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## HOW DOES ACUPUNCTURE WORK?

Although acupuncture has been used for two thousand years, scientists are still trying to explain how it works.

Since acupuncture was introduced to the western world a number of theories explaining acupuncture have been proposed.

### The Gate Theory of Pain

One of the theories is the Gate Theory of Pain. This was introduced in 1965 and it explains that acupuncture works through the nervous system to alleviate pain.

The theory states that in the nervous system, there are nerves that both transmit and inhibit pain. These fibers come together in the substantia gelatinosa of the spinal cord. The substantia gelatinosa then sends pain signals to the brain, depending on the amount of pain input.

Acupuncture helps in pain relief by stimulating the pain inhibitory nerve fibers, which lowers the pain input and therefore, relieves the pain. This can explain the effectiveness of acupuncture in short term and acute pain conditions.

### The TwoGate Control Theory

In 1980, Man and Chen devised another theory to explain the effectiveness of acupuncture called the Two-Gate Control Theory.

In this theory, there exist two main nerve fibers: A-beta and C nerve fibers. The A-beta nerve fibers are large, fast conducting, and have a low volt threshold while the C nerve fibers are small, slow conducting, and have a high volt threshold.

The theory states that when high amount of impulses coming from A-beta fibers closes the gate in the substantia gelatinosa there is prevention of passage of painful impulses from the C fibers.

Acupuncture acts as a painreliever by stimulating the acupuncture points, which affect the A-beta nerve fibers. The needles move to create a steady stream of nonpain impulses transmitted to the substantia gelatinosa causing the gate to close. Once the gate is closed the pain impulses are stopped. Thus, no pain is felt.

The impulses from the A-beta fibers can transmitted to the thalamus, which serves as the final gate. This gate is closed to produce pain relief in the entire body.

Source: <https://www.news-medical.net/health/Acupuncture-Theories.aspx>

## Counterpain Treatment

Yet another theory is the counterpain treatment. This theory states that when pain comes to one part of the body, pain on another part of the body will be less noticeable. This is also applicable for short term pain control rather than long term pain control.

## Endorphins

Some theories suggest that acupuncture causes release of endorphins in the body. Endorphins are natural pain relievers found in the central nervous system.

## Nitric Oxide

Recently, acupuncture has been shown to increase the nitric oxide levels in treated regions. This leads to increased local blood circulation and may help in preventing local inflammation and ischemia and relieve the disease condition.

Sources:

1. [vanderbilt.edu/AnS/psychology/health\\_psychology/Acupuncture.htm](http://vanderbilt.edu/AnS/psychology/health_psychology/Acupuncture.htm)
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3. [http://www.chiro.org/acupuncture/ABSTRACTS/Acupuncture\\_Points.pdf](http://www.chiro.org/acupuncture/ABSTRACTS/Acupuncture_Points.pdf)
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