

Symptoms like pain are induced by imbalances in movements of the body as a whole. The mutual influence of multiple joints in movement appears along the longitudinal axis. It is easier to understand the mechanism of the manifestation of symptoms when we apply the concept of meridians.

Figure I-1 Application of meridians to the analysis of movement

pattern from head to toe. Acupuncture points are located bilaterally on the arms and legs, and the meridians are presented as a line or pathway connecting these points. Since these meridians run along the vertical axis of the body, movements can generally be analyzed in terms of connections along these vertical lines.

Let me explain this concept using a case from my clinic. A volleyball player came to me who experienced shoulder pain while spiking the ball (Fig. I-1). I could not find any physical abnormality in the shoulder (a), and I could not explain the mechanism causing the pain. But I learned that, while doing a blocking exercise a few days earlier, this player had taken a fall that caused minor contusions on his knee (b) and the side of his ankle (c). The locations of the contusions corresponded to the acupuncture points GB-40 and GB-34 on the Gallbladder meridian. Even though this player did not experience any discomfort there, these points were extremely tender when pressed. Although acupuncture performed on the shoulder area was ineffective, acupuncture at GB-40 and GB-34 immediately alleviated the shoulder pain. As shown in the figure, it can be seen that the spiking movement that triggered the shoulder pain stretches the muscles on the side of the body (along the Gallbladder meridian in this case). If we think of the contusion in the lower extremity as the origin of the problem that initiated a restriction in the extension of muscles along the Gallbladder meridian, then we can understand

F. Movement and the five phases

The principles of the five phases is an ancient Chinese ideology that classifies all phenomena in the natural world as products of the interaction of five types (or phases) of matter. The five phases are wood, fire, earth, metal, and water. This principle is also applied to the characteristics and functions of the organs in the human body; thus each organ is classified as wood, fire, earth, metal, or water. This system is used to explain the mutually assisting and mutually constraining relationships between the *zang-fu* organs. The mutually assisting relationship is called the 'generating cycle', and the mutually constraining relationship is called the 'controlling cycle' (Fig. I-12).

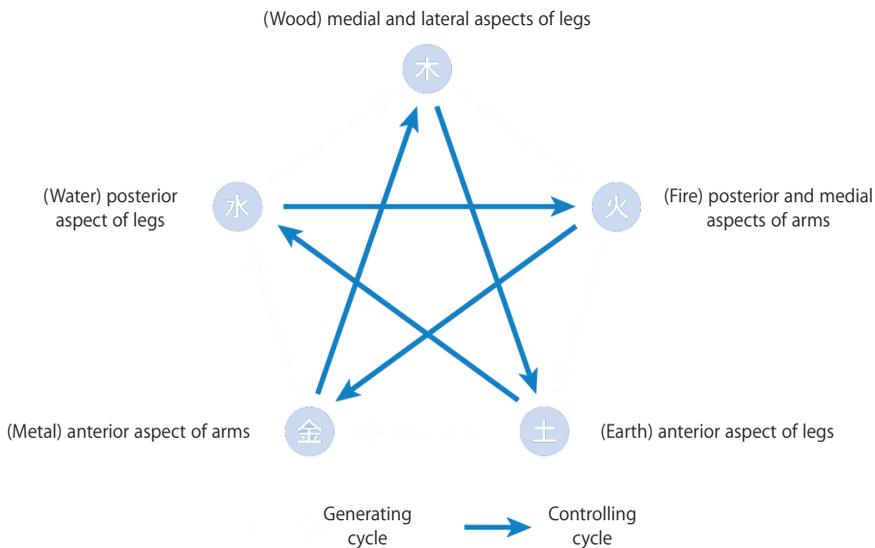


Figure I-12 Relationships between generating and controlling cycles of the five phases and the distribution of meridians

