



# Use of Yoga Elements in the Training of Martial Arts

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## Abstract

The relevance of the topic presented because now an important condition for improving the effectiveness of educational and training process and competitive activities in all sports, including martial arts, is the development and implementation of technologies to optimize these processes. The use of yoga elements allows to increase the efficiency of the process of preparing athletes for competitions, helps to form the mood for a fight, allows an athlete to form the skills of self-control. The aim of this research is to theoretically and practically justify the possibility and expediency of using elements of yoga in the training process of martial arts. The article deals with the possibility of applying elements of yoga in the process of technical, tactical, physical and psychological training of athletes specializing in martial arts. The materials may be used to improve the quality of educational and training process and the effectiveness of competitive activities in martial arts.

**Keywords:** Elements of yoga, Eastern martial arts, Training process, Competitive activities

## 1 Introduction

According to the authors [1, 2, 3, 4], yoga is one of the most common areas of fitness, which is popular not only in Russia, but all over the world. The analysis of the dynamics of yoga development, starting from ancient times and ending with modernity, allows to assert that the main factors of its development are: the interest of the society by the peculiarities of functioning at different stages - the lack of sports direction (type of leisure), professionalization, which implies both the criterion of social status and receiving material remuneration. At this stage yoga is a popular type of Eastern gymnastics, leisure. Schools, yoga studios are formed, a system of competitions is formed, organizational bases at the international and national levels, which leads to the expansion of the geography of this direction of oriental gymnastics [5]. Yoga is an excellent alternative to traditional sports. People are not always able to get to specialized places for sports training. Yoga classes do not require well-equipped rooms and can be held in any quiet and secluded place, such as your home. That's why most people like this way of strengthening their physical health and spirit [6]. During research the it was found that people who practice yoga are less susceptible to heart and joint diseases; very rarely overweight; more stress-resistant; in good physical shape; do not exhibit aggression towards others; have good memory and coordination of movements [7].

Today's yoga as a spiritual practice is interesting primarily from the psychological and health-saving point of view. More and more often yoga is seen as a practice aimed at cognition of oneself, transition to new levels of consciousness, cognition of the outside world, including as an excellent psychotherapeutic

means, as a methodological basis of modern practical psychology and psychotherapy [8].

The analysis of the procedural side of yoga practice allows to distinguish several levels of yoga influence on a person: physical, energetic, emotional and conscious. At the level of the physical body flexibility is developed, muscles and ligaments are strengthened, and joint mobility is increased. Yoga classes have healing effect on the spine and posture. At the energy level there is a release of energy and recovery of strength. On the emotional level regular yoga practice leads to positive perception of the world, gradually leaving anxiety and emotional tension, which creates the basis for harmonious relations with people. And finally, on the conscious level the most valuable thing that yoga gives an expanded state of consciousness [9]. According to E.A. Pozdeeva [10]: «...elements of khataha yoga have long been used in sports training and in physical fitness technologies. ...the tasks that are solved in fitness yoga classes are health improvement, correction and correction of posture, muscle strengthening, balance in the work of large and small muscle groups, simultaneous development of joint mobility and muscle strength, harmonization of mental processes, etc.».

When training high level martial arts athletes to fight, as a rule, coaches pay close attention to shaping the mood for victory. In this case, a small amount of time is devoted to the formation of effective mechanisms of self-management of the athlete's own condition, which negatively affects the effectiveness of competitive activities. At the current stage of martial arts development, an important condition for improving the efficiency of the training process and competitive activities

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is the development and introduction of new technologies to improve the level of athletes' self-government. Self-management is a manifestation of the will of a sportsman - a conscious tension of mental and physical forces of a person, aimed at optimizing his own condition. For example, when the tactics of combat change, an athlete must quickly adjust without entering stress, to act and think clearly, and to control himself differently using yoga practice in training. Yoga-practitioners are private practices that complement the sports training process and affect the recovery of an athlete after training and especially after competitive activities.

