Aerobic vs. Anaerobic Conditioning

Aerobic exercise is also referred to as “cardio.” This form of exercise requires muscles to work overtime, so the heart pumps oxygenated blood to deliver oxygen to the working muscles. Some forms of aerobic conditioning include cycling, running, swimming, walking, step class, dancing, and kickboxing. These exercises can become forms of anaerobic conditioning if performed at a high intensity. As you become more aerobically fit, the body does not have to work as hard because the muscles are more efficient at extracting and using the oxygen.

Anaerobic conditioning is exercise “without oxygen.” This type of activity causes you to be quickly out of breath—sprinting, lifting heavy weight, or any rapid burst of hard exercise are some examples.

Benefits

- **Controls weight**- Exercise can help prevent weight gain or help maintain weight.
- **Combats health conditions and diseases**- Being active boosts high-density lipoprotein (HDL), or “good,” cholesterol and decreases unhealthy triglycerides. This allows blood to flow smoothly, which decreases the risk of cardiovascular disease. Regular exercise also helps manage type 2 diabetes, depression, cancers, arthritis, and falls.
- **Improves mood**- Physical activity stimulates various brain chemicals that may leave you feeling happier and relaxed. You may also have improvements in confidence and self-esteem because of your appearance.
- **Boosts energy**- Regular activity can improve muscle strength and boost your endurance. Exercise delivers oxygen and nutrients to your tissues and helps the cardiovascular system work more efficiently.
- **Promotes better sleep**- Physical activity can help you fall asleep faster and deepen your sleep, however, exercise too close to bedtime could make you too energized to fall asleep.
- **Improve sex**- Regular physical activity can improve energy levels and physical appearance which may increase your confidence. Exercise produces endorphins that stimulates the release of sex hormones, which enhances arousal.
- **Exercise can be fun and social!”

American College of Sports Medicine (ACSM) Guidelines

Cardiorespiratory Exercise

- Adults should get at least 150 minutes of moderate-intensity exercise per week.
- Exercise recommendations can be met through 30-60 minutes of moderate-intensity exercise five days per week or 20-60 minutes of vigorous-intensity exercise 3 days per week.
- People unable to meet these minimum recommendations can still benefit from some activity.

Resistance Exercise

- Adults should train each major muscle group 2 or 3 days each week.
- Adults should wait at least 48 hours before training the same muscle group.
- 2 to 4 sets of each exercise will help adults improve strength and power.
- 8-12 repetitions to improve strength and power; 15-20 repetitions to improve muscular endurance.

Flexibility Exercise

- Adults should do flexibility exercises at least 2 or 3 days each week to improve range of motion.
Each stretch should be held 10-30 seconds. Flexibility exercise is most effective when the muscle is warm. Therefore, stretching after aerobic activity may be more beneficial but stretching before exercise helps prevent injury.

Tips to Make Exercise a Habit
- Do a variety of activities you enjoy.
- Find a workout partner- the social aspect could make exercise more enjoyable and will provide accountability.
- Make exercise a priority- find the time that is most convenient for you. This may be first thing in the morning or maybe on your way home from work.
- Exercise even when you are “too tired.” Chances are exercise will give you a second round of energy.
- Log your activity.
- Be aware of the indicators of progress- getting a good night’s sleep, thinking more clearly, having more energy, resting heart rate dropping over time are some signs of progress.
- Invest in a fitness watch or pedometer. This will help encourage more activity throughout the day and help you achieve your goals.
- Reward yourself! Set a goal AND reward. When you hit that goal, treat yourself!

Myth Busters

**Myth:** Stretching helps your body recover faster.
**Fact:** No significant changes occur in blood lactate levels (a measure of how fatigued your muscles are) in individuals who stretch after exercise. There are, however, benefits to limber muscles. Stretching right after your workout, while the body is still warm, is the best way to increase joint flexibility.

**Myth:** More gym time is better.
**Fact:** Rest is crucial! If you work out every single day, you could injure yourself or over-train, which keeps your muscles from rebounding and your body from improving.

**Myth:** Lifting weights will make you bulky.
**Fact:** Lifting weight will help muscles get stronger and denser. You will burn the fat on top of your muscle, and you will get that “toned” look.

Get involved: Exercise is Medicine

Exercise is Medicine (EIM) is a new Registered Student Organization at Arkansas State University. The mission of this organization is to provide a solution to one of the greatest public health problems of the 21st century. Physical activity is key for prevention and treatment of diseases. EIM aspires to assess the university’s physical activity level, counsel and assist individuals in meeting the National Activity Guidelines, connect inter-disciplinary programs, and make movement a part of the daily campus culture.

For more information, contact Dr. Shawn Drake (sdrake@state.edu). This organization is open to all majors.

References
- [http://exerciseismedicine.org](http://exerciseismedicine.org)
- [http://www.mayoclinic.org/healthy-lifestyle/fitness/indextype-20048389](http://www.mayoclinic.org/healthy-lifestyle/fitness/indextype-20048389)
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Other News:
**If you have any suggestions for newsletter topics, please contact Dean Susan Hanrahan at hanrahan@astate.edu.**

The Arkansas State University Employee Wellness Newsletter is published monthly during the academic year by the College of Nursing and Health Professions. Health questions can be addressed to Dean Susan Hanrahan, Ph.D., ext. 3112 or hanrahan@astate.edu. Produced by Karinda Polk, graduate student in the College of Nursing and Health Professions, Physical Therapy Program.

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