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DISCOVER & EXPLOIT WEAK POINTS
LEARN ABOUT EFFECTS OF STRIKING & PRESSURE TECHNIQUES

MEYER & MEYER SPORT Kyusho Attack Points in Self defense and Martial Arts

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Stefan + Juergen + Axel

Warning

This book contains some techniques that can be dangerous and must only be practiced under the supervision of a qualified trainer or instructor. The author and the publishers cannot be held responsible for any injuries that might result.

This book has been written using exclusively the male form of the personal pronoun. Of course, for reasons of simplicity this should be understood to include the female form as well.

Stefan Reinisch, Juergen Hoeller & Axel Maluschka

Kyusho

Attack Points in Self defense and Martial Arts



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Foreword Dr. Mehdi Mousavi

The martial arts from the Far East have enjoyed increasing popularity in the last few years. This fact is reflected in the numerous books, magazines, and other literature about Bushido that are flooding the market at the moment. However, forgetting the technical information, if you search for any works on the physical principles, anatomical physiological descriptions or even medical sports recommendations, you will be quickly disappointed. It is exactly these points, the so-called vital points, that cannot be learned without necessary

knowledge of the anatomical facts and physiological regulatory mechanisms of the body. Many of these points are used as acupuncture points to cure various diseases, but several of these points can be life-threatening for the opponent. Only knowledge of these facts by the user can generate the necessary responsibility to be able to judge the situation correctly and react adequately to a possible attack.

The authors have attempted to illustrate and explain the anatomical basics of the vital points in this book through text and pictures. The way to use these points in self-defense by applying pressure on sensitive areas and their resulting effects are explained in detail. The dangers of using these vital points are based on medical factors.

The authors have succeeded for the first time in producing a medical/scientific-based work that matches the requirements of the reader from more than a technical aspect. Moreover, the book serves as a reference work for those exercising, covering how and where such pressure points can achieve best effects. Therefore, this book should be in every Budoka's library.

With long standing practice in the martial arts, I recommend the reader not underestimate the pressure points and stay in constant practice with them because only the correct precision in executing Kyusho can guarantee absolute and perfect defense. "He, who thinks he is good, stops trying to be better."

Dr. Mehdi Mousavi Head of the Accident Surgical and Sports Accident Department of the Social Medical Center East-Donau Hospital in Vienna. (5th Dan Jujitsu; Kawaishi Ryu)

Foreword Dr. Franz Knafl

As General Secretary of the European Jujitsu Union (E.J.J.U.) and President of Shobukai Austria, it is a pleasure for me to write the foreword to the third edition of Kyusho, which covers the sensitive points of the human body. It gives the interested reader a didactic, well-structured understanding and overview about the important pressure and vital points on the body and explains their efficiency and possible effects.



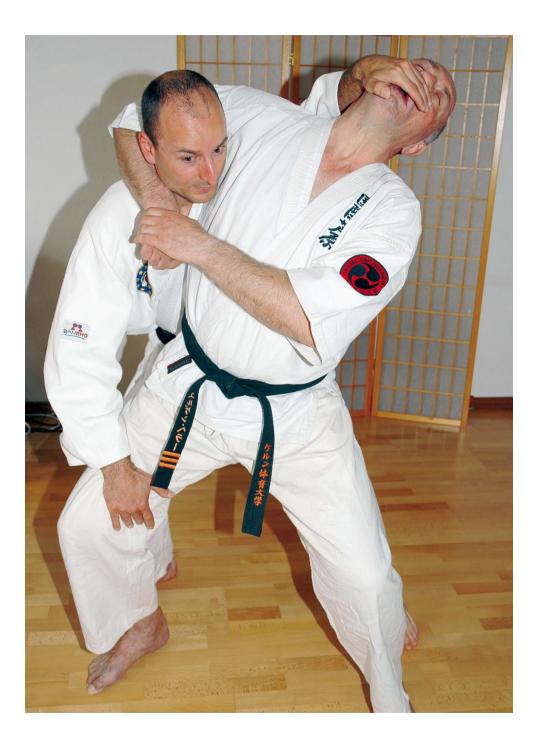
This specialized book shows many potential self-defense sequences and gives every person exercising new impulses for daily training. Simultaneously, it dispels many myths and is equally a call to cast a critical eye on this theme.

