### STEPS TO WELLNESS - LESSON 3

## **Moderate Exercise Improves Health**

In our bodies we have laws that govern every aspect of our lives. As we come to a better understanding of these laws and begin to put them into practice, we enjoy better health. Ever since the beginning of mankind's existence there has been an important law of activity. God has made us to need exercise. Early in the life of mankind God revealed that we would be active in order to eat. "By the sweat of your brow you will eat your food..." (Genesis 3:19 NIV) But there are many other benefits than just food that are derived from physical activity. We will go over some of them in this lesson.

#### ARE AMERICANS EXERCISING?



In our society today we frequently do not realize the importance of exercise and as a result we become more and more sedentary. In fact federal surveys reveal most Americans are completely sedentary or barely active. It is estimated that as many as 250,000 deaths per year (12% of the total) are the result of a lack of regular physical activity. The Centers for Disease Control and Prevention goes so

far as to call the situation -"an epidemic of physical inactivity."

Is inactivity really as bad as many make it out to be? We usually think that if we do not have any major health concerns we can avoid exercising. Amazingly enough, studies reveal that inactivity is as detrimental to our health *as smoking* or having *high cholesterol levels.*<sup>3</sup> Inactivity is also known to increase the risk of coronary artery disease, non-insulin-dependent diabetes, osteoporosis, malignancies (of the colon, prostate, testicle, female reproductive tract, breast), as well as risk of anxiety and depression.<sup>4</sup> These conditions are so common today that we sometimes fail to recognize them as a real threat until we are afflicted, and then it may be too late.

Why are people not exercising? There are many different excuses that are commonly used, like: possible danger involved, age, or the weather is not right; and many claim to be just lazy. One of the most popular reasons for not exercising is that there is just not enough time. Today's society goes so fast that an exercise program is usually put low on the priority list. But studies have proven that the physically active people have only as much time as the inactive ones.<sup>5</sup> So it is really a

matter of priorities. Former president Harry Truman who had a very busy schedule made exercising a high priority. He walked for 30 minutes every morning, and he lived 20 years longer than the average American of his day.

Another popular reason for the "epidemic of inactivity" is that most Americans have been turned off by exercise recommendations given in the past. The recommendations called for "strenuous" exercise 3-5 times per week. This calls for more time and effort to be devoted to exercise than most people are willing to give. The result was that approximately 80% of the population never achieved the level of activity that was recommended.<sup>6</sup>

#### KEEPING FIT CAN BE SIMPLE

As science has learned more about exercise and how our bodies function, fewer of the old exercise rules still apply. Recently federal health authorities and fitness experts<sup>7</sup> reviewed dozens of studies and concluded that 30 minutes a day of any moderate-level physical activity is adequate to stay healthy.<sup>8</sup> To make it more clear they gave three guidelines to follow.

#### MODERATE EXERCISE GUIDELINES:9

- 1. Needs to be daily
- 2. Can accumulate throughout the day
- 3. Should total 30 minutes

This is great news for most Americans who seem to hide behind the excuse of being too busy all the time. The guidelines reveal that if we can get ten minutes of moderate exercise three times a day we will be able to maintain good health.

#### EXAMPLES OF MODERATE ACTIVITIES<sup>10</sup>

The question logically asked may be, what is considered "moderate?" Some examples are walking briskly at 3-4 mph (or about two miles in 30 minutes), mowing with a push mower, golfing while carrying or pulling the clubs, canoeing, biking, hiking hills. It is good to keep in

clubs, canoeing, biking, hiking hills. It is good to keep in mind that these activities, and those listed, are "moderate" only if they are performed at an intensity comparable to brisk walking. Many find that their heart rate goes up when performing these activities at even a slow pace. In such cases it is good to begin lightly and then to work up slowly to a more intense level.

