

**REVIEW ARTICLE**

# Exercise: Background and Benefits on Health

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## ABSTRACT

There is no doubt that exercise is a complete drug of human life. Till now, this is authenticated that it proceeds on all of the organ systems. Yoga was the first impression of human ancestry. As exercise could enhance the secretion of endorphins, it eliminates stress and tension from our body. In addition, it stimulates our cerebral function so that our self-confidence and memory could work jointly. This exercise improves our metabolic rate that maintains the proper functioning of the muscular and digestive systems. A sound digestive system removes obesity as well as diabetes mellitus. In any arthritic problem (osteoarthritis and rheumatoid arthritis), physicians recommend exercises that are very effective nowadays all over the world. Regular exercise controls our blood pressure and keeps our heart healthy. Many types of cancer in males or females can be prevented easily through these combined successions of exercises (yoga, gym, aerobic, therapeutic).

## INTRODUCTION

Exercise boosts happy chemicals (endorphins) [1]. Exercise is a subcategory of physical activity that is structured, repetitive and purposeful [2]. Strengthening exercises provide appropriate resistance to the muscles and increase endurance and strength. Any healthy person may become unfit physically if they do not practice exercise regularly [1]. Exercise is a 'miracle' or 'wonder drug' that alludes to the wide variety of benefits that it can provide for many individuals [3, 4]. Workout outside and start exercising in the great outdoors can also increase self-esteem even more [5]. Start every session with a warm-up; it is essential to avoid injuries [6]. Mudra is a science of hand and finger postures, can help to cure bodily

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ailments. It affects the body's energetic system [6]. The objective of this review is to focus on the impact of exercise and initiate to everybody to take part on a regular basis.

## Therapeutic

Herodicus (480 BC) is known as the Father of Therapeutic exercise. Hippocrates elaborated on the beneficial effects of and its value in strengthening muscle, improving mental attitude and decreasing obesity.

## Yoga

Some researchers think that yoga may be up to 10000 years old. An American gynecologist Arnold Henry Kegel (1894-1972), showed some pelvic floor muscle exercises that support the uterus, bladder, small intestine and rectum. Yoga is neither a sect nor an ideology of practice that removes our tension and ensures relaxation. We feel our soul and are different from the body. Ignorance has no beginning, but it has an end. There is a beginning but no end to knowledge. The body is an asset to be gained by hard work. The mind is said to be twofold – pure and impure. It is pure when it is entirely free from desires and impure when it is a union with desires [7]. Tiger pose may help to remove kidney stones. Lion pose is good for healthy tonsils and stammering. If we perform the peacock pose, we can remove the gastroenteric problems. Frog and pigeon poses are effective on our pelvis and urinary bladder ailments. Eagle pose could improve the calf muscles, and cock pose increases calcium within our body [8] (Table 1; Table 2).

**Table 1. Day-wise yoga routine**

Days	Exercises
Day 1	Yoga
Day 2	Yoga
Day 3	Strengthening training (upper body)
Day 4	Strengthening training (lower body)
Day 5	Cardio

**Table 2. Few examples of the benefits of yoga on human health**

Name of exercise	Benefits
Knee bending and nose touch, Sit-up	Acidity
Knee raising, Sit on chair pose	Knee pain
Lotus pose	Gout
Lion pose	Tonsillitis
Cock pose	Increasing calcium
cow-head pose	Insomnia; kidney disease
Camel pose	Waist pain
Rabbit pose	Diabetes mellitus
Spinal twist pose	Asthma
Corpse pose	Heart diseases; High blood pressure

Source: [8]

## Gym

The first commercial gym is credited to French gymnast, Hippolyte Triat. He opened his first club in Brussels, then in Paris in the late 1840s.

## Aerobic

The concepts of aerobics were pioneered by physician Kenneth H. Cooper and popularized in his books *Aerobics* (1968) and *The Aerobics Way* (1977).

