

The Healing Power of EXERCISE

50

Groundbreaking
Studies

Show that Regular
Exercise Fights Disease,
Improves the Quality
of Life and Helps Stave Off
the Effects of Aging.

CLUB PHYSICAL
you belong

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iHRSA
Success By Association™



Wellness
FOUNDATION

A message from IHRSA and Technogym



The path to wellness and well-being goes through your gym. That's the undeniable conclusion from scientists and doctors the world over who have studied the healing and empowering properties of exercise in all populations.

This guide to the highlights of

that research is powerful motivation to anyone who wants to achieve a life of health and vitality.

Exercise is an essential part of any health and wellness program. Share this information with others, and together we can all reap the benefits of the fitness lifestyle.

Enjoy the gift of exercise,

Joe Moore

President and CEO

International Health, Racquet & Sportsclub Association



We have been driven, along with our team of professionals, to share the positive benefits of regular exercise with New Zealander's.

Paul and Tina Richards

CEO, Directors, and Co-founders of Club Physical



2008 Outstanding Services Award

2006 Lifetime achievement Award

2006 Fitness Leader of the Year Award



The Wellness Foundation (www.wellnessfoundation.it) and Technogym have always been very active in promoting "wellness" as a lifestyle.

In particular, Technogym and The Wellness Foundation have organized 14 international conventions and several

publications, including the upcoming book entitled "Wellness – History and Culture of Living Well."

Today, more than ever, it is vital that we become the protagonist, that *mens sana in corpore sano* (sound mind in sound body) be the basic condition for planning sustainable socioeconomic and climatic development. In modern society, "wellness" is a question of social responsibility for the individual, institutions and businesses, which ultimately benefits all— the community, state and corporations. With this goal in mind, I founded The Wellness Foundation in 2003, a nonprofit body dedicated to scientific research and education for behavior and a lifestyle to improve health and quality of life.

The world needs wellness. This IHRSA publication represents an important contribution to increase the wellness awareness and the key role that the fitness industry can play in that area.

Live longer, live wellness!

Nerio Alessandri

President and Founder of Technogym and

The Wellness Foundation

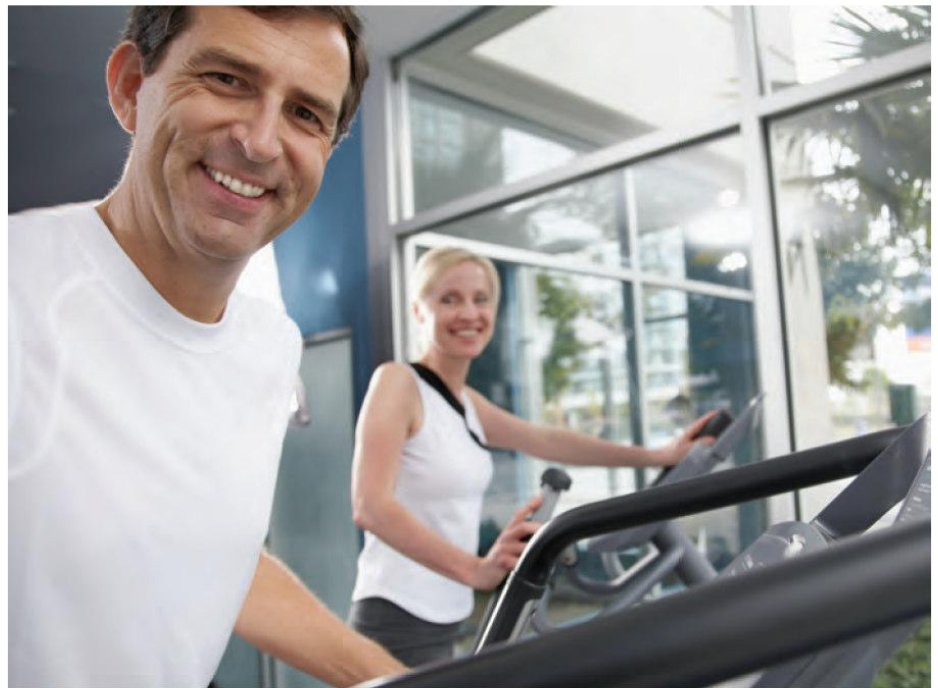


The Solution to Our Healthcare Crisis? Here's the Evidence.

It's there in black and white, in some of the most prestigious medical journals in the world: Regular exercise not only can make you look and feel better, but it can also help prevent and treat almost every imaginable disease and increase your lifespan.

