


**NEUROMUSCULAR
PAIN
SYNDROMES
LZ30-PRO**

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Neuromuscular Pain Syndromes
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NEUROMUSCULAR PAIN SYNDROMES

- Neuromuscular Pain Syndromes represent a spectrum of nerve, muscle, tendon and joint related conditions that affect the body's muscles strength and limits the joints natural range of motion.
- Neuromuscular disorders cause the weakening of muscles in the body because of interrupted communication between the nervous system and the muscles the nerves control.



NEUROMUSCULAR PAIN SYNDROMES

- Thus, putting a greater physical load onto the nerves, muscles, muscle tendons, joints and vertebral discs causing an increase in chronic pain, inflammation and a degeneration of the joints (arthritis).
- PBM therapy is designed to reset the interruption between the nerves and muscles to restore normal muscle function and proper range of motion to decrease or eliminate pain, inflammation and arthritis.

AVANT LASER PROTOCOLS

STEP #1 RESET THE NERVES

- **Laser the NERVE SUPPLY to the Area of Pain (on skin)**

Lasering the nerve to the area of pain will bring the nerve to a higher state and promote quicker healing times by 25-50% faster than normal.



AVANT LASER PROTOCOLS

STEP #2 LASER THE MUSCLES AND JOINTS IN THE AREA OF PAIN

- **Laser the Muscles and Joints in the Area of Pain: 2-6" away from skin (On Stand)**

Whenever a patient presents with pain and inflammation there will be associated muscle weakness. Cautiously, find the associated muscle(s) weakness with the associated pain. While lasering you will see:

- a. Decreased pain and Inflammation**-increased ATP allows the cells to detoxify at a higher rate and decrease mechanical pressure on the nerve(s)
- b. Improved muscle strength**-increased ATP means greater interdigitation of the muscle contractile proteins.
- c. The muscles relax** due to increased ATP
- d. Increased Range of Motion** closes the Pain Gate
- e. Increase blood flow and immune function**

AVANT LASER PROTOCOLS

STEP #3 LASER THE AREA OF PAIN WITH MUSCLE MOVEMENT

Continue to Laser the Painful Area while you do Muscle and Joint Movement:
2-6" away from skin (On Stand)

- a. Start with **light movements** through normal range of motion
- b. Move the AOI against **light resistance**
- c. Perform **manual therapy** while continuing to laser
- d. Work your way up to **Strain/Counter strain** movements

***Additional lasering may be required to maximize results by using Muscle Balance or *Ligament & Cartilage protocols*

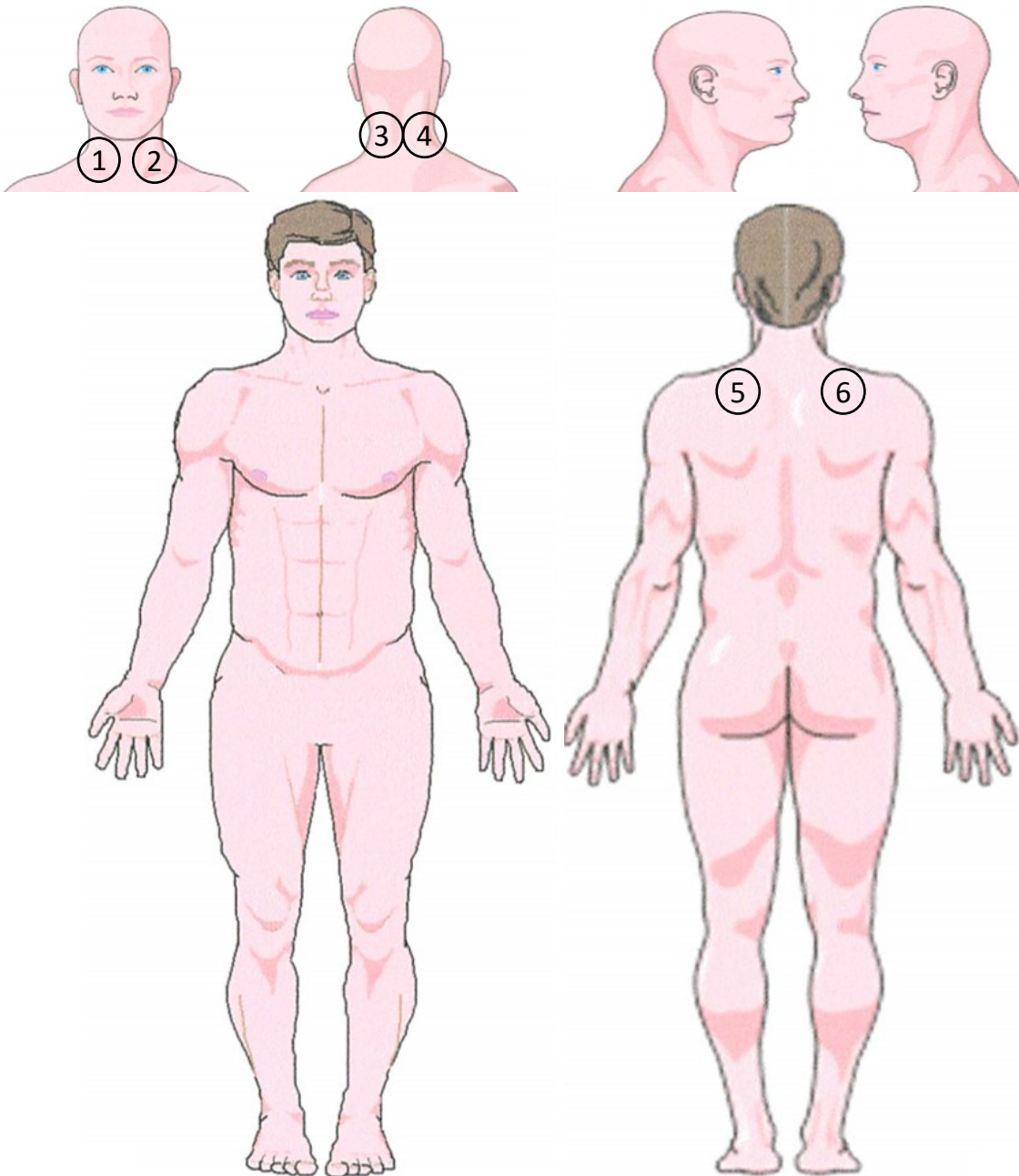
AVANT LASER PROTOCOLS NEUROMUSCULAR PAIN SYNDROMES

- “**Chronic Pain**” will be the preset used to treat nerve, muscle and joint pain
- This setting can be found in the “**Favorites**” file and in the “**Essentials**” file
- The laser should be programmed to start with **Infra-red** for 30 seconds and switch automatically to **RED** for an additional 30 seconds
- Cycle will continue to repeat until stopped
- The laser can also be custom programmed to meet any other needs of the laser practitioner