Yoga exercises can have a direct and indirect impact on various aspects of athletes' training. The direct effect on the physical, psychological and theoretical training of athletes is an important component in the recovery process. An indirect effect of an exercise has on the technical and tactical training [11]. Nowadays specialists offer modules of yogic practice which help to solve problems of general and special kinds of preparation of athletes in the most effective way, and considerably increase functional condition before responsible competitions, promoting achievement of the highest results and keeping high level of health of athletes! [12]. The use of yoga practices in martial arts groups to improve the level of athletes' self-governance has recently gained more importance. This is as with the use of yoga practice athletes have an increased level of sportsmanship, a harmonious personality and condition of the athlete. Yoga, as one of the most ancient systems of self-knowledge and self-government, includes a huge number of means and methods of psychophysical improvement of man, which are presented in several directions of its development. Nowadays, more and more martial arts coaches include elements of yoga in their training, after which they notice a significant improvement in the performance of athletes in training, an increase in the level of self-control and self-knowledge of athletes, an improvement in the physical and functional preparedness of athletes.

There is a significant amount of research confirming the effectiveness of yoga in increasing the body's capacity [10, 13 - 16]. Athletes are not going to engage in cardiac arrest or do something like that which was demonstrated by yoga, but the fact that it is possible is of great scientific importance. If all athletes know that the body reacts to consciously caused signals, that heart rate, blood flow and other processes can be subject to willpower, every athlete will be able to influence his mental and physical preparation and learn to control emotions. According to A. Kogler, [17]: «...the use of yoga practice for a group of martial arts athletes is very varied in sports training. They can be conventionally divided into a number of tasks aimed at many aspects of the training process: general development exercises; compensatory exercises; regenerating exercises; a complex of asanas, vinyas and krii to reduce or increase body activity, to warm up and concentrate; - relaxation exercises; ideomotor and psycho-training exercises».

## 2 Methodological Framework

The methodological basis for this research is: (a) support mechanisms of athletes of high qualification [18, 19, 20]; (b) technology of formation of meth competencies of future specialists in the field of physical culture [21, 22, 23, 24]; and (c) ways to improve the efficiency of the training process and the competitive activity of martial arts [16].

In order to methodically correctly train martial arts athletes with elements of yoga, it is necessary to know the mechanism of action of these exercises on the body of athletes and to foresee the effects of their use, so it is very important to choose the right set of exercises for different sports that improve the level of self-governance.

There are a significant number of examples that confirm the effectiveness of applying yoga to enhance the body's capabilities. Athletes are not going to do cardiac arrest or do something similar that yoga has demonstrated, but the fact that it is possible to do so is of great scientific importance. If all athletes know that the body reacts to consciously caused signals, that heart rate, blood flow and other processes can be subject to willpower, each athlete will be able to influence his mental and physical training and learn to control emotions.

Studying yoga shows that the main task of classes is to form an absolute balance and conscious control of feelings. In order to exercise control over their body and mind, the athlete needs to understand the mechanisms of this process through self-monitoring and self-learning. He needs to learn to feel his body, understand how the mind and perception work.

Often the characterization of specific exercises that have a curative effect is reduced to a simple description of the external, visual form of the posture [25]. Let us suppose that it will be difficult for a beginner (and any ordinary person) to perform the posture correctly according to this general description. Specific motor activity of yoga, enclosed in a long static retention of an unusual body position, has little in common with European motor modes [26]. That's why precise methodical instructions for doing the exercise are necessary. Moreover, the same position may have different recommendations depending on the initial state of the musculoskeletal system of the practitioner [27,28].

## 3 Results and Discussion

This article deals with the application of yoga - practices in martial arts groups to improve the level of athletes' self-governance. The work was carried out based on the sports organization "Shield and Sword", which has been effectively operating for 7 sports seasons. In this club martial arts coach, in our case we will take karate kyokushinkai classes, include basic training and application of yoga - practice. Also kyokushinkai karate athletes attend kundalini yoga classes separately. The karate training in the sport club "Shield and Sword" includes supportive yogic exercises, compensatory yogic exercises and regenerative yogic exercises. Yoga-supporting exercises are an effective means of reducing monotony in athletes. Such exercises help to balance the training process, restoring energy, physical and mental balance.

In karate training kyokushinkai is used as a supporting exercise for yogis: floor stand on shoulders (modified sarvangasana), shoulder stand (sarvangasana), locust (salabhasana), forward tilt sitting (paschimothanasana), plough (halasana), head stand (sirshasana), scales (mayuerasana), triangle, triangle with turns, "head to knees" posture, "straight body" posture (padasana), lunge, hull lifting, half stand on the head, "bridge" posture.