Numerous scientific studies show that exercise can play a significant role in preventing diseases and chronic conditions, including cancer, diabetes, heart disease, stroke, osteoporosis, arthritis and more. Research has also proven that exercise helps enhance brain function and independence in the aged. And combined with sensible nutrition, exercise could save billions in healthcare costs.

The following research results aren't just gleaned from minor studies using



small samplings monitored for limited time periods. These are wide-ranging, long-term projects — some lasting more than 70 years — using huge populations covering all demographics and ages. Such renowned and ambitious research

projects as the Harvard Alumni and Framingham Heart studies are included here, as well as international findings published in the world's leading medical journals.

Here are the remarkable discoveries about exercise from recent studies.

About Club Physical

“Over thirty years ago I began to experience the wonder of gym workouts and the powerful impact they made on the way I felt. I recall working in the stressful Social Welfare Department. By 4pm each day I would feel drained and lacking energy, but with a lot of positive self-talk, I would go and work-out at the gym. Amazingly within 30 minutes I'd feel pumped, healthy, brimming with energy and stress FREE! Later, when wanting to start a business, I couldn't think of anything better than to share the miraculous benefits of health and fitness with others” says Paul Richards

Club Physical has since grown into an organization employing a team 300 professionals at fourteen New Zealand locations. Even better, many of the benefits of exercise you'll read here have personal real-life testimonials from members. You can find these in our downloadable books on www.clubphysical.co.nz.

So what's different about Club Physical?

- Where you live, where you work – your membership includes unlimited use of all locations
- Unique result producing programmes
- Seven day comfort guarantee when you join
- Real people, real results
- Chose from over 300 weekly GROUPX classes
- Three complimentary training sessions upon joining

Paul Richards

For more information, please visit www.clubphysical.co.nz



Rowan – Franchise Owner of Club Physical New Lynn

Aging and Independence

You can't live forever, but you can live well, reduce arthritic pain, maintain your mobility, help prevent dementia and Alzheimer's, and minimize the limitations of aging far into your senior years. Exercise can do all that. This is especially important as the population of seniors grows. Here's what the newest research tells us.



1 Regular exercise decreases the likelihood of developing arthritis-related disabilities.

For those with arthritis, not exercising can make consequences of the disease worse. A [major survey](#) of 3,554 men and women aged 53–63 discovered that regular exercise decreases the likelihood of developing arthritis-related disabilities by 10% among arthritis sufferers. Further, inactive arthritis sufferers showed a 37% increase in disabilities as compared with 29% and 27% for those who exercised. And respondents who engaged in 30 minutes of moderate to vigorous activity five days per week reported increased relief of functional decline related to arthritis.

2 Men and women aged 65 years and older who exercise have a lower risk of losing mobility.

One of the fears of aging is being unable to perform simple physical tasks, such as climbing stairs. A [four-year study](#) that monitored 6,981 men and women found that increased physical activity fostered a significant improvement in independent mobility.

3 Brain function improves for older women who walk only 1½ hours weekly.

Cognitive decline as a consequence of aging is getting more attention now that baby boomers are entering their golden years. [This study](#) of 18,766 women aged 70–81 years not only revealed that exercise can increase brain power, but it also reduces the risk of cognitive decline by 20% in those who exercise.

4 The fitter you are, the lower the risk of brain function decline.

Echoing the research above, [this study](#) focused on 349 men and women who were aged 55 and older. After six years of monitoring, the subjects who were fitter demonstrated less decline in mental acuity.

5 Active women aged 54–79 years have a 30% less chance of suffering from incontinence than less active women.

It may not be life threatening, but incontinence can be a humiliating burden for the aged. [A study](#) of 2,355 women, who were monitored for two years, showed that chances of suffering this affliction can be significantly reduced with regular exercise, including walking.

6 Exercise can significantly reduce arthritis pain in older women.

Older people can improve their chances of staying pain-free from arthritis by exercising regularly, according to [a study](#) that looked at 8,750 Australian women in different age groups: 48–55 years and 72–79 years. The researchers stressed that findings showed that increased exercise led to less pain, as those who exercised 2½ hours a week reported less discomfort from arthritis than those women who exercised one hour and 15 minutes.

7 Working out for as little as 15 minutes three days a week reduces the risk of dementia and Alzheimer's by 40%.

[This six-year study](#) determined that men and women aged 65 and older dramatically lessened their chances of developing the heart-breaking conditions of dementia and Alzheimer's by regularly exercising.