# WHAT ARE SOME OF THE BENEFITS YOU CAN EXPECT?"

The benefits gained from exercising are far broader than most imagine. The advantages extend to our whole being. Mentally, physically, spiritually, and emotionally we are toned up when we exercise. Some of the benefits are:

- · Increased energy, endurance, flexibility, and muscle strength
- Reduced stress
- · Reduced risk of cancer
- Reduced risk or severity of chronic illnesses (protects against colds, coughs, flu)
- Strengthened immune system
- Burning excess calories, making for a trimmer physique
- Lowered insulin requirements
- Lowered blood pressure
- Lowered cholesterol



- Lowered resting heart rate and improved circulation (someone who has a heart rate of 80 and begins to exercise may see the heart rate go down to 70. Over a year the heart could rest 5.256,000 beats.)
- Improved sense of well-being (mood)
- Improved quality of sleep
- Improved appetite control
- Improved calcium storage and bone density, therefore preventing osteoporosis

#### **CAN UNFIT OLDER PEOPLE BENEFIT?**

Many people who are either older or who have never regularly exercised wonder if they can receive benefits even though they have been out of shape for years. One study done on men ages 20-82 over a period of 10 years, compared the survival rate of the men who started and maintained an exercise program with those who never exercised. The results were that the men who were unfit but who exercised their way to good physical shape, had about half the number of deaths from all causes, compared to those who were persistently unfit. When only heart-attack deaths were considered, the exercise benefit was even greater.<sup>12</sup>

# HOW YOU CAN START YOUR OWN EXERCISE PROGRAM

It is hard for most of us to hear the word "program" because it sounds like it may involve more time and effort than we are willing to expend. But we can remember the "moderate exercise guidelines" encourage us to exercise moderately through-

out the day every day instead of having a huge block of time set apart for a strenuous exercise regimen. Here are some helpful hints to keep in mind while starting and maintaining a program. They are in the form of the acronym E.X.E.R.C.I.S.I.N.G.

- Eat a good breakfast, high in carbohydrates, found in fruits and whole grains. Studies show that a diet high in complex carbohydrates gives the body the most efficient source of energy.
- Xtra water in the summer and winter. Keep well hydrated all the time, and especially when exercising.
- Evaluate your program by monitoring your pulse and weight on a weekly basis.
- Record-keeping will keep you accountable to yourself and may be an encouragement as you see your own progress.
- Clothing should be appropriate for the weather and times of the day. It should be loose, and protect the limbs and head. There is no bad weather just bad clothing.
- Introduce a plan of action. (The 4-W's may be helpful: Which exercise? When? Where? With whom?)
- Stretching keeps the body limber and serves as a warm-up at the beginning of exercise.
- Indoor exercise is not as good as outdoor, but a good option. Shopping malls are available when it is raining, snowy, or icy. (Some 2400 malls nationwide let walkers in before shopping hours, some even have walking clubs; write: National Organization of Mall Walkers, P.O. Box 191, Hermann, MO 65041).
- New varieties of exercise, a change of the exercise route, or time of day will make exercising more interesting. Studies have shown that a negative attitude actually produces enough stress to counteract the benefits of exercise.
- Get a Partner, people who have a partner are twice as likely to continue one year or more. 13

#### **KEEP MOVING**

For many people who are busy with tight schedules, beginning and then sticking with a program seems like an insurmountable mountain. But the enjoyment that comes from a regular exercise program usually makes all the effort worth while; the secret is to keep in mind that activity is one of the vital laws of our being. Only as we live in accordance with these laws will we enjoy the most vibrant health.

A married couple in their mid-forties normally exercised almost every day for years. When they relocated and both took on new management-level jobs, they let themselves get so involved in the success of their work that without planning to do so they gave up their exercise program for the next two years.

Finally, one day while eating lunch together, they found themselves commenting on how tired they felt, even after a full night's rest. As they were talking, they both realized that many of the symptoms they were experiencing were a result of not exercising. The very next morning they both got up earlier to go out for a brisk walk. In just days they began to see the benefits, including getting satisfying sleep within the normal 7-8 hours per night.

