

Everyone knows it's healthy, but in today's modern world with all its conveniences and a lack of time, people are getting less exercise than what's needed. According to the U.S. Surgeon General's Report on Physical Activity & Health, more than 60% of adults in the United States do not engage in the recommended amount of activity – 30 minutes of activity on most days of the week.

What is Physical Fitness?

Everybody knows the importance of exercise – the physical and mental health benefits – but many are simply unable to stay motivated long enough to reap the benefits for a lifetime! Now, more than ever, we are learning that we must **find** ways to incorporate physical activity into our daily routine. Our society has so many conveniences that we've become accustomed to a sedentary lifestyle. Everything from automobiles, to elevators and email have prompted us to be less active. Improving our level of fitness will not guarantee us a long, healthy, and happy life – but it can certainly increase our odds dramatically!

Physical Fitness incorporates four characteristics: Endurance, Strength, Balance, and Flexibility. A regular exercise program can help us improve these four areas. The following section provides tips for improving physical fitness at any age (adapted from *Exercise: A Guide from the National Institute on Aging*).

Endurance

- To build stamina, you can do specific exercises, like walking or jogging, or any activity that raises your heart rate and breathing for extended periods of time.
- Do at least 30 minutes of endurance activities on most or all days of the week.
- If you prefer, divide your 30 minutes into shorter sessions of no less than 10 minutes each.
- The more vigorous the exercise, the greater the benefits.
- Warm-up and cool down with a light activity, such as easy walking.
- Activities shouldn't make you breathe so hard you can't talk. They shouldn't cause dizziness or chest pain.
- When you are ready to progress, first increase the amount of time, then the difficulty of your activity.
- Stretch after endurance exercises.

Strength

- Do strength exercises for all your major muscle groups at least twice a week, but not for the same muscle group on any two days in a row.
- Gradually increasing the amount of weight you use is the most important part of strength exercise.
- Start with a low amount of weight (or no weight) and increase it gradually.
- When you are ready to progress, first increase the number of times you do the exercise, then increase the weight at a later session.
- Do an exercise 8 to 15 times; rest a minute and repeat it 8 to 15 more times. Try doing 3 sets.
- Take 3 seconds to lift and 3 seconds to lower weights. Never jerk weights into position.

- If you can't lift a weight at least 8 times, it's too heavy; if you can lift it more than 15 times, it's too light.
- Avoid holding your breath while straining.
- These exercises may make you sore at first, but they should never cause pain.
- Stretch after strength exercises.

Balance

- Many lower-body strength exercises can also be balance exercises: plantar flexion, hip flexion, hip extension, knee flexion, and side leg raise. Some modifications to these can improve your balance even more. For instance, with plantar flexion (calf raises), you may start by holding onto the table or chair with one hand, then one finger, then no hands. If you are steady on your feet, progress to no hands and eyes closed. Ask someone to watch you the first few times, in case you lose your balance.
- Don't do extra strength exercises just to add these balance modifications. Simply add the modifications to your regularly scheduled strength exercises.
- Another way to improve your balance is through "anytime, anywhere" balance exercises. One example: Balance on one foot, then the other, while waiting in line at the bank. Do as often as desired.

