

		Component	
Section Safety	<p><b>Aerobic exercise</b> Physical examination by physician for men over 45 and women over 55, history of heart disease in family, smoker or recent former smoker, have not exercised regularly in last 3 months, overweight or obese, high blood pressure or cholesterol, prediabetic.</p> <p>Select activities that match your skills, balance, and strength.</p>	<p><b>Strength/resistance</b> Perform with proper technique, full range of motion in joint when possible, controlled breathing during the concentric and eccentric phases.</p>	<p><b>Flexibility</b> No bouncing while holding a stretch. Performed after a light warm up with aerobic activity or with heat packs to enhance stretching benefits.</p>
Program principles	<p><i>Frequency:</i> 3-5 times/week</p> <p><i>Intensity:</i> HR methods, VO<sub>2</sub> methods, or perceived exertion methods.</p> <p><i>Time:</i> 20-60 minutes a day of vigorous activity or 30-60-minute moderate intensity/day 150 minutes or more of activity a week of moderate intensity 75 minutes or more of activity a week of vigorous intensity.</p> <p><i>Type:</i> Requiring minimal skill, especially for vigorous activity (eg, walking, cycling, running),</p>	<p><i>Frequency:</i> Each major muscle group trained 2-3 times/week</p> <p><i>Intensity:</i> 60-70% of 1 repetition maximum for novice to intermediate, higher than 80% for experienced, 40-50% for older beginners and sedentary people beginning strength training.</p> <p><i>Type:</i> Multijoint exercise activating agonist/antagonist groups for all. Single-joint exercises can be included. Variety of machines, free weights, body weights.</p> <p><i>Repetitions:</i> 8-12 to improve strength for most.</p> <p><i>Sets:</i> 2-3.</p>	<p><i>Frequency:</i> 2-3 times/week</p> <p><i>Intensity:</i> Stretch to point of tightness, no pain.</p> <p><i>Time:</i> Static stretch 10-30 seconds for most adults, 30-60 in older adults. For proprioceptive neuromuscular facilitation stretching: 3-6-second light/moderate contraction then stretch for 10-30 seconds.</p> <p><i>Type:</i> Series of stretches of each of the major muscle tendon regions are recommended.</p> <p><i>Volume:</i> Total stretch</p>

Single training  
session principles

recreational sports.  
*Volume:* Target 500-1000 metabolic equivalent of task/minute/week.  
*Progression:* Increase time 5-10 minutes/session every 1-2 weeks  
*Warm-up:* 5-10 minutes of light/moderate intensity cardiovascular exercise.  
*Conditioning:* 20-60-minute aerobic, resistance, neuromotor, or sport activities; accumulative bouts of 10 minutes of activity  
*Cool-down:* 5-10-minute light/moderate cardiovascular exercise  
*Stretching:* 10 minutes or more after exercise

*Rest:* 2-3 minutes between sets and 48 hours between days.  
*Progression:* Gradual/week

time of 60 seconds per muscle-tendon region  
*Pattern:* Repeat stretching 2-4 times  
*Progression:* Unknown

*Warm-up:* 5-10 minutes of light/moderate intensity cardiovascular exercise.  
*Conditioning:* Exercises  
*Cool-down:* 5-10 minutes of light/moderate intensity cardiovascular exercise.  
*Stretching:* 10 minutes or more after exercise.

