

Know Your Self: Body Types

Not every “body” is created equal. Understanding and identifying particular body types will help establish realistic expectations of one’s personal strengths and weaknesses.

Mistakes are often made when “across-the-board” standards are imposed upon people; too often natural genetics are overlooked. It is beneficial to identify body types and adjust methods of training and expectations of performance accordingly.

Areas of apparent differences are:

- Differences in lower and upper body strength
- Agility, mobility, and speed
- Power versus strength
- Aerobic endurance
- Anaerobic power

Somatotypes

Somatotyping is based on a theory called “constitutional psychology” developed in the 1940’s by American psychologist William Herbert Sheldon, Jr. This theory proposed that body types have a direct association with human temperament types.

Sheldon placed human body types into three categories:

1. **Ectomorphic:** characterized by long and thin muscles/limbs and low fat storage; usually referred to as slim. Ectomorphs are predisposed to neither store fat nor build muscle. Ectomorphs tend to do well as basketball players, fashion models, etc.
2. **Mesomorphic:** characterized by medium bones, solid torso, low fat levels and a narrow waist; usually referred to as muscular. Mesomorphs are predisposed to build muscle but not store fat. Mesomorphs are well rounded in athletics, are lean, solid and strong.
3. **Endomorphic:** characterized by increased fat storage, a wide waist and shoulders and a large bone structure, usually referred to as fat, or chunky. Endomorphs are predisposed to store fat. Endomorphs generally are best suited in sports involving power such as weight-lifting, wrestling, football, etc.

Muscle Fiber Types

Another area of consideration is muscle fiber type. Muscles contain a mixture of two types as determined by genetics. Each type is unique in the way it generates force.

1. **Type One** – Slow Twitch (Red). Smaller fiber better suited for aerobic energy production (endurance), producing relatively low levels of force for longer periods of time.
2. **Type Two** – Fast Twitch (White). Larger fiber better suited for anaerobic energy (power), producing relatively high levels of force for shorter periods of time.

Both types are utilized in energy production yet an individual can fairly be defined as dominant in one or the other.

Stimulus Thresholds

Lastly is a neurobiological aspect involving what it takes to stimulate the human brain to heightened states where the “happy chemicals”, adrenaline, endorphins, serotonin, and dopamine, are flowing. For some this will require extreme thrill seeking activities while for others the brain functions best when things are calm and stable. Unlike many extreme sports, there is room for both types in Tae Kwon Do.

Some Taekwondoist may enjoy fighting competition while others enjoy forms. Some may gravitate to, and do very well with, jumping and flying kicks while others have impeccable technique and stances without a great amount of movement. This is directly the result of physiologic make-up and where one falls in the stimulus/sensory threshold spectrum.

Identifying which of these characteristics have the greatest influence will enhance learning and instruction. Additionally, it will aid in not falling into the dangerous habit of comparing one’s self to another, creating false expectations. This understanding will allow us to achieve our personal best as students and instructors.