Even though the index of contents and explanations of the individual techniques cover attack points on the head, neck, torso, arms and legs, the aim is clear that the uses of Kyusho against an attacker are primarily for their use in defense.

The authors and their advisers have had much experience with the various Budo disciplines for many years. As practicing sportsmen of various far-eastern martial arts, they know well the theoretical and practical background for the precise and purposeful (according to the situation) application of Kyusho from their own practice and experience of the effects.

This textbook ideally serves to broaden the knowledge of both master and pupil. However, it cannot replace the necessary and responsible training with expert instructors and trained partners. Correct Jujitsu, Karate, Taekwondo and other martial arts demand unending and lifelong training.

Dr. Franz Knafl 8th Dan Jujitsu Kawaishi Ryu General Secretary European Jujitsu Union President Shobukai Austria Nippon Jujitsu Course Head at the University Sports Institute Vienna (Universitäts-Sportinstitut Wien)



Introduction

"Five point palm-exploding heart technique" from Quentin Tarantino's film Kill Bill, Volume 2 (2004), Enter the Dragon (1973) with Bruce Lee, etc.

Whenever the subject of Asian martial arts comes up, sooner or later secretive techniques are alluded to that have been handed down only to the best students of the top masters. The legend of the "Touch of Death" could only have been created on the basis of a lack of knowledge by the average person regarding the anatomy of the human body – something that has clearly not changed much over time.

Although our knowledge about the composition of the human body has increased, in many books on the subject of martial arts, an explanation concerning the effect of various striking and pressure techniques has reduced to mentioning merely "causes pain, paralysis, death." Explanations are missing. Simply from a standpoint of personal responsibility for one's training partners (and from a legal point of view) it would be very welcome if the followers of martial arts delved more into the possible medical outcome of their actions.

The time delay of the effect of certain actions is of course part of the reason for the secretive aura of this aspect of martial arts. On the one hand, however, as every accident surgeon knows, the phenomena that symptoms arise comes a certain amount of time after the actual incident (e.g., internal injuries following a kick). On the other hand, a technique that has a delayed effect in an actual defense situation is not going to help one much. Nevertheless, such myths as these will never die simply because of the intriguing effect they have.

All defensive actions (irrespective of the individual martial art) are aimed at sensitive areas on the body (in Japanese, this is called "kyusho" – in Chinese martial arts, it is called "dim-mak") in order to make the opponent inactive as soon as possible. In the short term, the actions are mainly aimed at getting the attacker into a position where he will be vulnerable to follow-up techniques. While lever techniques are applied to the joints and can be used with appropriate, relative severity (pain or injury), the employment of the various striking, kicking pressure techniques is often not so easily controlled. The effects depend upon:

•	The constitution of the opponent (it can be that delicate girls are not sensitive to the pain produced by nerve pressure techniques, while strong men collapse onto the floor as if lightning has struck them)
•	Any previous injuries present
•	Type of clothing being worn (e.g., a thick winter jacket)
•	The precision of executing the technique
•	The angle of attack
•	The strength of the strike/kick/pressure
•	Whether the action surprised the opponent. For example, attacks on surrounding nerves in the tense muscles are thus naturally difficult.

There are many vulnerable points on the human body. Some are called nerve points, others have an effect on the organs that are not protected by muscle tissue or bones, while in other cases there are mechanical weak points. Some of the points open the way for a follow-up action, while others end with the attack.

The effects are spread broadly and range from superficial pain or injury to death. The effects on the various points are totally different (also influenced by their accessibility) and this is why some of the listed target areas are interesting from a viewpoint of the Budo term "totality"— in a competition/fight they are of secondary importance. If, in spite of this, you have any doubts about the relevance of Kyusho in martial arts sports, you should consider that a boxer strives to hit his opponent at his vulnerable spots (chin, liver, and solar plexus). Punches to the kidneys, nape of the neck, or the genitals are, on the other hand, forbidden because they are considered as too dangerous in the framework of a sporting competition.

