



Curiosity Guide #603

Muscular Science

Accompanies Curious Crew, Season 6, Episode 3 (#603)

Aerobic Exercise

Investigation #5

Description

Compare your friend's resting heart muscle to what happens when your friend exercises aerobically.

Materials

- Stopwatch
- A friend

Procedure

- 1) Time your friend's heart. Have your friend feel her or his heart and count how many times it beats in 15 seconds.
- 2) Have your friend do jumping jacks for 45 seconds and count the heart rate again.
- 3) What did you notice?
- 4) What other kinds of exercise can get your heart rate higher?

My Results

Explanation

The word aerobic means "with oxygen" because we use oxygen to burn fat and carbohydrates as fuel for the skeletal muscles in our bodies. Aerobic exercise makes our cardiac heart muscles beat faster and get stronger to supply more oxygen to our bodies. People often refer to aerobic activity as cardio, and these cardio activities can include dancing, cycling, running, walking, hiking, swimming, step-climbing, cross country skiing, etc. As our hearts get stronger, they can pump larger volumes of more oxygenated blood around our bodies for the muscles to use. The muscles get better at using that oxygen and your cells quickly produce more mitochondria to convert it all to energy. Both fat and carbohydrates fuel muscles, but carbohydrates need less oxygen to burn than fat does. Regular aerobic exercise helps the body burn up more fat because the muscles are so much better at using the plentiful oxygen from the beating heart.

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