



Learning About Aerobic Exercise

Every American who watches TV has seen many commercials for aerobic exercise facilities, aerobic classes or aerobic exercise equipment. However, prior to 1970, most Americans had never even heard the term "aerobic." That is when Dr. Cooper wrote a book that was simply called "Aerobics."

In addition to defining aerobic exercise, he explained the health benefits that aerobic exercise provides. Besides adding a new term to our collective vocabulary, this book contributed to promoting an entirely new lifestyle --- an active lifestyle --- for many Americans.

What is Aerobic Exercise?

One definition of aerobic exercise is "low-intensity physical activity performed over an extended period of time." Low-intensity physical activities include things like jogging or riding an exercise bike with moderate resistance.

In contrast, high-intensity physical activities include things like sprinting a 40-yard dash or bench pressing as much weight as you can. Most experts agree that the

extended period of time should be at least 30 continuous minutes.

Although aerobics are considered low-intensity exercises, they are not effortless. Aerobic exercisers must work hard enough to raise their heart rate to a certain level. This level is called the Target or Training Heart Rate (THR) zone.



This zone varies depending upon an individual's age. To determine your THR zone, you first need to know your Maximum Heart Rate (MHR).

Maximum Heart Rate

Your MHR is the maximum number of times that your heart will beat per minute when exercising strenuously. As you age, your MHR decreases. Hence, a 50-year old person will have a much lower MHR than a teenager.

The most common way to estimate your MHR is to

subtract your age from 220. If you are 45 years old, your MHR would be 220 minus 45 or 175. In other words, when exercising, the 45-year-old's estimated MHR would not be higher than 175 beats per minute. No one, not even Olympic athletes, can exercise for 30 continuous minutes while at their MHR.

Target Heart Rate

The THR zone for exercising aerobically is determined by multiplying the MHR by certain percentages. For most healthy individuals this is 70-85% of the MHR.

Some individuals work between 60-70% of their MHR but exercise for a longer period of time. Although the 70-85% is better for improving one's physical fitness, exercising in either zone will contribute toward health benefits.

Also, a small percentage of top athletes work between 85-90% of their MHR for at least part of their workout. However, unless individuals are in exceptional physical condition, they should not exercise higher than the 85% limit. Also, recent studies have indicated that children

who are younger than teenagers may need a different formula for determining their THR zone.



Frequency

How often do you need to exercise aerobically for fitness and health benefits? The answer is at least three times per week. (If exercising three days per week, exercise on alternate days) Four days per week is a little better than three days and five days per week is a little better than four days. However, in regard to health benefits, exercising six or seven days per week is not significantly better than exercising five days a week.

Overtraining

It is possible to exercise too hard, even when exercising for fitness. This is commonly referred to as overtraining. Hence, for most people, exercising above the THR zone is not better than exercising within the zone. Exercising at too high an intensity or exercising too often can result in doing more harm than good to the body.

If you feel sore or drained of energy, you need to back off on your exercise training. The belief that “more is always better” does not apply to exercise and neither does the old “no pain, no gain” adage.

Some tips for your aerobic exercise program are as follows.

- Unless training for competition, do not exercise at the top of your THR zone every day.
- If you like to exercise every day, consider cross training. Instead of running seven days per week, substitute swimming laps or riding an exercise bike every third day.
- Be sure to use proper equipment. Something as simple as a poor choice in footwear can lead to serious problems.
- Be sure to use the proper technique when exercising. Improper technique can lead to chronic muscle and connective tissue problems.
- Maintain your proper weight. Excess weight places more stress on your body.
- Monitor your time and your exercise intensity when working out. This will help to reduce the chance of overexerting yourself during your exercise session.

- Be certain to warm-up before you start exercising and to cool-down after the exercise session.

Warm-up and Cool-down

A warm-up session will prepare the body for a better workout and it will also reduce the chance of injury during the workout. If you are not in good physical condition, walking at a moderate pace or riding an exercise bike at a moderate pace can be a good selection of a warm-up activity.



If you are in top physical condition, your warm-up exercise might consist of a slow jog or using an exercise bike with resistance. In any case, the warm-up period is a must before any strenuous exercise session. (Note, stretching is not a warm-up exercise and should only be performed after the muscles are warmed-up)

Cool-down exercises are also an important part of an aerobic exercise program. They help the body to maintain adequate circulation. The cool-down period is a must after an aerobic workout.



Common cool-down exercises include a slow jog, for the well-conditioned athlete, or a slow treadmill or slow walk for the individual just starting their exercise program.

