medical problems that could come from exercising. A doctor can also determine whether any exercises should be avoided and ensure that preventative measures have been taken. Learning about preventative care before exercising is also essential. Older people should learn about how chronic conditions can affect exercise routines, find comfortable workout clothes and shoes to wear, and stay informed about safety precautions and unsafe activities before starting a new exercise regimen. Physical Activity and Exercise Older people can try a wide range of exercises to improve their physical health. Aerobics, swimming, tai chi, weight training and yoga are all great options for maintaining a healthy lifestyle. Engaging in strenuous physical activity is not the only way to stay fit and healthy. It is also possible to stay physically active by keeping up with casual daily activities. Walking briskly, taking the stairs, gardening, doing yard work and completing household chores are all simple activities that may make staying active an easier endeavor. Here are a few more tips for making daily or weekly errands more exercise friendly. Trying new things can be exciting and rewarding in multiple ways. Consider walking to the park instead of playing video games or watching television when babysitting grandchildren. This healthy activity could even be a memorable bonding experience. Rethinking priorities could be helpful as well. Taking a walk after lunch instead of reading a book could potentially become a fun daily routine. Turning everyday activities into an exercise is another easy way to increase physical activity. Raking leaves instead of using a leaf blower could transform a mundane chore into a workout. Goal Setting Coming up with attainable short- and long-term goals can also help foster full commitment to an exercise plan. Short-term goals should be small and easy to accomplish. Possible short-term goals could include deciding to be active, signing up for nearby exercise classes and making plans to exercise with friends on a regular basis. Long-term goals should be realistic, individualized and able to hold interest. Focusing on future aspirations for six months, a year or two years from now is essential for keeping up with long-term goals. As more of the population continues to grow older, an increasing percentage of older adults are recognizing how keeping an active lifestyle is a great way to feel

healthy and invigorated as time passes. Look through this infographic to learn more about the necessity of exercise gerontology.

Start studying Exam 3- Physical Activity, Health, and Aging. Learn vocabulary, terms, and more with flashcards, games, and other study tools.

The Benefits of Physical Activity Regular physical activity is one of the most important things you can do for your health. Cardiac events, such as a heart attack, are rare during physical activity. But the risk does go up when you suddenly become much more active than usual. If you have a chronic health condition such as arthritis, diabetes, or heart disease, talk with your doctor to find out if your condition limits, in any way, your ability to be active. Then, work with your doctor to come up with a physical activity plan that matches your abilities. If your condition stops you from meeting the minimum Guidelines, try to do as much as you can. Even 60 minutes a week of moderate-intensity aerobic activity is good for you. The bottom line is “the health benefits of physical activity far outweigh the risks of getting hurt. If you want to know more about how physical activity improves your health, the section below gives more detail on what research studies have found. Both diet and physical activity play a critical role in controlling your weight. You gain weight when the calories you burn, including those burned during physical activity, are less than the calories you eat or drink. For more information see our section on balancing calories. When it comes to weight management, people vary greatly in how much physical activity they need. You may need to be more active than others to achieve or maintain a healthy weight. To maintain your weight: Work your way up to minutes of moderate-intensity aerobic activity, 75 minutes of vigorous-intensity aerobic activity, or an equivalent mix of the two each week. Strong scientific evidence shows that physical activity can help you maintain your weight over time. However, the exact amount of physical activity needed to do this is not clear since it varies greatly from person to person. To lose weight and keep it off: Getting to and staying at a healthy weight requires both regular physical activity and a healthy eating plan. The CDC has some great tools and information about nutrition, physical activity and weight loss. For more information, visit [Healthy Weight](#). But following the Guidelines and getting at least minutes a week 2 hours and 30 minutes of moderate-intensity aerobic activity can put you at a lower risk for these diseases. You can reduce your risk even further with more physical activity. Regular physical activity can also lower your blood pressure and improve your cholesterol levels. **Top of Page Reduce Your Risk of Type 2 Diabetes and Metabolic Syndrome** Regular physical activity can reduce your risk of developing type 2 diabetes and metabolic syndrome. Metabolic syndrome is a condition in which you have some combination of too much fat around the waist, high blood pressure, low HDL cholesterol, high triglycerides, or high blood sugar. Research shows that lower rates of these conditions are seen with to minutes 2 hours to 2 hours and 30 minutes a week of at least moderate-intensity aerobic activity. And the more physical activity you do, the lower your risk will be. **Already have type 2 diabetes?** Regular physical activity can help control your blood glucose levels. To find out more, visit [Diabetes and Me](#). Physically active people have a lower risk of colon cancer than do people who are not active. Physically active women have a lower risk of breast cancer than do people who are not active. Reduce your risk of endometrial and lung cancer. Although the research is not yet final, some findings suggest that your risk of endometrial cancer and lung cancer may be lower if you get regular physical activity compared to people who are not active. Improve your quality of life. If you are a cancer survivor, research shows that getting regular physical activity not only helps give you a better quality of life, but also improves your physical fitness. Research shows that doing aerobic, muscle-strengthening and bone-strengthening physical activity of at least a moderately-intense level can slow the loss of bone density that comes with age. But research shows that people who do to minutes of at least moderate-intensity aerobic activity each week have a lower risk of hip fracture. Regular physical activity helps with arthritis and other conditions affecting the joints. If you have arthritis, research shows that doing to 2 hours and 10 minutes to 2 hours and 30 minutes a week of moderate-intensity, low-impact aerobic activity can not only improve your ability to manage pain and do everyday tasks, but it can also make your quality of life better. **Build strong, healthy muscles.** Muscle-strengthening activities can help you increase or maintain your muscle mass and strength. Slowly increasing the amount of weight and number of repetitions you do will give