Compensation yoga exercises aim to correct and compensate for the developed muscle imbalance through regular compensatory exercises. With the help of these exercises the one-sided effect of training is corrected, the body develops harmoniously, individual physical systems are improved, and together with them the athlete's control over his body. In karate trainings kyokushinkai is used as a compensatory yogic exercise: modified forward tilt standing, semi-plow, modified cobra (modified bhujangasana), twisting position, modified "onion", stretching groin (modified bhadrasana), half lotus (modified padmasana), shoulder stretching (modified homo khomukhasana), rest position (modified vajrasana).

Regenerative yoga exercises are necessary for fast and deep muscle regeneration, to restore strength and prevent injuries.

Table 1: Influence of yoga elements on the preparedness indices of martial art

Asana	Impact of asana
Uttanasana	Corrects and compensates for the development of muscle imbalance Applies to improve leg performance - direct kicks, sidekicks, head kicks.
Halasana	Corrects and compensates for the development of muscle imbalance Applies to increase the endurance of the athlete, strengthens the lumbar corset. Helps to stretch and strengthen the back surface of the body effectively pulled calves, hamstrings, hips, back muscles and spine, has a general relaxation on the athlete's body.
Viparitarani Mudra	Aimed at relieving tension in the legs and lumbar region of the back.
Shalabhasana	Aimed at strengthening the lower back, opening the chest.
Parivritta Parsva konasan	Aimed at strengthening the oblique and transverse abdominal muscles, the facet joints are mobilized, the pear-shaped muscle is stretched and strengthened, the back muscles are pulled out. Stimulated organs of the digestive, excretory, hormonal and genitourinary systems, relieves pain in the lower back, corrects pinching and stretching in the pelvis and lower back.
Ardha Matsyendrasana	Helps an athlete completely relax the corset.
Dhanurasana	Thanks to the intensive extension of the frontal surface of the body opens the chest, stretches out the collarbone area and strengthens the quadriceps. The heart and all organs of the chest cavity are massaged, and the lungs are enlarged in volume and their work is improved. Direct, twisting strokes are improved.
Natarajasana	The pose stretches and opens the thoracic and shoulder parts, makes the hips, groin area and abdomen longer, legs are stronger, increases the flow of blood to the pelvic organs, soothes the nerves, trains the vestibular apparatus, improves the athlete's stand.
Utthita Triconasana	Contributes to the development of hip mobility, soft extension of the back surface of the legs and buttocks, strengthening them. The side muscles of the body, chest and neck, spine is actively pulled out and worked out. The body is prepared to perform more difficult exercises.
Virabhadrasana	The correct posture is formed, a slouch is eliminated, and the back relief is kept, an overvoltage from muscle fibres is removed and microcirculation improves, exchange processes are improved. Leg muscles are stretched, groin.
Ardha Padmasana	The correct posture is formed, a slouch is eliminated, and the back relief is kept, an overvoltage from muscle fibres is removed and microcirculation improves, exchange processes are improved.
Gomukhasana	Opens the chest, makes the muscles and ligaments of the ankles, thighs and shoulder girdle more elastic, stretches the triceps and the broadest muscles of the back.
Vajrasana	Helps to stretch and strengthen the back surface of the body. effectively stretches the calves, hamstrings, hips, back muscles and spine, has a general relaxation on the athlete's body.
Sarvangasana	Aimed at strengthening the nervous system, eliminating over excitation.
Paschimottanasa na	Corrects and compensates for the development of muscle imbalance. Applied to improve leg performance - direct kicks, sidekicks, head kicks.
Shirshasana	Promotes deep concentration of the athlete, increases thought processes, eliminates stressful processes in the body. It prevents the aging process, activates the epiphysis, which is responsible for the main function of the athlete's body, enhances the functions of analysis and control of the athlete.
Bhujangasana	It leads to an increase in the production of pleasure hormones, which gradually reduces the level of tension and anxiety, promotes a gentle stretching of the spine and the development of its flexibility and mobility, helps increase the volume of the chest, elongates and strengthens the neck, makes the arms and back muscles stronger. It is a fundamental exercise to stabilize an athlete's physical condition. Corrects and compensates for the development of muscle imbalance. It is used to control and relax the entire muscle corset.
Mayuerasana	Aimed at reinforcing the wrist, hands and abdominal walls.
Savasana	Aimed at relaxing the whole body, reducing muscle tension, beneficial effect on self-control.
Parivrtta Janu Sirsasana	Helps to improve hip mobility, increase stretch of inguinal and posterior hip muscles. Applied to improve leg performance. Hits - direct leg blows, side blows, head blows.
Parvrtta Trikonasana	Affects the leg muscles, toning them, there is a good stretching of the feet, caviar, hamstrings and groin. The spine stretches out and becomes more flexible, the chest develops, the lung system improves, there is a purification of the blood system.
Janu Sirsasana	Necessary for pulling the Posterior Thigh Muscle, Caviar Muscle and Lower Back Muscle. Helps to open the pelvis, improves digestion and normalizes the excretory system, soothes the nervous system and helps to restore strength.
Chaturanga Dandasana	Strengthens hands, arms, shoulders, back and neck muscles. Improves blood circulation in the upper body. The focal point is the hands. Necessary to improve basic strokes.
Navasana	Helps relax back and neck muscles, reducing tension and headaches.
Chakrasana	It strengthens the wrists, reducing the risk of sprains and injuries, strengthens nutrition for the spinal column and the tissues surrounding it. Strengthens and stretches back muscles, eliminates slouch. Necessary to correct the athlete's post, the correct setting of blows.