For most healthy individuals, the cool-down period can be stopped when their heart rate goes below 100 beats per minute. However, to be safe, you should discuss this topic with your doctor.

Benefits

People who perform aerobic exercises can expect multiple health benefits. The benefits range from postponing various health problems to eliminating them entirely. When performed on a regular basis, aerobic exercise...

- Helps lower both systolic and diastolic blood pressures.
- Helps lower the bad cholesterol and raise the good cholesterol.
- Helps reduce excess weight and after reaching your desired weight, assists in maintaining that weight.
- Helps reduce stress.
- Helps increase bone strength if the exercises are weight-bearing activities such as step aerobics or jogging.

- Helps reduce the chance of a heart attack, a stroke and certain cancers.

Conclusion

Moderate activity such as walking or yard work, performed 30 to 40 minutes per day, several days per week, can reduce your risk of health problems. However, an aerobic exercise program can do even more to prevent health problems as long as you do not overdo it. To be safe, discuss your plans with your doctor before starting your exercise program.



Helpful Websites

Why Aerobic Exercise <http://www.mayoclinic.com/health/aerobic-exercise/EP00002/METHOD=print>

Aerobic Conditioning <http://www.exrx.net/Aerobic.html>

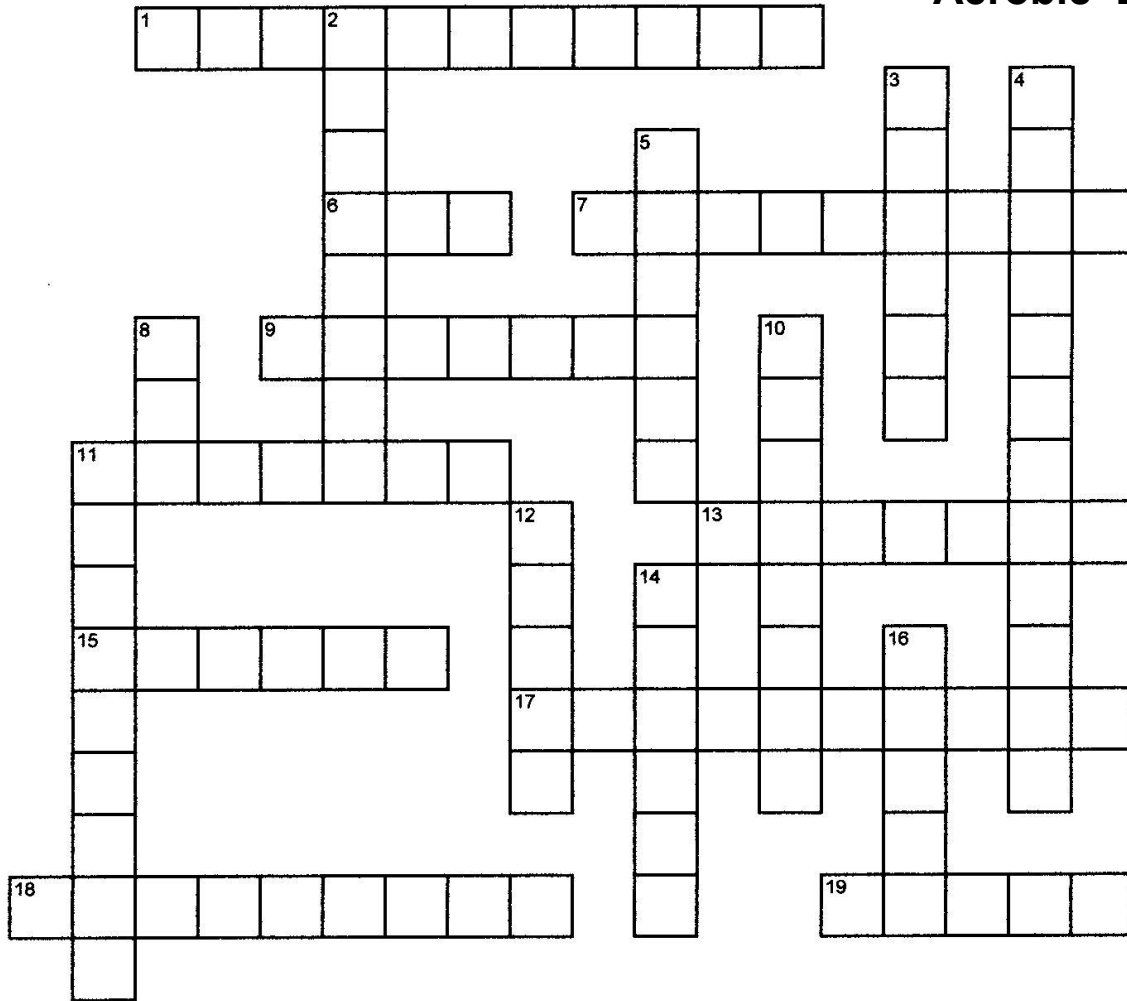
Exercise and Physical Fitness <http://health.nih.gov/topic/ExercisePhysicalFitness/WellnessLifestyle>