NECK PAIN

- Injury
- Whiplash
- Sprain/strain
- Arthritis
- Pinched nerve
- Degenerative disc disease
- Cervical spondylosis
- Spinal stenosis
- Torticollis

Neck Pain-Chronic Pain



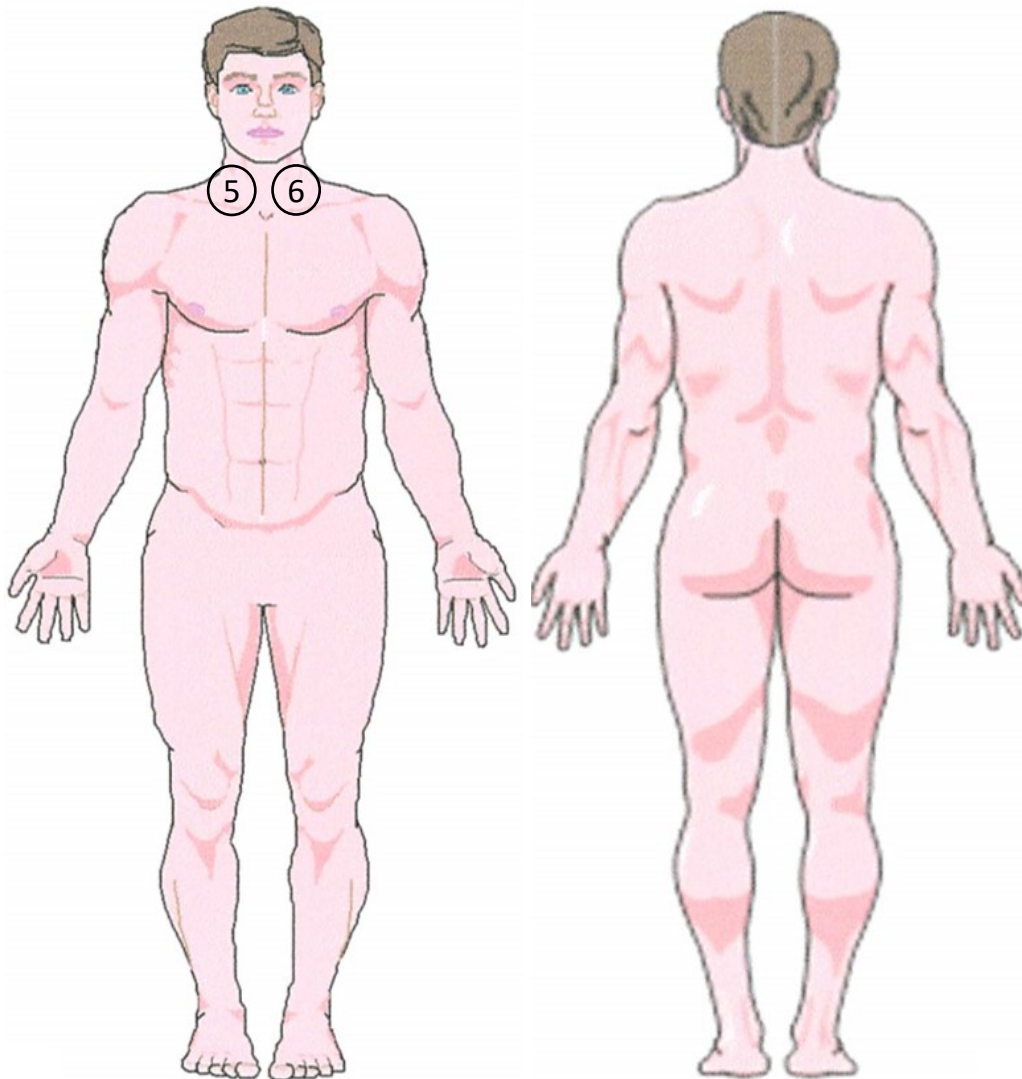
1. 60 seconds-upper anterior c/s (30s IR and 30s RED)
2. 60 seconds-upper anterior c/s (30s IR and 30s RED)
3. 60 seconds-upper c/s (30s IR and 30s RED)
4. 60 seconds-upper c/s (30s IR and 30s RED)
5. 60 seconds-upper shoulder (30s IR and 30s RED)
6. 60 seconds-upper shoulder (30s IR and 30s RED)



