



Practical Implications of Myofascial Pain in SCI

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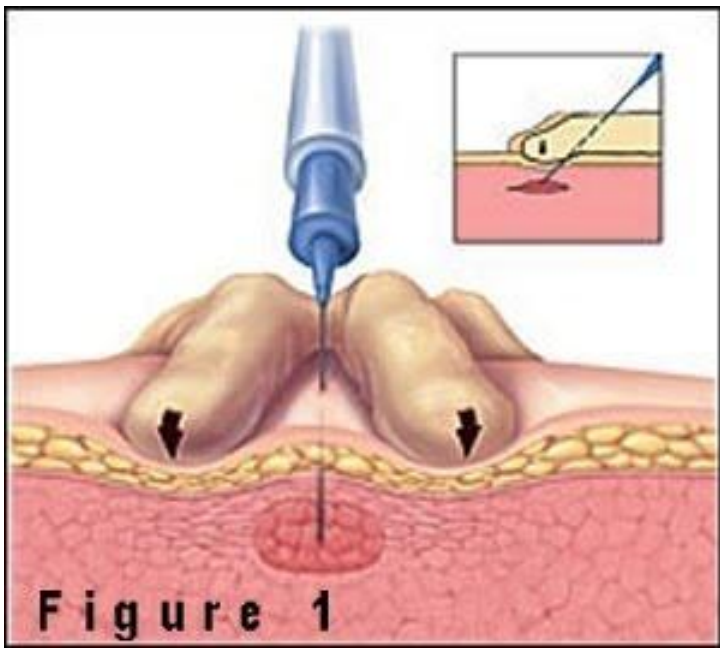
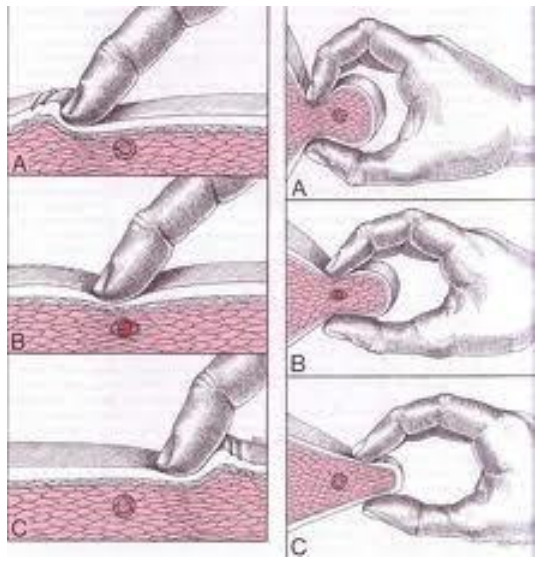
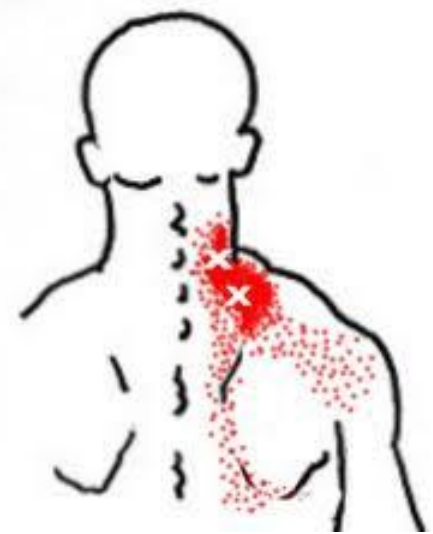
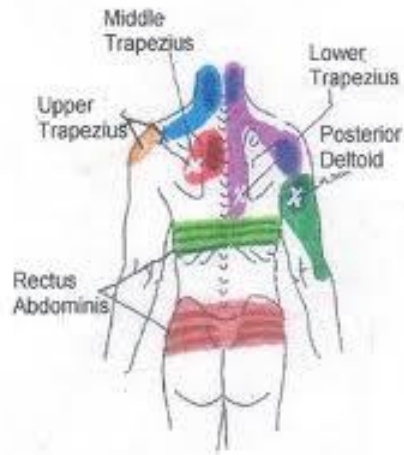
Overview

- What is myofascial pain?
- What role does myofascial pain play in persons with SCI?
- Practical Implications for SCI patients
- Video demonstration of “visual” trigger point



What is myofascial pain?