Exercise and Physical Fitness <http://www.nlm.nih.gov/medlineplus/exerciseandphysicalfitness.html>

NOTICE: Although the above websites have been operational for years, as you know, that could change tomorrow. If that is the case, simply Google the organization for a revised address.

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Aerobic Exercise



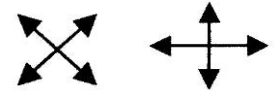
Across

- 1 Cool-down exercises help the body to maintain adequate _____.
- 6 Aerobic exercise is a _____ intensity physical activity.
- 7 As you age, your Maximum Heart Rate _____.
- 9 Low-intensity physical activities include things like _____.
- 11 Your Target Heart Rate should be between _____ to 85% of your Maximum Heart Rate.
- 13 Blood Pressure can be lowered with _____ exercise.
- 15 A warm-up session will reduce the chance of _____.
- 17 _____ is not a warm-up exercise.
- 18 Monitor your time and exercise _____ when working out.
- 19 Aerobic exercisers must work hard enough to elevate their _____ rate.

Down

- 2 Always perform a _____ after an aerobic exercise.
- 3 Exercising in the Target Heart Rate zone will contribute toward _____ benefits.
- 4 Exercising too hard is called _____.
- 5 More stress is placed on your body if you have excess _____.
- 8 The Target Heart Rate zone varies depending on a person's _____.
- 10 Walking at a _____ pace is a good warm-up activity.
- 11 High-intensity physical activities include things like _____.
- 12 If you like to exercise every day, consider _____ training.
- 14 A _____ session will prepare the body for a better workout.
- 16 You should exercise at least _____ times a week.

