

Health Benefits of Exercise

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EXERCISE IMPROVES CARDIOVASCULAR HEALTH IN WOMEN WITH PCOS



Polycystic ovarian syndrome (PCOS) is a common health problem that causes women to develop small cysts in their ovaries, and often

results in difficulty conceiving. It also increases a woman's risk of heart disease, as PCOS impacts the proper functioning of blood vessels (proper functioning involves regulating blood clotting, and boosts the immune system, to name a few). Though little is known about the relationship between PCOS, heart disease, and blood vessels, researchers wanted to see if exercise could improve blood vessel function in women with PCOS. Results were published in *Medicine and Science in Sports and Exercise*.

The study included 17 women with PCOS, 10 of whom completed a 16-week exercise program, and seven of whom received the usual care of lifestyle advice. After 16 weeks, the women in the supervised exercise group showed significant improvements in endothelial function (blood vessel function). These improvements occurred without any change to participants' body weight or body fat.

Health clubs are safe, supportive environments for new exercisers and a great

place to find exercise guidance – either as part of a health promotion program or with a trainer.

EXERCISE LEVELS IN CHILDHOOD ARE INDEPENDENTLY ASSOCIATED WITH OBESITY IN ADULTHOOD



A study in the journal *PLoS One* looked at the impact of personality, education, physical activity, and other factors in childhood on

adult obesity. The study followed a group of over 5,000 British citizens from birth to age 50.

The results showed that more education and higher levels of physical activity were significantly and independently associated with a lower chance of obesity in adulthood. Interestingly, clumsiness (as reported by teachers) at age seven was associated with a higher risk of adult obesity.

Health clubs provide safe, supportive environments for children to exercise, and many offer youth programming and amenities like basketball courts for kids to play.

INTERVAL TRAINING CAN HELP MEN MANAGE HYPERTENSION



Hypertension is the condition of high blood pressure, usually exceeding 140/90 mm Hg. A study in the journal *African Health Sciences* looked at the impact of interval training on pulse pressure – a

measure of heart disease risk – in men with hypertension. The men in the interval exercise group went through eight weeks of interval training at 60-79% of maximal heart rate for 45-60 minutes, while the other group remained sedentary.

Results showed that the interval training significantly improved blood pressure and pulse pressure. These findings suggest that moderate intensity interval training is an effective non-pharmacological management strategy for hypertension and can reduce the risk of a cardiovascular event by reducing pulse pressure.

Health clubs provide a variety of machines and other equipment and knowledgeable staff to help you start an interval training routine.

SINGLE BOUT OF AEROBIC EXERCISE CAN BOOST MEMORY AND REASONING

There has yet to be a consensus on the cognitive benefits of physical activity. Several studies report benefits in children, while others report no benefits. A study in the *Journal of Clinical and Diagnostic Research* looked at the effects of aerobic exercise on a variety of cognitive indicators in healthy, young people.

During the study, 10 healthy males took eight cognitive function tests – measuring memory, reasoning, concentration, and planning – followed by 30 minutes of cycling at moderate intensity. After heart rate had normalized, participants took a post-test measuring the same functions. The results showed

significant improvement in the memory, reasoning, and planning tests, but no improvement in concentration. Participants also took less time to complete the post-test compared to the pre-test. The authors conclude that a single bout of moderate intensity aerobic exercise for 30 minutes can improve some aspects of cognition shortly after the activity.

HIGH BMI AND POOR FITNESS LEVELS ASSOCIATED WITH ASTHMA IN YOUNG KIDS

A recent study in the *European Journal of Applied Physiology* looked at the effects of body mass index (BMI) and cardiorespiratory fitness – as measured by a 20-meter shuttle run test – on asthma occurrence in young children before puberty.

The study looked at data from over 20,000 kids who participated in the SportsLinX serial cross-sectional study, a long term health survey of children in Great Britain. Results showed that low levels of cardiorespiratory fitness and high BMI were associated with a higher risk of asthma occurrence in participating kids.

Health clubs are a safe environment for kids to get their recommended 60 minutes per day of exercise, and many clubs offer youth programming or amenities like basketball courts and other resources for kids to improve their fitness through play.

SOURCES

Sprung VS, Cuthbertson DJ, Pugh CJ, Aziz N, Kemp GJ, Daoussi C, Green DJ, Cable NT, Jones H. Exercise training in polycystic ovarian syndrome enhances flow-mediated dilation in the absence of changes in fatness. *Med Sci Sports Exerc.* 2013 Dec;45(12):2234-42.

Cheng H, Furnham A. Personality traits, education, physical exercise, and childhood neurological function as independent predictors of adult obesity. *PLoS One.* 2013 Nov 8;8(11):e79586. doi: 10.1371/journal.pone.0079586.

Sikiru L, Okoye G. Effect of interval training programme on pulse pressure in the management of hypertension: a randomized controlled trial. *Afr Health Sci.* 2013 Sep;13(3):571-8. doi: 10.4314/ahs.v13i3.7.

Nanda B, Balde J, Manjunatha S. The Acute Effects of a Single Bout of Moderate-intensity Aerobic Exercise on Cognitive Functions in Healthy Adult Males. *J Clin Diagn Res.* 2013 Sep;7(9):1883-5. doi: 10.7860/JCDR/2013/5855.3341. Epub 2013 Sep 10.

McNarry MA, Boddy LM, Stratton GS. The relationship between body mass index, aerobic performance and asthma in a pre-pubertal, population-level cohort. *Eur J Appl Physiol.* 2013 Nov 9.