

Yoga and Physical Health

Many practice yoga for its physical health benefits. Research findings reveal yoga's positive effects on a range of physical health outcomes including cardiovascular health and chronic pain. In 2010, a [meta-analysis](#) conducted at the University of Maryland found that yoga is just as effective as (and in some cases even surpasses) exercise in improving balance, reducing fatigue, lowering cholesterol, and reducing pain.

Yoga has also been found to be effective in managing chronic diseases. A [meta-analysis](#) published in 2015 examined the effects of yoga on patients with heart disease, stroke, and chronic obstructive pulmonary disease (known as COPD). This meta-analysis included studies that were randomized controlled trials, which—as we discussed in the last lecture—means that participants in each of the included studies were randomly assigned to either practice yoga or were placed in a control condition where they received usual care for their chronic disease. Across 10 randomized controlled trials for patients with chronic illness, the research revealed that yoga led to significant improvements in exercise capacity as well as health-related quality of life.

Heart Disease

In 2005, a [meta-analysis](#) conducted by researchers at the University of Virginia examined 70 studies and found that yoga promotes cardiovascular health. Those who practiced yoga had fewer visits to the hospital and reduced incidents of heart attacks. Researchers from the University of Pennsylvania also found that yoga practitioners had significantly lower blood pressure. High blood pressure, or hypertension, puts you at risk for strokes and heart disease. A recent [meta-analysis](#) also found the yoga reduced blood pressure.

Another study on the *prevention* of heart disease similarly found that yoga lowered blood pressure and also had positive effects on high-density lipoprotein (HDL) cholesterol and triglycerides. However, there are a few contradictions to this finding in the literature. In a [meta-analysis](#) published in 2016, no effects of yoga on HDL cholesterol or triglycerides were found. In this particular meta-analysis, though, yoga produced greater benefits than usual care for waist circumference and blood pressure.

A [review of yoga and cardiovascular disease](#) published in the European Journal of Preventive Cardiology concluded that yoga may help lower heart disease risk as much as conventional exercise, such as brisk walking.

One [randomized controlled trial](#) among Chinese adults examined a 12-week yoga intervention for metabolic risk and health-related quality of life. Metabolic syndrome is the name for a group of risk

factors that raises your risk for heart disease and other health problems like [diabetes](#) and [stroke](#). The study found that the yoga intervention improved metabolic risk profiles and health-related quality of life in Chinese adults with and without metabolic syndrome.

Despite hype by some fitness studios, there is no solid evidence to suggest that yoga is more effective for weight loss when compared to other forms of exercise. A [meta-analysis](#) published in 2016 found that when comparing yoga to usual exercise, there were no effects on weight, body mass index, body fat percentage or waist circumference. One finding from this meta-analysis, however, revealed that those who were overweight or obese had a lower body mass index after practicing yoga.

Pain

There is evidence on the effectiveness of yoga in lowering the experience of pain. One [study](#) examined the effect of yoga on lower back pain. The authors carried out a seven-day randomized control trial at a holistic health center in Bangalore, India with 80 patients who had chronic lower back pain. The researchers assigned patients to one of two groups – yoga therapy or physical therapy. Practicing yoga was more effective than physical therapy at reducing pain and improving spinal mobility.

In a [trial](#) comparing yoga to intensive stretching and self-care, Karen Sherman and colleagues found that both yoga and stretching benefitted participants, and that self-efficacy and hours of back exercise in the prior week were largely responsible for this effect. Both yoga and stretching were superior to self-care. They noted that relaxation and increased awareness may have contributed to the benefits of yoga.

A [randomized-controlled trial](#) published in 2011 compared a 12-week yoga program to usual care for chronic or recurrent low back pain. Adults in the yoga intervention had greater improvements in back function than usual care for up to 12 months. The author concluded by saying that “Yoga seems to be a safe and effective activity that clinicians could consider recommending for patients with a history of low back pain.”

Yet another [meta-analysis](#) published in 2012 found strong evidence for the short-term effectiveness and moderate evidence for long-term effectiveness of yoga for chronic low back pain. The authors stated that yoga can be recommended as an additional therapy to chronic low back pain patients.

In addition to back pain, researchers have examined the influence of yoga on other painful conditions. Shirley Telles, who is our expert lecture this week, and her colleagues found that yoga has also been shown to ease trauma from rheumatoid arthritis, a painful inflammation of the joints.

Fatigue, Balance, and Mobility

In a [study](#) with breast cancer survivors, researchers from the University of California at Los Angeles randomly assigned 31 cancer survivors with persistent, cancer-related fatigue to participate for 12 weeks in either yoga targeted at improving fatigue or health education classes. Fatigue severity declined significantly and the yoga group had significant increases in vigor relative to controls. Both groups had positive changes in depressive symptoms and perceived stress.

There is also evidence that yoga is effective for improving mobility, bone health, and sense of balance. One [meta-analysis](#) determined the impact of yoga on balance and physical mobility in people aged 60 years and older. The authors found that yoga interventions resulted in small improvements in balance and medium improvements in physical mobility. It has also been found that elderly women who take up yoga can improve their sense of balance.

In one [10-year study](#) of individuals undertaking a 12-minute daily yoga practice, researchers found that practicing yoga reversed bone loss and improved bone density in the spine, hips, and femur. Note, however, that this was not a randomized controlled trial.

Conclusion

Among the research conducted thus far, yoga has been found to lead to a number of positive physical health outcomes. It's important to note that the vast majority of the studies summarized above examined the effects of yoga in patients who were experiencing an illness or disease. As the research grows, we will continue to understand how yoga can be preventative rather than a tool to treat disease and illness. Dr. James Stahl and his team of researchers [analyzed data](#) from patients who attended eight sessions of a mind-body relaxation program. In addition to yoga, participants received training in several different mind-body approaches including mindfulness practices, cognitive behavioral skills, and positive psychological topics like optimism and gratitude. People in this program used 43% fewer medical services than they did the previous year, saving on average over twenty-three hundred dollars (\$2,360) per person in emergency room visits alone. This means that these types of programs could lead to health care savings of anywhere from \$640 to as much as \$25,500 per patient each year. As the science of yoga advances, greater numbers of similar research studies demonstrating tangible benefits to health and wellness will emerge.