

## Exercise & Chronic "Baby Boomeritis"

EXERCISE  
ETC. INC.



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- Licensed Massage Therapist
- Undergraduate degree in Exercise Science
- Instructor of Kinesiology, Georgia State University
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## How to Get Your CE Certificates

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- Log on to our website: [www.exerciseetc.com](http://www.exerciseetc.com)
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### PLEASE NOTE:

- Remember to complete this webinar and print the certificate by December 31 of **this year**.
- Certificates with **next year's** date may not be accepted by your credentialing organization.

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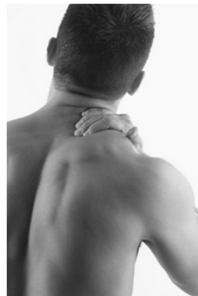
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### Got Boomer-itis?

- Common Chronic Joint Injuries Affecting People Over 40
  - Rotator Cuff Injuries
  - Back Pain
  - Piriformis Syndrome
  - Anterior & Lateral Knee Pain



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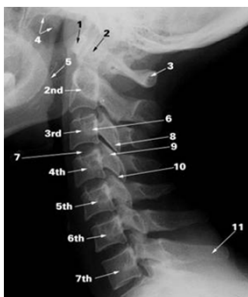
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### Factors Contributing to Joint Pain



- Poor conditioning
- Excess Body Weight
- Smoking
- Poor Body Mechanics
- Muscle Imbalances
- Aging/Osteoarthritis
- Loss of Structural Integrity

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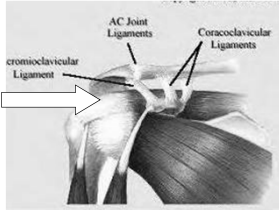
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## Chronic Shoulder Pain/Dysfunction



- Sub-acromial Impingement
  - Supraspinatus
  - Long head of the biceps tendon
  - Sub-acromial bursa
- Rotator Cuff Injury
  - Infraspinatus

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## Exercising with Shoulder Issues

- Improve Scapular Stability
- Strengthen the Cuff
- Improve Internal Rotation
- Avoid positions and/or exercises that increase impingement risk or that cause discomfort



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## Exercise Goals

- Strengthen External Rotators
  - Infraspinatus, Teres Minor
- Improve length-tension relationship between muscles of the shoulder girdle
  - Trapezius (upper, middle, lower)
  - Serratus anterior,
  - Rhomboids,
  - Levator scapulae
- Improve internal rotation

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### Use the Plane of Scaption (The plane of the scapula)

- 30 to 45 degrees anterior to the frontal plane



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### Pull This Way...Not That



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### Push This Way...Not That

Decline Press



Incline Press



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### Initial

Rotator cuff strengthening, arm at side.



### Progression

Rotator cuff strengthening with arm abducted



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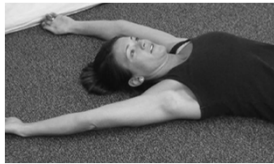
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### Activate Lower Trapezius using Arm Slides



- Keep shoulder blades adducted and lumbar spine flattened throughout
- Abduct shoulders overhead and return to 90° abduction
- Repeat 10-15 times

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### Sleeper Stretch



- Posterior Capsule and External Rotators
- Lie on Side
- Flex Shoulder ~90°
- Stabilize the Scapula
- Using opposite arm pull shoulder into Internal Rotation

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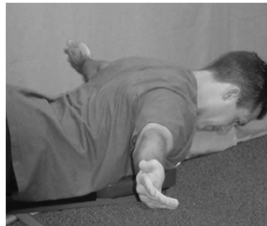
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## "Y", "W", "T" ARM RAISES



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## Chronic Back Pain

- Train the lumbar spine for stability with movement
- Improve mobility in ankles, hips and thoracic spine
- Retrain movement patterns
- Limit ROM as necessary
- Avoid excessive or prolonged flexion



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## General Exercise Guidelines



- Select exercises that produce least compression and shear, progressing slowly as tolerance increases
- Include hip and t-spine mobility drills in warm-ups
- Teach clients to manage acute pain or flare-ups

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## Groove It! Cat-Camel Motion



- Flexion/extension cycles help to reduce spine viscosity
- Do not force the movement into the end range of motion
- Perform six cycles

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## Trunk and Spine Twist



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## Passive Lumbar Extensor

- Downward-facing Dog Pose
  - Extend progressively from T-Spine and Hips



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## Quadruped Birddog



- The “safest” exercise for compression –intolerant clients
- Progress to cobra or superman-type exercises only if tolerated and after effective progression of the birddog
- Shapes & alphabet

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## Stretch Rectus/Quadriceps Femoris



- Rectus Femoris is often neglected in favor of stretching Psoas to correct Anterior Pelvic Tilt
- Stretch RF regularly
- Incorporate Glute contraction with stretch to stabilize pelvis

