



Exercise #12 JUMPING JACK

Cadence: Moderate 4 Counts

Starting Position

Feet close together, toes pointing forward, arms hanging at sides.



Count 3

Return to Count 1.



Count 1

Jump slightly; land in wide stance with arms raised to 10 o'clock and 2 o'clock.



Count 4

Return to Starting Position.



Count 2

Return to Starting Position.



Exercise #12 JUMPING JACK

Purpose: To develop coordination skills in cardiovascular activity while maintaining spinal integrity

Common uses for emphasized muscles in daily activity: Good posture

Muscular Emphasis: Muscles of the torso used to maintain neutral spine; Transverse Abdominis and Erector Spinae

Primary Muscle Mover(s): Although the primary muscles are the flexors and extenders of the limbs, focus of the exercise is on maintaining good posture throughout the neck and spine

Secondary Muscle Mover(s): Numerous

Muscle Stabilizers: Transverse abdominis to compress abdomen and stabilize lumbo-pelvic region; Erector Spinae, Semispinalis, Multifidus

Postural Landmarks:

- Maintain neutral cervical vertebrae
- Watch for loss of abdominal connection, evidenced by excessive lumbar lordosis (excessive curve in the lower back and bulging abdominals)
- Maintain connection with latissimus dorsi and shoulder girdle stability

Anatomy:

Transverse Abdominis

Transverse abdominis is the deepest of the abdominal muscles and the only muscle that runs crosswise. It acts like a 'girdle' around the middle of the body. It originates along the center of the spine in the back and inserts on the abdominal aponeurosis (middle of the abdominals in the front). The muscle is used in coughing, sneezing, laughing, childbirth and forced exhalation. <http://www.exrx.net/Muscles/TransverseAbdominis.html>

Erector Spinae

Erector Spinae has attachments throughout the spinal column running the full length of the posterior ribs and spine. <http://www.exrx.net/Muscles/ErectorSpinae.html>

Semispinalis

Semispinalis lie underneath the erector spinae muscles. They exist on the posterior spine throughout the cervical and thoracic vertebrae. They originate on the outside (transverse processes) of the cervical and thoracic vertebrae and insert throughout the thoracic and cervical vertebrae as well as the occipital bone (skull) 3 to 6 levels above their origin.

Multifidus

Multifidus lie underneath the semispinalis. They run the length of the spine, from the cervical vertebrae to the sacrum. They basically originate on the outside (transverse processes) of all vertebrae and insert on the vertebral body 2 to 4 above their origin.