



# Yoga and Pilates: analysing the rewards

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## Overview

With regular exercise being increasingly recognized as a vital part of a healthy lifestyle, yoga and pilates are two exercises gaining popularity. Yoga and pilates contain a substantial amount of mindfulness and this particular feature is often cited as a key defining factor that distinguishes yoga and pilates from other exercises. In addition to mindfulness, yoga and pilates involve different movements and poses that strengthen various muscle groups and maintain strong and flexible joints.

Research into yoga and pilates has continued to uncover numerous ways these exercises are rewarding to human health and it is highly likely that there are so many more benefits that are still unknown. Based on current knowledge, the following are some of the health gains associated with yoga and pilates.

## Mental well-being

Yoga and Pilates have been studied for their impact on mental health and so far mounting evidence shows the two exercises to be extremely beneficial for mental well-being. The mindfulness attribute of Yoga and pilates tremendously deepens awareness of self. The body responds by boosting the level of feel-good hormones known as endorphins while also suppressing cortisol, a stress hormone. Large amounts of cortisol are associated with mental disorders which range from mild to serious. Endowed with the outstanding potency to trigger production of endorphins and suppress cortisol, yoga and Pilates are extremely vital for creating hormonal balance necessary for optimum mental well-being.

With a positive influence on hormonal activity, it is not surprising that Yoga and pilates are known to perfect general sense of well-being. Additionally, people who practice yoga and Pilates are able to substantially boost brain power and mental strength. Yoga and pilates are also effective for keeping the

mind calm and clear as well as improving focus. People who are mentally calm and focused are able to conduct day to day activities in a productive and effective manner and are more likely to maintain healthy social relationships.

Cognitive health is a vital aspect of mental function and there is every indication that yoga and pilates have a profoundly positive influence in this area. Cognitive skills are mental skills required for memory, learning, problem solving, and other functions relating to processing information. The mindfulness found in yoga and pilates is a key reason for fundamental improvements in cognitive function. What is also noteworthy is that the amount of cognitive gains derived from yoga and pilates appears to even far surpass what cardio exercise can offer. A University of Illinois study evaluating the impact of yoga on cognitive skills found yoga to tremendously boost memory, attention span, and reaction time. And interestingly, yoga performed far better than cardio exercise at enhancing cognitive skills.<sup>1</sup>

People with diabetes may also want to consider inserting yoga and pilates into their fitness program. Since diabetes is known to induce cognitive decline, yoga and pilates with their cognitive enhancing properties play a major role in helping people with diabetes ward off cognitive impairment.

With scientifically proven abilities to promote cognitive performance, yoga and pilates are two exercises directly related to workplace performance and organizational productivity. Memory, focus, attention, and other problem solving skills are extremely important skills that staff in every workplace ought to possess. Therefore, workplaces stand to gain a lot by encouraging staff to do yoga and pilates and also stay generally active.

Yoga and pilates are also powerful tools for alleviating a wide range of mental disorders. Several studies indicate that yoga and pilates work extremely well for easing stress, restlessness, agitation, mood swings, and lethargy. The abundance of feel-good hormones and low amount of cortisol as a result of yoga and pilates help overcome all these conditions. In the absence of exercise especially yoga and Pilates, cortisol is over produced while there is a shortage of endorphins, weakening someone's capability to cope with stress, and other mental disorders.

Moreover, yoga and pilates are proving to be helpful for treating more serious mental illnesses such as depression and extreme anxiety. These severe cases are also addressed by the mindfulness influence of yoga and pilates and the resulting hormonal activity. People with depression tend to have severe hormonal imbalance and by increasing endorphin production, yoga and pilates help the body overcome depression and anxiety naturally and sustainably.

Attention Deficit Hyperactivity disorder or ADHD is another condition eased by regular yoga and pilates. People with ADHD have difficulty staying focused and they tend to be hyperactive. Yoga and pilates are scientifically proven to improve attention span as well as instill feelings of calmness. Therefore, these two exercises have the tools necessary for tackling ADHD. What's more, yoga and pilates come with several other health gains in addition to easing ADHD.

