**TITLE**: **PNF Stretching**

**(Proprioceptive neuromuscular facilitation)http://kona.kontera.com/javascript/lib/imgs/grey_loader.gif**

Suggested Time: 1 class

Lesson Summary

Suggested Activities:

* Start lesson in classroom with PowerPoint on flexibility/stretching introduction
* Move to activity space for the following lesson:

Warm-Up:

* 10min-15 of cardio fitness of any kind
* Dynamic warm-up (shuffles, butt kicks, grapevine, high knees)

Stretching Routines:

Can be done together timed as a class in partners or as stations (see station cards- laminate for repeated use).

Teacher Notes:

*PNF (proprioceptive neuromuscular facilitation) techniques involve a partner actively stretching the participant by some combination of altering contraction and relaxation of both agonist and antagonist muscles. Some of the different PNF techniques used include slow reversal hold, contract relax, and hold relax. PNF stretching usually involves a 10 second push phase followed by a 10 second relaxation phase, typically repeated a few times. PNF stretching is capable of producing greater improvement in flexibility compared to other techniques. Its disadvantage is that it typically requires a partner, although stretching with a partner may have some motivational advantage for some individuals.*

# PNF LYING GLUTE STRETCH

## Instructions:

**Preparation**

Instruct participant to lie on floor or mat. Kneel beside participant. Bend participant's knee and hip and rotate leg cross wise. Position outside of participant's knee on nearest shoulder with participants lower leg extended under arm. Position near ankle on participant's opposite lower leg.

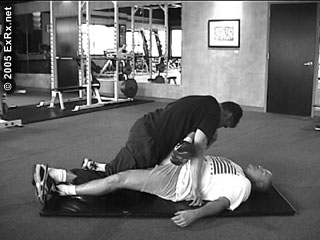
**Execution**

Extend or place hands on mat to each side of participant. Push participant's leg by leaning toward participant. Repeat with opposite leg.

## Muscles

Target

* Gluteus Maximus



# PNF SEATED GLUTE STRETCH

# STRETCH

## Instructions

**Preparation**

Instruct participant to sit on floor or mat, reclining back with support of both arms behind body, and feet on floor and knees bent. Have them cross their lower leg (just above ankle) over thigh of opposite leg. Position chest on participant's back and grasp participant's lower knee and upper ankle.

**Execution**

Push participant's torso toward legs. Hold stretch. Repeat with legs in opposite position

## Muscles

Target

* Gluteus Maximus



## Instructions

# PNF LYING PIRIFORMIS STRETCH

# STRETCH

**Preparation**

Instruct participant to lie on floor or mat with legs bent. Stand near their feet facing them. Assist them crossing their thighs, placing outside of one knee close to top of their other knee. Bend over participant's hips, position their foot of closest bent leg on your chest or shoulder while grasping their lower leg, in addition to knee of opposite leg with other hand.

**Execution**

Push your bodyweight down on foot while pushing down on side of participant's knee. Hold stretch. Repeat with legs in opposite position.

## Comments

Low back may be stretched if hips raise off of floor significantly. If spinal flexion is not desired, care should be given to keep back of hips on floor by monitoring hips position and pushing downward instead of toward participant's chest. See PNF stretch techniques. Also see Lying Piriformis Stretch for similar static stretch.

## Muscles

Target

* Piriformis
* Quadratus Femoris

# PNF SEATED PIRIFORMIS STRETCH

# STRETCH

## Instructions

**Preparation**

Instruct participant to sit on floor or mat, reclining back with support of both arms behind body, and feet on floor and knees bent. Have them cross their thighs by placing back of knee on thigh of other leg. Ask them position foot on floor closer to hip. Place your hands on back of participants shoulders or position your chest on participant's upper back and your hands under participant's lower thighs.

**Execution**

Push participant's torso toward legs. Hold stretch. Repeat with legs in opposite position

## Comments

See PNF stretch techniques. A static Seated Piriformis Stretch can also be performed without assistance.

## Muscles

Target

* Piriformis
* Quadratus Femoris

Other (see comments)

* Erector Spinae

# PNF LYING CROSSOVER STRETCH

# STRETCH

## Instructions

**Preparation**

Instruct participant to lie on floor or mat. Kneel beside participant. Bend participant's near knee and hip. Place hand on outside of participant's near knee and opposite hand on participant's shoulder.

**Execution**

Push participant's knee to opposite side while backing participant's shoulder down. Hold stretch. Repeat with opposite side.

## Comments

Maintain 90° flexion in participant's hip while maintaining participant's shoulders flat on floor. See PNF stretch techniques. Also see Lying Crossover Stretch for similar static stretch.

## Muscles

Target

* Gluteus Medius
* Gluteus Minimus

Other

* Obliques
* Erector Spinae

# PNF LYING HAMSTRING STRETCH

# STRETCH

## Instructions

**Preparation**

Instruct participant to lie on floor or mat. Kneel beside participant and extend participant's leg upward. Position back of participant's lower leg on nearest shoulder. Position near ankle on participant's opposite lower leg.

**Execution**

Push participant's leg close to participants chest. Place hands on floor with arms extended to control resistance. Repeat with opposite leg.

## Comments

See PNF stretch techniques. Also see Lying Hamstring Stretch for similar static stretch.