Flexibility/Stretching

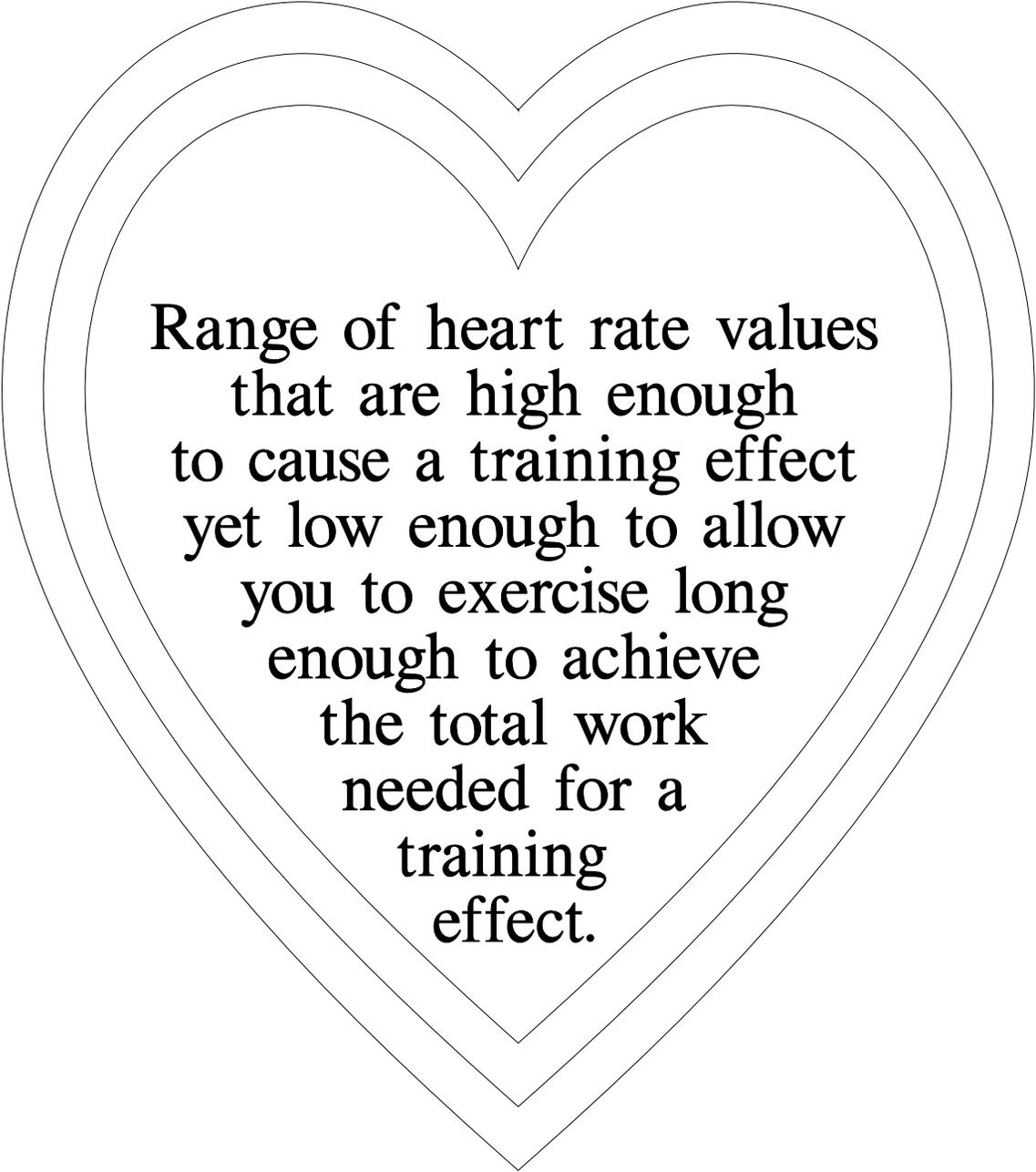
- Stretching exercises may help keep you limber.
- Stretching exercises alone will not improve endurance or strength.
- Do stretching exercises after endurance and strength exercises, when your muscles are warm.
- If stretching exercises are the only kind of exercise you are able to do, do them at least 3 times a week, up to every day. Always warm your muscles first.
- Do each exercise 3 to 5 times at each session.
- Hold the stretched position for 10 to 30 seconds.
- Total session should last 15 to 30 minutes.
- Move slowly into position; never jerk into position.
- Stretching may cause mild discomfort, but should not cause pain.

Summary

Anyone starting a new program should build up to all exercises and activities gradually, especially if you have been inactive for a long time. Once you have built up to a regular schedule, include these four types of exercises: endurance, strength, balance, and flexibility/stretching. If you have to stop exercising for more than a few weeks, start out at half the effort when you resume, then build back up to where you were. Some people may need to check with their doctor first, especially those with heart conditions, on medications, or who've had joint replacements.

Most Importantly – Enjoy Yourself!

Target Heart Rate Zone



Range of heart rate values
that are high enough
to cause a training effect
yet low enough to allow
you to exercise long
enough to achieve
the total work
needed for a
training
effect.

Figuring Your Own Target Heart Rate

Maximum Heart Rate:

$$220 - \underline{\text{Age}} = \underline{\hspace{2cm}} \text{ Maximum Heart Rate (MHR)}$$

Target Heart Rate: 60% – 85% of Maximum

$$\text{MHR} \times .60 = \underline{\hspace{2cm}} \text{ Lower Target Heart Rate (LTHR)}$$

$$\text{MHR} \times .85 = \underline{\hspace{2cm}} \text{ Maximum Target Heart Rate (MTHR)}$$

$$\text{Target Heart Rate} = \frac{\underline{\hspace{2cm}}}{\text{(LTHR)}} \text{ through } \frac{\underline{\hspace{2cm}}}{\text{(MTHR)}}$$

10 sec. pulse =

$$\text{Lower Target Heart Rate} \div 6 = \underline{\hspace{2cm}}$$

Through

$$\text{Maximum Target Heart Rate} \div 6 = \underline{\hspace{2cm}}$$

Recovery Heart Rate

Your recovery heart rate, which you should take one minute after you stop exercising, indicates how quickly you have recovered from an exercise session. Physically fit persons generally recover more rapidly because their cardiovascular systems are more efficient and adapt more quickly to the imposed demands.