Movements of the human body can also be classified according to the five-phase principles. Wood is associated with the Liver and Gallbladder meridians, which are located in the medial and lateral aspects of the lower extremities. Fire is associated with the Heart, Small Intestine, Pericardium, and Triple Burner meridians. These meridians are respectively located in the posterior aspects of the upper extremities (Heart, Small Intestine) and the medial (Pericardium) and lateral (Triple Burner) aspects of the upper extremities. Earth is associated with the Spleen and Stomach meridians, which are located on the anterior aspects of the lower extremities. Metal is associated with the Lung and Large Intestine meridians, which are located on the anterior



Figure I-15
Acupuncture treatment for conditioning

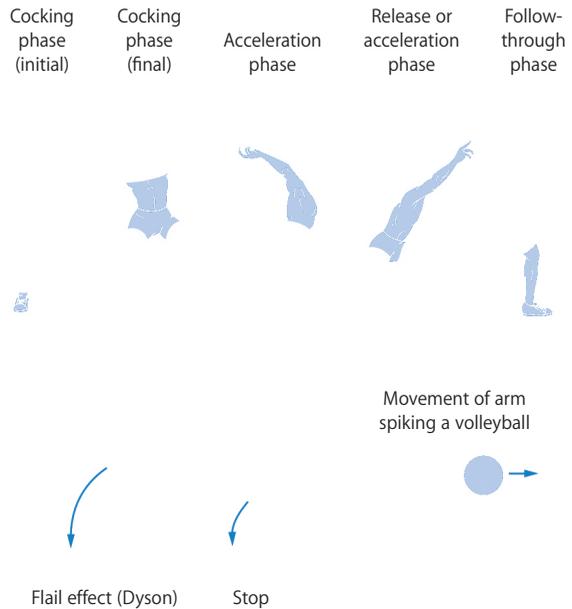


Figure I-16 Pitching phases and the structure of joint movements (flail effect)

2) USING BIOMECHANICS TO ANALYZE BODY MOVEMENTS

a. The basic concept: How to understand joint movement and movement in the entire body (are they dynamically balanced?)

(1) Analyzing single joint movements

When we carefully observe a large movement involving the entire body, we see the joints become fixed one after another in order to enable the next joint to move. This phenomenon is called kinetic setting. Many joints are involved in the throwing of a baseball. Even if we limit our observation to the upper half of the body, the throwing movement starts from the neck and trunk, and goes on to the shoulder, elbow, and wrist. The joints become sequentially fixed, starting with the trunk (the core). An efficient and beautiful form is created only after this sequential kinetic setting. A British exercise physiologist, G. Dyson, called this the “flail-like action” (Fig. I-16).

(2) Analyzing the linkage of multiple joint movements

In a similar manner, when standing upright, energy from the lower half of the body is transmitted to the upper body. The force of movement