SOURCES FOR "AGING AND INDEPENDENCE" Danforth KN, Shah AD, Townsend MK, Lifford KL, Curhan GC, Resnick NM, Grodstein F. "Physical activity and urinary incontinence among healthy, older women," *Obstetrics and Gynecology*, 109, 721-7, March '07. ■ LaCroix, et al. "Maintaining mobility in late life. II. Smoking alcohol consumption, physical activity, and body mass index," *American Journal of Epidemiology*, 137, 858-69, April 15, '93. ■ Weuve J, Kang JH, Manson JE, Breteler MM, Ware JH, Grodstein F. "Physical activity, including walking, and cognitive function in older women," *JAMA*, 292, 1454-61, Sept., '04. ■ Barnes et al. "A Longitudinal Study of Cardio-respiratory Fitness and Cognitive Function in Healthy Older Adults," *Journal of the American Geriatrics Society*, 51, 459-65, April, '03. ■ Larson EB, Wang L, Bowen JD, McCormick WC, Teri L, Crane P, Kukull W. Exercise is associated with reduced risk for incident dementia among persons 65 years of age and older," *Annals of Internal Medicine*, 144, 73-81, Jan, '06. ■ Heesch KC, Miller YD, Brown WJ. "Relationship between physical activity and stiff or painful joints in mid-aged women and older women: a 3-year prospective study," *Arthritis Research & Therapy*, 9, R34, March 1, '07. ■ Feinglass J, Thompson JA, He XZ, Witt W, Chang RW, Baker DW. "Effect of physical activity on functional status among older middle-age adults with arthritis," *Arthritis Care & Research*, 53, 879-885, Dec. 7, '05.



Increased Life Expectancy

Accumulating research shows that those who exercise regularly have lower death rates than sedentary people. This increased life expectancy is due to limiting the damage inflicted by chronic conditions as well as helping to prevent the onset of disease.

8 Regular exercise reduces mortality rates by 25–33% and increases life expectancy by 1–2 years by age 80.

This long-ranging study followed 6,936 Harvard alumni aged 35–74 years over a period of 16 years. By performing simple physical activities, such as walking, stair climbing and participating in sports, both men and women had death rates that were one-quarter to one-third lower than those who didn't exercise for long periods.

9 Fit men have one-third the risk of death from heart disease.

were measured on a treadmill exercise test that gauged overall cardio-respiratory capacity. The study also found that fit men suffered less from the effects of metabolic syndrome, a disorder that increases the risk of developing diabetes.

10 Unfit men have a 39% risk of death from cardiovascular disease and 44% risk of all-cause mortality.

This definitive research supports results derived from #9. The study lasted a total of 24 years and involved 25,714 adult men with the

key determinant of increased mortality being low cardio-respiratory fitness.

11 Vigorous physical activity reduces the risk of dying by 6–9%.

This esteemed Harvard Alumni study monitored 17,321 men aged 46 for 26 years. The researchers found that the increased energy expenditure had a direct correlative effect on lowering death rates.

12 Fit people have a death rate four times lower than the unfit.

This overall measure of life expectancy followed 10,224 men and 3,120 women for eight years. This prospective study also focused on cardiovascular fitness as measured by maximal treadmill exercise tests.

Diabetes Prevention and Treatment

According to the National Center for Health Statistics, diabetes joins heart disease, cancer, stroke and respiratory ailments as being among the leading causes of death nationwide. But according to the International Diabetes Federation, up to 80% of type 2 diabetes is preventable by maintaining a healthy diet and increased physical activity. These studies support exercise as part of a comprehensive treatment for diabetes.

13 Lifestyle changes, including physical activity, are significantly more effective than medication (Metformin) in reducing the risk of type 2 diabetes.

This important study found that lifestyle intervention that included 150 minutes per week of regular exercise reduced the development of adult-onset diabetes by 58% compared to 31% with the drug



Metformin. A total of 3,234 men and women aged 51 years participated in this three-year study.

14 Vigorous physical activity reduces the risk of developing type 2 diabetes by 23–46%.

Researchers followed a large population sampling of 70,102 women

SOURCES FOR "INCREASED LIFE EXPECTANCY" Paffenbarger et al., "Physical activity, all-cause mortality, and longevity of college alumni," *New England Journal of Medicine*, 314, 605-13, March '86. ■ Katzmarzyk, et al., "Cardio-respiratory fitness attenuates the effects of the metabolic syndrome on all-cause and cardiovascular disease mortality in men," *Archives of Internal Medicine*, 164, 1092-7, May 24, '04. ■ Blair et al., "Physical fitness and all-cause mortality. A prospective study of healthy men and women," *Journal of the American Medical Association*, 262, 2395-401, Nov. 3, '89. ■ Lee et al., "Exercise intensity and longevity in men," *The Harvard Alumni Health Study*, *Journal of the American Medical Association*, 273, 1179-84, April 19, '95. ■ Wei, et al., "Relationship Between Low Cardio-respiratory Fitness and Mortality in Normal-Weight, Overweight and Obese Men," *Journal of the American Medical Association*, 282(16):1547-53, Oct. 27, '99.