Even those dealing with emotional and psychological distress can find great relief in yoga and pilates because of the calming effect that reduces negative feeling such as fear, restlessness, and anxiety. The mind-body effect of yoga and pilates also helps people with Post-Traumatic Stress Disorder minimize nightmare occurrence and flashbacks of traumatic experience. In a study published in PUBMED, it was found that yoga significantly reduces PTSD symptoms and helps functioning of traumatized individuals<sup>2</sup>

The mind-body effect of yoga and pilates may also serve as important complementary therapy for treatment of bipolar disorder, major depression, and schizophrenia. The Harvard Health Publications touts yoga for its wide array of medicinal properties and also sites different studies showing yoga to be beneficial for treating bipolar disorder, depression, stress, and anxiety<sup>3</sup>

### **Cardiovascular well-being**

Yoga and Pilates are tremendously effective for promoting cardiovascular fitness. People who practice yoga and Pilates on a regular basis are able to fend off heart disease. Yoga and pilates control heart rhythm, cut heart attack risk, and balance cholesterol. All these areas of health are key aspects of heart function. Additionally, yoga and Pilates fight off numerous health conditions like diabetes which are serious risk factors for poor heart health. A University of Kansas found practicing yoga on a regular basis to tremendously improve heart rhythm<sup>4</sup>

There is also ample evidence showing yoga and pilates to have remarkable antihypertensive properties. In addition to the movements done during yoga and pilates, the mindfulness and relaxation components of the exercises appear to be huge players in the massively positive impact of yoga and pilates on blood pressure control. The antihypertensive properties of pilates were confirmed in a study which established that mat pilates training yields a significant decrease in clinical systolic, diastolic, and mean blood pressure at rest and over 24 hours in hypertensive women. The study further stated that mat pilates may be recommended as a non-drug intervention for the prevention, treatment, and control of hypertension.<sup>5</sup>

There are several more cardiovascular-related benefits associated with yoga and pilates. These exercises have also been found to offset metabolic syndrome which is the occurrence of three or more of the following conditions; elevated blood pressure, high blood sugar, low good cholesterol, high bad

cholesterol, excessive belly fat, and high amounts of triglycerides. Metabolic syndrome is a danger on its own and also significantly increases the risk of a wide range of cardiovascular diseases.

Furthermore, the anti-stroke powers of yoga and pilates cannot be ignored. These exercises go beyond just preventing stroke; they are instrumental for enhancing recovery from stroke especially with regards to helping stroke survivors regain balance and general body functionality after stroke.

Since yoga and pilates are cardiovascular-friendly, they are must-do exercises for people with diabetes. This condition is known to severely weaken the cardiovascular system, especially the heart. Statistics show that people with diabetes are more likely to suffer from heart disease than people without diabetes. Also, heart disease is the leading cause of death among people battling diabetes. In view of this, people with diabetes ought to prioritize cardiovascular health and use all means possible to keep the cardiovascular system in good health. Yoga and pilates are well equipped to help people battling diabetes avoid heart-related complications as well as high blood pressure and stroke.

### **Circulatory health**

Movements made during yoga and pilates go a long way in enhancing overall circulatory health which includes blood and lymphatic aspects of circulation. Proper blood circulation is tremendously vital for overall well-being. A poorly functioning circulatory system causes different health problems including impaired cardiovascular health. Enhanced blood circulation tremendously lowers the likelihood of heart attack and stroke. Through enhanced circulation, the heart is supplied with plenty of oxygen-rich blood, leaving very little room for heart attack to happen. The brain also has ample access to blood and oxygen, making stroke less likely. Furthermore, improved circulatory health made possible by yoga and Pilates is needed for easing varicose veins and strengthening the nervous system.

The ability of yoga and pilates to boost blood circulation is yet another reason people with diabetes need such exercises. Poor circulation is a major health concern among people with diabetes and is often cited as the reason for serious diabetes complications like amputation, poor heart health, stroke, blindness, slow healing wounds, and kidney disease. When there is inadequate blood and oxygen reaching certain areas in the body, the functionality of those parts is severely impaired, resulting in amputation, stroke, blindness, and heart attack. Yoga and pilates with their outstanding abilities to stimulate blood circulation deliver ample blood and oxygen to all areas of the body, thereby offsetting debilitating diabetes complications.

The lymphatic system gains massively from regular yoga and pilates as well. Yoga and pilates provide movement necessary for maintaining optimum lymphatic flow. When lymphatic flow is in good state, detoxification is carried out in a proper manner and this helps the body get rid of toxins which can cause

multiple health problems. What's more, the lymphatic system happens to be an indispensable part of the immune system. As a result, optimum lymphatic circulation due to yoga and pilates is essential for boosting the body's immune system which must be kept strong to ensure that the body is adequately equipped to fight off cancer and several other illnesses.

### **Flexibility and balance**

Flexibility and balance are vital components of optimum fitness. While exercise in general improves flexibility and balance, yoga and pilates have been found to provide these benefits to a much greater extent than other forms of exercise do. The numerous movements and poses that are typical aspects of yoga and pilates create very strong and flexible joints. Consequently, joints tend to have a wider range of motion, hence enhancing balance and flexibility.