The recovery heart rate really has two decreasing phases: the first minute after exercise, during which the heart rate drops sharply, and the *resting plateau*, during which the heart rate gradually decreases. The resting plateau may last as much as one hour after exercise. Five minutes following exercise, the heart rate should not exceed 120 beats per minute. After 10 minutes, the heart rate should be below 100 beats per minute. The heart rate should return to its pre-exercise rate approximately 30 minutes after the exercise session. However, the initial sharp drop in the heart rate that occurs one minute after the exercise is the most meaningful indicator of fitness. To determine your rate of recovery, use the following formula:

$$\text{Recovery heart rate} = (\text{exercise heart rate} - \text{recovery heart rate after 1 minute}) / 10$$

Monitor your exercise pulse immediately at the end of your workout. Exactly one minute after the exercise, take your pulse again. Subtract the one-minute recovery rate from the exercise heart rate and divide this figure by 10. The higher the number for the recovery rate, the more quickly your heart has recovered from the exercise. Use the following table to evaluate your recovery rate:

<u>Recovery Rate</u>		<u>Condition</u>
<u>Number</u>		
Less than 2	=	Poor
2 to 2.9	=	Fair
3 to 3.9	=	Good
4 to 5.9	=	Excellent
Above 6	=	Outstanding

The recovery heart rate also measures the intensity of the workout. Very little drop in the one minute pulse could indicate that you were probably working too hard and your body was having a difficult time recuperating.

Your heart rate is your best indicator for determining your proper exercise intensity. Take your pulse often throughout the workout, until you learn what your body needs to sustain your target heart rate. Remember, increase the intensity of your exercise if you are not yet in your target range; decrease the intensity if the target rate is too high.

Approximate Calories Used Per Hour

Activity	205 lb. Person	125 lb. Person
Aerobics – low impact	541	330
Aerobics – water	394	240
Archery – non-hunting	344	210
Baseball – infield or outfield	382	234
Baseball – pitching	488	299
Basketball – moderate	575	352
Basketball – vigorous	807	495
Bicycling – on level surface, 13.0 mph	877	537
Bicycling – on level surface, 5.5 mph	409	251
Bowling	295	180
Canoeing – 4 mph	565	352
Dancing – fast	590	360
Dancing – moderate	341	209
Football – touch, flag, general	787	480
Gardening – general	443	270
Golf – foursome	332	203
Golf – twosome	443	271
Handball – vigorous	1181	720
Horseback Riding – trot	551	338
Horseback Riding – walk	270	165
Martial Arts – judo, karate, kickboxing	984	600
Motorcycling	297	182
Playing with Kids – moderate effort	394	240
Racquetball – general	689	420
Rock Climbing – ascending	1082	660
Rollerblade Skating	689	420
Rowing Machine – vigorous	836	510
Rowing – pleasure	409	251
Running – 12 mph	1606	984
Running – 5.5 mph	887	537

Approximate Calories Used Per Hour

Activity	205 lb. Person	125 lb. Person
Running – 7 mph	1141	669
Running – 9 mph, 2.5% grade	1480	907
Running – 9 mph, 4% grade	1564	959
Running – 9 mph, level	1269	777
Running – in place, 140 count/minute	1993	1222
Skating – moderate	465	285
Skating – vigorous	837	513
Skiing – cross-country, 5 mph	956	586
Skiing – downhill	798	483
Swimming – backstroke, 20 yards/minute	316	194
Swimming – backstroke, 40 yards/minute	682	418
Swimming – breaststroke, 20 yards/minute	392	241
Swimming – breaststroke, 40 yards/minute	786	482
Swimming – butterfly	1082	660
Swimming – crawl, 20 yards/minute	392	241
Swimming – crawl, 50 yards/minute	869	532
Tennis – moderate	565	347
Tennis – vigorous	797	488
Volleyball – moderate	465	285
Volleyball – vigorous	797	489
Walking – 110-120 paces/minute	425	260
Walking – 2 mph	286	176
Walking – 4.5 mph	540	331
Walking – down stairs	544	333
Walking – up stairs	1417	869
Weight Lifting – vigorous	590	360

**You don't have to be "good" at the activity,
just have fun and keep moving!**

Source: *Fitness Partner Connection, 1995-1998*,
for more information refer to their website: <http://www.primusweb.com/fitnesspartner>