Regeneration has many positive aspects for a karate athlete. Among the most important are these:

- Postload recovery;
- Rapid elimination of fatigue symptoms;
- Preventing injuries to permanently loaded muscle groups;
- Balancing the work of the higher nervous system.

These advantages make it possible to significantly improve the efficiency of the training process. They accelerate the development of correct sports techniques, movement skills, protect the body of the athlete. Psychological yoga exercises revive passive attention, which leads to better self-control. Yoga exercises include the attention of an athlete, just as they do in meditation. Asanas improve cerebral blood circulation and stimulate neuroplasticity of brain structures, which creates the conditions for increased mental ability develop the skill to learn something new. All parts of the brain are constantly working. This means that at any moment millions of neurons are in an excited state. The brain needs a huge amount of energy. The delivery of that energy to the brain depends on effective blood supply. Asanas significantly improve the blood supply to the brain and significantly increase its efficiency.

On the basis of the analysis of activity of sportsmen of sports club "Shield and Sword" during intensive trainings and during competitions it was revealed that these exercises allow to optimize mental and physical condition of sportsmen, to increase the level of their emotional stability, to strengthen self-regulation of sportsmen, to maintain the mental state of peace in alternation with movement that positively affects all aspects of educational and training process and competitive activity of sportsmen. The following elements of yoga used in the training process are described and their impact on the various indicators of technical-tactical, physical and psychological fitness of martial art is described (Table 1).

#### 4 Conclusion

At the end of the article it should be noted that the use of yoga allows to have a positive impact on all aspects of the training of single wrestlers. By introducing elements of kyokushinkai karate into the training process and supplementing them with separate classes of kundalini yoga, athletes have significantly improved their results. In competitions their actions have become more thoughtful and confident, strokes - clearer, athlete reacts less to external stimuli, and concentrates more on the inner state, thus paving the way to victory.

#### 5 Recommendations

The use of yoga elements in the training process of martial arts allows for the associated impact on different types of training. The same asana is used by a trainer both for regeneration of forces and to compensate muscle imbalance. Asanas can be used both for warming up and during a hiccup. The main task of using in karate training kyokushinkai yoga exercises is directed and influences the vital neurovegetative plexuses, endocrine glands, significantly increasing metabolism and overall regeneration of the athlete, which in turn has a maximum impact on increasing self-control, self-management both physically and emotionally.

The criterion for evaluation of the results of yoga - practice for increasing self-management of athletes in karate is a conscious fighter. It is that in kyokushinkai karate competitions an athlete, who applies yoga practice, behaves calmly, balanced, has no fear of fighting. When performing at competitions an athlete correctly calculates and allocates his time. If the athlete has experience of self-management, he correctly divides the fight into sectors, such as the beginning of

the fight, intelligence, the end of the fight and at the same time properly distributes its load, controls its fear, aggression. It should also be noted that an athlete's self-governance increases with his or her experience.

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