The ability of yoga and pilates to boost flexibility and balance is a direct benefit for people battling arthritis, a condition that causes joint pain and stiffness. With regular yoga and pilates, arthritis sufferers experience drastic reduction in joint pain, stiffness, disability, as well as other arthritis symptoms. According to [livestrong.com](http://livestrong.com), pilates helps people with arthritis improve muscle strength, increase range of motion, and boost flexibility<sup>6</sup>

Furthermore, the flexibility and balance aspects of yoga and pilates are particularly useful for helping elderly people maintain balance and prevent harmful falls which can result in fractures and other serious injuries. A study done in 2015 found evidence to suggest that pilates can improve balance, an important risk factor for falls in older adults<sup>7</sup>

### **Overall strength**

Yoga and pilates are great for improving general energy levels by improving overall body strength as well as mental vitality. Yoga and pilates have a variety of moves that involve a lot of resistance or strength exercise which challenges muscles. In the process, a variety of muscles including deep muscles are activated and strengthened. The result is improved muscular and bone strength and this becomes the source of physical strength for the entire body. For this reason, yoga and pilates are effective for averting age-related bone and muscle loss. After the age of 30, people typically start losing bone and muscle mass. However, this process can be reversed by engaging in strength exercise like yoga and pilates. Moreover, by improving bone and muscle strength, yoga and pilates contribute to the prevention and treatment of bone diseases like osteoporosis.

What's more, increased muscle mass means faster metabolism which is associated with good health. Lean muscle is the most metabolically active body tissue and the more lean muscle there is, the higher the level of metabolism and the health rewards associated with it. Yoga and pilates play an important role in helping the body maintain lean muscle. The strength exercise offered by yoga and pilates is also necessary for fighting obesity, a condition that has become a major public health concern due to its health implications. Obesity is often accompanied by several chronic conditions including heart disease, diabetes, high blood pressure, cholesterol abnormalities and cancer. Insufficient exercise is a major contributor to obesity.

For improving core or abdominal strength, yoga and pilates are the go-to exercises. Yoga and pilates target abdominal muscles, resulting in immense strength in this area. A strong abdomen is important for maintaining a small waist circumference and countering abdominal obesity. Abdominal obesity is a clear indication of a huge presence of visceral fat. This type of fat surrounds the liver, heart, and other vital organs, substantially raising the likelihood of heart disease, diabetes, high blood pressure, and cancer. Research indicates that abdominal obesity is the most deadly type of obesity. By warding off belly fat, yoga and pilates fend off abdominal obesity and a wide range of ailments. Additionally, having a strong abdomen makes a huge contribution towards injury prevention and treatment.

There are so many reasons people with diabetes must get a healthy dose of yoga and pilates. Strength exercise, which is present in yoga and pilates, is essential for improving insulin sensitivity. Insulin that is sensitive helps keep blood sugar under control, and this is important for not only preventing diabetes but treating the disease too. Some studies indicate that type2 diabetes is reversible through a healthy lifestyle that includes regular exercise. With such powerful anti-diabetic features, yoga and pilates confer immeasurable benefits to people with diabetes and those wanting to avoid the disease.

Diabetes is not the only condition offset by properly functioning insulin. Other health advantages that come with enhanced insulin sensitivity include improved cognitive health, protection against cancer, proper heart function, and prevention of metabolic syndrome.

General body and mental strength associated with yoga and pilates also gives people with cancer another reason to do these exercises. Cancer and its treatment are often accompanied by body weakness and extreme fatigue. With their energy boosting properties, yoga and pilates can beat cancer fatigue and assist cancer patients restore physical strength and improve overall energy levels.

### **Injury prevention and treatment**

Yoga and pilates are useful for injury prevention and treatment. The different movements and poses done during yoga and pilates improve flexibility and balance by maintaining proper alignment of major

joints. Additionally, yoga and pilates bolster joint and muscle strength while also strengthening abdominal muscles to make them more efficient and supportive. All these factors are important for minimizing the risk of injuries related to sports and day to day activities.

When it comes to recovery from injury, yoga and pilates are instrumental for healing and restoration of body strength and functionality. A 2011 Wall Street Journal report explains that members of Royal Danish Ballet used pilates to rehabilitate severely wounded soldiers. It was observed that there were fast improvements in the overall strength, posture, stability, and gait of wounded soldiers who did pilates as part of their rehabilitation program<sup>8</sup>

### **Hormonal balance**

In addition to balancing hormones relating to mental well-being, yoga and pilates have a generally positive influence on hormonal activity. Having balanced hormones is important for different areas of health like blood sugar control, thyroid function, sleep, body temperature, and body fat level. Therefore, an upset in hormonal levels can bring about several diseases including thyroid disorder, diabetes, cancer, obesity, insomnia, fatigue, and poor digestion. Keeping hormones in a balanced state is one among many ways yoga and pilates bolster protection against all these conditions.

