**Functional Training**

**MUSCLE UNITS**

The first group we refer to as the Inner Unit. These are the deepest abdominal and lower back muscles that form a wrap around the spine. Then if

we go out a layer, we have the Outer Unit. These are the next layer out and

are more superficial. And then lastly we have Muscular Slings. Slings comprise a series of muscles and connective tissues connecting the

upper and lower limbs through the Outer Unit in the mid-section.

Inner Unit - Core Stabilizers

* Postural Muscles Slow Twitch Fibers
* Transverse Abdominis
* Internal Obliques
* Multifidis - deep spine muscle
* Pelvic Floor
* Diaphram
* Psoas

Outer Unit – Global Stabilizers

* Rectus Abdominis
* External Obliques
* Erector Spinae
* Quadrus Lomborum
* Hip / Gluteal Muscle Groups

**Planes of Motion**

* <https://videos.usskiandsnowboard.org/coetv/detail/videos/planes-of-movement/video/6218534842001/planes-of-movement>

Try to incorporate planes of movement into athletes work outs

**Bird Dog**

* <https://www.youtube.com/watch?v=QABW99qPiNM>

**Pistol Squats - Balance – Stability - Mobility**

**Requires Ankle Mobility and Hip Mobility**

* Beginner - Elevated One Legged Touchdown

Chair Stand up One Leg

Split Squat – Back Leg Elevated on Chair

* Intermediate - Assisted – Hand on Anchor point, light touch
* Advanced Counter Weight in Arms Out Stretched

Flat Side of BOSU

**Focus on Dynamic Balance Exercises in all 3 Planes of Motion**

Sagital Plane - One Legged Dead lifts

Transverse – Curtsie Leg Stays off Floor

Frontal – Pistol Squat with leg to the side leg stays off the floor

**Plank Variations**

Dynamic movements - add unstability to planks more true to how we move in sports

* Fore Arm Static
* Knee Tapping
* Stepping Feet Out
* Controlled Jacks – One foot at time or both together
* Walking up to Hands Back Down to Fore Arms
* Hands Pulling Knee to Elbow ( super slow Mtn Climber)
* On a Stability Ball + Add Movement
* Plank Saw

Side Plank – Floor - Dome Side BOSU

**Glider Core Exercises**

* <https://www.youtube.com/watch?v=KcnPfyfnZqU>
* Paper Plates
* Wash cloth on wood floor

Reactive Training

* Shock absorbing - Stick the landing
* Box to Floor - Front on
* Box to Floor - Front on a turn to land Both Directions
* Box to Floor - 1 legged
* Box up – Lateral Box- Return – Box to Floor
* Squat Jumps - 180 Rotations
* Split Lung Jumps
* Skaters Floor - Onto BOSU <https://www.youtube.com/watch?app=desktop&v=FGU8tI0Kvj4>
* Lateral Hops – BOSU <https://www.youtube.com/watch?v=vEGpyuTh3zw>

Muscle and Motion <https://www.youtube.com/watch?v=4Gdh_Go2tAw>

<https://www.muscleandmotion.com/>

BOSU <https://www.bosu.com/>