Diabetes Prevention and Treatment

aged 40–65 years for eight years. [The study](#) found that, depending on physical exercise, the women could reduce their risk for type 2 diabetes by almost half. Walking was judged to be on the lower end of activity, yielding about a 23% drop, with more vigorous exercise developing greater benefits.

15 Moderately and highly active people live more years diabetes-free than people who don't exercise.

Again underscoring the importance of a lifestyle that includes regular exercise, [this study](#) of 5,209 men and women aged 28–62 lasted 46 years! Researchers found that life expectancy also increased in those engaged in moderate to high levels of physical activity.

16 The amount a man exercises is proportionate to the reduced risk of developing type 2 diabetes.

Once more, a direct correlation was discovered between how much a person exercises and the reduced risk of developing diabetes. This [five-year study](#) followed 21,271 men aged 40–84 years and discovered that engaging in vigorous exercise once per week reduced the risk by 23%; working out two to four times per week reduced it by 38%; and exercising five times per week reduced it by 42%.

17 Walking at least 2 hours per week lowers diabetics' mortality rate; those who walked 3–4 hours per week had the lowest mortality rate.



In this [eight-year study](#) of 2,896 male and female diabetics aged 18 years and older, the simple act of walking increased life expectancy. Specifically, walking two hours per week lowered mortality rates by 39%; those who walked three to four hours per week did even better.

18 Women who engage in regular exercise before pregnancy have a lower risk of gestational diabetes mellitus.

Gestational diabetes mellitus (GDM) is a form of diabetes that affects pregnant women who have never before suffered from diabetes. This [study](#) followed 21,765 women for eight years and discovered that those who engaged in vigorous physical activity had a lower risk of developing GDM than those who did not exercise.



Cardiovascular Disease and Stroke Prevention

More than 5 million people in the United States have suffered from heart failure. And stroke is the third leading cause of death in the U.S. Whether hereditary factors matter in your heart's health, lifestyle changes can significantly reduce the risk of heart disease and stroke, and regular exercise plays a crucial role.

19 Walking and vigorous exercise were associated with reduced incidences of heart attacks and other cardiovascular events in postmenopausal women.

Regardless of race, ethnicity, age or even body-mass index, exercise appeared to play a significant role in reducing serious heart problems in 73,743 postmenopausal women

aged 50–79 years. The [researchers](#) stressed that prolonged sitting actually predicted increased cardiovascular risk.

20 Walking 1–2 or more hours per week reduces the risk of coronary heart disease by 14–52%. [In research](#) that monitored 39,372 women aged 45 years or older, the simple act of walking up

SOURCES FOR "DIABETES TREATMENT AND PREVENTION" Knowler et al., "Reduction in the incidence of type 2 diabetes with lifestyle intervention," *New England Journal of Medicine*, 346, 393-403, Feb. 7, '02. ■ Hu et al., "Walking compared with vigorous physical activity and risk of type 2 diabetes in women: a prospective study," *Journal of the American Medical Association*, 282, 1433-9, Oct. 20, '99. ■ Jonker JT, De Laet C, Franco OH, Peeters A, Mackenbach J, Nusselder WJ, "Physical activity and life expectancy with and without diabetes: life table analysis of the Framingham Heart Study," *Diabetes Care*, 29, 38-43, Jan. '06. ■ Manson et al., "A prospective study of exercise and incidence of diabetes among US male physicians," *Journal of the American Medical Association*, 29, 29-35, July 1, '92. ■ Gregg et al., "Relationship of walking to mortality among US adults with diabetes," *Archives of Internal Medicine*, 163, 1440-7, July 23, '03. ■ Cullin Zhang MD, "A prospective study of pregravid physical activity and sedentary behaviors relation to the risk for gestational diabetes mellitus," *Archives of Internal Medicine*, 166, 543-548, March 13, '06

to two or more hours per week played a significant role in reducing cardiovascular disease risk. This study lasted seven years.

21 Incidence of coronary heart disease is 150% lower among women who exercise regularly as compared with women who don't.

