

CHAPTER 2

Promoting Physical Activity in Later Life

How to Respond to Frequently Asked Questions and Concerns About Physical Activity

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ABSTRACT

Over the past half-century, a substantial body of evidence has accumulated regarding the relationship between physical activity and successful aging. Many chronic diseases and conditions share common preventable causes that are lifestyle related. The World Health Organization has identified regular physical activity as an effective means by which an individual can reduce the risk of developing chronic diseases and conditions and thereby promote independence and aging successfully. Epidemiological research has consistently shown significant decreases in the relative risk of cardiovascular and all-cause mortality among persons who are classified as highly active compared to those in a similar age range who are classified as moderately active or less active. This chapter provides a summary of evidence linking physical activity and the health and quality of life of older persons. A synopsis is provided of current U.S. Federal guidelines regarding the frequency, intensity, duration, and type of physical activity recommended for older adults. Finally, we discuss the role that geriatricians and gerontologists can play in helping older adults to learn how to “be active in their own way.” In this chapter, we address a number of questions and concerns frequently raised by older adults about physical activity.

INTRODUCTION

Over the past half-century, a substantial body of evidence has accumulated regarding the relationship between physical activity and successful aging (Chodzko-Zajko et al., 2009). Avoiding a sedentary lifestyle and eating a healthy diet may be one of the most effective means of postponing the onset of functional decline, promoting independence, and maintaining a high quality of life in old age. Many chronic diseases and conditions share common preventable causes that are both lifestyle related (unhealthy diets, physical inactivity, smoking, and alcohol abuse) and biological (hypertension, obesity, and dyslipidemia; Murray, Lopez, & Jamison, 1994). Despite the complex relationships among the many determinants of chronic disease, the World Health Organization has identified regular physical activity as an effective means by which an individual can reduce the risk of developing chronic diseases and conditions and thereby promote independence and aging successfully (Kalache & Gatti, 2002). Epidemiological research has consistently shown significant decreases in the relative risk of cardiovascular and all-cause mortality among persons who are classified as highly active compared to those in a similar age range who are classified as moderately active or less active (Blair & Wei, 2000).

The goal of this chapter is to provide a succinct summary of evidence linking physical activity and the health and quality of life of older persons. In addition, a synopsis is provided of current U.S. Federal guidelines regarding the frequency, intensity, duration, and type of physical activity recommended for older adults. Finally, we discuss the role that geriatricians and gerontologists can play in helping older adults to learn how to “be active in their own way.” In this section, we address a number of questions and concerns frequently raised by older adults about physical activity. Throughout the chapter, the Institute of Medicine definitions of physical activity and exercise and related concepts are adopted, where physical activity refers to body movement that is produced by the contraction of skeletal muscles and that increases energy expenditure. Exercise refers to planned, structured, and repetitive movement to improve or maintain one or more components of physical fitness.

THE BENEFITS OF PHYSICAL ACTIVITY

While a detailed review of the many benefits of regular physical activity for older adults is beyond the scope of this chapter, there are now a very significant number of authoritative reviews that provide summaries of the existing evidence (Chodzko-Zajko et al., 2009; Nelson et al., 2007). The American College of Sports Medicine (ACSM) Position Stand on Exercise and Physical Activity for Older Adults states that although no amount of physical activity can stop the

biological aging process, there is evidence that regular physical activity can minimize the physiological effects of an otherwise sedentary lifestyle and increase healthy life expectancy by limiting the development and progression of chronic disease and disabling conditions (Chodzko-Zajko et al., 2009). Importantly, physical activity not only benefits physical health, there is also strong evidence that it can improve psychological health and well-being. Regular physical activity can favorably influence a broad range of physiological systems and may be a lifestyle factor that discriminates between individuals who have and have not experienced successful aging.