HEADACHES

- Tension
- Migraine
- Sinus
- Cluster

Headaches-Chronic Pain

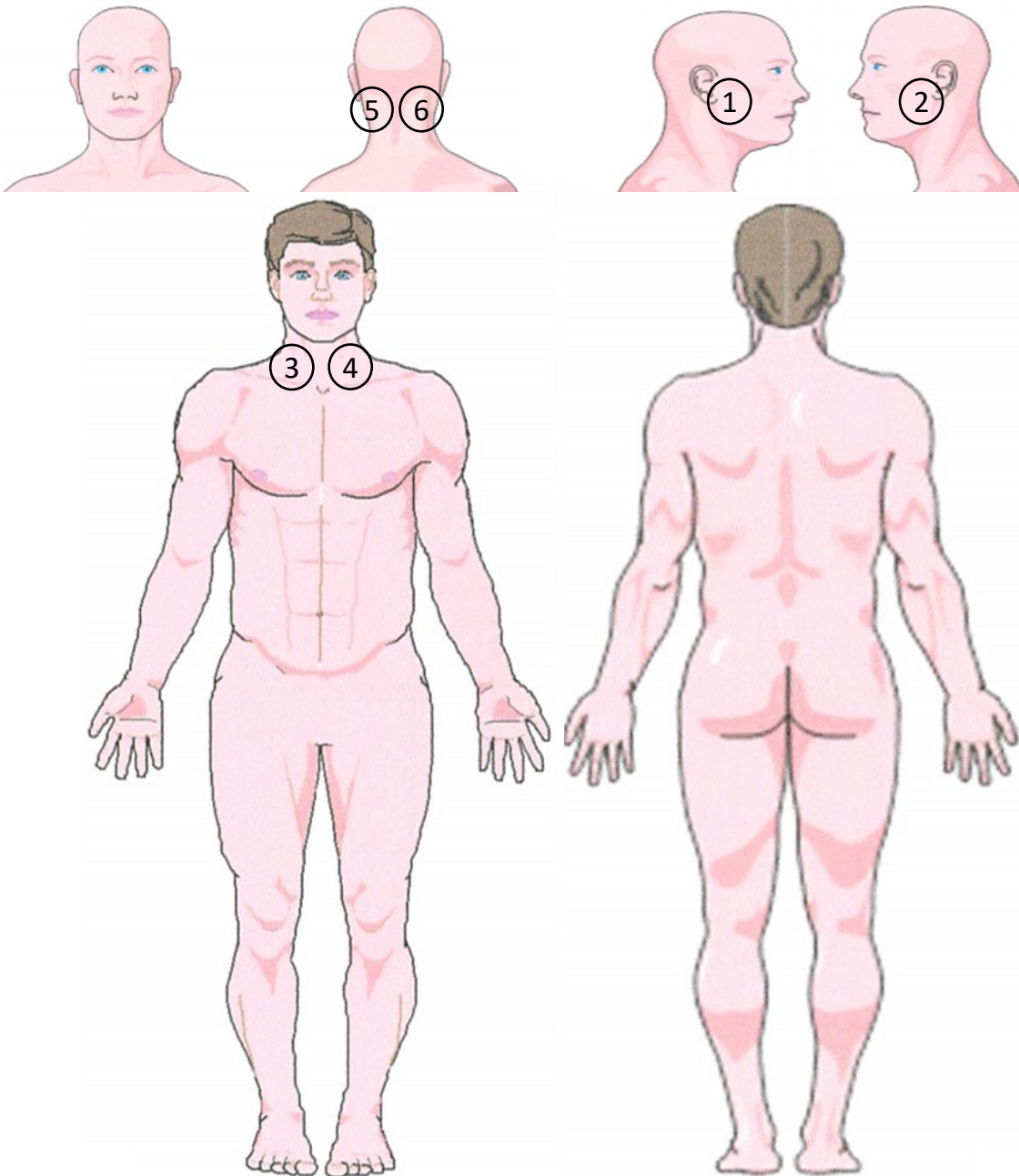


1. 60 seconds-temporalis muscle (30s IR and 30s RED)
2. 60 seconds-temporalis muscle (30s IR and 30s RED)
3. 60 seconds-TMJ (30s IR and 30s RED)
4. 60 seconds-TMJ (30s IR and 30s RED)
5. 60 seconds-SCM (30s IR and 30s RED)
6. 60 seconds-SCM (30s IR and 30s RED)

TEMPORAL MANDIBULAR DISORDERS

- Injury
- Whiplash
- Sprain/strain
- Arthritis
- Degenerative disc disease
- Popping and clicking in the jaw
- Ringing in the ears
- Trigeminal neuralgia

TMD-Chronic Pain

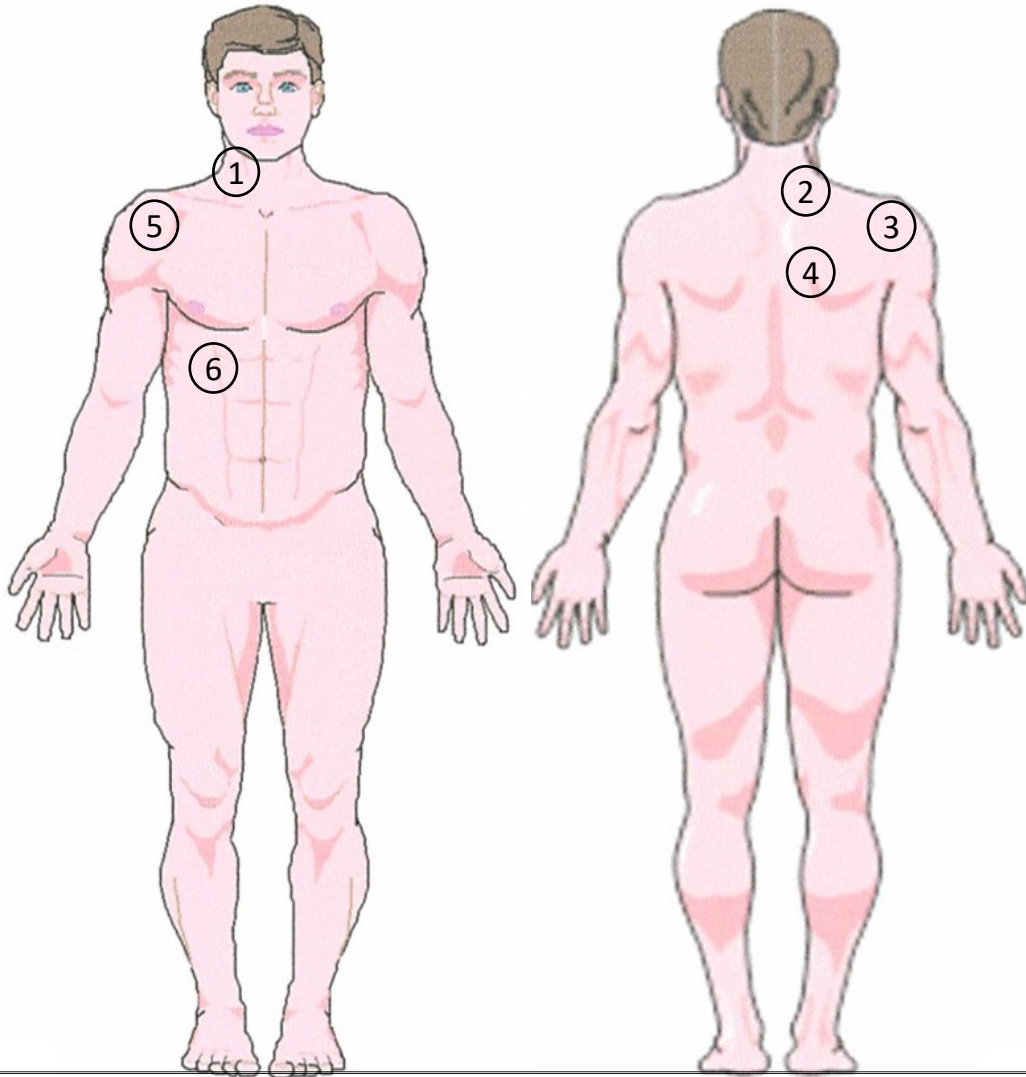
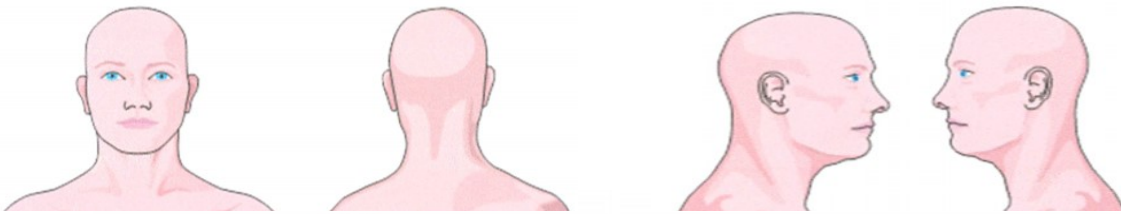