This important [Nurse's Health Study](#) collected data on 88,393 women aged 34–59 who were monitored for 20 years. Those who exercised regularly for more than 3½ hours per week enjoyed enormous benefits in reduced heart disease risk compared to women who did not exercise at all.

22 Women with no heart disease symptoms enjoyed a reduced risk of death from heart disease with each increase in exercise capacity.

In this [eight-year study](#), 5,721 asymptomatic women aged 35 years or older displayed a reduced risk of death from cardiovascular disease by 17% for each increase in 1 MET of exercise capacity as measured using the famous Framingham Risk Score. The more the women exercised, the greater the reduced risk from heart problems.

23 High-fit men have a 68% lower risk of stroke mortality than unfit men.

The more fit the man, the lower the risk of stroke, according to this research, which followed 16,878 men aged 40–87 years for 10 years. As with other [studies](#), this one gauged levels of fitness using a maximal treadmill exercise test. Even slightly fit men enjoyed a 20% risk of death from stroke.

24 Physical activity reduces the risk of stroke by 2–34%.

[This study](#) mirrors the results of the preceding research, but this time with women. After monitoring 72,488 women aged 40–65 years for eight years, scientists found that the more each woman exercised, the lower her chances of suffering from a stroke.

25 Men who exercise vigorously 1–5 times per week reduced

their risk of stroke by up to 21%.

This is yet another [study](#) that found that the more often a man exercises, the greater his protection from suffering a stroke. This time 21,823 men were followed for more than 11 years and found that engaging in vigorous exercise could reduce risk of stroke by as much as 21%.

26 Women who engage in a healthy lifestyle that includes exercise enjoy many benefits, including a significantly reduced risk of total and ischemic stroke.

This [10-year study](#) of 37,636 women aged 45 years and older discovered that women who engaged in moderate exercise four or more times per week, didn't smoke, consumed moderate amounts of alcohol and had a healthy diet, enjoyed a dramatically reduced risk of suffering all types of strokes.

Regular exercise has proven to be effective in helping to limit the damage from hypertension and cardiac events.



SOURCES FOR "CARDIOVASCULAR DISEASE AND STROKE PREVENTION" Manson, et al., "Walking compared with vigorous exercise for the prevention of cardiovascular events in women," *New England Journal of Medicine*, 347, 716-25, Sept. 5, '02. ■ Lee, et al., "Physical activity and coronary heart disease in women: is 'no pain, no gain' passé?" *Journal of the American Medical Association*, 285, 1447-54, March 21, '01. ■ Li TY, Rana JS, Manson JE, Willett WC, Stampfer MJ, Colditz GA, Rexrode KM, Hu FB, "Obesity as compared with physical activity in predicting risk of coronary heart disease in women," *Circulation*, 113, 499-506, Jan '06. ■ Gulati M, Pandey DK, Arnsdorf MF, Lauderdale DS, Thisted RA, Wicklund RH, Al-Hani AJ, Black HR, "Exercise Capacity and the Risk of Death in Women," *Circulation*, 108:1554, Sept. '03. ■ Lee, et al., "Cardio-respiratory fitness and stroke mortality in men," *Medicine & Science in Sports & Exercise*, 34, 592-5, April '02. ■ Hu, et al., "Physical activity and risk of stroke in women," *Journal of the American Medical Association*, 283, 2961-2967, June '00. ■ Lee, et al., "Exercise and Risk of Stroke in Male Physicians," *Stroke*, 30, 1-6, June 22, '02. ■ Kurth T, Moore SC, Gaziano JM, Kase CS, Stampfer MJ, Berger K, Buring JE, "Healthy lifestyle and the risk of stroke in women," *Archives of Internal Medicine*, 166, 1403-9, July 10, '06.

Depression and Mood Enhancement

According to the National Institute of Mental Health, 14.8 million Americans suffer from some type of major depressive disorder and about 20.9 million American adults have a mood disorder. Exercise has been shown to ease symptoms of depression, reduce stress and anxiety, and boost self-esteem immediately after one workout. Here are studies analyzing the line between exercise and mental health.



27 Physical activity protects against depression, and athletic activity in college reduces the risk of psychiatric distress and depression for women in post-college years.

In this [10-year study](#) of 3,940 female college alumnae, researchers found that regular exercise was associated with fewer instances of self-reported and doctor-diagnosed depression. The type of exercise that made a difference in this research was termed “college athletic activity.”

28 Physical activity protects against depression, and suicide attempters are half as likely to report involvement in physical activity.