The American Medical Association and the ACSM have sponsored a major public and professional education campaign called Exercise is Medicine (EIM). The major goal of the EIM project is to make physical activity and exercise a standard part of a global disease prevention and treatment strategy. The initiative recognizes that regular exercise can be an important element in the management of numerous medical conditions including coronary heart disease (Fletcher et al., 2001; Pollock et al., 2000; Thompson et al., 2003), hypertension (Chobanian et al., 2003; Pescatello et al., 2004; Thompson et al., 2003), peripheral vascular disease (McDermott et al., 2006), type 2 diabetes (Sigal, Kenny, Wasserman, Castaneda-Sceppa, & White, 2006), obesity (U.S. Preventive Services Task Force, 2003), elevated cholesterol (Brewer, 2003; Thompson et al., 2003), osteoporosis (Going et al., 2003), osteoarthritis (Gamble, Wyeth-Ayerst, Johnson, Searle, & Beecham, 2000; Katz et al., 2001), claudication (Stewart, Hiatt, Regensteiner, & Hirsch, 2002), and chronic obstructive pulmonary disease (Wan et al., 2005). A joint statement from ACSM and the American Heart Association (Nelson et al., 2007) concludes that physical activity is valuable in the treatment and management of depression and anxiety disorders (Brosse, Sheets, Lett, & Blumenthal, 2002), dementia (Doody et al., 2001), pain (AGS Panel on Persistent Pain in Older Persons, 2002), congestive heart failure (Remme & Swedberg, 2001), syncope (Brignole et al., 2001), stroke (Gordon et al., 2004), back pain (Hagen, Hilde, Jamtvedt, & Winnem, 2000), and constipation (Locke, Pemberton, & Phillips, 2000). In addition, there is some evidence that physical activity prevents or delays cognitive impairment (Abbott et al., 2004; Larson et al., 2006; Weuve et al., 2004) and disability (Fiatarone Singh, 2002; Keysor, 2003; Penninx et al., 2001) and improves sleep (King, Oman, Brassington, Bliwise, & Haskell, 1997; Singh, Clements, & Fiatarone, 1997).

However, despite the accumulation of evidence about the benefits of physical activity, there has been relatively little success in convincing older adults to adopt physically active lifestyles. For example, the Behavioral Risk Factor Surveillance System data of the Centers for Disease Control and Prevention suggest that less than a third of older individuals engage in regular physical activity,

with the proportion meeting recommended guidelines progressively decreasing with advancing age (Chodzko-Zajko et al., 2009). Physical inactivity levels are still higher for some groups; for example, in women over 75 years of age, the percentage of sedentary individuals may be as high as 53% (Chodzko-Zajko et al., 2009). In response to the clear evidence of the benefits of physical activity and the need to better educate and inform the public about how much physical activity is needed to achieve health benefits, the Department of Health and Human Services (DHHS) has developed Physical Activity Guidelines for Americans that provide recommendations for the frequency, intensity, and duration of exercise and physical activity for older adults (DHHS, 2008).

Current Physical Activity Recommendations for Older Adults

The Physical Activity Guidelines recommend 150 minutes per week of moderate-intensity aerobic activity for health benefits. However, the DHHS guidelines note that additional benefits accrue as the amount of physical activity increases through higher intensity, greater frequency, and/or longer duration. The DHHS Physical Activity Guidelines stress that if older adults cannot do 150 minutes of moderate-intensity aerobic activity a week because of chronic conditions, they should be as physically active as their abilities and conditions allow. The following recommendation for older adults (Table 2.1) describes the amounts and types of physical activity including aerobic and resistance exercise.

MOTIVATING OLDER ADULTS TO BUILD MORE PHYSICAL ACTIVITY INTO THEIR LIVES

If older adults have been sedentary for many years, it may be necessary to start out slow when beginning a new exercise program, particularly for older adults who are frail or who have chronic conditions that affect their ability to perform physical tasks. Increases in exercise intensity and duration should be gradual and tailored to tolerance and preference. Taking it easy and being patient are good strategies for deconditioned seniors. For some older adults, muscle-strengthening activities and/or balance training may need to precede aerobic-training activities. If chronic conditions prevent activity at the recommended minimum amount, older adults should perform physical activities as tolerated so as to avoid being sedentary. ACSM has summarized the Best Practices for Physical Activity Programs and Behavior Counseling in Older Adult Populations (Cress et al., 2005). The ACSM Best Practice Statement suggests that incorporating a comprehensive behavioral management strategy in physical activity interventions can help maximize recruitment, increase motivation for exercise progression, and minimize attrition.

