# EXERCISE: PROGRESSIONS AND REGRESSIONS

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# WHAT ARE PROGRESSIONS AND REGRESSIONS

Modifying the degree of difficulty of an exercise to provide a training stimulus without sacrificing form.





Rope climb Leg wrap Use your feet Arms only L-sit position Elements of exercise modification Load **Contacts of support Base of support** ROM **Planes of movement Complexity of movement** Speed of movement

# **POSTERIOR CHAIN EXERCISE**



#### Walking in place



#### Hip raises



#### Arms elevated



#### Stability/Mobility



# **BRIDGING WITH ELEVATION**

\*\*\* Moving the feet further away from the buttocks during the bridging exercise increases activity of the hamstrings.



# BRIDGING ON A SQUAT RACK



# SIDE BRIDGING

# LATERAL LINE EXERCISE

Side bridge from knees
 W/ knees extended



Side bridge from knees
 W/ knees extended

\*\*\*During the Side Bridge exercise, the lateral core muscles closest to the floor are more active than the contralateral side.



- Side bridge from knees
  W/ knees extended
  Core roll
- 4) Side bridge roll



- Side bridge from knees
  W/ knees extended
  Core roll
  Side bridge roll
- 5) Hip abduction
- 6) Mountain climber



- Side bridge from knees
  W/ knees extended
  Core roll
  Side bridge roll
  Hip abduction
- 6) Mountain climber
- 7) Scapula abduction



Side bridge from knees
 W/ knees extended
 Core roll
 Side bridge roll
 Side bridge roll
 Hip abduction
 Mountain climber
 Scapula abduction
 w/ elbow extended



- Side bridge from knees
  W/ knees extended
  Core roll
  Side bridge roll
- 5) Hip abduction
- 6) Mountain climber
- 7) Scapula abduction
- 8) w/ elbow extended
- 9) Feet elevated



1) Side bridge from knees 2) W/ knees extended 3) Core roll 4) Side bridge roll 5) Hip abduction 6) Mountain climber 7) Scapula abduction 8) w/ elbow extended 9) Feet elevated 10) Lateral flexions



# **QUIZ QUESTION**

# TRUE or FALSE

Moving the feet further away from the buttocks during the bridging exercise increases activity of the hamstrings.

# **PUSH-UPS/PLANKS**

# ANTERIOR CHAIN EXERCISE

1) Hands elevated



- 1) Hands elevated
- 2) Negatives



- 1) Hands elevated
- 2) Negatives
- 3) Regular



- 1) Hands elevated
- 2) Negatives
- 3) Regular
- 4) Handles



- 1) Hands elevated
- 2) Negatives
- 3) Regular
- 4) Handles
- 5) Extremity lifts



- 1) Hands elevated
- 2) Negatives
- 3) Regular
- 4) Handles
- 5) Extremity lifts
- 6) Suspension handles



- 1) Hands elevated
- 2) Negatives
- 3) Regular
- 4) Handles
- 5) Extremity lifts
- 6) Suspension handles
- 7) CKCUEST (closed kinetic chain upper extremity stability test)



- 1) Hands elevated
- 2) Negatives
- 3) Regular
- 4) Handles
- 5) Extremity lifts
- 6) Suspension handles
- 7) CKCUEST
- 8) Reaction lights



- 1) Hands elevated
- 2) Negatives
- 3) Regular
- 4) Handles
- 5) Extremity lifts
- 6) Suspension handles
- 7) CKCUEST
- 8) Reaction lights



# SINGLE LEG BALANCE

1) Eyes open/Eyes closed







- 1) Eyes open/Eyes closed
- 2) Hip drive



- 1) Eyes open/Eyes closed
- 2) Hip drive
- 3) Head moves
- 4) Eyes move



- 1) Eyes open/Eyes closed
- 2) Hip drive
- 3) Head moves
- 4) Eyes move
- 5) Activity based



- 1) Eyes open/Eyes closed
- 2) Hip drive
- 3) Head moves
- 4) Eyes move
- 5) Activity based
- 6) SL Hops/AP/Lat/Diagonal



- 1) Eyes open/Eyes closed
- 2) Hip drive
- 3) Head moves
- 4) Eyes move
- 5) Activity based
- 6) SL Hops/AP/Lat/Diagonal
- 7) Skater hops



- 1) Eyes open/Eyes closed
- 2) Hip drive
- 3) Head moves
- 4) Eyes move
- 5) Activity based
- 6) SL Hops/AP/Lat/Diagonal
- 7) Skater hops
- 8) Skater hops with med ball



- 1) Eyes open/Eyes closed
- 2) Hip drive
- 3) Head moves
- 4) Eyes move
- 5) Activity based
- 6) SL Hops/AP/Lat/Diagonal
- 7) Skater hops
- 8) Skater hops with med ball
- 9) Skater hops/reaction lights



#### Sensory Reweighting

"Healthy humans control balance during stance by using an active feedback mechanism that generates corrective torque based on a combination of movement and orientation cues from visual, vestibular, and proprioceptive systems. Previous studies found that the contribution of each of these sensory systems changes depending on perturbations applied during stance and on environmental conditions. The process of adjusting the sensory contributions to balance control is referred to as sensory reweighting."

# SENSORY REWEIGHTING





Sensory Reweighting

\*\*\*You can increase joint proprioception activity by exercising on an unstable surface.

FALSE

# THE LUNGE

\*\*\*The Lunge is very beneficial in activating the Triple Extension pattern of the hips, knees, and ankles.

#### 1) Forward/Reverse



- 1) Forward/Reverse
- 2) Supported
- 3) ADL from floor



- 1) Forward/Reverse
- 2) Supported
- 3) ADL from floor
- 4) W/ DB's



- 1) Forward/Reverse
- 2) Supported
- 3) ADL from floor
- 4) W/ DB's
- 5) W/ cables



- 1) Forward/Reverse
- 2) Supported
- 3) ADL from floor
- 4) W/ DB's
- 5) W/ cables
- 6) Walking lunges
- 7) Weight overhead





- 1) Assisted squats
- 2) BW squats



- 1) Assisted squats
- 2) BW squats



- 1) Assisted squats
- 2) BW squats
- 3) Landmine squats



- 1) Assisted squats
- 2) BW squats
- 3) Landmine squats
- 4) Goblet squats



- 1) Assisted squats
- 2) BW squats
- 3) Landmine squats
- 4) Goblet squats
- 5) Front squats
- 6) Back squats



\*\*\*Compared to the deadlift, the squat is a more knee dominant pattern. The deadlift and hip-hinge based exercises place more emphasis on posterior chain development.



1) Catch with knees >90



- 1) Catch with knees >90
- 2) Clean high pull p. position
- 3) Power Clean p. position



- 1) Catch with knees >90
- 2) Clean high pull p. position
- 3) Power Clean p. position
- 4) Power Clean knee (hang)
- 5) Power Clean floor
- 6) Power Clean + Front Squat



\*\*\*If an athlete is having trouble doing a Power Clean, regressing to a Power Clean done from the power position will be helpful.



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### EXERCISE CONTINUUM

- Stability
- Mobility
- Unpredictability

Principle	Easier	Harder
Load	Lighter	Heavier
Points of contact	More	Less
Range of Motion	Less	More
Movement complexity	Static	Dynamic
Planes of motion	One	Multiple

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# THANK YOU