1. 60 seconds-TMJ (30s IR and 30s RED)
2. 60 seconds-TMJ (30s IR and 30s RED)
3. 60 seconds-SCM (30s IR and 30s RED)
4. 60 seconds-SCM (30s IR and 30s RED)
5. 60 seconds-sub-occipital muscles (30s IR and 30s RED)
6. 60 seconds-sub-occipital muscles (30s IR and 30s RED)

SHOULDER PAIN

- Injury
- Rotator cuff
- Sprain/strain
- Arthritis
- Bursitis
- Frozen shoulder
- Clavicle fracture
- Dislocation or separation
- Labrum tear
- Bone spur
- Tendonitis
- Pinched nerve

Shoulder Pain-Chronic Pain



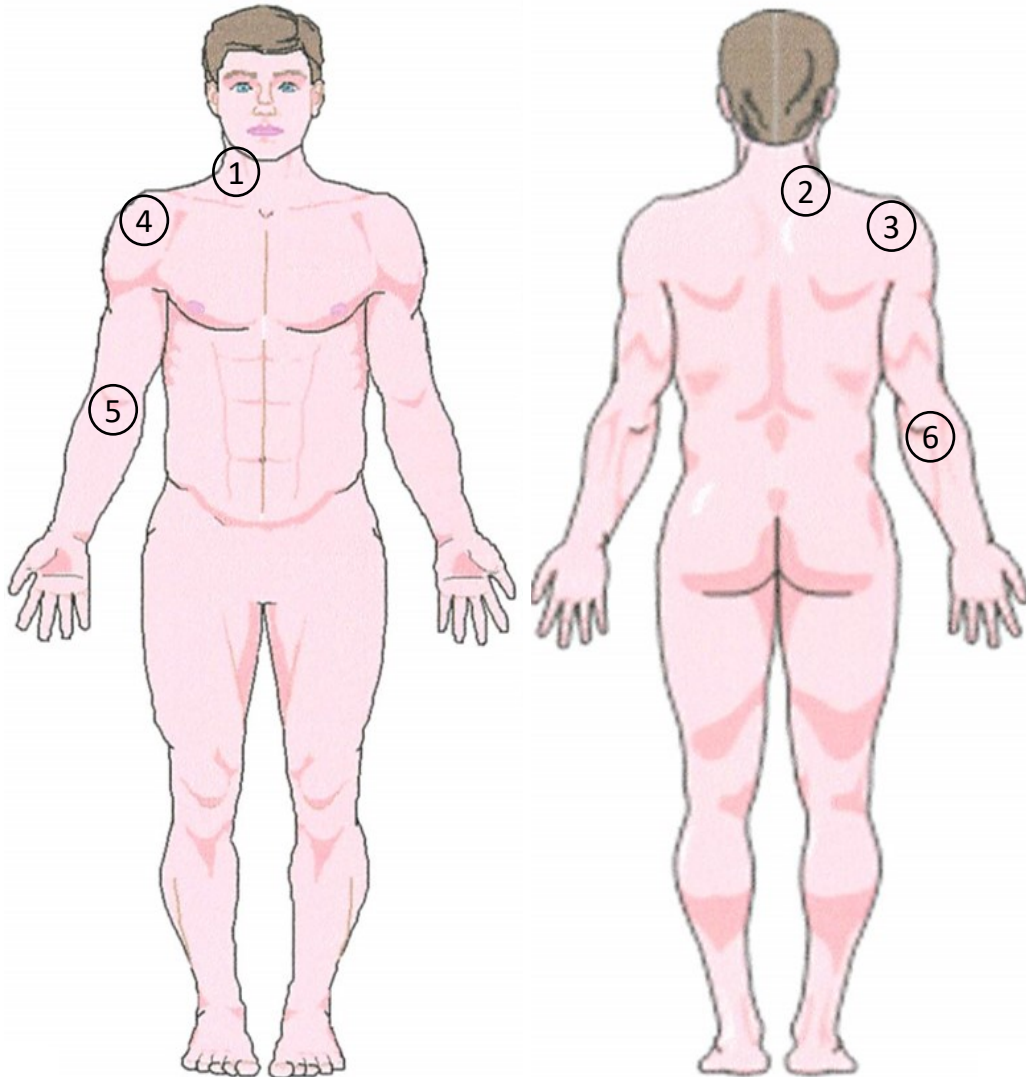
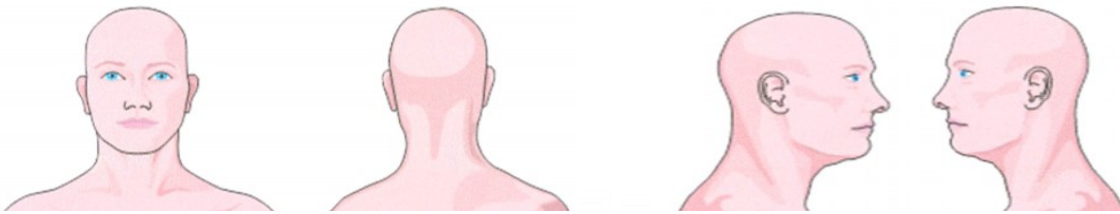
1. 60 seconds-lower anterior c/s (30s IR and 30s RED)
2. 60 seconds-lower c/s (30s IR and 30s RED)
3. 60 seconds-lateral shoulder (30s IR and 30s RED)
4. 60 seconds-lower shoulder (30s IR and 30s RED)
5. 60 seconds-anterior shoulder (30s IR and 30s RED)
6. 60 seconds-diaphragm/liver (30s IR and 30s RED)



ELBOW PAIN

- Injury
- Sprain/strain
- Arthritis
- Tennis elbow
- Golfer's elbow
- Pinched nerve
- Tendonitis