TABLE 2.1
Physical Activity Recommendations for Older Adults

	Aerobic Exercise	Resistance Exercise
<i>Frequency</i>	For moderate-intensity activities, accumulate at least 30 or up to 60 (for greater benefit) minutes per day in bouts of at least 10 minutes each to total 150–300 minutes per week, or at least 20–30 minutes per day or more of vigorous-intensity activities to total 75–150 minutes per week or an equivalent combination of moderate and vigorous activity	At least 2 days per week
<i>Intensity</i>	On a scale of 0 to 10 for level of physical exertion, 5 to 6 for moderate intensity and 7 to 8 for vigorous intensity	Between moderate (5–6) and vigorous (7–8) intensity on a scale of 0 to 10
<i>Duration</i>	For moderate intensity activities accumulate at least 30 minutes per day in bouts of at least 10 minutes each or at least 20 minutes per day of continuous activity for vigorous intensity activities	
<i>Type</i>	Any modality that does not impose excessive orthopedic stress; walking is the most common type of activity. Aquatic exercise and stationary cycle exercise may be advantageous for those with limited tolerance for weight-bearing activity	Progressive weight-training program or weight-bearing calisthenics (8–10 exercises involving the major muscle groups of 8–12 repetitions each), stair climbing, and other strengthening activities that use the major muscle groups

It is important that professionals who work closely with older adults help them to understand that there are many different ways for older adults to be physically active. For some individuals, structured exercise programs led by certified exercise professionals will be the preferred option, whereas others may wish to find other ways to build physical activity into their everyday lives. The notion

that there is one best way to exercise is no longer tenable and it is increasingly clear that individuals will need to select the form of physical activity that works best for them. The DDHS *Be Active Your Way* guide that accompanies the Physical Activity Guidelines invites members of the public to select physical activities that meet their personal needs and preferences. The steps outlined in the *Be Active Your Way* guide (DHHS, 2008) provide an excellent framework around which to initiate discussions related to exercise and physical activity.

DHHS *Be Active Your Way* Step One—Getting Started

Before beginning an exercise or physical activity program, the *Be Active Your Way* guide recommends that older adults first focus on identifying a personally meaningful motive for increasing their activity levels. Health professionals should discuss with older adults physical activity goals that are personally meaningful to them. The possible reasons identified for increasing physical activity are listed in Table 2.2.

DHHS *Be Active Your Way* Step Two—Making Physical Activity Part of Your Life

It is important to encourage older adults to think about reasons why they have not been physically active in the past and to try to develop strategies for overcoming these barriers. The *Be Active Your Way* guide encourages people who have been sedentary for many years to choose something they already like to do and to try to build a physical activity component into the activity. For example, many people like to go shopping or to attend dances and other social events; by

TABLE 2.2

Common Motives to Increase Physical Activity Participation Among Older Adults

Be healthier
Increase my chances of living longer
Feel better about myself
Have less chance of becoming depressed
Sleep better at night
Help me look good
Be in shape
Get around better
Have stronger muscles and bones
Help me stay at or get to a healthy weight
Be with friends or meet new people
Enjoy myself and have fun

TABLE 2.3*Strategies Recommended When Choosing Physical Activity*

Pick an activity you like and one that fits into your life
Find the time that works best for you
Be active with friends and family. Having a support network can help you keep up with your program.

increasing the time they spend walking (or dancing), they can gradually combine their fun activity with a healthy dose of physical activity. Older adults should be encouraged to select an activity program that is personally meaningful. Some of the strategies recommended are listed in Table 2.3.

DHHS *Be Active Your Way* Step Three—Keeping It Up, Stepping It Up

Once older adults have managed to integrate physical activity into their everyday lives, health professionals should encourage them gradually increase the intensity and duration of physical activity until they are meeting the physical activity recommendations for older adults. Table 2.4 lists different ways in which this can be achieved.

DHHS *Be Active Your Way* Step Four—Being Active For Life

Once older adults are successfully meeting the Physical Activity Guidelines, they should be encouraged to consider adding new elements to their physical activity regimen in order to keep physical activity interesting and fun. For example, once older adults are comfortable sustaining moderate-intensity activities on a regular basis, they could begin to add higher intensity activities. The *Be Active Your Way* guide lists a number of moderate and vigorous physical activity options that are available to older adults (Table 2.5).

