# The Truth about Exercise The Case for High Intensity Workouts

Over the last several years, researchers have slowly but surely reached the consensus that high intensity interval training (HIIT), which is characterized by relatively short bursts of intense exercise followed by periods of rest, far outperforms conventional aerobic endurance type exercises.

Not only does it beat conventional cardio as the most effective and efficient form of exercise, it also provides health benefits you simply cannot get from regular aerobics, such as a tremendous boost in human growth hormone (HGH), aka the "fitness hormone."

Perhaps best of all, HIIT requires only minutes, compared to hours, each

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week. In the featured video, Dr. Michael Mosley, author of Fast Exercise: The Simple Secret of High-Intensity Training, shares his own experiences with HIIT.

#### **The Truth About Exercise**

As Dr. Mosley reports in the featured BBC special, groundbreaking research suggests that as little as three minutes of high intensity training per week can produce significant health benefits.

Dr. Mosley was able to improve his insulin sensitivity by 24 percent by putting in a mere 12 minutes of intense exercise per week, for four weeks. Such an effect is truly amazing, and indeed important,

as improving and maintaining good insulin sensitivity is perhaps one of the most important aspects of optimal health.

He performed the exercises on a stationary bike. After warming up, he cycled "all-out" for 20 seconds, rested for a couple of minutes, and then gave it his all for another 20 seconds.

The HIIT approach I personally prefer and recommend is the Peak Fitness method of a 50% longer exercise time of 30 seconds of maximum effort followed by less recovery of only 90 seconds for a total of eight repetitions.



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The Hidden **Benefits of Exercise** 

The WSJ article touches on just a few of the amazina health benefits of exercise I've been talking and writing about for nearly three decades, including that exercise can:

- Boost your immune system
- Reduce your cancer risk
- Slow the aging process in your body

Regular workouts may help fight off colds and flu, reduce the risk of certain cancers and chronic diseases, and slow the process of aging.

A growing body of research is showing that regular exercise can boost your body's immune system, increasing the circulation of natural killer cells that fight off viruses and bacteria.

Your immune system is your first line OF DEFENSE AGAINST EVERYTHING FROM MINOR ILLNESSES LIKE A COLD OR THE FLU RIGHT UP THROUGH DEVASTATING, LIFE-THREATENING DISEASES LIKE CAN-CER. IT'S NOT POSSIBLE TO BE OPTIMALLY HEALTHY IF YOUR IMMUNE SYSTEM IS WEAK OR COMPROMISED.

Regular exercise has also been shown to combat the ongoing damage done to cells, tissues and organs that underlies many chronic conditions. Studies have found exercise can lower blood pressure. reduce bad cholesterol, and cut the incidence of Type 2 diabetes.

Medical experts say inactivity poses as areat a health risk as smoking, contributing to heart disease, diabetes, hypertension, cancer, depression, arthritis and osteoporosis.



Exercise boosts your immune system

Exercise improves the circulation of immune cells in your blood. The job of these cells is to neutralize pathogens throughout your body.

The better these cells circulate. the more efficient your immune system is at locating and defending against viruses and diseases trying to attack your body.

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#### How Exercise Helps You Fight Cancer

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Cancer thrives on sugar. Regular exercise reduces your insulin levels, which creates a low sugar environment that discourages the growth and spread of cancer cells. Controlling your insulin levels is one of the most powerful steps you can take to reduce your cancer risk.

Physically active adults experience about half the incidence of colon cancer as their sedentary counterparts. Exercise has a beneficial influence on insulin, prostaglandins and bile acids, all of which are thought to encourage the growth and spread of cancer cells in your colon. Exer-

cise also improves bowel transit time. which means your body's waste is spending less time in contact with the mucosal lining of your colon.

As the Wall Street Journal article points out, women who exercise reaularly can reduce their breast cancer risk by 20 to 30 percent over their inactive counterparts. This is likely due to a lowering of estrogen levels. The article cites a study in which women being treated for breast cancer were 50 percent less likely to die of the disease if they walked at an average pace for three to five hours a week.

Think about it. If just three to five hours of walking per week can so drastically improve your chances of surviving a hormone-responsive breast cancer tumor, imagine what a few more hours a week of exercise could do for you.

If you're male, be aware that athletes have lower levels of circulating testosterone than non-athletes, and similar to the association between estrogen levels and breast cancer in women, testosterone is known to influence the development of prostate cancer in men. Physical activity can reduce your risk.



No matter your age, exercise can provide enormous benefits for your health.

## The Time is Now

If you happen to be over 40 it's especially important to either start or step up your exercise program. This is the time of life when your physical strength, stamina, balance and flexibility start to decline.

I can't stress enough the importance of using precision to develop your individual workout program. You need to make sure you're getting enough exercise to achieve all the benefits, but not so much that you iniure vourself, and vou need variety to condition and build your entire body and prevent boredom.

Your program should include aerobic exercise, anaerobic (interval) training, weight strength training, and core exercises to build, strengthen and improve the flexibility of all

the muscles of your body, like yoga, Pilates or active isolated stretchina

If you've been sedentary for any length of time or you're out of shape for some other reason, it is vitally important to get started with an exercise program - but start small. One of the main reasons people don't stick with a workout program is because they go too hard, too fast and wind up with an injury, illness or simple exhaustion.

Write your own exercise prescription based on factors including:

- your current physical condi-
- your fitness goals
- your health concerns
- activities you enjoy
- best time of day for you to workout

Your ultimate goal if you are overweight or have other health concerns should be an hour to 90 minutes of exercise every day.

Once you reach a normal weight, you can drop back to 45 minutes at least four times a week and still reap the incredible health benefits of regular exercise.

### a cure for aging?



Have you heard the news about telomeres?

Telomeres are strands of DNA at the ends of your chromosomes which protect them from damage. Gradual erosion of telomeres leads to aging on a cellular level –think of them as a kind of biological clock.

### Keep telomeres from shortening with exercise, and stay youthful longer!

As telomeres shorten more, cell death occurs. These cell deaths are associated with serious disease and premature aging

There is no question that the leading edge of antiaging research is on how to prevent telomere shortening and actually develop therapies to lengthen telomeres. Many experts believe that lengthening telomeres could actually turn the biological clock backwards.

Since exercise has been associated with preventing telomere shortening, it is clearly a very powerful antiaging strategy.

Research indicates physically active people have significantly less erosion of telomeres than even healthy, non-smoking, but sedentary folks.

Exercise activates the enzyme telomerase which stabilizes telomeres, producing an anti-aging effect at the cellular level.

Other equally important factors in slowing the aging process include:

- A healthy diet based on your individual nutritional type
- Reducing or eliminating grains and sugar from your diet
- Sufficient, high quality sleep
- · A method to address your emotional challenges and daily stressors



to aging younger

Take one aspirin a day after the age of 40 to reduce your real age by 1.9

Floss your teeth to gain 6.4 years

Reduce your blood pressure to gain as much as 25 "real age" years

Reduce your stress level to erase as much as 30 years from your real age

Take your vitamins (C, E, calcium, D, folate, and B6) to gain 6 years

Be active, as even small amounts of exercise can make your real age nearly 5 years younger