Elbow Pain-Chronic Pain



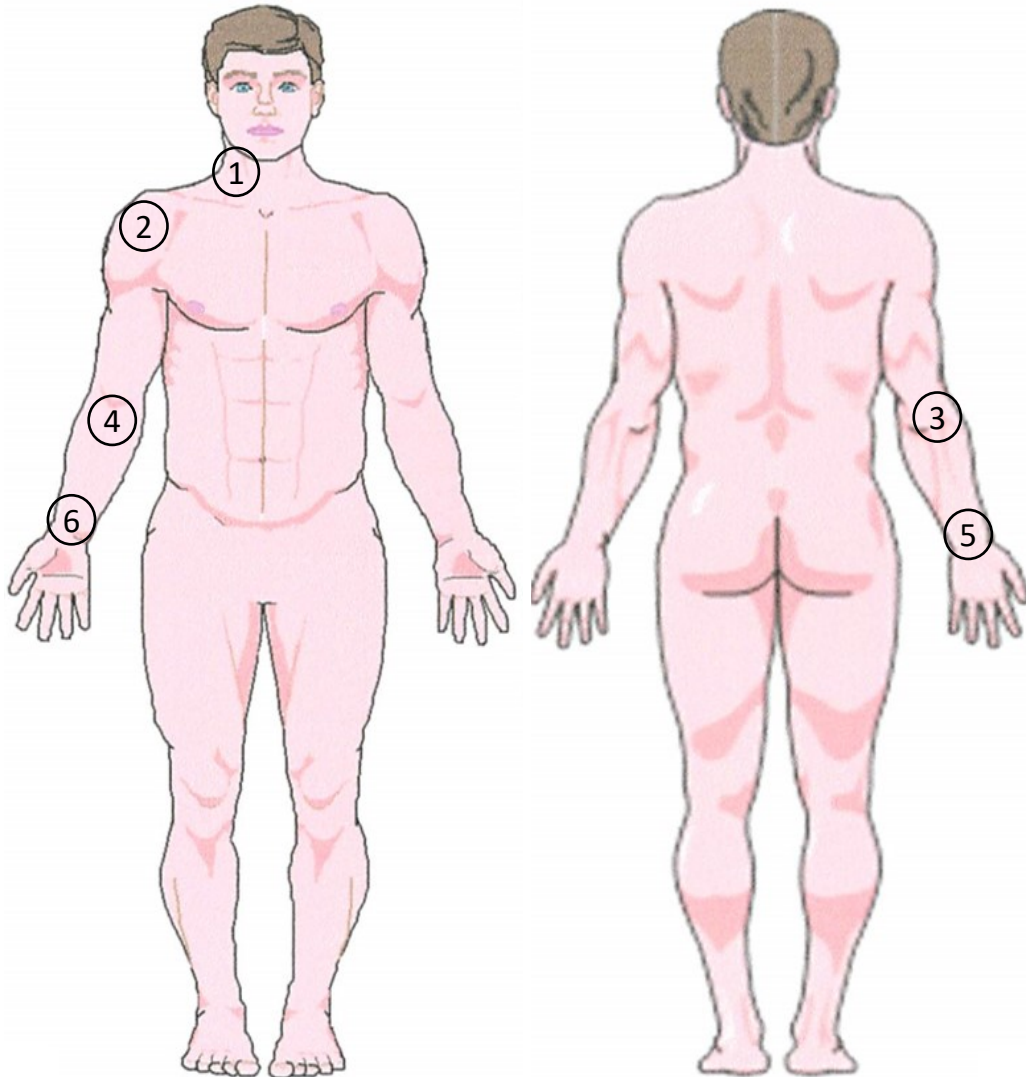
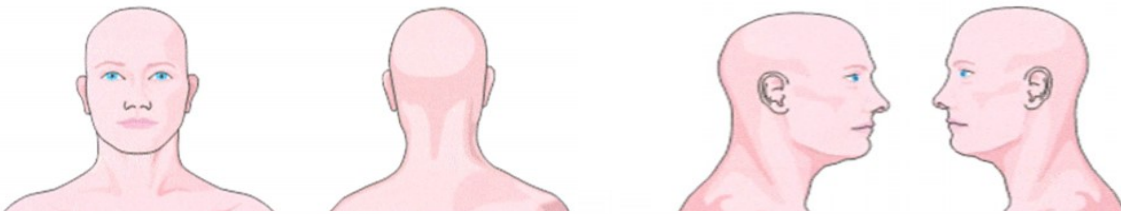
1. 60 seconds-lower anterior c/s (30s IR and 30s RED)
2. 60 seconds-lower c/s (30s IR and 30s RED)
3. 60 seconds-lateral shoulder (30s IR and 30s RED)
4. 60 seconds-anterior shoulder (30s IR and 30s RED)
5. 120 seconds-elbow (60s IR and 60s RED)
6. 120 seconds-elbow (60s IR and 60s RED)



WRIST PAIN

- Injury
- Sprain/strain
- Arthritis
- Carpal tunnel
- Rheumatoid arthritis
- Ganglion cysts
- Dupuytren's contracture