As a general maxim, previous effective techniques (e.g., the lever) can be complemented by using Kyusho which increases their effectiveness further. However, the enthusiasm must not be extended, in any case, so that the reliability of a technique suffers (along the lines of "For a hammer, every problem looks like a nail"). The most dangerous opponents are those who can turn the pain into aggressiveness or strength. Kyusho only makes sense when used in conjunction with other martial arts techniques.

TIP: If finding the point is somewhat difficult, it can be advantageous to look for it on your own body and feel its structure. Finding the point on a training partner's body is a little easier. Besides this, one learns very quickly to distinguish between the individual feelings of pain (for example, which nerves or muscles). To mark the target areas, the so-called "target plasters" have proved to be helpful in training.

The Results of Using Kyusho

Pain

In most cases, the opponent should be made to stop a particular action by applying pain (e.g., loosening his grip). Following this action is the opportunity to create "holes" for follow-up techniques. Sometimes pain is a side effect (e.g., the dislocation of a joint).

The International Association for the Study of Pain¹ defines pain as follows:

"Pain is an unpleasant sensory and emotional experience associated with actual or potential tissue damage, or described in terms of such damage."

Sensory perception is transmitted by **pain receptors** (nociceptors) down special nerve pathways and the thalamus to the central nerve system and this leads to the feeling of pain.

The distribution of these receptors across the surface of the body varies according to the body region (up to 200/sq cm of skin). Furthermore, one also finds nociceptors in the muscles and the lining of the intestines; the intestines themselves, as with the brain, have no pain receptors.

Some of the Kyusho techniques have an effect on the nerves and these can lead to uncontrollable signals (such as tingling on the side of the hand with the pinky finger when the nervus ulinaris is stimulated). In addition, it can lead to a tissue lesion of the nerve, as well as the nerve sheath, caused by the mechanical effect on the nerve. Besides this experience, pressure applied to these nerves can cause local and limited circulatory disorders and with it metabolic disorders that lead to extreme pain. Rapid relief is typical once the mechanical problem is removed. One possible complication is the inflammation of the nerve (neuritis).

Pain caused by an effect is called **neuralgia** and spreads through the area supplied for each nerve (innervation area).

The more often a respective nerve is stimulated, the more sensitively it reacts to stimulation and the feeling of targeted pain is increased as a result.

Not every physical injury leads ultimately to pain. This is because of the filter processes in our central nervous system (stress reliefs or injuries resulting from a traffic accident, competition, war or during sexual intercourse are often not noticed)², while on the other hand pain without physical injury can also occur (e.g., phantom pain).

Pain resulting in unconsciousness

Pain can result not only from a physical injury, but it can also lead to unconsciousness. This is called a vasovagal syncope (other causes can be anxiety, joy or other types of excitement; also called the "Boygroup-syndrome").

The cause is an overreaction in the vegetative nervous system. An enlargement of the blood vessels, so that (above all) the blood "seeps away" into the intestines and a relative lack of volume with decreased heartbeat rate occurs, caused by the decrease in venous flow back of blood to the heart. On the other hand it leads to a reduction of the heart rate up to even cardiac arrest. This results in an overall reduction of the supply of blood and/or oxygen to the brain with subsequent fainting occurring.

A vasovagal syncope resulting in death is called reflexogenic cardiac arrest. Further reasons for a death of this kind of fatal circulatory collapse (especially concerning Martial Arts) can be: the Carotid Sinus syndrome following a blow on the carotid artery in the neck, the oculocardiac reflex following a blow in the eyes, a strike or kick at the solar plexus or a kick in the testicles. To make a distinction, however, unconsciousness due to a craniocerebral trauma is quite clearly different to a vasovagal syncope!

The effects of acupuncture

Let us look at the possible effects in connection with acupuncture and their meridian points. It is in this area, however, where much controversy exists between experts in the martial arts. We will therefore try to briefly illustrate the different perspectives.

On the one hand, there is an opinion that the effects are **psychological** and **physiological** ones:

An example of this is where, in Germany, the health insurance company accepts the costs of acupuncture treatment for patients with knee and back pains. The decision made by the national health insurance company is based on studies carried out by the Charité-Universitätsmedizin Berlin on a model framework of 250,000 test subjects and 10,000 physicians (up to now the largest study on the subject of

acupuncture in Germany. According to the results of the study, the rate of success for traditional Chinese acupuncture (or TCM, traditional Chinese medicine, – "genuine" acupuncture) in the treatment of chronic back pain is not much more than that achieved using "sham" acupuncture (placebo acupuncture), where "false" points are "treated." However, both forms of acupuncture showed distinctly better success than the standard therapy.

