C1.214 - Stability in Archetype Positions

(Archetype positions, mobility sequences and stability cues adapted from *Becoming a Supple Leopard*, vol I, 2013 and vol II, 2015 - K. Starrett)

In sport and Physical Activity we utilize a variety of manipulation strategies as we expressed locomotion in many different ways. Stability however, is the achievement of the strongest and most **effective** position of the body from a biomechanical perspective. If we focus purely on stability, we recognize that it is hard to identify positions of stability while we are actually moving. If, however, we move from one position of maximum stability to another, and we are aware of and limit the random, unstable movements of our bodies as we transition, then it can be assumed that we are moving in the most stable manner possible, reducing the risk of injury and providing our bodies the most stable base from which to generate force.

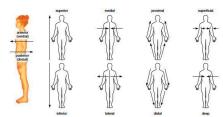
Stability of Joints - Capsular Slack and Stability demo - braided rope demo

Why we work from mechanically unstable positions

- 1. "Get the Job Done" mindset. (Changing the sheets on the bed!)
- 2. Having integrated poor positions into training and day to day life, it becomes reflex. (Lack of coaching to proper movements.)
- 3. Lack a strategy for finding stability.(Getting the right coaching cues), or lack the range of motion in certain joints to achieve positions of greatest stability.(need to mobilize those areas of restriction-Double elastic band demo)

Basic Ready Position - Bracing sequence (vol I - page 29-31)

- 1. Squeeze the glutes to set the <u>pelvis</u>. Keep feet parallel and "screw them into the floor".
- 2. Pull the rib cage down to prevent hyperextending the spine. Pelvis and ribcage are two bowls filled with liquid. **Two Hand Rule Test** (one thumb on the sternum and one on the navel. Hands should remain parallel when extending and bending)
- 3. Now tighten the belly You will have to relax the glutes to perform any movement, so from here you can use the abdominals to keep the ribs and pelvis stable. Breathe in and as you let the breath out, tighten the abs and "shrink-wrap" your spine



4. Head and Shoulders - align your ears over your shoulders and gaze forward. Draw the head of the humerus back - spread the collarbones - and release shoulders down - feel the tips of your shoulder blades reaching toward your hips. Keep your thumbs pointed forward - Anatomical Position

7 - Archetype Positions - Look fors and (coaching cues) (5 upper body and 4 lower body)

- 1) **Overhead**(throwing, handstand, getting something off a high shelf) elbow extended(lock out the elbows), shoulders flexed(arms close to your ears) and externally rotated(thumbs point behind you)
- 2) **Press**(push-up, wrestling press, getting out of bed, carrying something at your side) elbow flexed(90 degrees) and shoulder flexed(pull shoulder blades together and down) and externally rotated(tuck your elbows to your sides), elbows and wrists aligned (forearms parallel)
- 3) **Hang**(finish position of a pitch or throw, standing with hands at sides, carrying items) shoulder neutral, (not pronated no DB shoulders, elbows behind the plane of the body), wrists behind torso (palms facing behind you)
- 4) Front Rack(1 arms straight, 2 arms bent)(boxer's guard to punch, setup for a pushup/plank, holding something out in front of you, talking on the phone) shoulder flexion(upper arms parallel to the floor) and external rotation(palms turned up), wrist extension(2-thumbs beside ears), elbow 1 extension, 2 flexion(point your elbows straight in front of you)
- 5) **Squat(1 chest upright, 2 straight legs/deadlift)**(1 athletic stance, picking up a box, 2 tying shoes, hamstring stretch) hips flexed and externally rotated(1-drive the knees outward, ie.not inside the line of the feet, 2-drive the glutes back), neutral spine (two hand rule)
- 6) **Pistol**(getting up from a seated position, stepping up, gardening in a deep squat) ankle, knee and hip flexion. (Hip sits below the crease of the knee)
- Tunge(running, hurdles, getting up off the ground) lead leg is flexed at the hip (with the thigh parallel to the ground), the foot facing forward and the knee flexed and above or to the outside of the toes (slight external hip rotation means the knee is not slanting in). Trailing leg is extended at the hip(is behind the plane of your body) with a slight internal rotation and flexed at the knee(approaching 90 deg) with toe dorsiflexion (ball of foot flat on the floor with the heel above) and the knee approaching the floor. (As you transfer weight, think about driving the heels, not the toes into the ground.)