Aerobic Exercise



R N B L H B M V M Y T I S N E T N I E M Q Q W P H R Q J
 W M D N N M L T T G D M Z R T G B X D N Z X Q K E Y O P
 H F I K C C X O N N T Y B L F G E P V B W Q M T A H V N
 T R S Q L D P I O K Y Y L L O R W F G R L K Z C R T E R
 L H E M M T H T C D V T B M C V Z X P P B H G P T M R O
 A L A B M C R X K N P W I I K V E N G H R N K X R J W T
 E T S M T K Z V H Y M R S V P G C R Y L I X O J A Y E C
 H Y E E P L Z L B V G E E F I H R P T N D X K N T K I A
 A E R O B I C E X E R C I S E T E H I R Y I J N E Z G F
 R T R M K G R V B N W C P X S R C A E G A W E T X R H K
 S E L T S E D E N T A R Y D T U R A E A B I A T J X T S
 H T H G N I S I C R E X E E V T R N E W R F N P L R Y I
 V A X C T K K R T Q L N N Q S T C E A T D T B I F Z Y R
 I R C A B B S N Y L P S X S D I N R V E A V H M N T G L
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 O R P O T Z M K R O I R R O N - E A I K Q G E R A P L B
 R A T R F V P Z N O C L R N U T R L X T J X A D E L C B
 O E Q I F F K P F L K E I P D U M H Y G A E D S O Q T Z
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 S M W O B E S I T Y L G R A I Z T N L H S B U B L P G H
 A U O N L Q W L I P Q N S J B X L K F C O E G C W Q R N
 C M D N R T Q G V T M C Q W R L E X A L Q G F Z R P K R
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 I M C H N L R R A L P D R V I H Z V R E T A R E S L U P
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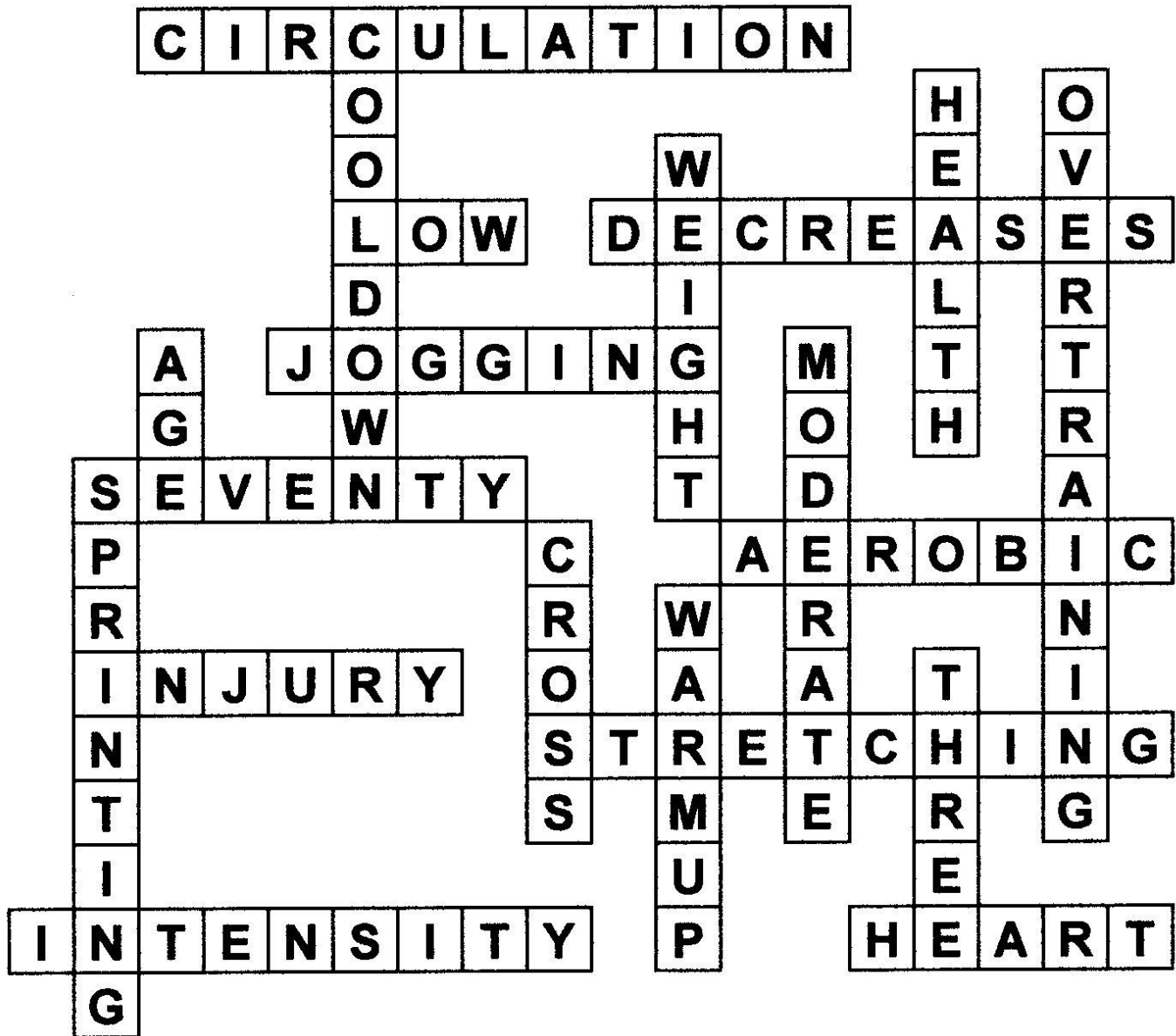
Activity
 Aerobic
 Aerobic Exercise
 Blood Pressure
 Calorie
 Calories
 Cholesterol
 Circulation
 Cool-down
 Cross Training

Diabetes
 Diet
 Disease
 Exercise
 Exercising
 Flexibility
 Health
 Heart
 Heart Attack
 Heart Health

Heart Rate
 Hypertension
 Intensity
 Lifestyle
 Maximum Heart Rate
 Moderate Activity
 Obese
 Obesity
 Overtraining
 Overweight

Oxygen
 Pulse Rate
 Risk Factor
 Saturated Fat
 Sedentary
 Stretching
 Stroke
 Target Heart Rate
 Vigorous Activity
 Warm-up

Crossword Puzzle Answer Key



Word Search Puzzle Answer Key

R	N	B	L	H	B	M	V	M	Y	T	I	S	N	E	T	N	I	E	M	Q	Q	W	P	H	R	Q	J
W	M	D	N	N	M	L	T	T	G	D	M	Z	R	T	G	B	X	D	N	Z	X	Q	K	E	Y	O	P
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