

Abstract

Acro Yoga: Benefits and Limitations of this New, Popular Physicalactivity

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Abstract

Acro Yoga is a dynamically developing form of physical activity. It is a kind of combination of yoga and acrobatics. It contributes to propagating physical activity and a healthy lifestyle among people at various ages all over the world. There are three main roles in Acro Yoga: “Base”, “Flyer” and “Spotter”. It is very important that classes are lead by a qualified teacher. Exercises are often interspersed with elements of fun in the group and Thai massage.

It can be assumed that Acro Yoga has positive impact on the health of athletes. Currently there are no available scientific studies determining the impact of these activities on the human body. But there are several reports about the relation between yoga and acrobatics or gymnastics and the musculoskeletal system. The most frequently mentioned advantages of yoga are: reducing back and neck pain, and a decrease in the incidences of inflammatory conditions. By regular practice, it is possible to control blood pressure, reduce stress, anger and anxiety. Yoga has also positive influence on many chronic diseases. On the other hand, the most commonly reported problems are the cervical and lumbar spine and peripheral joints injuries. Sports gymnastics is a discipline with very high risk of musculoskeletal injuries. The most common problems are connected with lumbar spine.

Acro Yoga can be a discipline which gives some health benefits. However, to confirm this theory, it is necessary to evaluate a group of people practicing Acro Yoga.

Acro Yoga is a dynamically developing form of physical activity, which is getting more and more popular all over the world. The name comes from the Greek word: across which means height, and the Sanskrit word: yoga, which is union, unity, which together create Across Yoga [1]. It is a kind of combination of yoga and acrobatics. Positions and dynamic transitions are taken from acro-

batics, while the relationship with yoga is expressed by the self-discipline of those who practice it and the accompanying mental zone [2]. The oldest mention of exercises in pairs, combined with elements of yoga, dates back to the thirties of the twentieth century in India. This is where the picture of Krishnamacharaya comes from - he comes, is considered the father of today's yoga, who in the picture is practicing with a child in positions well-known from modern Acro Yoga. Since that time, occasionally was mention of combining yoga and acrobatics or therapeutic exercises in pairs [1].

Nowadays, however, it is assumed that Acro Yoga formed independently in two places. In Canada, as its creators are considered Jessie Goldberg and Eugene Poku, who in 1999 founded Acro yoga Montreal school, which still works today [3]. The second place was San Francisco in the United States, , where Jason Nemer and Jenny Klein created the so-called Contact Acro in 2003, which was transformed in 2016 into Acro yoga Inc. school [4]. The fusion of yoga and acrobatics was similar in both schools, what differed them was the third element accompanying exercises. A group from Montreal additionally introduced elements of music and dance [3], while Acro yoga Inc. focused more on therapeutic and relaxing elements, among which Thai massage should be mentioned [4].

Unlike sports, acrobatics, gymnastics or circus arts, in Acro Yoga there is no rivalry or competition, there is also no age limit. By design, these exercises should be a source of pleasure and fun for everyone regardless the degree of their physical training stage [5]. The first Acro Yoga Teacher Training took place in 2006 and was attended by 19 people. Since then, many international teachers have been trained. Initially, mainly in Canada and the United States, and during also that time, in other places around the world. This contributed to propagating physical activity and a healthy lifestyle among people at various ages [1].

Acro Yoga is mostly practiced in pairs, but are also possi-

ble larger groups of exercisers, there are in no limitations in this case. A person who is “raised” is called the “flyer”. S/he is usually lighter than the person who “raises” and is called the “base”. The “base” is not only heavier but also the stronger one in the pair, and only s/he has direct contact with the ground. The “base” is positioned on their back with hips bent approximately at a right angle, where s/he holds the “flyer”. This is the so called “L - basing” situation. It is also possible to perform exercises when a “base” is in a standing position. The third, very important person should be someone responsible for assurance of the practicing people – the so called “spotter”. Their task is to ensure safety. In case of a fall, s/he should bring the “flyer” safely to the ground and during exercises, should give verbal tips. However, s/he should not disturb practitioners nor help them too much. Roles are not permanently assigned during training and can be freely changed in groups [6]. In the training of Acro Yoga, there are not only static positions, where the “base” holds the “flyer”, but the main element are fluent, dynamic transitions from one position to another, which are called “washing machines” [7]. The difficulty level of positions and transitions can be adapted to the level of the practitioners. There are very simple elements that can be performed by anyone, and more complex, often dangerous, which should not be done without special safety ropes for acrobatics. Acro Yoga training consists of stretching and strengthening exercises, great emphasis is placed on safety. Therefore, it is very important that classes are lead by a qualified teacher. These exercises are often interspersed with elements of fun in the group, facilitating physical contact with others - sometimes total strangers and Thai massage, which should improve tissue regeneration after exercises.

