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CORE CONDITIONING:
GETTING MEANINGFUL RESULTS

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Your core is where all movement in your body originates. Core exercises are an important part of overall fitness training that is often neglected. To get the core muscles in better shape, it's important to understand what the body's core is and how it can be strengthened.

Understanding the CORE

The body's core — the area around the trunk and pelvis — is where the body's center of gravity is located. A strong core provides:

- Increased protection and "bracing" for the back
- Controlled movement
- A more stable center of gravity
- A more stable platform for sport movements

When there is good core stability, the muscles in the pelvis, lower back, hips and abdomen work in harmony. They provide support to the spine that is essential to sport performance, daily function and injury prevention. The body's core muscles are the foundation for all other movement and provide a solid foundation for movement in the extremities. Core muscles generally attach to the spine, pelvis and muscles that support the scapula (shoulder blades). When these muscles contract, the spine is stabilized and a solid base of support is created. We are then able to generate powerful movements of the extremities.

A weak core can make may create poor posture, lower back pain and muscle injuries.

What are the CORE muscles?

Rectus Abdominals – This muscle is the most superficial of the abdominal muscles and flexes the trunk, moving the body between the rib cage and pelvis (when the back muscles are relaxed). A common myth is that there is an “upper” abdominal and “lower” abdominal. This large muscle has several nerve stimulation sites but it is not possible to contract each segment separately.

External Obliques – One opposite sides of the rectus abdominals, and allow the trunk to twist, but to the opposite side of whichever external oblique is contracting. For example: the right external oblique contracts to twist the body to the left.

Internal Obliques – Lying underneath the external obliques and running in the opposite direction. They also allow the truck to twist but they do so by working in the opposite direction as the external obliques. For example: the left internal oblique contracts to twist the body to the left.

Transverse Abdominals – These are the deepest of the abdominal muscles and lie under the obliques. It acts like a weight belt, contracting for protection and stability of the spine. They are very deep stabilizes that do not generate movement. They help resist forces acting on the spine. It is not just the recruitment of this and other deep-trunk muscles, but how they are recruited that is important. The contraction of these muscles occurred prior to any movement of the limbs suggesting that these muscles anticipate dynamic forces which may act on the lumbar spine and stabilise the area prior to any movement. Also helps with forceful expiration and compression of internal organs.

Quadratus lumborum – It is the posterior muscles of the abdominal wall and assists with inspiration. If one side of the muscles grouping contracts, movement is generated on that side. If both sides contract together, they extend the lumbar (lower) spine.

Erector Spinae – A collection of three muscle groups (each with three muscles) that run along the spine from the neck to your lower back. Because they are such long muscles and have several attachments, they create movement in many areas and in several directions. The erector spinae contribute to: extension, lateral flexion and rotation of the spine and neck.

Exercises for Rectus Abdominals

- Crunch – approximate lift from the floor is 30 degrees, basically getting the shoulder blades off the floor. Do not lock feet – this recruits the hip flexors.
- Reverse Crunch
- Kneeling/seated tubing crunch
- Partner Basketball/Medicine Ball Sit and Toss

Exercises for Transverse Abdominals

- Plank (full or half)
- Pike Plank
- Basketball plank
- Leg/Arm Reach

Exercises for Obliques

Cross over Crunch

Bicycle

Arm Sweep – in a V-Sit position (could also be done by toss a ball from hand-to-hand)

V-Sit Partner Rotation Toss

Side Planks (add hip dip)

Partner Tubing Rotations (one partner is static, the other partner is twisting)

Exercises for Quadratus Lumborum/Erector Spinae

Supermans

Modified Deadlifts (knees soft, not beyond shins)

Partner Rotational Squat Toss with ball