Wrist Pain-Chronic Pain

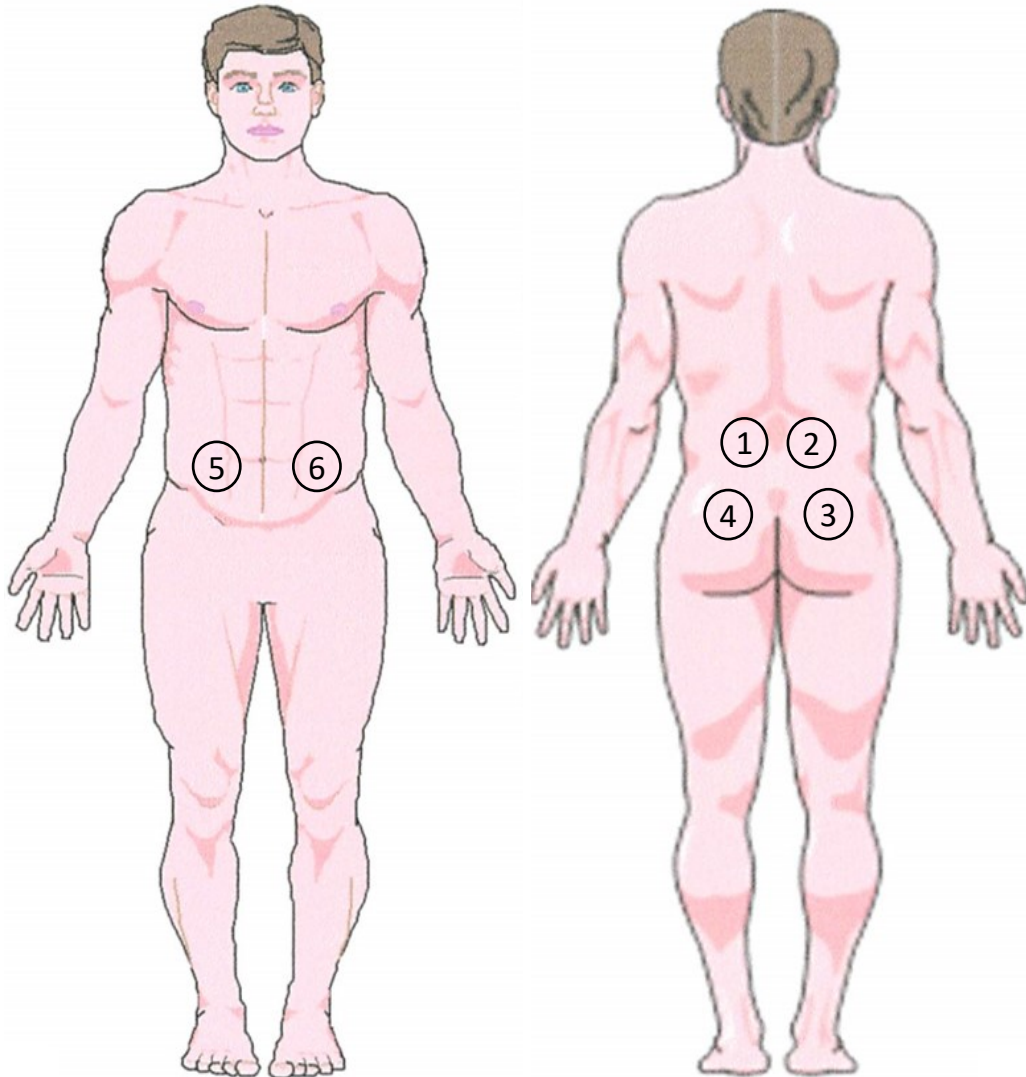
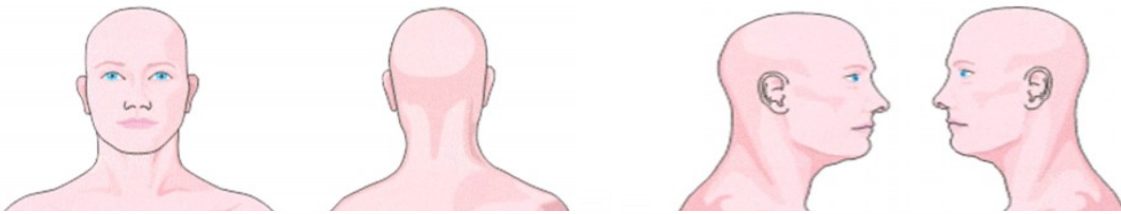


1. 60 seconds-lower anterior c/s (30s IR and 30s RED)
2. 60 seconds-anterior shoulder (30s IR and 30s RED)
3. 60 seconds-posterior elbow (30s IR and 30s RED)
4. 60 seconds-upper forearm (30s IR and 30s RED)
5. 120 seconds-wrist (60s IR and 60s RED)
6. 120 seconds-wrist (60s IR and 60s RED)

LOW BACK PAIN

- Injury-whiplash
- Sprain/strain
- Arthritis
- Pinched nerve
- Degenerative disc disease
- Lumbar spondylosis
- Spinal stenosis
- Sciatica
- Scoliosis

Low Back Pain-Chronic Pain



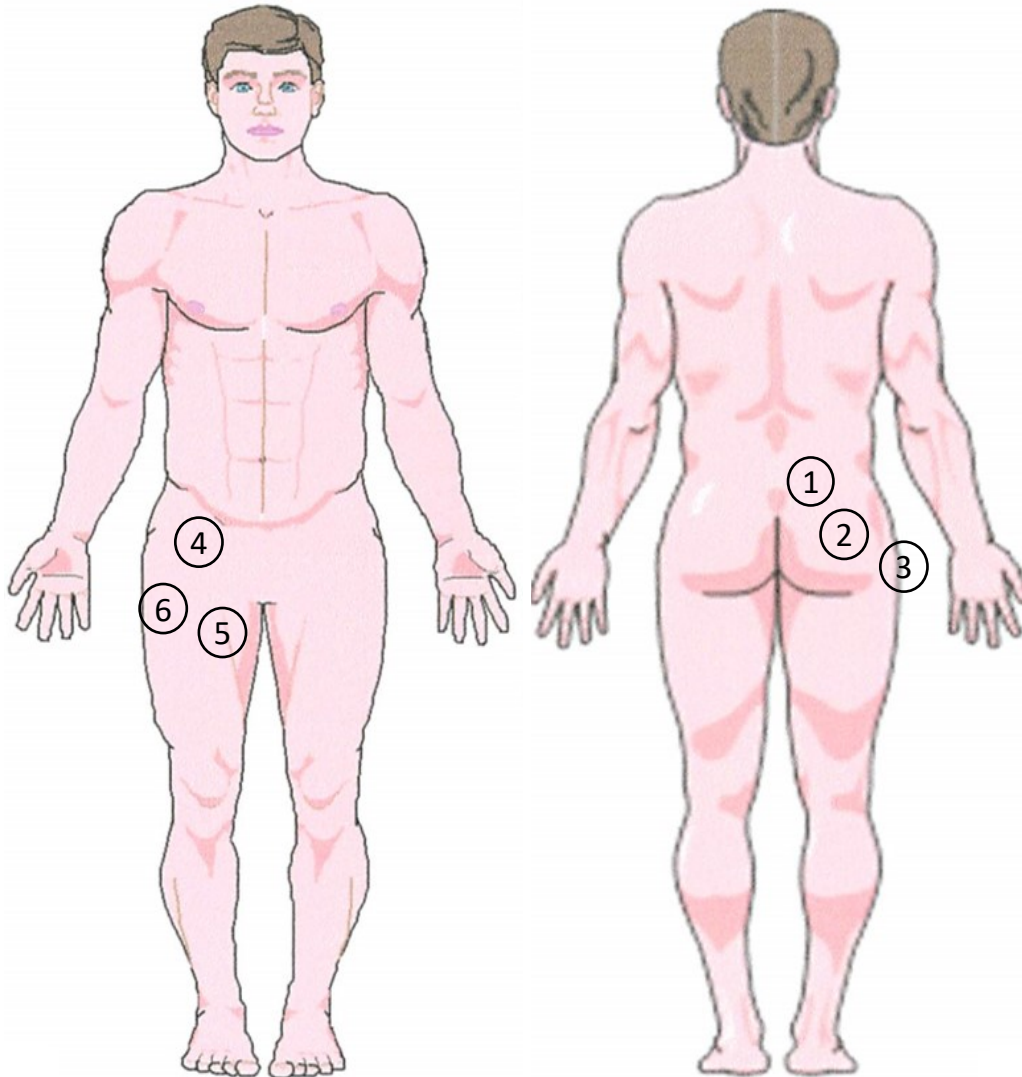
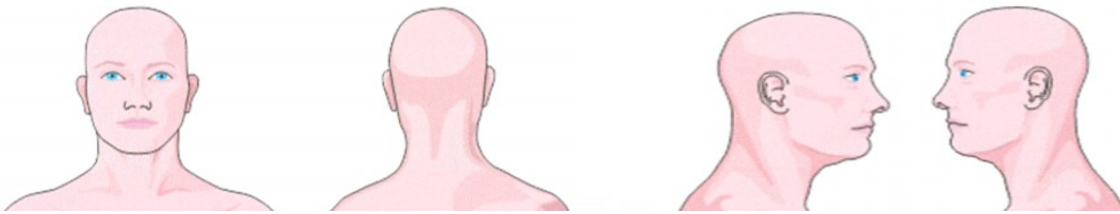
1. 60 seconds-upper l/s (30s IR and 30s RED)
2. 60 seconds-upper l/s (30s IR and 30s RED)
3. 120 seconds-low back (60s IR and 60s RED)
4. 120 seconds-low back (60s IR and 60s RED)
5. 60 seconds-psoas muscle (30s IR and 30s RED)
6. 60 seconds-psoas muscle (30s IR and 30s RED)