In short, acupuncture actually does work. Where you put the needle in seems not to play a significant role.

Therefore, we come to the question on what its effectiveness is based. This is where the **placebo effect**³ comes into play. Dr. Michael Freissmuth, University Professor on the Board of the Pharmakologischen Instituts der Medizinischen Universität (Pharmacological Institute of the Medical University) Vienna, sees this as a clear indication of the physician's "bedside manner." This is also similar to statements made by Dr. Fabricio Benedetti, a Neurobiologist in Turin, where he sees the context in which the patient is treated as being crucial. The physician's manner can work on the chemistry of the brain, such that this has a positive effect on the whole organism.⁴ The placebo effect is not just simply a psychological one ("illusion"). On the contrary, concrete biological changes in the body can be measured as a result of it.

Of course, many analogies can be suggested between the "Professor" in a physician's white coat and the "Grand Master" with the black belt. Many martial arts masters even reckon that they can create a K.O. at a "distance" without touching their opponent.⁵ Perhaps one may have the image of an American television preacher who jumps around through the crowd of believers and lays his hand on the next person, who sinks down to the ground as if struck by the Holy Ghost (see the "Boygroup" syndrome on the previous page). Ritual, symbols, and authority all play a major part in this area. Otherwise, why would the doctor rush about with a stethoscope around his neck? This has the same effect as the shaman with his rattle or the red/white belt of the highly qualified martial arts master: "The man/woman is an authority – I can already feel the effect!"

Just how far this trust in perceived authority can go was illustrated impressively in the classic Milgram experiment in 1961 (sadly, it has been repeated several times with the original results since then).

The behavior of the other group or training members also, however, has a strong influence on one's own behavior ("social reinforcement").

On the other hand, there are the followers of the mode of working with "ki" (or "chi"), yin and yang energy fields. However, these concepts from the Far East must also always be seen in their cultural background. Those inexperienced in the field of anatomy would describe the pain from knocking the "funny bone," or more precisely the "nervus ulnaris" (ulnar nerve), as a flow of energy. Yin and yang also have a parallel in neurology through the sympathetic and parasympathetic nerve system.⁶ The reason that they specialize in the use of nerve points in martial arts, often attacking several points simultaneously or one after the other (for examples, see books by George Dillman and Michael Kelly), lies in the fact that the stimulation creates an added effect and thus increases its effectiveness.⁷ The consequences arising from this are completely impressive because of the effect on the internal organs. (For the neurological background on this, we recommend reading Dr. Michael Kelly's book Death Touch: The Science Behind the Legend of Dim-Mak.

However, this is where the person training is at a disadvantage: How can you train realistically in a martial art where the main aim is to cause the opponent to become unconscious or suffer heart failure or a heart attack? The possibility of testing the effectiveness of these techniques on convicts – like the "Masters" of many years ago were reported to have done – is, thankfully now nonexistent. Also a "simple knock-out," as shown often in many courses on the subject of Kyusho/ Dim-Mak, can have lethal consequences if there are pre-existing health defects.⁸ If you wish to remain on the right side of legal and ethical rules, training of this kind has to remain as just theory.⁹ The practical difficulties cannot also be underestimated: The effectiveness should be much more when more nerve points are stimulated. This can be up to a combination of five techniques (does this ring a bell?) that all have to be carried out in the correct sequence and precisely located. The possibilities and reasons are, of course, fascinating but the practical relevance is questionable.

The stretch reflex

Muscle spindles are sensory receptors (so-called "proprioreceptors") within the muscle that primarily detect changes in the length of this muscle. They also protect the muscle

from overstretching. When the muscle is suddenly stretched, the so-called "stretch reflex" is activated and the muscle retracts again. The more sudden the stretching action occurs, the more muscle fibers are activated in the muscle spindles and the greater the power that counteracts against the stretching of the muscle. The so-called Golgi tendon organ, however, also contributes to this by transmitting the changes of tension in the tendons.