you even more benefits, no matter your age. **Top of Page Improve Your Mental Health and Mood** Regular physical activity can help keep your thinking, learning, and judgment skills sharp as you age. It can also reduce your risk of depression and may help you sleep better. Research has shown that doing aerobic or a mix of aerobic and muscle-strengthening activities 3 to 5 times a week for 30 to 60 minutes can give you these mental health benefits. Some scientific evidence has also shown that even lower levels of physical activity can be beneficial. **Top of Page Improve Your Ability to do Daily Activities and Prevent Falls** A functional limitation is a loss of the ability to do everyday activities such as climbing stairs, grocery shopping, or playing with your grandchildren. How does this relate to physical activity? Aerobic and muscle-strengthening activities can help improve your ability to do these types of tasks. Are you an older adult who is at risk for falls? Research shows that doing balance and muscle-strengthening activities each week along with moderate-intensity aerobic activity, like brisk walking, can help reduce your risk of falling. **Top of Page Increase Your Chances of Living Longer** Science shows that physical activity can reduce your risk of dying early from the leading causes of death, like heart disease and some cancers. This is remarkable in two ways: Only a few lifestyle choices have as large an impact on your health as physical activity. People who are physically active for about 7 hours a week have a 40 percent lower risk of dying early than those who are active for less than 30 minutes a week. You can put yourself at lower risk of dying early by doing at least minutes a week of moderate-intensity aerobic activity. Everyone can gain the health benefits of physical activity – age, ethnicity, shape or size do not matter.

Chapter 7 : Physical Activity in Aging | The Journals of Gerontology: Series A | Oxford Academic

In Aging, Physical Activity, and Health, Roy J. Shephard, one of the world's leading authorities on exercise science, reviews and synthesizes the scientific literature on the physiological changes of aging and how regular physical activity affects the aging www.nxgvision.comrd's critical analysis features the latest theories on how aging and.

Being active is one of the best things you can do to maintain or improve your health. Activity helps you to stay strong physically, helps prevent falls, and helps you maintain your independence for as long as possible. Physical activity is any activity that involves moving your body. This includes housework, climbing the stairs, gardening, etc. Exercise is a type of physical activity that is planned, structured, and focused on attaining physical fitness. The health benefits of physical activity are independent of risk factors. For example, smokers who increase their physical activity will experience health benefits, even if they continue to smoke. Likewise, overweight or obese adults benefit from physical activity, even if they do not lose weight. What are the benefits of regular physical activity? Getting regular physical activity on most days of the week improves health in the following ways. All of these benefits can increase your quality of life. Promotes mental and cognitive health. Physical activity can help reduce feelings of depression and anxiety. You may also find that being active optimizes your cognitive function—helps keep your mind sharp. Older adults who are physically active build and maintain healthy bones, muscles, and joints. They may be more secure on their feet and better able to move about without falling, which decreases the likelihood and severity of falls. Helps maintain a healthy weight. Increased weight can be a factor in a number of health problems. Physical activity can help keep your weight at a healthy level. If you lose weight by diet alone, you may lose not only fat mass, but also muscle mass and bone mass. Physical activity, particularly muscle-strengthening activity, can preserve bone and muscle mass. Being active also decreases your feelings of tiredness and fatigue. Aerobic exercise in the early evening can improve sleep quality, but be aware that exercise later in the evening can be too stimulating and make it difficult to get restful sleep. Studies have shown that older adults with osteoarthritis had less pain and more flexibility after 16 weeks of strengthening exercises. Maintains or improves heart health. Simply put, physical activity helps your heart work more efficiently. Aerobic exercise the kind that makes you breathe faster can improve the fitness of your heart in as little as 6 weeks after beginning an exercise program. Improves blood sugar control. Better control of your sugar levels means you may need less medication for your diabetes. Lower sugar can also decrease your risk of the long-term problems associated with diabetes. Starting an exercise program even late in life can help to preserve bone density. Physical Activity During Hospitalization Even if you are in the hospital, staying active—“as much as possible”—is important. Try to get out of bed as often as you can. Bathing and dressing yourself also counts as physical activity. Staying active can shorten your hospital stay and improve your long-term recovery. Especially for older adults with arthritis and other muscle and joint conditions, participating in exercise programs when you are in the hospital can lessen stiffness, improve balance, and ease fatigue. Risks of Being Sedentary Inactive Given the numerous health benefits of physical activity, the risks of being inactive are clear. Physical inactivity is a serious problem in the US. Inactivity can lead to unnecessary illness and loss of your ability to handle daily tasks as well as your independence. Physical inactivity is also associated with higher higher mortality rates. What is a moderate amount of physical activity? Other examples are listed below. Select activities that you enjoy and that fit into your daily life. Examples of moderate level physical activity include: Gardening Wheeling yourself in a wheelchair Walking.

Chapter 8 : Older Adults | Healthy People

Physical Activity and Exercise Older people can try a wide range of exercises to improve their physical health. Aerobics, swimming, tai chi, weight training and yoga are all great options for maintaining a healthy lifestyle.

Chapter 9 : WHO | The role of physical activity in healthy ageing

The Benefits of Physical Activity. Regular physical activity is one of the most important things you can do for your health. If you're not sure about becoming active or boosting your level of physical activity because you're afraid of getting hurt, the good news is that moderate-intensity aerobic activity, like brisk walking, is generally safe for most people.