

Clinical Guidelines

2008 Physical Activity Guidelines for Older Americans

Designed to provide information and guidance on the types and amounts of physical activity that provide substantial health benefits for Americans aged 65 years and older and developed with health professionals and policymakers in mind, the Physical Activity Guidelines of the US Department of Health and Human Services describe (1) a total amount of activity per week that allows people to design their own way of meeting the Guidelines and (2) a range of physical activity options that emphasizes the more you do, the more health benefits you gain. Here *Medicare Patient Management* reprints the section on “Active Older Adults.”

Regular Activity

Regular physical activity is essential for healthy aging. Adults aged 65 years and older gain substantial health benefits from regular physical activity, and these benefits continue to occur throughout their lives. Older adults are a varied group. Most, but not all, have one or more chronic conditions, and these conditions vary in type and severity. All have experienced a loss of physical fitness with age, some more than others. This diversity means that some older adults can run several miles, while others struggle to walk several blocks.

The Guidelines seek to help older adults select types and amounts of physical activity appropriate for their abilities. The Guidelines for older adults are also appropriate for adults with chronic conditions or a low level of fitness.

Explaining the Guidelines

Like the Guidelines for other adults, those for older adults mainly focus on two types of activi-

ty: aerobic and muscle-strengthening. In addition, these Guidelines discuss the addition of *balance training* for older adults at risk of falls. Each type provides important health benefits.

Aerobic Activity

People doing aerobic activities move large muscles in a rhythmic manner for a sustained period. Brisk walking, jogging, biking, dancing, and swimming are all examples of aerobic activities. This type of activity is also called *endurance activity*.

Aerobic activity makes a person’s heart beat more rapidly to meet the demands of the body’s movement.

Over time, regular aerobic activity makes the heart and cardiovascular system stronger and fitter.

When putting the Guidelines into action, it’s important to consider the total amount of activity, as well as how often to be active, for how long, and at what intensity (see “Key Guidelines for Older Adults”).

How much total activity a week?

Older adults should aim to do at least 150 minutes (2 hours and 30 minutes) of moderate-intensity physical activity a week, or an equivalent amount (75 minutes or 1 hour and 15 minutes) of vigorous-intensity activity. Older adults can also do an equivalent amount of activity by combining moderate- and vigorous-intensity activity. As is true for younger people, greater amounts of physical activity provide additional and more extensive health benefits to people aged 65 years and older.

No matter what its purpose—walking the dog, taking a dance or exercise class, or bicycling to the store—aerobic activity of all types counts toward the Guidelines.

How many days a week and for how long?

Aerobic physical activity should be spread throughout the week. Research studies consistently show that activity performed on at least 3 days a week produces health benefits. Spreading physical activity across at least 3 days a week may help to reduce the risk of injury and avoid excessive fatigue.

Episodes of aerobic activity count toward meeting the Guidelines if they last at least 10 minutes and are performed at moderate or vigorous intensity. These episodes can be divided throughout the day or week. For example, a person who takes a brisk 15-minute

Key Guidelines for Older Adults

The following Guidelines are the same for adults and older adults:

- All older adults should avoid inactivity. Some physical activity is better than none, and older adults who participate in any amount of physical activity gain some health benefits.
- For substantial health benefits, older adults should do at least 150 minutes (2 hours and 30 minutes) a week of moderate-intensity, or 75 minutes (1 hour and 15 minutes) a week of vigorous-intensity aerobic physical activity, or an equivalent combination of moderate- and vigorous-intensity aerobic activity. Aerobic activity should be performed in episodes of at least 10 minutes, and preferably, it should be spread throughout the week.
- For additional and more extensive health benefits, older adults should increase their aerobic physical activity to 300 minutes (5 hours) a week of moderate-intensity, or 150 minutes a week of vigorous-intensity aerobic physical activity, or an equivalent combination of moderate- and vigorous-intensity activity. Additional health benefits are gained by engaging in physical activity beyond this amount.
- Older adults should also do muscle-strengthening activities that are moderate or high intensity and involve all major muscle groups on 2 or more days a week because these activities provide additional health benefits.

The following Guidelines are just for older adults:

- When 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.
- Older adults should do exercises that maintain or improve balance if they are at risk of falling.
- Older adults should determine their level of effort for physical activity relative to their level of fitness.
- Older adults with chronic conditions should understand whether and how their conditions affect their ability to do regular physical activity safely.

walk twice a day on every day of the week would easily meet the minimum Guideline for aerobic activity. See “Examples of Aerobic and Muscle-Strengthening Exercises.”

How intense?