- Myofascial pain syndrome (MPS) is usually a chronic pain condition, originating from a single muscle or a muscle group.
- MFP often involves referred pain caused by trigger points (TPs).
- MFP responds to trigger point injections (TPI)
- Mainstay of MPS is to find and eliminate perpetuating factors



What Causes Myofascial Pain?

- Micro-muscle injury or excessive strain on muscle(s), ligament or tendon.
- Other causes include:
 - Injury to intervertebral disc, General fatigue, Repetitive motions, Medical conditions (including heart attack, stomach irritation, *overlying --itis*), Lack of activity (such as a broken arm in a sling),





What Are the Symptoms of Myofascial Pain?

- Presence of trigger points, which when triggered reproduces pain* in question
- Radicular-like but with NON-dermatomal pain distribution
- Chronic, with waxing and waning associated with activity. May be associated with fatigue level, depression, behavior disturbances

Diagnosing MFP



- MUST **FEEL** Trigger Points with Pain/Symptoms reproduced by deep palpation and injection to the TP
- Twitch response seen with TPI
- Prolonged redness of skin over TP
- TP found in stronger muscle group



What role does myofascial pain play in persons with SCI?

- Case study #1:
 - Mr. BB is a 21 y/o OEF/OIF Veteran with C5 Brown-Sequard in acute rehab. Progressing well towards the goal for ambulation with FWW. Day 2 after FWW trial, pt c/o 7/10 right elbow pain and is refusing ambulation training. Ortho consulted, injection done without relief, CT negative



Con't case #1

- Exam:
 - +TP on R. Triceps with referred pain to elbow.
- Treatment:
 - TPI to triceps 3x per week for 2 weeks
- Outcome:
 - 50% pain relief after 1st TPI with return to FWW ambulation training; 90% pain relief in 2 weeks



Biomechanics behind SCI MFP

- In **case #1**, sudden demand put on a deconditioned triceps muscle group as a result of the FWW training
- **Treatment strategy:**
 - Intensive use of TPI to temporarily remove the pain barrier, while the reconditioning and strengthening occurs
 - Dry needling or 1% Lidocaine-0.5cc+ or Botox, Cortisone



TP/MFP You Can See?!

- 74 y/o nun with post polio syndrome, with c/o gnawing R. shoulder pain, 5-9/10 pain level + involuntary flex/ext of R. arm, occurring at night and head bobbing
- MMT: R. Biceps 3-/5; R. Triceps 3/5
- TP+ R. infraspinatus with Involuntary flex/ext arm with deep palpation

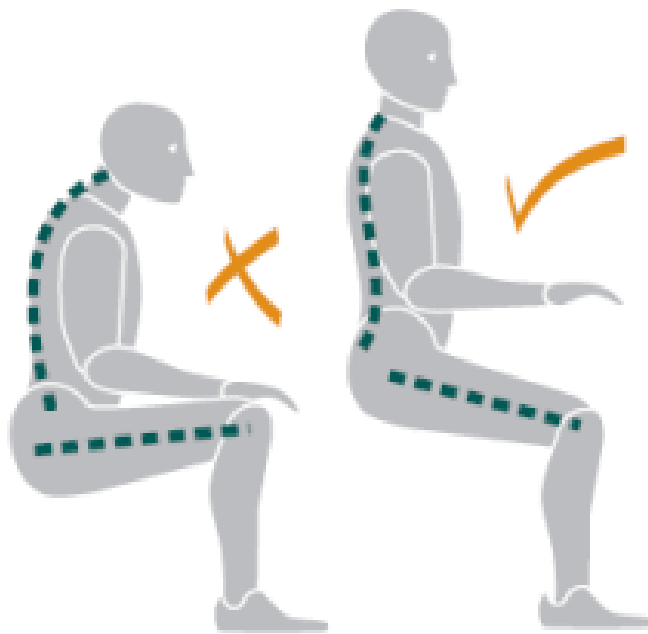




Case #2

- Ms. AC is a 38 y/o T4 ASIA A, presents with exacerbation of chronic upper back pain, 8/10, with exacerbation duration that corresponds to after receiving a low back WC.
- Exam
 - C-sitting posture, shoulder internally rotated, truncal imbalance with reach
 - +TP of rhomboids, infraspinatus
 - Low back WC with 90 degrees seat back

C-sitting posture



For persons with impaired trunk control C-sitting posture is the most stable position.

