

PHYSIOLOGICAL EFFECTS OF SHIME-WAZA



It has been my concern for some time that so little has been written about the effects of shime-waza upon the human body. Furthermore, there is a deficiency of written information on the forms of resuscitation. I suspect that few martial art instructors have sufficient knowledge of the physiological implications of these two aspects of the martial arts in order to offer adequate explanations to their students.

In order to shed some light upon shime-waza, I would like to report upon a study conducted by Leo Marinier (nidan) at the University of Victoria. In his study, Marinier used an ultra-sound generator which bounces high-frequency sound waves off body tissues and can detect blood flowing through arteries and veins. A probe was placed over major arteries and veins in the neck of a number of subjects, including Marinier himself, and Mr. Inouyi (godan) applied the choke holds. These chokes clearly cut off the blood supply to the brain, and Marinier's experiment showed that the carotid artery, which supplies blood to the brain, was occluded almost instantly, followed shortly by the veins in the neck. After five seconds the circulation in the brain stopped completely and unconsciousness usually occurred after ten seconds of application of the choke.



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This experiment showed that shime-waza could be deadly for people with heart disease. Marinier stated that during a choke an enormous load is put upon the heart, for blood pressure rises into the range of hypertension and the heart beat slows by 15 to 20 beats. Anyone with hypertension or heart disease already could find a choke to be fatal.

From Marinier's study it is evident that we should be warning any martial artist with chronic heart disease against the potential hazard of shime-waza. This is but one study concerning the effects of strangulation upon the human body.

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