## Muscles

Target

* Hamstrings

# PNF SEATED HAMSTRING STRETCH

# STRETCH

## Instructions

**Preparation**

Instruct participant to sit with knees straight on floor or mat. Kneel behind participant and position chest on participant's back. Place hands just above knees from each side.

**Execution**

Push participant's torso toward legs with chest while holding down knees. Hold stretch.

## Comments

See PNF stretch techniques. Also see Seated Hamstring Stretch for similar static stretch.

## Muscles

Target

* Hamstrings

Other

* Erector Spinae

# PNF LYING (PRONE) QUAD STRETCH

# STRETCH

## Instructions

**Preparation**

Instruct participant to lie prone on mat or floor. Straddle participant facing toward feet. Knee beside participant with leg extended over or just above participant's hips. Bend participant's near knee and place hand under participant's upper leg and opposite hand on ankle.

**Execution**

Lift knee and push ankle down toward hip. Hold stretch. Repeat with opposite side.

## Comments

The opposite leg or thick towel can be placed under participant's near knee (and above participant's far knee) to further stretch Rectus Femoris. Tibialis Anterior can be stretched if ankle is completely plantar flexed.

See PNF stretch techniques. Also see Prone Quadriceps Stretch for similar static stretch.

## Muscles

Target

* Rectus Femoris

Other

* Quadriceps

# PNF BENT LEG GROIN STRETCH

# STRETCH

## Instructions

**Preparation**

Instruct participant to lie on floor or mat. Ask them to place soles of feet together on floor close to body with knees apart. Kneel close to participant and place hands on insides of participant's knees.

**Execution**

Spread participant's legs down to sides and hold stretch.

## Comments

See PNF stretch techniques. Also see Lying Wall Groin Stretch for similar static stretch.

## Muscles

Target

* Adductors, Hip

# PNF STRAIGHT LEG GROIN STRETCH

# STRETCH

## Instructions

**Preparation**

Instruct participant to lie on floor or mat with legs positioned straight up, slightly apart. Grasp participant's ankle from inside.

**Execution**

Spread legs down to sides and hold stretch.

## Comments

Administrator may need to kneel down closer to partipants who are more flexible. See PNF stretch techniques. Also see Lying Wall Groin Stretch for similar static stretch.

## Muscles

Target

* Adductors, Hip

# PNF BEHIND HEAD CHEST STRETCH

# STRETCH

## Instructions

**Preparation**

Instruct participant to sit on floor or bench and place hands behind head, facing forward. Stand behind participant and position leg behind their head. Place hands on participant's elbows.

**Execution**

Pull participant's elbows back. Hold stretch.

## Comments

Participants hands can be clasped. See PNF stretch techniques. Also see Behind Head Chest Stretch for similar static stretch.

## Muscles

Target

* Pectoralis Major, Sternal

Other

* Pectoralis Minor

# PNF OVERHEAD LAT STRETCH

# STRETCH

## Instructions

**Preparation**

Instruct participant to stand or sit on floor, chair, or bench and place arm overhead. Standing behind participant, grasp their wrist and position their forearm behind their head.

**Execution**

Pull participant's wrist toward back of shoulder. Lean torso to side, away from direction of arm behind head. Hold stretch. Repeat with opposite arm.

## Comments

Participant can be asked to lean torso away from side with arm behind head. See PNF Overhead Triceps Stretch for similar exercise which can be performed with this stretch. Also see Overhead Lat Stretch for similar static stretch. Long head of triceps is only stretched if elbow nears complete flexion.

## Muscles

Target

* Latissimus Dorsi

Other

* Teres Major
* Triceps, Long Head (see comments)

# PNF OVERHEAD TRICEPS STRETCH

# STRETCH

## Instructions

**Preparation**

Instruct participant to stand or sit on floor, chair, or bench and place arm overhead. Standing behind participant, grasp their wrist and position their forearm against upper arm.

**Execution**

Pull participant's elbow behind their head while keeping forearm against upperarm. Hold stretch. Repeat with opposite arm.

## Comments

See PNF Overhead Lat Stretch for similar exercise which can be performed with this stretch. Also see Overhead Triceps Stretch for similar static stretch.

## Muscles

Target

* Triceps, Long Head

Other

* Latissimus Dorsi
* Teres Major

# PNF SEATED BICEPS STRETCH

# STRETCH

## Instructions

**Preparation**

Instruct participant to sit on floor or bench and place arms to behind hips. From behind, grasp participant's wrists, positioning them downward and close together.

**Execution**

Continue to raise participant's arms upward behind their body. Hold stretch.

## Comments

Participant's wrists must continue to face downward. See PNF stretch techniques. Also see Seated Biceps Stretch for similar static stretch.

## Muscles

Target

* Biceps Brachii

Other

* Deltoid, Anterior
* Pectoralis Major, Sternal
* Pectoralis Major, Clavicular

# PNF SEATED FRONT DELTOID STRETCH

# STRETCH

## Instructions

**Preparation**

Instruct participant to sit on floor or bench and place arms to behind hips. From behind, grasp participant's wrists, positioning them wider than shoulder width.

**Execution**

Continue to raise participant's arms upward behind their body, out to sides. Hold stretch.

## Comments

See PNF stretch techniques. Also see Seated Front Deltoid Stretch for similar static stretch.

## Muscles

Target

* Deltoid, Anterior

Other

* Pectoralis Major, Sternal
* Pectoralis Major, Clavicular
* Biceps Brachii