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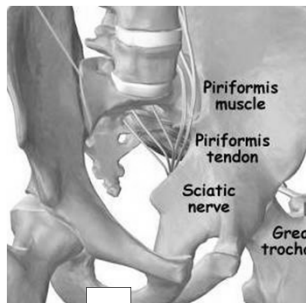
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## Piriformis Syndrome

- Pain and instability in the hip, coccyx, groin, buttock, or distal part of the leg
- Pain walking uphill or upstairs, and after prolonged sitting
- 6-times more common in women




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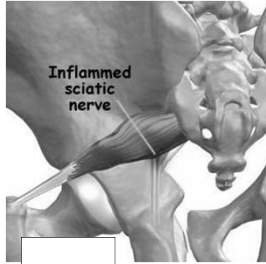
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## The Role of the Piriformis



The piriformis externally rotates and abducts the hip

The sciatic nerve typically passes inferior to the piriformis

Piriformis syndrome is often secondary to inflammation due to gluteal trauma or spasm

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## Risk Factors for P.S.

- Q-Angles
  - Stretching of the piriformis
- Prolonged external rotation and abduction of the hip
  - Sitting with one or both legs crossed
- Runners, Cyclists and Weight Lifters



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## Stretching is Key to Relief



- To stretch, flex, adduct and medially rotate the hip
- Begin with 10 sec hold and progress to 30-60 sec of static stretching multiple times each day
- Muscle Energy Techniques as used in Physical Therapy
  - PNF: Contract-Relax

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## Supine-Lying Piriformis Stretch

- This is the preferred therapeutic stretch
- Lying in supine, flex, adduct and internal rotate the hip to stretch piriformis
- Hold 30-60 seconds
- Repeat daily, if necessary



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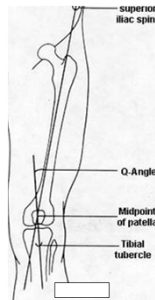
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## Chronic Anterior Knee Pain

- Leg length
- Knock-knees
- Flat feet
- Q angles
- Muscle imbalances
- Repetitive Stress



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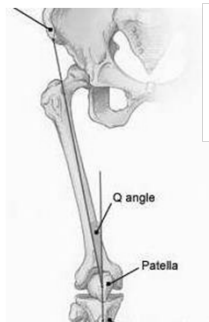
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## Q-Angles & Knee Injuries

- Q-angles >15 degrees have been suggested to increase risk of knee injury
- Q-angles inversely related to quadriceps strength
- Q-angles increase lateral tracking of the patella



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## Muscle Imbalances

- Leg Length Discrepancy
- Weak or Inhibited Glutes, Hamstrings and/or Quadriceps
- Inflexible Quadriceps
- Medial/Lateral Imbalances
- Synergistic Dominances
- Recruitment Issues




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## PATELLA LOADING WITH ACTIVITY

- |                     |                   |
|---------------------|-------------------|
| • Walking           | 0.3 x body weight |
| • Climbing stairs   | 2.5 x body weight |
| • Descending stairs | 3.5 x body weight |
| • Squatting         | 7.0 x body weight |

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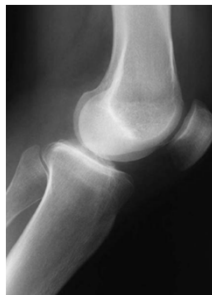
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## For the Client with Knee Pain

- Strengthen the Posterior Chain
  - More Dead Lifts than Squats
- Use techniques that encourage co-activation of hamstrings & quadriceps
- Stretch & Foam Roll Quadriceps & IT Bands




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## Back Bridge Marching



- Begin with basic bridge exercises
- Squeezing a medicine ball between knees reduces quadriceps involvement

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## Crab Walk with Elastic Ring

- Perform 1<sup>st</sup> as a side-step walk laterally
- Progress to linear walking
- Maintain foot, knee and hip alignment



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## Proprioception Training Unstable Surface Standing



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## Modify Traditional Exercises



- Swiss Ball Squats decrease knee pain because of greater hamstring involvement
- More hamstrings, means more stability

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## Emphasizing Hamstrings

- Single leg variations
  - Improves co-activation of the hamstrings
  - Increase gluteal activation
- Push hips up 1<sup>st</sup>
  - Do NOT straighten knee until sense the hamstrings engage



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## Train Lateral Movement



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## Improve Efficiency & Reduce Impact Stresses



- Proper Footwear
- Run Efficiently
  - Use Gravity
    - Neutral Spine
  - Land on the mid-foot
  - 90-96 strides per min
  - Use the hamstrings
    - Pick up your foot

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## Tips for Cyclists

- Have your bike fitted
- Avoid high gears and prolonged hill climbing
- Improve technique
  - Extend your lumbar spine to increase hamstring and glute activity
  - Sustain 90-96 rpms
  - Clip-in even when spinning



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