C-sitting posture = long “C”-shaped kyphotic thoracolumbar spine, overly extended cervical spine, flattened lumbar spine, posteriorly tilted pelvis.

Results in excess demand in neck and upper back muscles

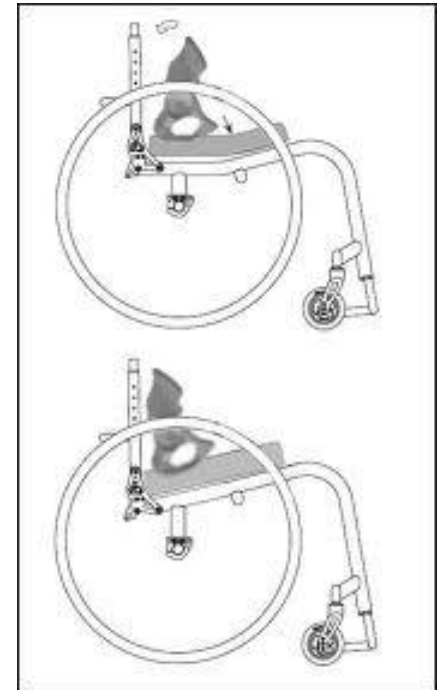


Case #2: Biomechanics of Compensatory Overuse & TPs

- To achieve desired motion or posture, when muscle groups originally designed to function is weak, stronger muscle groups attempts to compensate, resulting in “compensatory overuse”
- The muscles forced into obligatory compensation often develops TPs→MFP

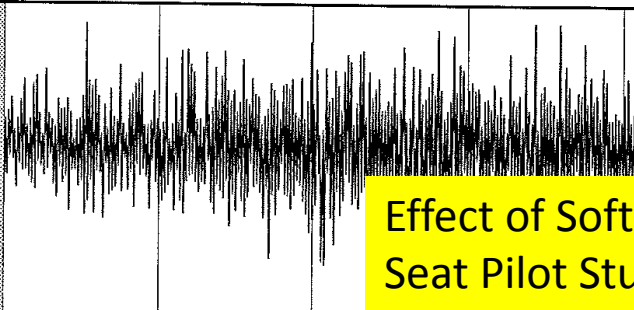
Con't case 2

- Treatment:
 - TPI +
 - L-S corset with bucket seat WC
 - Resulted in 80% pain relief

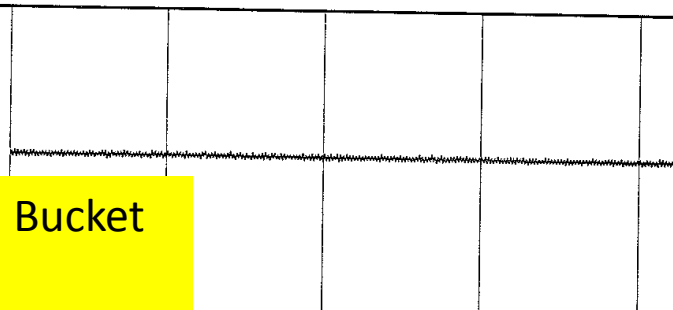


Effect of Soft T-C Corset with Bucket Seat Pilot Study

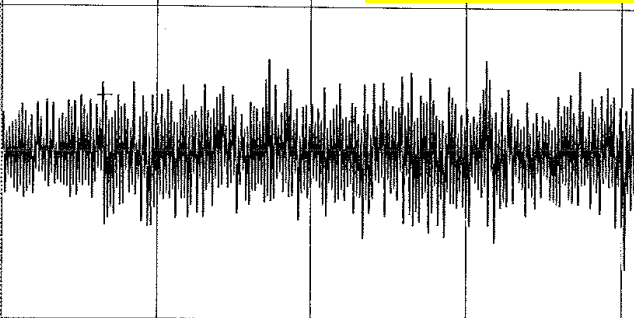
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V/CM= 0.50
GRADE: N



