

### ***The TKD Essentials***

So you're ready to dive in. You've got your *Pumping Iron* subscription, weight lifting gloves, water bottle, and pencil & paper. The next step is figuring out where to start, so let's begin with a quick anatomy review...

Following is a list of the major skeletal muscles of the body, and brief descriptions of their function.

#### **Upper Body**

Neck-supports and rotates the head, and flexes the neck in different directions.

#### **Back**

- Trapezius-help to pull the shoulders up and backward.
- Latissimus Dorsi-when contracted they pull the shoulders and upper arms down and back, and also arch the upper spine. These muscles give body builders their v-shape.
- **Erector Spinae**-these muscles arch the lower/middle spinal area, and are very important for proper posture.

**Shoulders**-the *deltoid* muscle group lifts the upper arm upward to the front, side, and rear positions.

**Chest**-the *pectoral* muscles work together with the shoulder muscles to move the upper arms forward, and to cross the arms when contracted.

### Arms

- Biceps-when contracted and the palm is facing up, the bicep pulls the forearm upward. It also rotates the palm upward (supinated).
- Brachialis-pulls the forearm upward when the palm is facing down (pronated).
- Forearms-rotates the wrist and hand. When palm is down, the *forearm extensors* lift the hand upward at the wrist when flexed; palm up, the *forearm flexors* lift the hand upward at the wrist.
- Triceps-perform the reverse function of the biceps by straightening the arm and also raising the upper arm rearward.

### Abdominals

- Rectus Abdominis-when contracted, flexes the upper torso forward at the waist.
- External Obliques-help to twist the upper body from side to side, and bend the upper body to each side.
- Intercoastals-smaller muscles that support the function of the other two abdominal muscle groups.

### Lower Body

#### Hips

- Flexor Muscles-help to lift the upper leg in an upward motion.

- Buttocks-when contracted, moves the upper leg to align with the spinal column.

### Thighs

- Quadriceps-when contracted, lift the lower leg to straighten the leg.
- Biceps Femoris (hamstrings)-when contracted, pulls the lower leg upward behind the thigh.

### Calves

- Gastrocnemius-extends the foot when the leg is straight.
- Soleus-extends the foot when the leg is bent.
- Tibialis-lifts the foot upward toward the shin.

The highlighted muscle groups are what we consider *The Taekwondo Essentials*. Since the focus of Taekwondo is on powerful kicking and jumping techniques, the proper development of these muscles is essential for top TKD performance.

*Next up: The Muscle - Kick Connection*