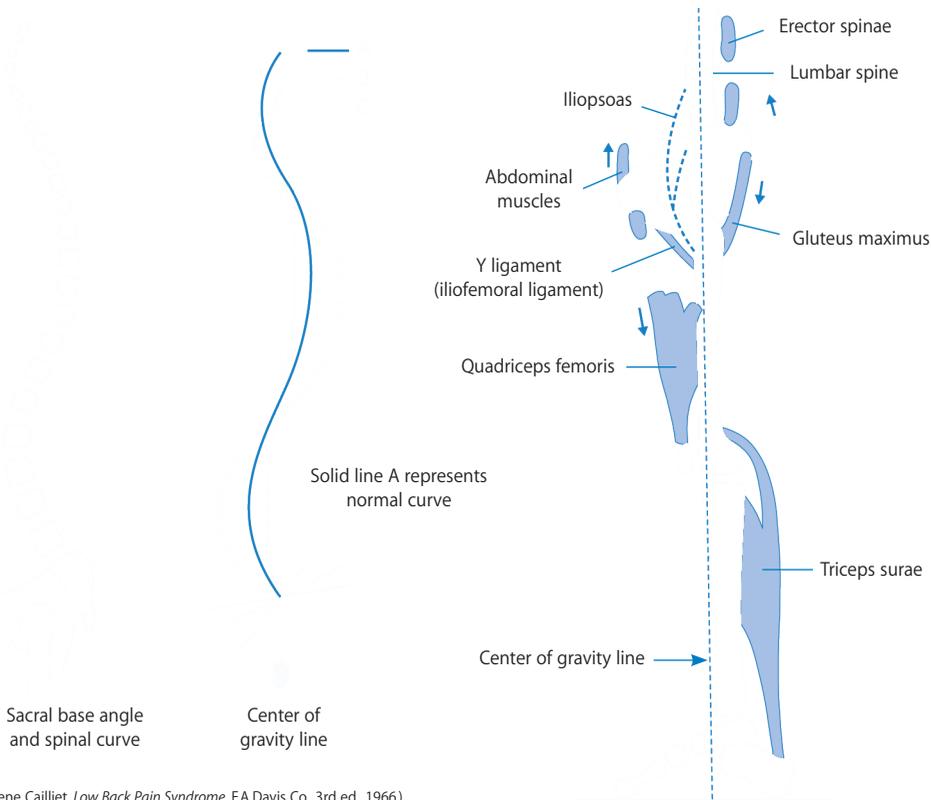


Figure I-20 Changes in spinal curve and muscle related to lumbopelvic rhythm

tension in excessively tense muscle serves as treatment. It should be noted here that the use of acupuncture in athletes should not be limited to treatment in the narrow sense, but should also serve as a vehicle for conditioning. At the very least, it must include some advice on muscle strength training. Furthermore, when you serve as a trainer for an athlete, you must have a deep insight into optimal performance, which is a result of balance in the whole body. When we actually treat athletes, we must make them understand the aims of our treatment in relation to their particular circumstances. Acupuncture treatment in athletes is almost always contraindicated just before a game. In giving treatments we have to adapt to the circumstances, and possess the knowledge and ability to choose the best approach and techniques, and vary the amount of stimulation according to the receptivity of the athlete to acupuncture.

the above check points a) to e) can occur simultaneously, but depending on an athlete's situation, only a few may be identified. Therefore, in order to understand which muscles need a reduction



Coffee Break

Treatment Applying the Meridian Test and the Theory of Biomechanics

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Once a young baseball player came to our college clinic complaining of lumbar pain. He was in junior high school in the eighth grade, and was a leading hitter of a senior team in Little League. The doctor who examined him told me, “It’s nothing. It’s no big deal.” Nevertheless, the boy looked to be in too much pain to be standing, and his mother seemed worried. So I immediately performed the Meridian Test (‘M-Test’). The movement that caused the most pain was extension of the torso. Aside from this, there were some obvious restrictions in the movement of his lower extremities, but he did not complain of symptoms like pain or fatigue in his legs. Based on my assessment, I treated acupuncture points on the Spleen and Stomach meridians on the torso. This reduced his pain somewhat, but he still had restriction in movement.

From a biomechanical perspective I thought that the loss of elasticity in the muscle groups of the anterior lower extremities due to fatigue may have caused the restriction in the extension of his torso, so I needled additional points on the Spleen and Stomach meridians in the tibialis anterior and the rectus femoris muscles, using the simple insertion¹ technique. The restrictions I observed in his movements were almost gone after needling, and the residual pain in his lumbar area all but disappeared. Neither the patient, who was new to acupuncture, nor his mother could believe that treating his legs could cure his back pain.

In this case, I was able to alleviate pain and restriction in movement by a treatment based on a combination of the M-Test method and my understanding of biomechanics. I have seen many cases like this among athletes in my clinic. The important thing when giving treatment is first to understand the aim of a particular movement in a sport. In baseball, for instance, a pitcher wants to swing his arm faster in order to throw the ball faster. The second thing

1. Simple insertion: The needle is inserted to a certain depth and then immediately withdrawn.