Older adults can meet the Guidelines by doing relatively moderate-intensity activity, relatively vigorous-intensity activity, or a combination of both. Time spent in light activity (such as light housework) and sedentary activities (such as watching TV) do not count.

The relative intensity of aerobic activity is related to a person’s level of cardiorespiratory fitness.

- *Moderate-intensity activity* requires a medium level of effort. On a scale of 0 to 10, where sitting is 0 and the greatest effort possible is 10, moderate-intensity activity is a 5 or 6 and produces noticeable increases in breathing rate and heart rate.
- *Vigorous-intensity activity* is a 7 or 8 on this scale and produces large increases in a person’s breathing and heart rate.

A general rule of thumb is that 2 minutes of moderate-intensity activity count the same as 1 minute of vigorous-intensity activity. For example, 30 minutes of moderate-intensity activity a week is roughly the same as 15 minutes of vigorous-intensity activity.

Muscle-Strengthening Activities

At least 2 days a week, older adults should do muscle-strengthening activities (see “Examples of Aerobic and Muscle-Strengthening Exercises”) that involve all the major muscle groups. These are the muscles of the legs, hips, chest, back, abdomen, shoulders, and arms. Muscle-strengthening activities make muscles do more work than they are accustomed to during activities of daily life. Examples of muscle-strengthening activities include lifting weights, working with resistance bands, doing calisthenics using body weight for resistance (such as push-ups, pull-ups, and sit-ups), climbing stairs, carrying heavy loads, and heavy gardening.

Muscle-strengthening activities count if they involve a moderate to high level of intensity, or effort, and work the major muscle groups of the body. Whatever the reason for doing it, any muscle-strengthening activity counts toward meeting the Guidelines. For example, muscle-strengthening activity done as part of a therapy or rehabilitation program can count.

No specific amount of time is recommended for muscle strengthening, but muscle-strengthening exercises should be performed to the point at which it would be difficult to do another repetition without help. When resistance training is used to enhance muscle strength, one set of 8 to 12 repetitions of each ex-

Examples of Aerobic and Muscle-Strengthening Exercises

Aerobic

- Walking
- Dancing
- Swimming
- Water aerobics
- Jogging
- Aerobic exercise classes
- Bicycle riding (stationary or on a path)
- Some activities of gardening, such as raking and pushing a lawn mower
- Tennis
- Golf (without a cart)

Muscle-Strengthening

- Exercises using exercise bands, weight machines, hand-held weights
- Calisthenic exercises (body weight provides resistance to movement)
- Digging, lifting, and carrying as part of gardening
- Carrying groceries
- Some yoga exercises
- Some Tai chi exercises

ercise is effective, although two or three sets may be more effective. Development of muscle strength and endurance is progressive over time. This means that gradual increases in the amount of weight or the days per week of exercise will result in stronger muscles.

Balance Activities for Older Adults at Risk of Falls

Older adults are at increased risk of falls if they have had falls in the recent past or have trouble walking. In older adults at increased risk of falls, strong evidence shows that regular physical activity is safe and reduces the risk of falls. Reduction in falls is seen for participants in programs that include balance and moderate-intensity muscle-strengthening activities for 90 minutes (1 hour and 30 minutes) a week plus moderate-intensity walking for about 1 hour a week. Preferably, older adults at risk of falls should do balance training 3 or more days a week and do standardized exercises from a program demonstrated to reduce falls. Examples of these exercises include backward walking, sideways walking, heel walking, toe walking, and standing from a sitting position. The exercises can increase in difficulty by progressing from holding onto a stable support (like furniture) while doing the exercises to doing them without support. It's not known

whether different combinations of type, amount, or frequency of activity can reduce falls to a greater degree. Tai chi exercises also may help prevent falls.

Meeting the Guidelines

Older adults have many ways to live an active lifestyle that meets the Guidelines. Many factors influence decisions to be active, such as personal goals, current physical activity habits, and health and safety considerations.

Healthy older adults generally do not need to consult a health care provider before becoming physically active. However, health care providers can help people attain and maintain regular physical activity by providing advice on appropriate types of activities and ways to progress at a safe and steady pace.

Adults with chronic conditions should talk with their health care provider to determine whether their conditions limit their ability to do regular physical activity in any way. Such a conversation should also help people learn about appropriate types and amounts of physical activity.