Yoga and pilates also keep reproductive hormones balanced and this is extremely essential for promoting reproductive health in both men and women. Improved fertility and protection against breast cancer are some of the benefits associated with a healthy profile of reproductive hormones. Other areas of reproductive health improved by the hormonal balancing effect of yoga and pilates in women are regulation of menstruation and protection from ovarian cancer. Men who have balanced reproductive hormones are able to fight off prostate cancer and maintain good overall prostate health.

### **Healthy sleep**

Yoga and pilates are deeply relaxing and they are able to calm the nervous system and put the mind and body in a state of relaxation so as to facilitate proper sleep. The different movements and poses done during yoga and pilates engage a wide array of muscle groups and this really makes it easy to fall asleep once in bed. So the benefits of yoga and pilates do not just apply to people with sleeping disorders, even people without sleeping disorders especially those with poor sleeping habits are able to improve quality of sleep as a result of yoga and pilates. People who do yoga and pilates on a regular basis experience very peaceful and restful sleep and wake up feeling rested, focused, and full of energy. That's not all, this kind of restful sleep helps maintain focus, wakefulness, alertness, and high energy levels throughout the day. As a result, all day to day tasks are done productively. People who do not have proper, restful, and

peaceful sleep wake up feeling tired and are likely to be easily distracted during the day and experience daytime drowsiness. Such individuals cannot carry out their tasks productively.

For millions of people experiencing sleeping disorders, yoga and pilates may offer a natural, sustainable, and holistic method for alleviating these conditions. Insomnia is a sleeping disorder experienced by a growing number of people. Typically, people with insomnia have difficulty falling asleep and staying asleep. Many factors are attributed to insomnia and they include anxiety, emotional distress, and lack of exercise. Snoring is noisy breathing during sleep while sleep apnea is described as frequent interruptions in breathing followed by gasping.

Practicing yoga and pilates on a regular basis can tackle different factors that disrupt sleep and cause sleeping disorders. These factors include restlessness, anxiety, nightmares, and panic attacks. Lack of exercise can also lead to sleep deprivation. Yoga and pilates are able to fill in this gap because they put the entire body to work and the feeling of tiredness can easily bring about sleep. The breathing techniques of yoga and pilates are also to beneficial people with sleep apnea and those who snore.

What's more, yoga and pilates also counter numerous other medical conditions that hinder proper sleep. Such conditions include cardiovascular disease, diabetes, heart burn, depression, back pain, breathing problems, emotional distress, obesity, and stroke. Moreover, by averting these conditions, yoga and pilates reduce the need for medications that also cause sleeping problems. For instance certain medications used to treat high blood pressure, depression, and heart disease may cause sleeplessness. Also, cancer treatment can sometimes cause loss of sleep, leaving cancer survivors unable get proper sleep and potentially exposing these people to health conditions induced by sleep deprivation. In such situations, yoga and Pilates are natural ways to sustainably restore sleep and put cancer patients on a viable path to holistic healing. In a 2013 study, yoga was found to be useful treatment for improving sleep quality and reducing sleep medication use among cancer survivors<sup>9</sup>

And for new mothers struggling with sleep just after childbirth, yoga and pilates may be helpful tools as they offer not just physical exercise but relaxation and calmness too. A key advantage with yoga and pilates is that these workouts are not very strenuous and they provide new mothers with a great starting point to reintroduce exercise after giving birth. A study done to find out the effect of pilates on sleep quality among first-time mothers found that pilates exercise appeared to help such women improve sleep quality<sup>10</sup>

Proper sleep is important for good health. Lack of sleep disrupts general mental function which results in poor memory, lack of focus, and impaired reaction. Poor sleep that goes on for a long time is likely to trigger more serious health problems. Weakened immune function, heart disease, diabetes, high blood



pressure, and obesity are all linked to poor sleep. These health problems are also known to be major causes of premature death.

In a broader sense, the abilities of yoga and pilates to substitute or even outperform sleeping drugs clearly shows that these exercise help prevent overmedication, a situation that can invite health complications of its own. In this regard, yoga and pilates are important components of integrative medicine, a treatment method that combines different options from conventional medicine and lifestyle medicine.

