# Biologically Active Points and Application Possibilities in Medicine

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Abstract: Biologically active points as a method of non-traditional medical procedures and diagnostics, as well as being used for therapeutic purposes. Although this method has become the subject of mass research, a complete theory of the method has not yet been formed. The initial problem is related to the mechanism of action of biologically active points. Based on research, we can say that there are two approaches to explaining the mechanism of action. One is based on Chinese philosophy and the other on Western thought. The article examines the possibilities of biologically active points in medicine. The therapeutic application using biologically active points is taken as the main direction.

## Keywords — biologically active points, therapy, acupuncture, electroacupuncture, laser acupuncture.

### INTRODUCTION

Acupuncture, as a word, means "to prick a needle" (acus = needle, puncture = to pierce). Acupuncture is an effective, scientific treatment method that is applied to the important points in the body by inserting thin needles with sterile hair thickness and used in the treatment of many diseases. Its foundations were laid in the Sino-Uyghur region about 5000 years ago, the points and method used have remained almost the same until today. In our country, it is allowed to be applied only by doctors certified by the Ministry of Health. Side effects such as local infection, foreign body reaction, sudden change in blood pressure can be seen, but these risks become minimal in competent hands.

The word acupuncture is of Latin origin and consists of the words acus (needle) and punctura (dip, punch). Therefore, the word acupuncture used in the sense of needle immersionis used in modern medicine. The definition of acupuncture with a modern approach is the treatment of some characteristic points on the skin by applying a needle, vacuum, pressure, electric current, laser or ultrasound. In some technical and medical literature, acupuncture is also used to refer to the Biologically Active Points (BAP).

Acupuncture is one of the oldest treatment methods and it started to be used in medical practice 2-3 thousand years ago. Although it is used in the treatment of many diseases today, it took hundreds of years to take its place in Western medicine due to the lack of physiological and clinical information.

There are many mechanisms and theories that try to explain the mechanism of action of acupuncture, but according to the traditional Chinese method, the main effect of acupuncture is the ability to heal oneself with a holistic concept. Therefore, every living thing is born, grows and dies. In these natural stages, diseases are caused by interrelated factors. As long as disease factors do not affect these stages, living things continue to function in a balanced, healthy way, under the influence of the two opposing forces, Yin and Yang. When Yin and Yang's forces come together, a force called "Tao" arises.

# THE ESSENCE OF BIOLOGICALLY ACTIVE POINTS

When the current balance between Yin and Yang forces is disrupted, health status deteriorates and various diseases occur. The interaction between Yin and Yang forces produces Qi (chi). Qi provides a bipolar energy flow throughout the body and this energy spreads throughout the universe. They are needles used in acupuncture that affect the Qi. It is possible for Qi to increase and become completely exhausted. This is to keep bilateral relations on balance, it means maintaining a healthy human.

It has almost no side effects, examination approaches that give the patient a chance to touch, believing that the ailments concern the whole body, and looking at the patient with a holistic approach are important advantages.

According to historical sources, this method originated in Nepal and Tibet. Later, attention was paid to this type of folk medicine in China and the development of the method was encouraged. Already in ancient times, it was known that damage to certain points of the body not only alleviates the course of the disease, but also cures the disease. The famous point Szu-san was called longevity in China, and "hundred disease point" in Japan. In the 6th and 7th centuries, acupuncture continuously improved and began to be widely

used in medical practice. Acupuncture has the following classification.

- 1. Injection
- 2. Burning (moxotherapy) and fever
- 3. Microneedle therapy

- 4. Vacuum massage
- 5. Laser puncture
- 6. Electropuncture
- 7. Pharmacopuncture
- 8. Point massage, etc.

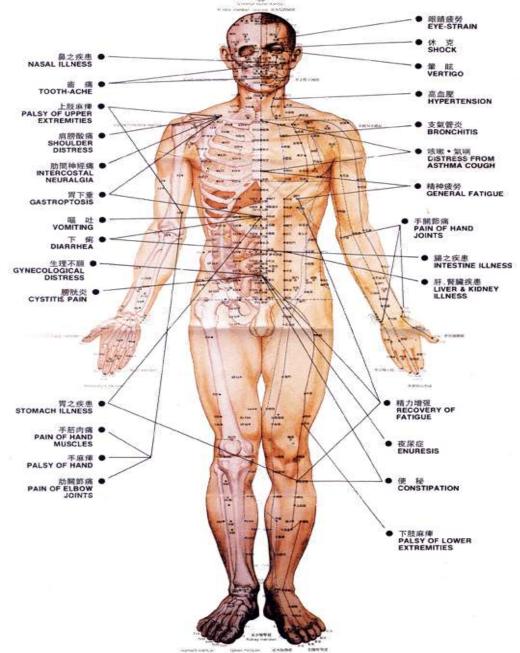


Figure 1. Acupuncture points located on the human body

Acupuncture points are usually located near major nerves and arteries. The diameter of the point is 1 mm during sleep and fatigue, and 1 cm when awake. In addition, the diameter of the stain expands in hot weather and shrinks in cold weather. According to some authors (Krokhina S.M.), in the area of the acupuncture point there are a large number of choleregic conductors and terminal apparatus. They conclude