## Integumentary System

Exercise increases heart rate up and improves blood circulation, helps to deliver oxygen and nutrients to the skin, promotes collagen production and new cells keep glowing and for anti-aging [9].

## Muscular System

If we do not perform the exercise, our muscles become weak and we will be less able to take any load. Also, the bones can become fragile and thus break easily [1].

### **Circulatory System**

Aerobic exercise promotes our cardiovascular endurance [10].

### **Nervous System**

A vigorous workout increases brain-derived protein (known as BDNF) in the body, believed to help with decision making, higher thinking and learning [11]. A study showed that running improved vocabulary retention among healthy adults [12].

### **Respiratory System**

Exercise improves circulation and respiration and can facilitate adequate delivery of oxygen and glucose to the muscle [13].

### **Digestive System**

Physical activity can lower blood glucose up to 24 hours or more after a workout by making the body more sensitive to insulin [14].

### **Reproductive System**

Indeed, exercise decrease abdominal fat, blood glucose, blood lipids, and insulin resistance, as well as it improves menstrual cyclicality, ovulation and fertility, decreases in testosterone levels and Free Androgen Index (FAI), and increases sex hormone-binding globulin (SHBG) [15].

### **Skeletal system**

Strong muscles and ligaments reduce the risk of joint and lower back pain by keeping joints in proper alignment with the body [13].

**Excretory System:** During exercise, both glomerular filtration and renal blood flow are markedly reduced, resulting in decreases urine output. When fluids are over consumed (hyperhydration), there may be a reduced ability to produce urine to excrete the excess volume [16].

## Cancers

It is estimated that 30 to 60 minutes of moderate to vigorous workout per day is needed to protect against colon cancer, endometrial cancer and lung cancer [17, 18]. Most studies suggest that 30 to 60 minutes per day of moderate-to-high intensity physical activity is associated with a reduction in breast cancer risk. One recent study suggested that regular vigorous activity could slow the progression of prostate cancer in men age 65 or older [19].

**Table 3. Exercises are effective on our all organ systems**

Features	Examples	References
Common benefits	From the very beginning exercises were effective as a whole	Pretty <i>et al.</i> , 2005; Florek, 2010; Pimlott, 2010; American Association of Kidney, 2014; Elmagd, 2016; WHO, 2016
Types of exercise	Different exercises have different output	Kabir, 2018
Integumentary system	Good blood circulation improves our skin cell	www.insider.com
Muscular system	This is important for proper metabolism	Elmagd, 2016
Circulatory system	Exercise helps to circulate blood to various parts of the body	Wilmore & Knuttgen, 2003
Nervous system	It co-ordinates with other parts of the body	Winter <i>et al.</i> , 2007; Griffin <i>et al.</i> , 2011
Respiratory system	We get more energy by this system	Boundless, 2016
Digestive system	Proper digestion maintains our	www.diabetes.org

	entire functions	
Reproductive system	Hormonal functions are important here	<a href="https://pubmed.ncbi.nlm.nih.gov/24126551/">https://pubmed.ncbi.nlm.nih.gov/24126551/</a>
Skeletal system	Exercise removes arthritic problems	Boundless, 2016
Excretory system	Exercise helps in our excretion	<a href="https://www.medscape.com/viewarticle/717055_3">https://www.medscape.com/viewarticle/717055_3</a>
Cancers	Cancers can be prevented through exercise	Giovannucci <i>et al.</i> , 2005; Lee & Oguma, 2006; McTiernan, 2006

## CONCLUSION

At present, all exercises are being used in medical science for treating many diseases with significant results. Walking (aerobic exercise) is suitable for old-aged people; injury or accident allows therapeutic; yogic postures are excellent at home; for muscular development and metabolic rate, the gym can be a suitable option. Nowadays, the gym is becoming popular day by day. Young generations are more conscious of their health and nutritious diet. The youngsters are performing proper education, so they know everything about health, fitness, and food.

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