HIP PAIN

- Injury
- Sprain/strain
- Arthritis
- Bursitis
- Pinched nerve
- Labrum tear
- Degenerative joint disease
- Lumbar spondylosis
- Spinal stenosis
- Sciatica

Hip Pain-Chronic Pain



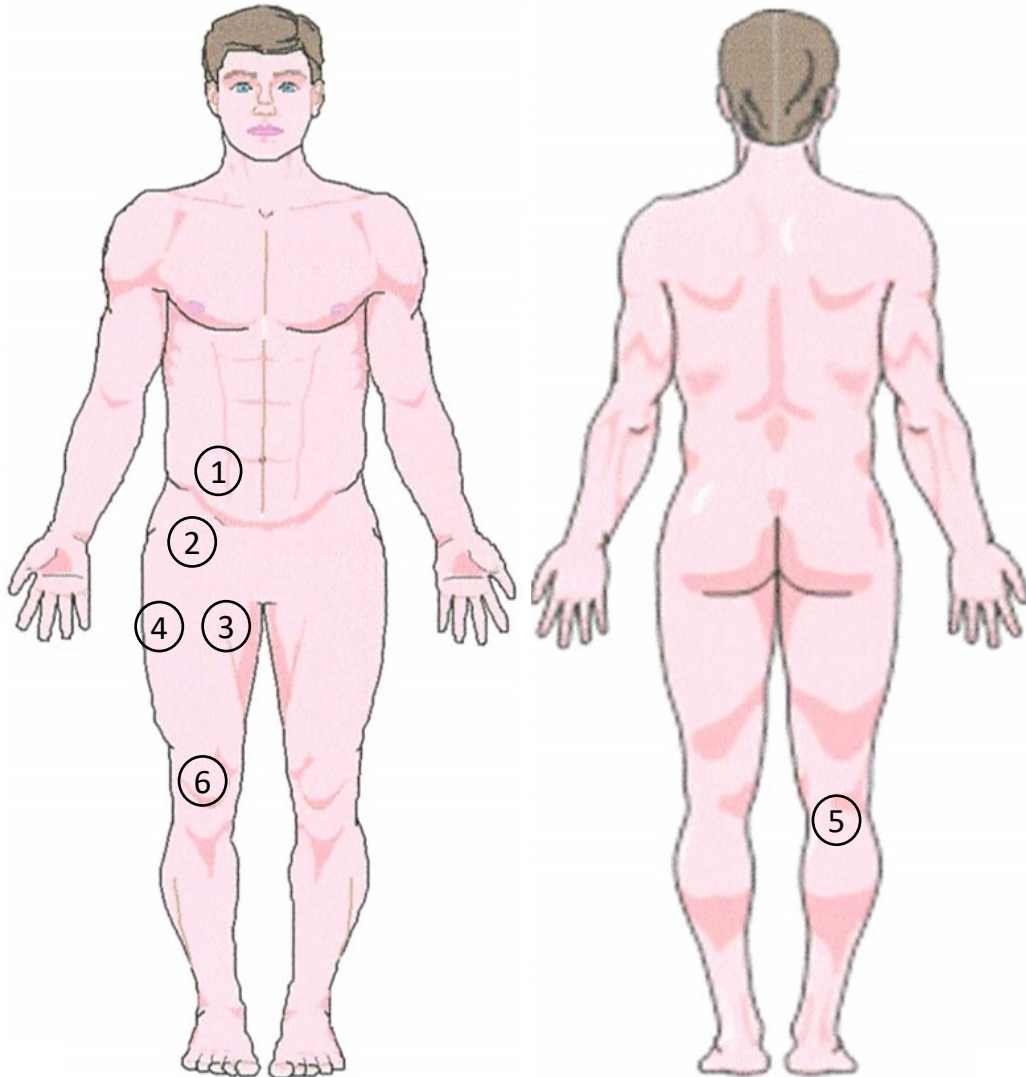
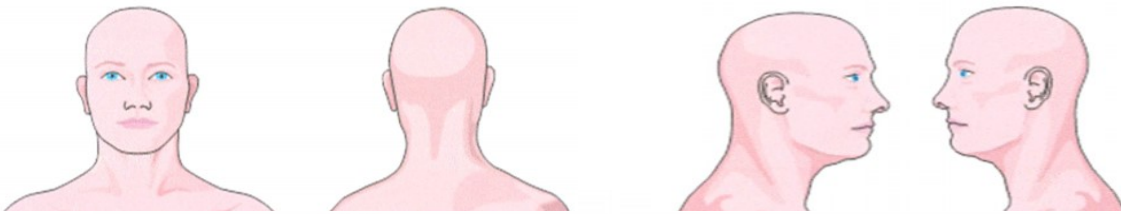
1. 60 seconds-upper l/s (30s IR and 30s RED)
2. 60 seconds-middle (30s IR and 30s RED)
3. 60 seconds-lateral hip (30s IR and 30s RED)
4. 120 seconds-middle groin (60s IR and 60s RED)
5. 60 seconds-adductor muscle (30s IR and 30s RED)
6. 60 seconds-upper abductor (30s IR and 30s RED)