Inactive Older Adults

Older adults should increase their amount of physical activity gradually. It can take months for those with a low level of fitness to gradually meet their activity goals. To reduce injury risk, inactive or insufficiently active adults should avoid vigorous aerobic activity at first. Rather, they should gradually increase the number of days a week and duration of moderate-intensity aerobic activity. Adults with a very low level of fitness can start out with episodes of activity less than 10 minutes and slowly increase the minutes of light-intensity aerobic activity, such as light-intensity walking.

Older adults who are inactive or who don't yet meet the Guidelines should aim for at least 150 minutes a week of relatively moderate-intensity physical activity. Getting at least 30 minutes of relatively moderate-intensity physical activity on 5 or more days each week is a reasonable way to meet these Guidelines. Doing muscle-strengthening activity on 2 or 3 nonconsecutive days each week is also an acceptable and appropriate goal for many older adults.

Active Older Adults

Older adults who are already active and meet the Guidelines can gain additional and more extensive health benefits by moving beyond the 150 minutes a week minimum to 300 or more minutes a week of relatively moderate-intensity aerobic activity. Muscle-strengthen-

ing activities should also be done at least 2 days a week.

Older Adults With Chronic Conditions

Older adults who have chronic conditions that prevent them from doing the equivalent of 150 minutes of moderate-intensity aerobic activity a week should set physical activity goals that meet their abilities. They should talk with their health care provider about setting physical activity goals. They should avoid an inactive lifestyle. Even 60 minutes (1 hour) a week of moderate-intensity aerobic activity provides some health benefits.

Special Considerations

Doing a Variety of Activities, Including Walking

In working toward meeting the Guidelines, older adults are encouraged to do a variety of activities. This approach can make activity more enjoyable and may reduce the risk of overuse injury.

Older adults also should strongly consider walking as one good way to get aerobic activity. Many studies show that walking has health benefits, and it has a low risk of injury. It can be done year-round and in many settings.

Physical Activity for Older Adults Who Have Functional Limitations

When a person has lost some ability to do a task of everyday life, such as climbing stairs, the person has a functional limitation. In older adults with existing functional limitations, scientific evidence indicates that regular physical activity is safe and helps improve functional ability.

Resuming Activity After an Illness or Injury

Older adults may have to take a break from regular physical activity because of illness or injury, such as the flu or a muscle strain. If these interruptions occur, older adults should resume activity at a lower level and gradually work back up to their former level of activity.

Flexibility, Warm-up, and Cool-down

Older adults should maintain the flexibility necessary for regular physical activity and activities of daily life. When done properly, stretching activities increase flexibility. Although these activities alone have no known health benefits and have not been demonstrated to reduce risk of activity-related injuries, they are an appropriate component of a physical activity program. However, time spent doing flexibility activities by themselves does not count toward meeting aerobic or muscle-strengthening Guidelines.

Research studies of effective exercise programs typically include warm-up and cool-down activities. Warm-up and cool-down activities before and after physical activity can also be included as part of a personal program. A warm-up before moderate- or vigorous-intensity aerobic activity allows a gradual increase in heart rate and breathing at the start of the episode of activity. A cool-down after activity allows a gradual decrease at the end of the episode. Time spent doing warm-up and cool-down may count toward meeting the aerobic activity Guidelines if the activity is at least moderate intensity (for example, walking briskly to warm-up for a jog). A warm-up for muscle-strengthening activity commonly involves doing exercises with less weight than during the strengthening activity.

Physical Activity in a Weight-Control Plan

The amount of physical activity necessary to successfully maintain a healthy body weight depends on caloric intake and varies considerably among older adults. To achieve and maintain a healthy body weight, older adults should first do the equivalent of 150 minutes of moderate-intensity aerobic activity each week. If necessary, older adults should increase their weekly minutes of aerobic physical activity gradually over time and decrease caloric intake to a point where they can achieve energy balance and a healthy weight.

Some older adults will need a higher level of physical activity than others to maintain a healthy body weight. Some may need more than the equivalent of 300 minutes (5 hours) a week of moderate-intensity activity. It is possible to achieve this level of activity by gradually increasing activity over time.

Older adults who are capable of relatively vigorous “Examples of Aerobic and Muscle-Strengthening Exercises” intensity activity and need a high level of physical activity to maintain a healthy weight should consider some relatively vigorous-intensity activity as a means of weight control. This approach is more time-efficient than doing only moderate-intensity activity. However, high levels of activity are not feasible for many older adults. These adults should achieve a level of physical activity that is sustainable and safe. If further weight loss is needed, these older adults should achieve energy balance by regulating caloric intake.

It is important to remember that all activities “count” for energy balance. Active choices, such as taking the stairs rather than the elevator or adding short episodes of walking to the day, are examples of activities that can be helpful in weight control.

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