THEORY OF POWER



There are 6 points to generate power in Tae Kwon do

EQUILIBRUM- or BALANCE

In order for a blow to be most effective, balance is required and without it one can be toppled quite easily. Every stance should be stable and flexible in order to maintain balance in both offensive and defensive movement. To obtain balance, the centre of gravity on a straight line between both legs, and this will vary with each stance. The centre of the foot may also be used if the bulk of the body weight is on that foot. It is also important to have the back heel of the rear foot on the ground at moment of impact to ensure balance and produce more power at the point of impact.

REACTION FORCE

Newton's law states that for every force, there is an equal and opposite force. Applying this to Tae Kwon do, your action hand, punch or block, needs an equal and opposite reaction...

so you NEED A REACTION HAND!

CONCENTRATION

The concentration of force into a smaller target area increases the effect of that force. An example to prove this point is to observe water coming out of a hose. The smaller the opening in the hose, the greater the force. Therefore, in Tae Kwon do, all the force is concentrated on to the attacking tool, the front two knuckles of a punch, the knife hand, the ball of the foot etc

SPEED or ACCELERATION

Techniques should speed up from their starting point to the end point. Techniques should have snap. They should not go at the same speed all the way through, unless they are specifically done slowly.

MASS

Mathematically, the maximum kinetic energy or force is obtained from the maximum body weight and speed and it is important that the body weight be increased during the execution of a blow. This can be increased through hip twist, the large abdominal muscles twisted to provide additional body momentum. Dropping into a stance, using gravity to increase mass. Sliding/moving in to create momentum.

BREATH CONTROL

Controlled breathing not only affects one's stamina and speed but can also condition a body to receive a blow and improve the power of a blow directed against an opponent. A sharp exhaling of breath during movement, with sudden stop on impact of technique, tenses the abdomen and maximises power and effort of delivery, while a slow inhaling helps with the preparation of the next movement.