Example:

One nods off and the head falls forward. At the same time, the head whips back upward as a result of the sudden overstretch of the neck muscles. Another example is the kneejerk triggered by the tiny physician's hammer.

Particularly in our case, our striking techniques are amplified by this type of reflex where they can be accompanied by circumstanced nerve pain.

Examples:

- A strike on the outside of the lower arm (for more detail see the section on this) acts on the nervus radialis, which is responsible for the movement of stretching the fingers. The stretching reflex activates those muscles that are also responsible for the movement of the fingers, which is why the hand opens or, at least, is weakened.
- A strike on the biceps (for more detail see the section on this) causes the arm to bend in accompaniment with the inertia.
- A strike at the insertion point of the sternokleido muscle (for more detail see the section on this) and the temporal bone rattles the head at least as hard as when one is hit on the bone (mastoid process).

For a better overview, it has proven best to divide the attack areas into five regions, namely those on the head, neck, torso, arms and the legs. The most easily reachable targets are on the head and about the neck – so this is why we have begun with these areas.

One note in advance: The evaluation of the applicability is usually done without taking into account legal or moral aspects.

Attack Points on the Head

1.1 **Eyes**

This concerns those targets that are protected by our instincts (like the testicles), where even a faked movement toward them (protective reflex by the hands) prompts a reaction from the attacker and often leaves the door open for follow-up actions. An illustration of this is hardly necessary.

Attack: The effect is created by pressure or a jab with the fingers, but also possible by punching.



The elbow is pressed in and downward toward the

serious injuries to the inner structure of the eve: internal bleeding of the eye caused by vascular lesions; increase of the eye pressure (possibly resulting in glaucoma problems); tears in the iris (pupil is no longer circular); blurring or displacement of the lens; tears in the retina

with danger of retinal detachment; swelling of the retina with reduced vision and damage to the optic nerve.

The effect of a strike or pressure on the optic nerve (nervus opticus) can have a follow through effect on the nervous system that results in a reduction in heart frequency,

unconsciousness, and/or cardiac arrest. This is also known as oculocardiac reflex or Aschner phenomenon.

When struck, it is also possible that fractures of the orbital bone structures surrounding the eyeball can occur with damage to the nerves and blood vessels (can also lead to reduced vision if the eyeball is displaced).

Gouging out the eyeball cavity (Latin: orbita) with the fingers is, however, almost as good as impossible.

Further effects can include uncontrollable flow of tears (although this can cause limited vision), pain, and eventual unconsciousness (as a result of the pain).

Indirect effects: with compression of the eyeball (Latin: bulbus), detachment of the retina can occur. The effect of this is that a person temporarily sees flickering white spots in their field of vision, which disappear after a time. In the vernacular, one speaks of "spots before their eyes" or seeing "stars" or spots "dancing" before their eyes.

Comments on use:

As far as effects being achieved with the minimum use of force and effectiveness, it concerns targets of the first order. The constitution of the other person is of no import. The move can be used as far as the arms can reach.

Variations:



- 1 Attack using an Ushiro jime (stranglehold in the crook of the forearm).
- **2** Defense using the thumbs to apply pressure on the eyes.

KYUSHO

Variations:



- **1** Making contact with the attacking arm.
- **2** The attacker's arm serves as a conducting rail for the defending arm as it rides up it to jab the attacker's eye with the spear of the finger.

1.2 Chin/Protuberancia mentalis

The protuberancia mentalis is the three-cornered protuberance of the chin bone.

Attack: Pressure with the joint of the thumb (the tip of the thumb should be anchored to the forefinger).



- **1** Target mark.
- **2** Usage. The tip of the thumb is pressed into the point of the chin. The hand holds the back of the head.
- 3 Close-up.

Effects: Pain (the periosteum, or skin membrane, is very sensitive to pain)

Comments on use:

Only use as a freeing technique – further techniques should follow.

1.3 Corners of the mouth

Attack: Crooking the finger in one or both sides of the corners of the mouth and pulling outward.



1 Freeing from the scarf hold (Kesa Gatame).

Effects: Pain, ripping of the lips.

Comments on use:

Frees the hold shown reliably; possible risk of endangering one's self (teeth!).

Variation:



1 Attacking the eye as well as the corners of the mouth.