This [analysis](#) of 4,728 people aged 13–34 years who attempted suicide reported little or no physical activity in their life the month prior to the suicide attempt. Researchers believe this strongly links exercise with more stable mental health.

29 Habitual physical activity reduces depressive symptoms and improves emotional well-being.

This [comprehensive research](#) monitored 5,451 men and 1,277 women aged 20–88 years and discovered a correlation between cardio-respiratory fitness and reduced depression and enhanced emotional well-being. The subjects engaged in regular walking, jogging and running for their exercise.

Osteoporosis Prevention and Treatment

As populations age, the integrity of bone and connective tissue becomes an issue. Weight-bearing and cardiovascular exercise should be considered by anybody at risk of osteoporosis and for those who already have it. Experts estimate that there are 25 million victims of osteoporosis in the nation, 80% of them women, and research proves exercise can help measurably.



According to the International Osteoporosis Foundation, 1 in 3 women over 50 years old will experience osteoporotic fractures, as will 1 in 5 men. Exercise can help slim those odds.

30 Men who participate in athletics in their late teens experience bone-building benefits that last for years, and may reduce the risk of fractures by up to 50%.

By actively training an average of about nine hours per week, 63 healthy young athletes experienced a lifetime of strong bone health and reduced risk of fractures. This eight-year [study analyzed](#) athletes with a mean age of 17 years who engaged in soccer, long-distance running, weight training and other activities,

which all contributed to sustained bone health.

31 Aerobic and strength training slow the rate of bone loss in postmenopausal women.

Weight training and aerobics enhanced regional bone mineral density for 719 postmenopausal women who were monitored for 20 years. [This study](#) is significant since this population group is particularly susceptible to osteoporosis. In fact, half of U.S. women over age 45 suffer from osteoporosis.

SOURCES FOR “DEPRESSION AND MOOD ENHANCEMENT” Wyshak, “Women’s college physical activity and self-reports of physician-diagnosed depression and of current symptoms of psychiatric distress,” *Journal of Women’s Health and Gender-Based Medicine*, 10(4):363-70, May ‘01. ■ Simon et al., “Involvement in physical activity and risk for nearly lethal suicide attempts,” *American Journal of Preventive Medicine*, 27, 310-5, Nov. ‘04, Jan. ‘06. ■ Galper et al., “Inverse association between physical inactivity and mental health in men and women,” *Medicine & Science in Sports & Exercise*, 38, 173-8.

SOURCES FOR “OSTEOPOROSIS PREVENTION AND TREATMENT” Nordstrom A, Olsson T, Nordstrom P, “Sustained benefits from previous physical activity on bone mineral density in males,” *The Journal of clinical endocrinology and metabolism*, 91, 2600-2604, July 6. ■ Kelley, et al., “Exercise and regional bone mineral density in postmenopausal women: a meta-analytic review of randomized trials,” *American Journal of Physical Medicine & Rehabilitation*, 77, 76-87, 1998.

Cancer Prevention and Treatment

According to the American Institute for Cancer Research and the World Cancer Research Fund, weight management, exercise and proper nutrition are keys to reducing your risk of cancer. And the earlier in life you adopt these practices, the better. Research also proves that exercise can help you cope with cancer treatment.

32 High levels of physical activity reduce cancer mortality rates by 38%.

In this [nine-year study](#), 7,735 high-fit middle-aged men enjoyed a lower risk of death from cancer than men who weren't fit. The fitness levels were measured by resting heart rate.

33 Regular exercise reduces breast cancer risk by 37%.

Regular exercise was associated with a reduced risk of breast cancer for 5,624 women aged 20–54 years who were [studied](#) for 13.7 years. Compared to women who didn't exercise, subjects who engaged in "greater leisure-time activity" lowered their chances of getting breast cancer by more than 33%.

34 Exercise reduces postmenopausal breast cancer risk by 29%.

As with the studies above, regular exercise significantly impacted cancer risk. [This study](#) was important since it concerned 72,608 postmenopausal women who, over five years, showed a dramatic reduction in breast cancer risk due to physical exercise, specifically 42 MET (i.e., light aerobic exercise) hours per week.

35 Brisk walking reduces breast cancer risk by 18%.

[This research](#) looked specifically at the effects of brisk walking. A total of 74,171 women aged 50–79 years enjoyed a reduced risk of breast cancer simply by brisk walking from 1¼ hours to 2½ hours per week. The study lasted 4.7 years.

36 Women who exercise vigorously more than five times a week have a 38% lower risk of breast cancer than women who do not exercise.