that there are many sensory elements as well as effector nerve elements in the dot region and that these cells secrete more acetylcholine from the sensory receptors. According to other authors, the main element of the points is nerves, followed by blood, lymphatic vessels and connective tissue rich in barrier cells. Not only does the oxygen absorption increase at the acupuncture points, the temperature rises, maximum pain is observed, but also the electrical resistance of the skin decreases.

It is known by everyone that it takes a long time to heal the diseases with traditional methods, and climbing causes complications and complications instead of helping. There are drugs that science doesn't know what side effects they will cause in the future. But unlike modern drugs, the injection does not cause any additional side effects. This method does not require expensive devices and special hospital conditions.

On the other hand, the use of acupuncture in treatment shortens the recovery time of patients. The above-mentioned advantages of acupuncture have made it an indispensable treatment method in the treatment of various diseases. Based on many years of experience, it can be said that acupuncture is indispensable in neuroses, neuritis of the facial nerve, trigeminal neuralgia, schenuresis, in allergic cases and in the prevention of a number of diseases.

Acupuncture is performed with the help of special needles. Needles are made of stainless steel, length 1,3,5,8 and 10 cm (diameter 2-5 mm). Sometimes special microneedles are used. The needle is inserted into a point at a depth of several mm to 8-10 cm and is kept for several seconds to 1 hour, sometimes longer.

Based on clinical and biochemical experiments, it has been proven that acupuncture not only reduces pain, but also normalizes the formation of neurohumoral substances (endorphin, enkephalin, serotonin, acetylcholine) in the body.

Metabolism, vegetative-endocrine functions as a result of acupuncture treatment. Cardiovascular, gastrointestinal, coagulation and anti-coagulation systems normalize. Acupuncture improves the activity of the central nervous system, has a sedative, antidepressant effect. This method stimulates the immune system, improves blood microcirculation, and increases tissue trophism. At the same time, it stimulates reparative processes and rejuvenates a person.

### WHERE IS ACUPUNCTURE USED?

Acupuncture is performed on different parts of the body. However, the human body, arms and legs are generally used. In addition, there are acupuncture applications made to regions such as ear, hand, foot and head as a microsystem. In terms of application technique, although electroacupuncture, laser, infrared and moxa applications are performed today, no significant superiority has been observed against dry needle application in studies.

Body Acupuncture: Various parts of the body such as trunk, neck, head, arms and legs, hands and feet are used in acupuncture treatment. With the warnings made by needles to certain acupuncture points in the human body, news that can reach almost every part of the organism is transmitted. This communication reaches the nerve terminals of local cellular impulses from the cells forming the acupuncture point, and finally to the brain. The brain also delivers this stimulus to the necessary organs and the energy balance in the relevant organs and limbs is restored. Therefore, the disease also disappears.

Auricular Acupuncture (Ear Acupuncture): In ear acupuncture, the ear is a microsystem, that is, the mirror of the body. Every function that is impaired in the body can be detected from the ear. In the ear, every organ of the body has a reflection field. By stimulating the acupuncture points on this area, dysfunctions of organs, pain, hormonal disorders can be corrected. Since these points are very close to each other in the ear, unlike the body, pinning is performed by determining the location with the ear detector to increase the effectiveness of the treatment. A temporary needle can be placed in the ear, as in the body, and a permanent needle, which is changed once a week.

Electroacupuncture: After the needles are attached to the points on the body or ears, an electric current is applied to the tip of these needles. It is especially effective in painful conditions such as low back and neck pain.

Laser Acupuncture: It is especially used for those with extreme fear of needles and in applications to children. It is applied by sending a laser beam to the points determined by laser devices made with certain features. However, it has not been shown to be superior to the treatment with dry needle in terms of its therapeutic properties.

### **CONCUSILION**

Biologically active points used as a traditional medicinal method have several advantages. Particular attention should be paid to the ability to influence the body "in its own language". Methods of stimulating biologically active points for the application of various diseases are described.

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