TABLE 2.4*Ways to Gradually Increase the Intensity and Duration of Physical Activity*

By being active longer each time. Older adults already walking for 30 minutes, 3 times a week, could go longer—walking for 50 minutes, 3 times a week.
By being active more often. If an older adult is biking lightly 3 days a week for 25 minutes each time, he/she could build up to riding 6 days a week for 25 minutes each time.

TABLE 2.5

*Be Active Your Way Guide Moderate and Vigorous Physical Activity Options***Moderate Physical Activity Options**

Biking slowly
 Canoeing
 Dancing
 General gardening (raking, trimming shrubs)
 Tennis (doubles)
 Using your manual wheelchair
 Using hand cyclers—also called arm ergometers
 Walking briskly
 Water aerobics

Vigorous Physical Activity Options

Aerobic dance
 Basketball
 Fast dancing
 Martial arts (such as karate)
 Race walking, jogging, or running
 Riding a bike on hills or riding faster
 Team sports
 Swimming fast or swimming laps
 Tennis (singles)

ANSWERING QUESTIONS AND CONCERNS ABOUT PHYSICAL ACTIVITY

For many health professionals, it may come as a surprise to realize how little many older adults know about physical activity. Most older adults were educated at a time and in a culture in which little was known about the health benefits of physical activity. Professionals and members of the public alike were often skeptical about the need to remain physically active after retirement. In the final section of this chapter, we address some frequently articulated questions and concerns that older adults raise about exercise and physical activity with the goal of assisting health professionals to provide succinct but authoritative responses that will serve to motivate and inform their older adult clients.

Question and Concern: Why Should I Be Physically Active?

Response to Older Client

There are many reasons you should build physical activity into your everyday life. Regular physical activity can help to improve quality of life in old age.

Physical activity can help you stay active and engaged with your family and community. It can help you to manage or postpone some of the chronic diseases and conditions many of us have come to expect from old age. Aging does not have to be something that “happens to us”—on the contrary, being physically active can help us to play a more active role in our own aging. Physical activity can help us to live happier, healthier, and more productive lives.

Advice to Health Professionals

Health professionals often focus on the health or medical benefits of exercise and physical activity when trying to motivate sedentary individuals to become more active. For some individuals, motives such as decreasing cholesterol levels, improving cardiac output, and increasing bone mineral density are effective motivators, but for many seniors they are not. As a clinician, you should also stress that regular physical activity can be fun, can increase quality of life, and can help seniors continue to do the things that they like to do. It is doubtful that a single motivational strategy will work for all older adults. You should ensure that your clients are exposed to a variety of different motivational strategies in order to find the technique that works best.

Question and Concern: What Is the Best Exercise for Older Adults?

Response to Older Client

There is no single best exercise that works for all older persons. Depending on how you define it, *old age* can cover as much as a 50-year age span, ranging from 50 to 100 years of age and older. For this reason, it is impossible to recommend a single set of activities that is best for all older persons. Some seniors can run marathons or compete in triathlons, whereas others may be more comfortable walking, gardening, or doing tai chi. Still others will get their exercise in a chair or in bed! The most important thing to do, regardless of your age, is to avoid inactivity.

Advice to Health Professionals

The best exercise or physical activity program is the one that your clients are willing and able to do regularly, that they enjoy, and that adds to their quality of life. For some individuals, this will be a structured group exercise program at the local senior center or YMCA, but for others, it will be something much less structured, possibly involving activities such as healthy commuting, gardening, or walking the dog. Many health professionals grew up enjoying games and sports and are extremely comfortable “working out” in traditional exercise environments. It is important to remember that not all older adults have enjoyed similar positive experiences with traditional exercise programs. Work with your clients to understand their goals, aspirations, and personal preferences.

Question and Concern: How Much Physical Activity Do I Need?**Response to Older Client**

Ideally, you should aim to do at least 150 minutes of moderate-intensity aerobic activity per week as well as 2 days per week of resistance exercises. However, start by doing what you can and gradually look for ways to do more. If you have not been active for a while, start out slowly. After several weeks or months, build up your activities—do them longer and more often.