This [12-year study](#) of 90,508 women, 3,424 with breast cancer, found that five hours of vigorous exercise per week produced great benefits in prevention and survival of breast cancer.

37 Physical activity reduces colon cancer risk by 47%.

A total of 7,723 men aged 40–75 years cut their chances of getting colon cancer nearly in half simply by engaging in regular exercise. [This study](#) lasted six years.



38 Vigorous physical activity reduces the risk of colorectal cancer in both men and women, while moderate physical activity was only shown to reduce risk among men.

This [five-year study](#) analyzed 952 cancer patients and 1,205 men and women controls. While moderate exercise appeared to only aid the men, participation in vigorous activity over the past 20 years conferred the greatest protection for both men and women.

39 Risk for ovarian cancer significantly decreases with an increasing duration and frequency of physical activity among premenopausal women.

Increasing duration of moderate activity appeared to be protective against ovarian cancer in this [two-year study](#) of premenopausal women (254 cancer patients and 652 controls). The results indicated that the more intense the exercise, the greater the cancer-preventive benefits.

40 Exercise slows prostate cancer.

In a 14-year [analysis](#) of 47,620 male health professionals, researchers concluded that regular vigorous exercise could help reduce chances of suffering from prostate cancer and also slow the progression of the disease in those who have it.

SOURCES FOR "CANCER TREATMENT AND PREVENTION" Wannamethee et al., "Heart rate, physical activity, and mortality from cancer and other noncardiovascular diseases," *American Journal of Epidemiology*, April '93. ■ Thune et al., "Physical activity and the risk of breast cancer," *New England Journal of Medicine*, 336, 1269-1275, May 1, '97. ■ Giovannucci et al., "Physical activity, obesity, and risk for colon cancer and adenoma in men," *Annals of Internal Medicine*, 7, 253-263, March 1, '95. ■ Patel et al., "Recreational physical activity and risk of postmenopausal breast cancer in a large cohort of U.S. women," *Cancer Causes & Control*, 14, 519-29, Aug '03. ■ McTier et al., "Recreational physical activity and the risk of breast cancer in postmenopausal women: the Women's Health Initiative Cohort Study," *Journal of the American Medical Association*, 90, 1331-6, Sept. 10, '03. ■ Tehard B, Friedenreich CM, Oppert JM, Clavel-Chapelon F, "Effect of physical activity on women at increased risk of breast cancer: results from the E3N cohort study," *Cancer Epidemiology, Biomarkers & Prevention*, 15, 57-64, Jan. '06. ■ Giovannucci et al. Physical activity, obesity, and risk for colon cancer and adenoma in men, *Annals of Internal Medicine*, 122, 327-340, March 3, '95. ■ Slattery et al., "Physical activity and colorectal cancer," *American Journal of Epidemiology*, 58, 214-2240, August 1, '03. ■ Zhang et al., "Physical activity and epithelial ovarian cancer risk: a case-control study in China," *International Journal of Cancer*, 105(6):838-43, July 20, '03. ■ Giovannucci et al., "A Prospective Study of Physical Activity and Incident and Fatal Prostate," *Archives of Internal Medicine*, 1005-1010, May 9, '2005.

Exercise Benefits for Teens and Kids

According to a recent study by Johns Hopkins University, by 2015, nearly 24% of U.S. children and adolescents will be overweight or obese. The following research shows that exercise will reap immediate dividends and long-lasting benefits in children.

41 Adolescents who participate in a range of physical activity are less likely to engage in high-risk behaviors. This study of 11,957 adolescents stressed exercise that includes high parental involvement. The benefits were many, as those children who exercised engaged in fewer instances of illegal drug use and violence, and were less likely to have low self-esteem.

42 Participants who exercise regularly during childhood are 17% less likely to develop hypertension later in life. In this 15-year study, 3,993 boys and girls decreased their risk of hypertension by 11% for every 1,500 calories they burned through weekly exercise.

43 A modest increase in physical activity is associated with lower

odds of obesity of more than 50% in boys and nearly 40% in girls. A total of 5,500 boys and girls participated in this study, which determined that as little as 15 minutes of moderate and vigorous physical activity per day helped significantly cut the chances of obesity.

44 Teens lose weight significantly less time watching television and more time engaging in moderate to vigorous physical activity. This one-year analysis of 1,726 teenagers found that females were successful at losing weight after participating in 7.6 hours of physical activity a week, and males trimmed down after doing 11.6 hours of exercise weekly.



45 Children who participate in regular physical activity are 50% less likely to develop hay fever as compared with kids who were sedentary. According to this one-year study of 2,429 children aged 5–14, kids with chronic hay fever will benefit from regular exercise.