KNEE PAIN

- Injury
- ACL/meniscus
- Sprain/strain
- Arthritis
- Gout/RA
- Bursitis
- Patellar tendonitis
- Degenerative joint disease
- Loose bodies
- Iliotibial band syndrome

Knee Pain-Chronic Pain

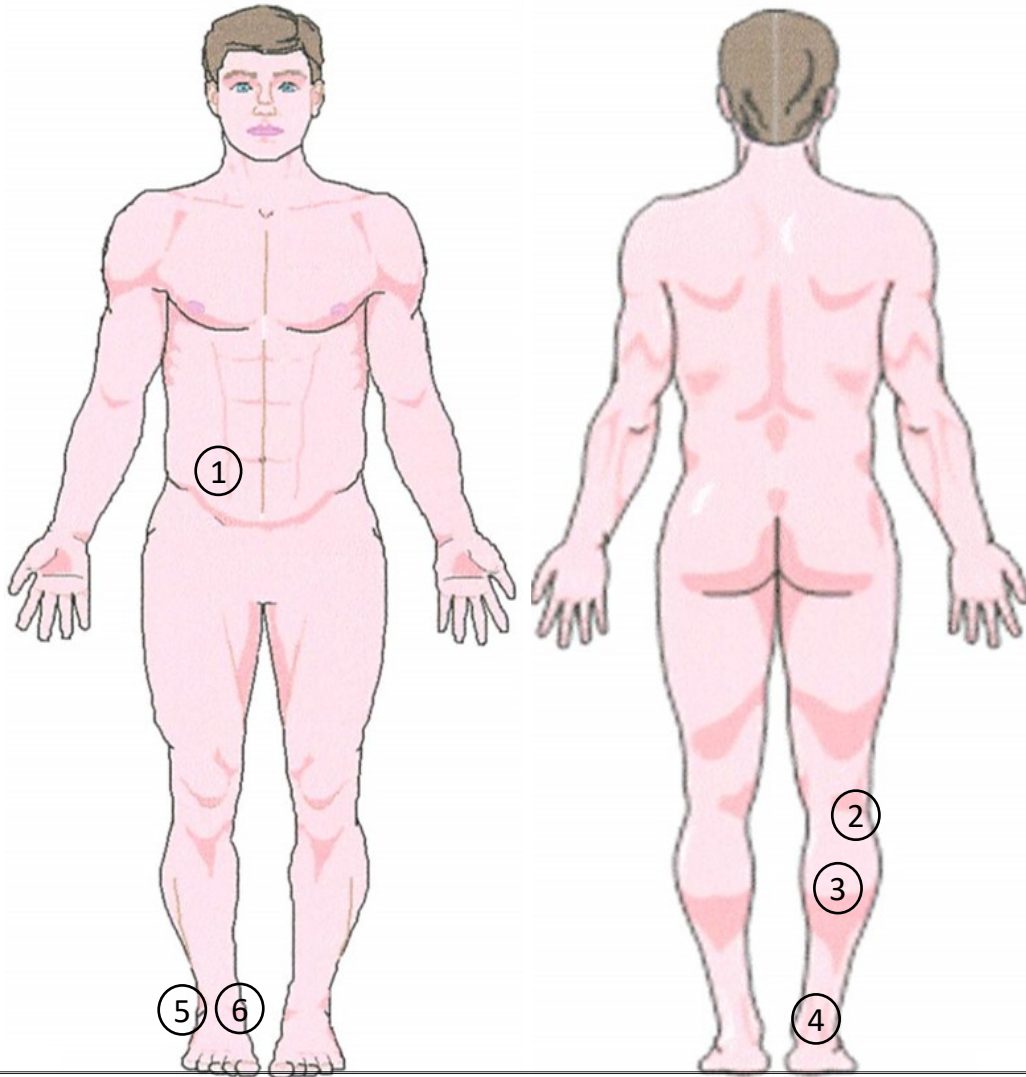
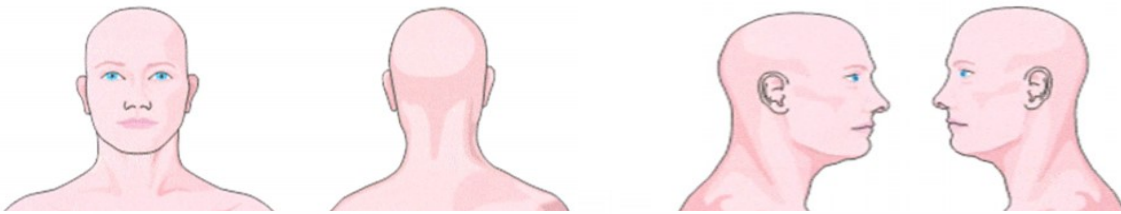


1. 60 seconds-anterior upper l/s (30s IR and 30s RED)
2. 60 seconds-groin (30s IR and 30s RED)
3. 60 seconds-upper adductor (30s IR and 30s RED)
4. 120 seconds-ilio-tibial band (60s IR and 60s RED)
5. 120 seconds-knee (60s IR and 60s RED)
6. 120 seconds-knee (60s IR and 60s RED)

FOOT/ANKLE PAIN

- Injury
- Sprain/strain
- Arthritis
- Achilles tendonitis
- Bone spur
- Bursitis
- Hammer toe
- Bunions
- Peripheral neuropathy
- Plantar fasciitis
- Stress fracture
- Tendonitis
- Tarsal tunnel

Foot/Ankle Pain-Chronic Pain



1. 60 seconds-ant. upper l/s (30s IR and 30s RED)
2. 60 seconds-back of the knee (30s IR and 30s RED)
3. 60 seconds-calf (30s IR and 30s RED)
4. 60 seconds-lower Achilles (30s IR and 30s RED)
5. 120 seconds-lateral & ant. foot (60s IR and 60s RED)
6. 120 seconds-medial & ant. foot (60s IR and 60s RED)