PDF of Archetypes -

ACTIVITIES - To get warmed up

- Head and shoulders song. Chalice and blade
- Activity stations. Rotate through and try each with a partner. Can you name the key archetypes involved in each?

Test, Mobilize, Retest Circuit - Station Cards

- Our "fitness circuit" is going to be a mobility circuit using an inquiry model.
 When doing this on your own, you inquire as to your needs and work to those.
- You will go to a station based on one of the movement archetypes(we have 4 stations today).
- Once there, you will perform the indicated "range of motion test" for that archetype. Know that there are actually several different tests that could be performed for each of the various aspects(look fors) of each archetype.
- For the purpose of this class, our "circuit" will last approximately 10 minutes.
 - You will have 15 seconds to "Test" the position. Use the partner at your station to help you or you can photograph or use Huddle/CMV to draw a comparison
 - 2 minutes to use the prescribed mobilization, (if it is a single side mobilization, focus only on that side for today for the full 2 minutes. Pick the side that you noticed the greatest restriction in when you tested)
 - 15 seconds to "Retest" the position to see if you notice an improvement.
- Basic Techniques these are some of the techniques we will employ at each station
 - Smash and Floss pin down restricted tissues and oscillate the joint through its range of motion
 - Contract and relax once you reach the end range of your motion, try to contract the involved muscles in that position for 5 seconds and then relax deeper into the movement for 10 seconds. Repeat

Total equipment
EQUIPMENT:
2 - thin bands
1 med band
1- hockey stick,
2 chair/box,
1 towell,
1- yoga ball
4-Lacrosse Ball
1-Bench, box or desk
5 mats
Masking tape

CIRCUIT STATIONS

STATION A - Overhead

EQUIPMENT: 1 - band anchored overhead, 2 - hockey stick, chair/box & red band?, towell, 3 - yoga ball, mat

Test: 2 arms overhead.

Look for: How close to your ears and vertical can you get with elbows extended? Be sure to follow the bracing sequence first so you don't hyperextend your back.

Mobilization:

- 1 Overhead Banded Elbow Distraction with External Rotation bias v1-pg 258
- 2 Bilateral shoulder flexion. v1 pg 259
- 3 Overhead Tissue Smash v1 pg 256

STATION B - Front rack - Arms Bent

EQUIPMENT: 1-Lacrosse Ball, mat 2-Small band anchored low

Test: back of hand to shoulders

Look for: With elbows pointed straight out in front, (arms not getting parallel indicates lacking shoulder rotation) how far back can you get the backs of your hands toward your shoulders/how far down the neck can your thumbs touch

Mobilization:

- 1 Shoulder rotator Smash v1 pg 250
- 2 Banded Wrist Distraction v1 pg 285

STATION C - Squat - 2-Deadlift

EQUIPMENT: 1-Bench and lacrosse ball, 2- wall and mat

Test: Keeping your spine in a neutral position (think two hand rule) bend over and see how far you can touch the floor(fingertips to floor, flat hand, back of hand etc) **Look for**: have your partner let you know when your spine starts to round - that is as far as you go!

Mobilization:

- 1 Posterior chain seated smash v1-pg 348
- 2 Hip External rotation with Flexion v1-pg 307

STATION D - Pistol, Lunge & Squat

EQUIPMENT: 2&3 test - masking tape, 1-Mat and wall, 2-mat and 2 lacrosse balls

Test: 1- internal rotation test v1-pg 317

2&3 Dorsiflexion wall distance test

Look for:1 sit in a chair with both legs keep hip stable and planted on the chair. With the head of the humerus anchored, swing the foot outward while keeping the thigh in place

2- stand facing a wall with one knee on the wall. See how far back you can move your foot while keeping your heel on the ground. Mark the maximum distance on the floor for retesting.

Mobilization:

- 1 Olympic Wall Squat with internal rotation bias v1-pg 319
- 2 Double ankle Smash and Floss
- 3 Classic Calf Mobilization v1-pg 383

PSK 4U STATION WORKSHEET - TEST - MOB - RETEST

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REMEMBER TO BREATHE as you mobilize

STATION	TEST Look For Issue (left/right)	Mobilization Tried	Retest Comments
A - Overhead			
B - Front Rack - arms bent			
C - Squat 2 - Deadlift			
D - Pistol			