Advice to Health Professionals

The current Physical Activity Guidelines for Americans summarize the best available scientific recommendations. Health professionals should be prepared to summarize this information for their patients. However, it is important to understand that, for many older adults, 150 minutes of moderate-intensity aerobic activity per week can be an intimidating target that may leave them discouraged or unwilling to even try to increase their physical activity. It is important that clinicians help patients understand that it is perfectly acceptable to gradually increase physical activity levels, starting at easily achievable, nonthreatening levels and slowly increasing as they become more comfortable with exercise and physical activity.

Question and Concern: How Often Should I Exercise?**Response to Older Client**

Generally, it is better to spread physical activity throughout the week with a goal of being active at least 3–5 days per week. By choosing activities that you enjoy, that are convenient and affordable, you may be able to find a way to be active on almost all days of the week. Try to mix up your physical activity program so you are not doing the same thing every day. On some days, you might go for a walk in your neighborhood with a friend or family member; on other days, you might take advantage of a more structured exercise program at the senior center or church. Many people find that wearing a step counter can help them keep track of their activity levels. On days where you have not accumulated many steps, an after-dinner walk can help you maintain your commitment to maintain an active lifestyle.

Advice to Health Professionals

As a clinician, one of the most important things you can do for your clients is to empower them to be independently physically active and not to depend solely on you or other health professionals for advice about their physical activity. Clinicians should work with patients to help them develop activities that they can do in their own time and their own space. By helping seniors understand

that there are many different ways to be active, health professionals can help them develop a well-rounded, personalized activity program that selects from a menu of physical activity choices and helps them to be active on most, if not all, days of the week.

Question and Concern: I Have Not Exercised for Many Years, Where Should I Start?

Response to Older Client

Forget the old saying, “No pain, no gain”—it is simply not true! Too many of us learned in childhood that physical activity has to be painful or exhausting if it is going to do us any good. There are many excellent options for those of us who cannot or do not want to exercise vigorously. Walking is a wonderful way to increase your activity level. Stretching, tai chi, and water exercise are also good options. For example, the Arthritis Foundation offers excellent aqua exercise programs designed especially for those with arthritis and joint disorders. Gardening and working outdoors can also be a good form of physical activity. Remember—the most important thing is not what you do—rather—it is most important to avoid complete inactivity.

Advice to Health Professionals

Prescribing exercise and physical activity is as much an art as it is a science. The most successful clinicians are those who have mastered both of these elements. Simply informing patients about the current scientific guidelines may not be sufficient to motivate them to change their behavior. Understanding some of the principles of behavioral change discussed earlier in this chapter can help you develop greater insight into how to identify the right place for an individual to start on the journey toward an active lifestyle.

Question and Concern: Will Physical Activity Help to Reduce My Risk for Specific Diseases and Conditions?

Response to Older Client

Physical inactivity is a major risk factor for many physical and psychological conditions. Sedentary living is associated with heart disease, obesity, diabetes, and many other conditions. Inactivity is also linked to low self-esteem and psychological depression. Regular physical activity can positively influence all of the above conditions. Many studies have shown that activity can also help slow the loss of muscle and bone mass that often occurs with advancing age. In addition to these physical and psychological benefits, physical activity can often have significant social benefits. Many seniors enjoy group exercise programs where they have a chance to interact with fellow exercisers of all ages. Even for those

individuals who prefer to be active alone or with a partner, physical activity can help them retain the strength and stamina necessary for playing an active role in everyday life.

Advice to Health Professionals

One of the areas in which more scientific research is needed pertains to the specific mode, intensity, and duration of exercise and physical activity needed to bring about a particular clinical outcome. When approached by an older person with a specific disease or condition, it is especially important for a clinician to recommend an exercise or activity regimen that has been shown to be effective in the treatment and management of that particular condition. For example, when approached by an older woman with osteoporosis who is looking for an exercise program to increase her bone mineral density, it would not be optimal to recommend a low-intensity walking and calisthenics program conducted at the local senior center. Clinicians should familiarize themselves with the variety of exercise and physical activity options available in their community and be prepared to work together with their patients to help identify the most appropriate choice for each individual. The online Exercise Assessment and Screening for You (EASY, 2008) is an excellent resource for clinicians wishing to tailor physical activity to the needs of a particular client.