### **Digestion, back pain**

The movement pattern of yoga and pilates stimulates digestive muscles and rejuvenates the entire digestive system resulting in proper nutrient absorption, bowel regularity, and generally healthy digestion. Due to their healthy influence on digestion, yoga and pilates also help eliminate digestive disorders like acid reflux, bloating, constipation which may eventually lead to more serious conditions like irritable bowel syndrome, piles and cancers such as esophageal, stomach, and colorectal. With this kind of influence, yoga and pilates significantly lessen the need for laxatives and heart burn medications. This is a huge advantage because persistent use of laxatives and heart burn medications brings about serious side effects. Some of the unintended consequences of excessive laxative use include dependency, intestinal paralysis, and electrolyte imbalance. The side effects of continuous use of acid reflux drugs can also be severe. Recently, researchers found a link between excessive use of acid reflux drugs and chronic kidney disease.

Low back pain affects many people and lack of exercise is said to be one of the major causes of this condition. Insufficient exercise causes weak muscles in the lower back, the abdomen, and legs and one consequence of this kind of muscle weakness is low back pain. Sitting for extended periods of time is another reason mentioned for causing low back pain. With their assortment of movements and poses, yoga and pilates thoroughly engage and train all muscle groups necessary for preventing and getting rid of low back pain. The Harvard Health blog has cited studies showing yoga to ease low back pain. In one study, yoga produced much better results than routine care at improving back function <sup>11</sup>

Also, research on various available methods for treating low back pain indicates that yoga and pilates are among the viable treatment options. These two exercise therapies maybe helpful tools in successfully managing patients with low back pain<sup>12</sup>

## **Smoking cessation**

Smoking has many known health consequences including lung cancer and numerous conditions that lead to premature death. Many people try to quit smoking and many of them fail due to a variety of challenges encountered while attempting to quit. Yoga and pilates are being increasingly used in smoke cessation programs as more and more people are getting to realize that these exercises help smokers successfully quit. There are many aspects of yoga and pilates that are at play in helping smokers quit. Firstly, the self awareness element of yoga and pilates boosts willpower and strengthens determination to stop smoking and this happens to be an integral quality that people who want to stop the habit must possess.

People in the process of smoking cessation face severe withdrawal symptoms which can be very difficult to overcome and yoga and pilates can help people work their way past this very challenging phase. The mind-body effect of yoga and pilates helps ease anxiety, headache, nausea, craving, insomnia, mental distress, irritability, depression, restlessness, and other withdrawal symptoms. Nicotine addiction has to be addressed too and it is believed that through deep breathing, yoga and pilates help smokers neutralize nicotine addiction. As a result, yoga and pilates are increasingly being used as complementary therapy for smoking cessation. A study examining the feasibility and initial efficacy of yoga and as a complementary therapy for smoking cessation among women determined that yoga helps women abstain from smoking. Women who participated in yoga as part of a smoking cessation program also showed reduced anxiety and improvements in perceived health and well-being in comparison to women who did not participate in yoga. This led researchers to conclude that yoga maybe efficacious complementary therapy for smoking cessation among women <sup>13</sup>

## **Useful tips**

When it comes to yoga and Pilates, the options for doing these exercises are numerous. Some people prefer to attend classes where they are coached to do yoga and pilates. However, one option that is sustainable is collecting a variety of yoga and pilates instructional videos. This is particularly helpful for people who travel on a regular basis and want to stick to their fitness goals. Youtube.com also has a variety of yoga and pilates videos that give great insight into these workouts. An exercise mat is also needed for both yoga and pilates.

Another advantage is that there are different levels of yoga and pilates; beginners, intermediate, and advanced. This allows people of all levels of fitness to do these beneficial exercises. Furthermore, optimum fitness entails doing a variety of exercises. Therefore, it is important to have yoga and pilates

as part of a much broader exercise plan that includes different forms of exercise such as jogging and kickboxing.

Pregnant women must stay away from regular yoga and pilates. The good news is that there are yoga and pilates routines specifically designed for pregnancy. Even so, pregnant women must seek medical advice prior to engaging in yoga and pilates. The same goes for people with medical conditions; medical evaluation is necessary before engaging in yoga and pilates or any other form of exercise.

## **Conclusion**

Yoga and pilates are tremendously beneficial for physical as well as mental well-being. Yoga has been practiced for ages but only recently have the benefits of this great workout been widely studied and documented. The health benefits of yoga and pilates contribute massively to integrative medicine, an approach to well-being that combines options from conventional medicine and lifestyle medicine to create treatment strategies that produce the best results possible. Regular exercise is an essential component of lifestyle medicine. Besides providing exercise, yoga and pilates improve the body's ability to do other types of exercise.

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