The American Academy of Pediatrics believes that children should have moderate physical activity at least 60 minutes each day. They recommend finding an activity that's fun for the kids and participating with them.

SOURCES FOR "EXERCISE BENEFITS FOR KIDS AND TEENS" Nelson MC, Gordon-Larsen P, "Physical activity and sedentary behavior patterns are associated with selected adolescent health risk behaviors," *Pediatrics*, 117, 1281-90, April '06. ■ Parker ED, Schmitz KH, Jacobs DR, Dengel DR, Schreiner PJ, "Physical activity in young adults and incident hypertension over 15 years of follow-up: the CARDIA study," *American Journal of Public Health*, 97, 703-9, April '07. ■ Ness AR, Leary SD, Mattocks C, Blair SN, Reilly JJ, Wells J, Ingle S, Tilling K, Smith GD, Riddoch C, "Objectively Measured Physical Activity and Fat Mass in a Large Cohort of Children," *PLoS medicine*, 4, e97, March 20, '07. ■ Boutelle KN, Hannan PJ, Neumark-Sztainer D, Himes JH, "Identification and correlates of weight loss in adolescents in a national sample," *Obesity* (Silver Spring), 15, 473-482, Feb. '07. ■ Kohlhammer Y, Zuttavern A, Rzehak P, Woelke G, Heinrich J, "Influence of physical inactivity on the prevalence of hay fever," *Allergy*, 61, 1310-5, Nov. '06.

Exercise Enhances Overall Quality of Life

Regular exercise not only helps prevent and treat major diseases, but numerous studies also find that exercise imparts tremendous benefits to overall health, enhancing quality of life by helping individuals to manage chronic conditions and other common health problems.

46 Men who exercise regularly are 30% less likely to develop erectile dysfunction than inactive men.

A total of 22,086 men aged 40–75 years participated in [this study](#) that lasted a total of 14 years and showed dramatic benefits for men at risk for erectile dysfunction.

47 As body weight increases, so does the risk for asthma.

This [comprehensive analysis](#) looked at a total of 333,102 study subjects and found that individuals with a body mass index over 25 have a 50% higher chance of becoming asthmatic.

48 Low to moderate exercise reduces tiredness, back pain and constipation in women.

[This study](#) used three large population samples of women and found that exercise significantly improved chronic health conditions in all age groups. The research subjects included 14,502 women, aged 18–23 years; 13,609 women aged 45–50 years; and 11,421 women aged 70–75 years.

49 An active lifestyle can dramatically cut the risk of age-related macular degeneration.

[Researchers followed](#) nearly 4,000 men and women aged 43–86 for 15 years and discovered that those who exercised were 70% less likely to develop age-related macular degeneration (AMD) than their sedentary peers. AMD is a degenerative disease that is the leading cause of blindness in the elderly.

50 Fitness-center members are more likely to pursue health-promoting lifestyles and behaviors.

After studying 236 health-club members and 302 nonmembers, [researchers found](#) that the members were much more likely to be vigilant about their overall well-being by regularly visiting healthcare professionals and engaging in other healthy behaviors.



A person can prolong life up to 14 years by adopting four lifestyle rules: no smoking; eating fruits and vegetables; moderate alcohol intake; and engaging in regular exercise.

SOURCES FOR "ENHANCE OVERALL QUALITY OF LIFE" Bacon CG, Mittleman MA, Kawachi I, Giovannucci E, Glasser DB, Rimm EB, "A Prospective Study of Risk Factors for Erectile Dysfunction," *The Journal of Urology*, 176, 217-221, July '06. ■ Beuther DA, Sutherland ER, "Asthma: A Meta-analysis of Prospective Epidemiologic Studies," *Respiratory and Critical Care Medicine*, 175, 661-6, Jan '07. ■ Brown et al., "Leisure time physical activity in Australian women: relationship with well being and symptoms," *Research Quarterly for Exercise and Sport*, 71, 206-16, Sept. '00. ■ M.D. Knudtson, et al., "Physical activity and the 15-year cumulative incidence of age-related macular degeneration: the Beaver Dam Eye Study," *British Journal of Ophthalmology*, 90:1461-1463, Dec 2006. ■ Ready et al., *Journal of Sports Medicine and Physical Fitness*, 45, 199-207, Jun '05.



Club Physical member,
Kendall Watson-Peach
before and after
her first 12 weeks

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increased my fitness while lowering my blood pressure by twenty two points!" - Kendall (34)

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