Question and Concern: Is Exercise Safe?

Response to Older Client

Yes! Almost everyone can find a safe and effective exercise program tailored toward his or her health status, physical activity goals, and personal preferences. It is far more risky for your health to be sedentary than it is to begin a program of light- to moderate-intensity physical activity. The greatest risk is that your muscles will be sore in the first few weeks of an exercise program. There are some things that you can do to reduce these risks. Learn to read your body's signals. On days that your body feels tired or weary—take it easy. On good days, take advantage of your body and enjoy yourself! Once we learn how to read our body's signals and respect its needs, we get a better sense of how to adjust our activity programs as we grow older. Very few individuals will be able to (or would want to) run or dance as energetically in their seventies as they could in their twenties. Many believe that the secret of successful aging is learning how to adjust to changing needs and circumstances while remaining an active and vibrant member of society.

Advice to Health Professionals

While there are some risks associated with participation in regular physical activity, the risks of being sedentary are much greater! Physical activity risks

are related to the level of intensity, with lower intensity physical activity being associated with the lowest risk. Low-intensity physical activity reduces the risks of injury and muscle soreness and may be perceived as less threatening than moderate- to high-intensity routines. While lower risk is associated with lower intensity exercise, the consensus is that moderate physical activity has a better risk–benefit ratio, and moderate-intensity physical activity should be the goal for older adults. Although speaking with a health-care provider is always a good idea, the involvement of a primary care provider prior to beginning a program of physical activity may not always be necessary and would depend on a person’s health condition, the level of intensity, and mode of physical activity he or she plans to pursue. The ACSM Best Practice Statement recommends that before starting or increasing their level of physical activity, older adults should have a strategy for risk management and prevention of activity-related injuries.

The online risk assessment tool EASY can help older individuals, their health-care providers, and/or exercise professionals identify different types of exercise/physical activity regimens that can be tailored to meet the existing health conditions, illnesses, or disabilities of older adults (Resnick et al., 2008). The EASY tool includes six screening questions that were developed based on an expert roundtable and follow-up panel activities. The philosophy behind EASY is that screening should be a dynamic process in which participants learn to appreciate the importance of engaging in regular exercise, attending to health changes, recognizing a full range of signs and symptoms that might indicate potentially harmful events, and becoming familiar with simple safety tips for initiating and progressively increasing physical activity patterns. The EASY screening philosophy represents a paradigm shift from traditional screening that excludes individuals from participating in exercise in favor of a more inclusive approach that tailors physical activity to meet the needs of virtually all older adults.

Question and Concern: Am I Too Old to Exercise?

Response to Older Client

No! You are never too old to exercise! Physical activity has been shown to be of benefit for individuals of all ages including persons as old as 90 and 100 years of age. Many people just like you are active on a daily basis. You can find a physical activity program that you will enjoy, that will make you feel better, and that will increase your quality of life. Think about what you most like to do in life and what you hope to gain from being active. An exercise professional can help you to develop a physical activity program that will help you to achieve these goals.

Advice to Health Professionals

It is increasingly clear that beneficial effects of regular physical activity can be observed at all stages of the life course, ranging from the very young to the oldest old. In recent years, many excellent and well-publicized studies have focused our attention on the benefits of regular physical activity in those cohorts of seniors who were previously thought to be “too old” or “too frail” to partake in physical activity. There are a number of reasons why the frail and the oldest old tend to be the most sedentary members of society. First, many of the oldest old do not think of themselves as candidates for physical activity. They are unaware of the many benefits that can accrue to them if they increase their physical activity levels, and they do not realize that many people just like them enjoy activity on a regular basis. Second, for many years, exercise and physical activity professionals were reluctant to expose the oldest old to the rigors of even the most modest physical activity regimens. It is only recently that professional organizations and institutional review boards have begun to recognize that the benefits of physical activity are much greater than the very small risks they pose. Third, many of the exercise and physical activity programs traditionally employed with the middle-aged and young old are poorly suited for use with the frail and the oldest old. However, there are now an ample number of effective evidence-based programs that have been proven to work in frail and older adult populations.