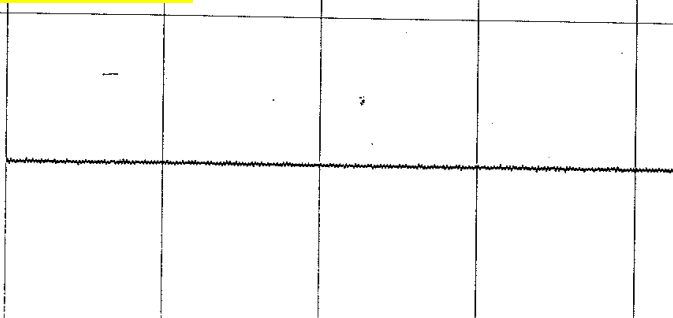
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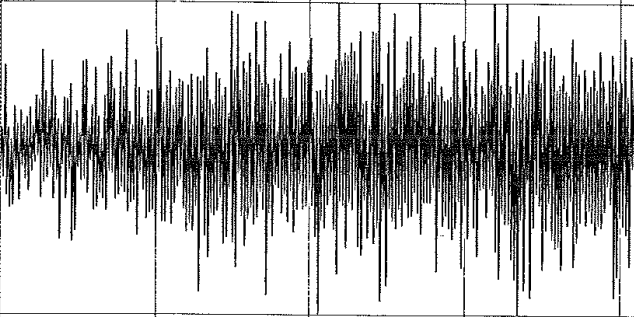
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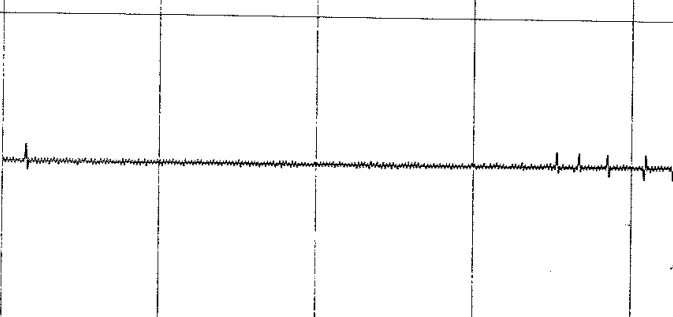
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V/CM= 0.50



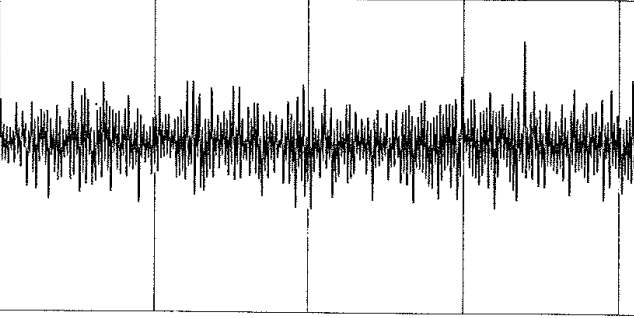
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V/CM= 0.50
GRADE: N



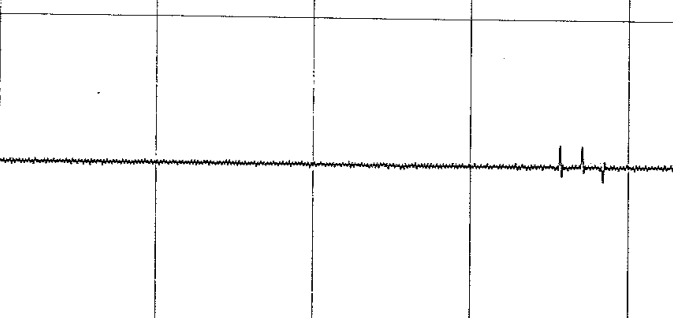
CH= 3
SPLEN CAP
V/CM= 0.50



CH= 4
LONG THOR
V/CM= 0.50
GRADE: N



CH= 4
LONG THOR
V/CM= 0.50



Seconds 1 2 3 4
Diag:SPINAL CORD INJURY 1

Seconds 1 2 3 4
Diag:SPINAL CORD INJURY 18-

Disclosures

- Sophia Chun, MD
Has no financial interest or relationships to disclose



CME Staff Disclosures

Professional Education Services Group staff have no financial interest or relationships to disclose.



Disclosures Continued

This continuing education activity is managed and accredited by Professional Education Services Group and is supported through an independent educational grant from _NA_____.



Learning Objectives

At the conclusion of this activity, the participant will be able to:

- A. Understand how myofascial pain syndrome practical implications for persons with SCI.
- B. How to diagnose trigger points
- C. How to treat common myofascial pain syndromes



Obtaining CME Credit

- If you would like to receive CME credit for this activity, please visit:

<http://www.pesgce.com/PVAsummit2011/>

- This information can also be found in the Summit 2011 Program on page 8.