### EXAMPLES OF MODERATE EXERCISE

# Calories burned per minutes

	per minutes			
Activity	Women	Men		
Sweeping floors	3.3	3.8		
Hanging out clothes	3.4	4.0		
Washing and waxing car	3.4	4.0		
Grocery Shopping	3.6	4.0		
Mopping floors	3.6	4.0		
Mowing, push mower	4.8	4.8		
Walking, brisk (3 mph)	3.8	4.8		
Swimming, slow	3.8	4.8		
Weeding the garden	4.2	5.0		
Painting a house	4.5	5.3		
Walking, brisk (4 mph)	5.5	6.5		
Biking, moderate	5.9	7.1		
Chopping wood	6.3	7.7		
Planting a garden	6.3	7.7		
Scrubbing a floor	6.3	7.7		
Shoveling snow	6.7	8.3		
Hiking, no load	7.1	8.3		
Uphill walking, 3 mph	7.7	9.1		
Running, slow	8.3	10.0		

Table adapted from Consumers Reports On Health, July 1993, p.70 and Univ. of Calif. at Berkeley Wellness Letter, Sept. 1992, p.4

#### References

1 University of California Berkeley Wellness Letter, Nov. 1993, p.6.

2 Pate, R.R., Pratt, M., et al. 1995. Physical Activity and Public Health, A recommendation from the Centers for Disease Control and Prevention and the American College of Sports Medicine, JAMA, Feb 1; 273(5):403.

3 Tufts Univ. Diet and Nutr. Let., July 1995, p.5; UC Berkeley, Ibid.

4 Pate, R.R., JAMA, Ibid.; UC Berkeley, Ibid.; Tufts Univ., Ibid.; Shephard, R.J., Shek, P.N. 1995. Cancer, Immune Function, and Physical Activity, Can J Appl Physiol Mar; 20(1):1-25; Andersson, S.O., Baron, J., et al. 1995. Early life risk factors for prostate cancer: a population-based case-control study in Sweden. Cancer Epidemiology Biomarkers Prevention Apr-May;4(3):187-192; Gallagher, R.P., Huchcroft, S., et al. 1995. Physical activity, medical history, and risk of testicular cancer, Cancer Causes Control Sep;6(5):398-406; Albanes, D., Blair A., Taylor, P.R., 1989. Physical activity and risk of cancer in the NHANES I population. Am J Public Health, Jun;79(6):744-50; Mettendorf, F., Longnecker, M.P., Willett, W.C., et al. 1995. Strenuous physical activity in young adulthood and risk of breast cancer. Cancer Causes Control Jul;6(4):347-353.

5 Consumer Report on Health, July 1993, p.70

6 UC Berkeley, Ibid.

7 The experts were from the Centers for Disease Control and Prevention, The American College of Sports Medicine, and The Presidents Council on Physical Fitness and Sports, (July 1993).

8 Harvard Health Letter, Sept. 1995, p.6; UC Berkeley Wellness Letter, Mar. 1995, p.6.

9 UC Berkeley, Ibid.; Pate, R.R., JAMA, Ibid., p. 402; Tufts Univ., Ibid.

10 Pate, R.R., JAMA, 402, 1995, quoted by Nutrition Action Healthletter, Dec 1995, p.5; Harvard Health Letter, Ibid.; Tufts Univ., Ibid. p.2-4; Pate, R.R., JAMA, Ibid. p. 404.; Consumer Reports on Health, Ibid.

11 Pate, R.R., JAMA, Ibid., 402-404; Consumer Reports on Health, July 1993, p.69; Feb 1993, p.12,13; Shephard, R.J., Shek, P.N. Ibid.; Tufts Univ., Ibid., p.4.5.

12 Blair, S.N., Kohl, H.W.3rd, et al. 1995. Changes in physical fitness and all-cause mortality. A prospective study of healthy and unhealthy men. Cooper Institute for Aerobics Research, Dallas, TX. JAMA Apr 12:273(414):1093-8.

13 Consumer Reports on Health, July 1993, p.70

#### **REVIEW QUESTIONS**

KL	VI	L VV	QUESTIONS
T	F	(T	rue or False)
	-	1.	You need to get your exercise in one block of time.
	_	_ 2.	Exercising 3-5 times weekly is adequate.
	-	3.	Exercise conditions the heart to pump more efficiently, thus lower ing the heart rate and saving thousands of heart beats annually.
			oice Questions r answer by checking the letter you think is most correct
4.			re physically unfit, but you start exercising moderately, how much care your risk of death from all causes?
	A.	by h	alf
	B.	by d	louble

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5.	The	best	diet	for	someone	who	exercises	15	a

A 1 1 1 1 1 1 1 1	
A. high protein d	iet

D. none of the above

B.	high	fat	diet
 	0		

C. none

\_\_\_ C. high complex carbohydrate diet

\_\_\_ D. raw food diet