Question and Concern: Is This for Me? Addressing Concerns of Minorities and Underrepresented Seniors**Response to Older Client**

Yes! This is for everyone! You may not have seen many people like you being physically active on TV, in your neighborhood, or even in your family! You may also think a person your age exercising in public may look silly or embarrassing. There is nothing silly or embarrassing about being active. Many people just like you have found ways to increase their physical activity. Physical activity can help you to feel more energized and to keep doing things you enjoy most (e.g., play with your grandchildren, walk to the church, participate in social events in your community). You do not need to “work out” or go to the gym. Try to find activities that you identify with so that physical activity can be fun and become a part of your routines. If you have any questions about physical activity or exercise, check for support in your community (e.g., health care, senior centers, churches). If they are unable to help you, they certainly will be able to redirect you to people or places where you can get the information you need to get started.

Advice to Health Professionals

Despite considerable research and programmatic efforts to alleviate racial/ethnic disparities in physical activity, disparities in physical activity among minorities and underrepresented groups persist (Macera et al., 2005). It is likely that many older minorities and underrepresented seniors lack basic knowledge about physical activity and exercise. Lack of physical activity–related health education is a common barrier to being more active in older minority groups (Gordon, 2005; Siddiqi, Tiro, & Shuval, 2011). It is important to emphasize that physical activity is beneficial for people from all ages and racial/ethnic groups. Older people from minority groups often suffer a disproportionate burden of distress related to financial issues, living in neighborhoods that lack infrastructure, neighborhood safety issues, immigration status, and so forth (Belza et al., 2004; Siddiqi et al., 2011). It is important to provide these groups with a wide range of choices on how they can build physical activity into their lives. Furthermore, it is also important to match the cultural characteristics of minority populations with interventions to enhance receptivity to, acceptance of, and salience of health programs. Belief systems, religious and cultural values, life experiences, and group identity are powerful filters that influence lifestyle choices (Thomas, Fine, & Ibrahim, 2004). Traditionally, most physical activity interventions for older adults have not considered the unique culture features of elders from diverse cultural backgrounds. Targeting or tailoring a physical activity intervention to make it more appropriate for minority and underrepresented groups necessitates careful understanding of and attention to the community's cultural characteristics and beliefs as well as barriers and facilitators faced by the community or individual (Gordon, 2004). Health professionals can work with this cultural knowledge, to develop a culturally sensitive approach that integrates the intervention with the cultural characteristics and needs of the target population. In doing so, a physical activity intervention becomes more accessible and empowering and better fits the lived reality of the group.

Question and Concern: Do I Need Special Clothing and Equipment?

Response to Older Client

No! Special clothing and equipment are seldom needed. Safe and effective physical activity can be performed wearing comfortable street shoes and loose-fitting everyday clothes. Effective strength training can be achieved with inexpensive equipment such as elastic bands and water-filled jugs.

Advice to Health Professionals

Many older adults have significant discretionary income and are ready and willing to spend it on club memberships and exercise equipment and clothing;

however, many others are in less fortunate financial circumstances and do not have a lot of money to invest in physical activity. Clinicians should be sensitive to the resources available to their patients and tailor their advice and recommendations accordingly. Probably the most important equipment needed to maintain an active lifestyle is a well-fitting pair of shoes that are both comfortable and provide adequate cushioning to minimize the risk of muscle and joint injuries.

SUMMARY

Although no amount of physical activity can stop the aging process, there is strong evidence that regular physical activity can minimize the physiological effects of aging, increase active life expectancy by limiting the development and progression of noncommunicable diseases, and promote independency and quality of life in older age. A combination of aerobic- and resistance-training activities appears to be more effective than either form of training alone in counteracting the detrimental effects of a sedentary lifestyle on the health and functioning of the cardiovascular system and skeletal muscles. While there are clear fitness, metabolic, and performance benefits associated with higher intensity exercise training programs in healthy older adults, it is now evident that such programs do not need to be of high intensity to reduce the risks of developing chronic cardiovascular and metabolic disease. Social support, self-efficacy, perceived safety, and regular feedback are important behavioral factors that can help increase the likelihood of an individual initiating and maintaining a regular program of physical activity. Physical activity risks are often related to the level of intensity, but the risks associated with a sedentary lifestyle far exceed them.

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