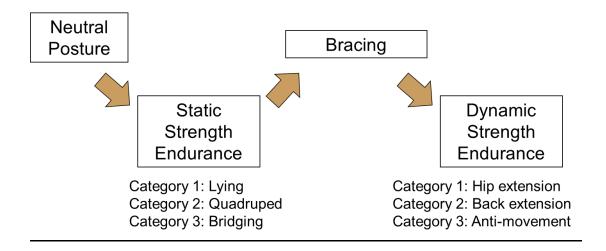
# DEPARTMENT OF KINESIOLOGY PHAC 3040 RESISTANCE TRAINING FOR HEALTH & PERFORMANCE

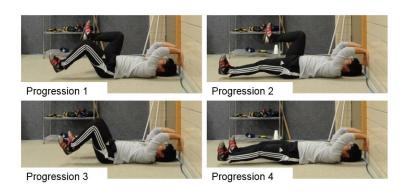
### **Core (Torso) Stabilization Drills**



## **Static Strength Endurance**

#### **Category 1: Lying Supine**

- Floor is used as a guide to maintain spinal alignment
- Hands press lightly against wall
- Each position repeated 3 x ~15-20s
- Progress positions from 1 to 4



## Category 2: rotary stability

- A dowel is a useful tool to emphasize proper alignment
- Hip and shoulder 90º position
- Movement progression: Lift one arm  $\rightarrow$  leg  $\rightarrow$  opposite arm and leg  $\rightarrow$  superman pos.





#### **Category 3: Bridging**

#### Prone

Maintain proper posture at all times – do not look up/ahead, keep head in alignment with spine Progression:

- Pushup position, elbows, 1-leg, 1-arm, 1-leg & 1-arm
- Can include wobble boards, bosu balls, foam or air pads, and stability ball under the hands/elbows and/or feet



#### Lateral

Don't forget posture!

#### Progression:

- Knees bent, legs straight, bottom-single leg, bottom-single leg position to the front or back of the body, top-single leg
- Foam/air pads, bosu, small stability ball can be placed underneath the elbow and/or feet.



#### Supine

Although the posterior chain musculature will be highly activated, firm abdominal pressure should be maintained

Press down with the arms to activate the latissimus m.

#### Progression:

 Knees bent, lift one leg off the floor, fully extend one leg horizontal or vertical, bend elbows, labile surfaces, partner assisted perturbations



## **Dynamic Strength Endurance**

#### **Category 1: Hip extension**

Hip extension has the upper body fixed and the lower free to move Technique:

- Foot should be dorsiflexed to encourage glute max and abdominal activation
- If possible, foot slightly supinated to encourage external thigh rotation

Progression: begin without external resistance

■ 2-legs & 1-leg variation









### **Category 2: Back extension**

Back extension has the lower body fixed and the upper free to move

Technique: Hip joint placement is very important, should be slightly beyond edge of padding

Progression: 2 leg → 1 leg



#### **Category 3: Anti-Movement**

Cable Chops (resist rotation of upper body)

- Goal is to get to or slightly cross midline w/ hand closest to stack
- Note: no head movement
- Performed on: 2-knees (tall knelling), 1-knee (half knelling), standing
  - o mvt: down diagonally, horizontal across, up diagonally











#### Lateral downward chops

 Arm closest to cable stack move down/up to vertical position





## Stationary position

"Anti-rotation"





Walkouts; Cable held overhead, walk/shuffle in the:

- Frontal plane
- Sagittal plane
- Transverse plane

Stuart McGill's 'stir the pot'



## **Full Body Rotation**

- Downward chops
- Horizontal chips
- Upward chops



## Roll-outs with upper body

- Progress from knees to feet to standing
- Toes should remain in contact with the ground







## Roll-outs with lower body

Progress from horizontal to pike position



