



How Safe is Choking in Judo?

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Choking or shime-waza has been used since the advent of Judo as a sport. It is still being allowed today except for juniors in actual competition. A match is won when the opponent submits or becomes unconscious. Among those who reject the use of choking are parents and physicians.

How safe is choking in Judo? Almost every judoist with experience has been choked either to submission or unconsciousness. It is not unusual to have the unconscious contestant, after revival, look around to find out where he is. He still wants to continue to fight not realizing that he had lost the contest by shime-waza.

The technique of shime-waza used in Judo exemplifies one of Jigoro Kano's doctrines of "Maximum Efficiency with Minimum Effort". If properly applied, the weaker and smaller person can subdue and defeat a stronger and bigger adversary. Actually it is difficult to choke since most experienced players will fight intensively to avoid being choked. To choke effectively the opponent's body must be controlled first since there are many techniques used to escape from a shime-waza.

Basically, except for one form of shime-waza, hadaka-jime, the pressure is applied to the lateral side of the neck which the anatomists call the "carotid triangle". This triangle is formed by the midline, anteriorly (front) from the apex of the chin to the upper part of the sternum (breast bone), superiorly (above) by the line formed by the lower border of the mandible (lower jaw bone) and posteriorly (behind) by the anterior border of the sternocleidomastoid muscle (strap muscle between the clavicle and to the bone of the skull behind the ear). In the center of this triangle are the jugular veins, carotid artery and its branches and the carotid sinus. No strong muscle protects this area. The pressure is applied in a certain manner, depending upon the technique, directly on these structures. It may be the fist or the collar of the judogi. Very often it is the pressure of the distal end of the radius and the wrist which compresses the soft structures of the neck. Until the above named structures are sufficiently compressed the choke will not be effective. The neophyte may submit not because of the choke but because of the fear of being choked or the pain produced by improper choking methods.

Hadaka-jime differs from other forms since part of the pressure is also applied to the larynx and trachea which is extremely painful and the player will usually submit before unconsciousness intervenes.

Using the collar of the judogi for choking takes more time than using the bony structures of the wrist and forearm. The pressure exerted is diffused around the neck and until the pressure is sufficient on the carotid triangle the choke will not be effective.

Considerable scientific research has been done by the Japanese. These results are published in two reports of the Bulletin of the Association for Scientific Studies on Judo, Kodokan, in 1958 and 1963. They studied the physiological effects of choking in Judo by using the electroencephalogram for brain wave changes, the earoxymeter for blood oxygen saturation, the sphygmamometer for arterial blood pressure, the plethysmograph for reaction of peripheral blood vessels, the micro-pipometer for skin temperature changes. Others also studied the plasma protein concentration, blood water volume, hematocrit, complete blood count, eosinophil count, and urine 17 keto-steroid content. They were, of course, interested to know if there were any deleterious effects during and after the shime-waza was applied and what precautions should be taken to prevent any serious consequences.

The following are some of the conclusions made based on their experiments with human subjects and animals.

1. Unconsciousness occurs approximately 10 seconds (8-14 seconds) after choking. After release from the choke hold, the subject regains consciousness naturally (spontaneously) without difficulty in 10-20 seconds.
2. In hadaka-jime the pressure on the larynx and trachea produced excruciating pain but there was no pain in other techniques before unconsciousness.
3. The unconsciousness resulting from choking in Judo is mainly due to lack of oxygen and metabolic disturbances created in the brain, as a result of disturbance of cerebral circulation.
4. The appearance of flushing of the face is due to disturbance in pressure in the carotid arteries and jugular veins.
5. When convulsions occur, the EEG findings are very similar to a very short epileptic seizure.
6. Tachycardia (increased heart rate), hypertension (increased blood pressure) and mydriasis (dilation of the pupils) were caused by stimulation of the sympathetic nervous system (vagus nerve).

7. Tachycardia and hypertension may be also attributed to the carotid sinus reflex.
8. All other laboratory studies show changes that are similar to condition accompanying central shock. Choking in Judo acts as a stressor on the circulator and hypophysio-adrenocortical system.
9. According to their experience, no deleterious after effects remain after being "choked".

It is considerably less dangerous than a "knock-out" in boxing and there is no necessity of completely excluding "choking" from Judo, provided necessary precautions are taken.

There are, however, three main dangers of choking based upon the above experiments.

1. To perform a "choking" hold on subjects with cardiac disorders or hypertension.
2. To apply "choking" on youngsters whose central nervous system and heart have not yet attained complete development.
3. To continue to hold after the subject falls unconscious.

Since the advent of Judo, first developed by Professor Jigoro Kano in 1882, no death directly attributed to choking has been reported. There are four main reasons why fatalities do not occur:



1. Choking, whether in practice or competition is supervised and observed by qualified trained instructors and officials.
2. The contestant submits before unconsciousness occurs.
3. After choking the contestant regains consciousness naturally and spontaneously without difficulty in ten to twenty seconds.
4. The immediate application of artificial respiration by the qualified instructor or official prevents prolonged hypoxia.

Choking in Judo is safe because since the advent of Judo statistics show no fatality attributed to the shime-waza. Moreover, scientific studies on choking reveal no deleterious after effects. Finally, the precautionary rules and methods used make the technique of choking a relatively safe means of subduing an opponent in competition.