It can be assumed that Acro Yoga has positive impact on the health of athletes. It strengthens the peripheral muscles and, more importantly, those muscles which are responsible for central stabilization; it also increases the flexibility of muscles and joints as well as having positive influence on improving body shape. Apart from the purely physical effects of these exercises, it improves the ability to build contacts with other people, it facilitates communication, increases trust, improves relations, helps to overcome one’s own weaknesses and fears, and allows people to believe in themselves and in their own ability [8]. Unfortunately, apart from good effects on the body, it should not be forgotten that Acro Yoga, like any sport, is also associated with the risk of musculoskeletal injuries. Currently, unfortunately, there are no available scientific studies determining the impact of these activities on the human body. But there are several reports about the relation between yoga and acrobatics or gymnastics and the musculoskeletal system.

Researches show the positive impact of regular practice of yoga on health, both physical and mental or psychical condition [9]. Studies conducted among people attending Yoga show that the most frequent reasons why they participate in Yoga classes are benefits connected with health. The most frequently mentioned ad-

vantages are: improvement in physical condition and direct health related effects such as reducing back and neck pain, and a decrease in the incidences of inflammatory conditions [10]. By regularly practicing yoga, it is possible to control blood pressure, reduce stress, anger and anxiety. Additionally, yoga strengthens core muscles improving dynamic stability of the spine, improving the strength and flexibility of the body. A very important aspect of Yoga practice is also the fact that it affects quality of life and increases the subjective feeling of satisfaction with life [9,11,12]. Current studies also show a positive effect of these kinds of exercises on people already diagnosed with a disease. An example would be type-2 diabetes, in which case, it is possible to better control blood glucose, lipids and body composition thanks to systematic exercises [13]. Yoga also has a beneficial effect on the cardiovascular system and diseases related to it. It reduces the severity of cardiac arrhythmias, improves heart rate and blood pressure in patients suffering from atrial fibrillation [14,15]. Also, individuals after a stroke may benefit from practicing yoga. Studies have shown that it is possible for them to obtain pain reduction, improve joint mobility and the results of the 6-Minute Walk Test (6-MWT); that is why Yoga is recommended as a good way to supplement classical rehabilitation [16]. Yoga has positive effect on balance possibilities in elderly people, which greatly reduces the risk of falls [17].

Healthy people can practice yoga safely only when they practice under the supervision of a qualified teacher. As reported by the National Institute of Health, despite all the positive health aspects related to the practice of yoga, the practitioner should be very careful due to the risk of musculoskeletal injuries. Among the common mentioned injuries we may find: peripheral nerve injuries or even a stroke [10]. From the questionnaires conducted among 1,300 yoga teachers on injuries affecting their students, the most commonly reported problems were connected with the cervical and lumbar spine, knee injuries, and shoulder and wrist joints. The causes of these problems was sought in improper technique, poor instructions given by the teacher, earlier injuries, as well as excessive over-zeal and desire to reach a final position [18].

On the other hand, the part connected with the acrobatics and gymnastics must be considered. According to the National Collegiate Athletic Association, sports gymnastics is a discipline with very high risk of musculoskeletal injuries [19]. The largest percentage of injuries concerns gymnastic athletes in sports at a competitive level [20]. The frequency of incidences of injury in gymnastics is directly proportional to the skill level of the athlete and its level of progression. The better the athlete, at a higher level, the more s/he is exposed to the appearance of musculoskeletal injury [21]. If we consider women who train sports gymnastics, women between 11 and 15 years of age were especially predisposed to injuries [22]. The most vulnerable parts of the body are the joints of the hands, wrists and elbows as well as the feet and ankle joints [23].

According to researches, many gymnasts suffer from pain in the lumbar spine [20,21]. Among the possible causes of back pain we may find: spondylolysis, Scheuermann's disease, a disease of the intervertebral disc and mechanical causes [24].

The benefits of gymnastics and acrobatics are far less than those associated with the practice of Yoga. These include, increasing the bony mass and its density in the forearm bones, persisting even after many years after training [25]. The benefits in the bones are also specifically related to the place of their occurrence. Larger sizes of the bones are more often noted in the upper than lower limbs [26]. Therefore, training in gymnastics during the time of bone growth increases bone density, which subsequently may be a factor in reducing the risk of osteoporosis [25]. In addition, studies suggest that mechanical loading that occurs during physical activity at the period of growth is a good strategy to maximize peak bone mass and improve bone strength, thus, reducing the lifetime risk of fractures [26].

Acro Yoga, as a rapidly growing discipline is gaining more and more popularity. It can also be a discipline which gives great health benefits. At the same time, it seems that classes which are properly lead by a qualified teacher can minimize the risk of injury to the musculoskeletal system. However, to confirm this theory, it is necessary to evaluate a group of people practicing Acro Yoga.

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