

Health Benefits of Exercise

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UPDATING THE EVIDENCE ON CANCER AND PHYSICAL ACTIVITY



Exercise is likely to prevent some cancers more than others, according to a new report published in the *Asia Pacific Journal of Cancer Prevention*. After reviewing more than 300 studies from around the world that examine the relationship between

cancer and physical activity, researchers found convincing evidence of a causal link between exercise and colon cancer, probable evidence for breast and endometrial cancers, and some suggested effect for lung, prostate, ovary, stomach and pancreatic cancers. On average, exercise was found to reduce the risk of cancer by 20-30 percent.

The protective effects of exercise are thought by researchers to result from the decreases in adipose tissue, lower sexual and metabolic hormone levels, changes in insulin resistance, improved immune function, and reduced inflammation that occur with physical activity. Researchers conclude that while exercise has been convincingly shown to reduce the risk of some cancers, future research should address limitations in estimating physical activity and more clearly define sedentary behavior.

HIGH INTENSITY INTERVAL EXERCISE REDUCES APPETITE IN OVERWEIGHT, INACTIVE MEN



A recent study published in the *International Journal of Obesity* sheds new light on the appetite inducing effects of exercise, claiming that different types of exercise influence hunger differently.

The study shows that high-intensity interval exercise may reduce appetite in sedentary, overweight men. The study asked 17 men to complete either a) continuous exercise at moderate intensity, or b) intermittent exercise at high- and very high-intensity. Participants' appetite during and for several days following exercise was measured.

Results showed that participants' appetite immediately following exercise and in the next 38 hours was lower after high and very high intensity interval exercise than after moderate, continuous exercise. In addition, participants doing very high intensity exercise also showed lower levels of ghrelin, a hormone that induces hunger. All participants reported similar enjoyment levels for all forms of exercise.

WATERMELON JUICE MAY HELP REDUCE SORENESS AFTER EXERCISE



Watermelon is a delicious summer fruit, but new research indicates that it might also be a recovery aid. Results of a study published in the *Journal of Agriculture and Food Chemistry* showed that a compound found in watermelon juice may help athletes recover after exercise.

The compound is called L-citrulline and it is an amino acid that is metabolized into arginine. Arginine is an essential amino acid and plays a role in cardiovascular health and injury recovery. Oral arginine supplements have several benefits including wound and tissue healing and reducing blood pressure. A 2007 study showed that eating watermelon increased blood levels of arginine, which means the L-citrulline in watermelon was converted to the arginine in the body.

This particular study put seven athletes through a max effort cycling test and provided them with either a placebo, about 16 ounces of natural watermelon juice, or watermelon juice infused with additional L-citrulline. Both watermelon juices were helpful in reducing recovery heart rate and muscle soreness 24 hours later.

EXERCISE AND FALL PREVENTION IN OLDER ADULTS

Research has shown that exercise helps prevent falls in older adults, but the role of exercise for fall prevention in older adults with cognitive impairments is less clear. Cognitive impairments refer to changes in memory, learning, concentration, and decision making that can occur with age. More severe cognitive impairment can lead to dementia. A new study published in the *European Journal of Physical and Rehabilitation Medicine* looked at the impact of exercise on balance, walking gait, and falls in older adults who had cognitive impairments.

During the study, 86 older adults living in a long-term care facility were randomized to a comprehensive exercise program or no exercise program for one year. Findings showed significant improvements in balance after six months and balance after 12 months. There was no difference in falls between the groups. The authors concluded that a yearlong comprehensive exercise program could improve balance and gait and possibly reduce falls in older adults, although more study needs to be done on walking and other fall risk factors.

PHYSICAL ACTIVITY AND SLEEP GOOD FOR MOOD STABILITY



A study in the latest issue of *Prevention Medicine* examines the impact of exercise and sleep quality on mood stability over time. The study looked at data from over

3,300 participants in the British Health and Lifestyle Study over a seven-year period. The data included self-reported changes in sleep, exercise, and leisure time activity.

Results showed that aging and exercising regularly for several years help improve mood stability, but not getting enough sleep has the opposite effect. Leisure time activities had no effect on mood when accounting for sleep and exercise. These findings suggest that sufficient amounts of exercise and sleep may have positive benefits for mental and physical health.

SOURCES

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