

Managing Pain and Staying Active with Fibromyalgia

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Is Fibromyalgia Real?

- **Cause**
 - Unknown etiology
- **Current hypotheses**
 - Dysfunction of the skeletal muscle nociception
 - Dysfunction of the hypothalamic-pituitary-adrenal axis
 - Atypical sensory processing in the CNS

Skeletal Muscle Nociceptors

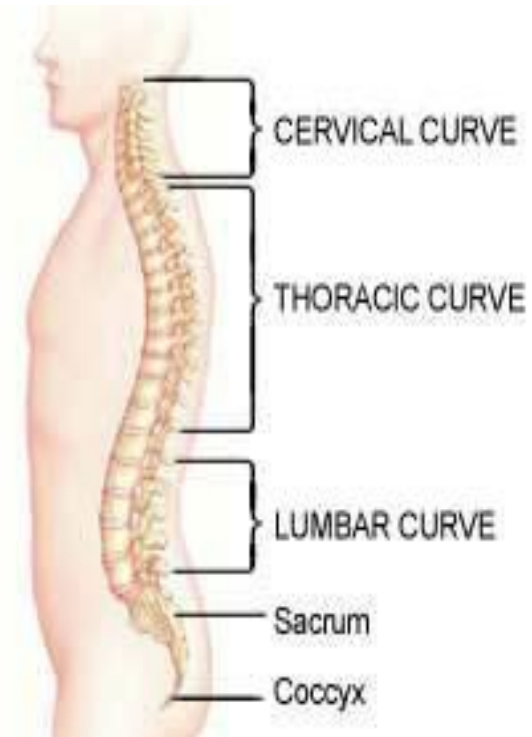
Convey information regarding damage or trauma from the body to the CNS in a process called nociception

Hypothalamus-Pituitary- Adrenal Axis

- Complex set of direct influence and feedback interactions among the hypothalamus, pituitary gland and adrenal gland
- Controls reaction to stress
- Regulates body processes
- Produces cortisol

What is the correlation between Cortisol production and Fibromyalgia?

- Normal response is an increase in cortisol ½ hour after waking and again in the late afternoon
- With fibromyalgia, flat line effect with no increases in cortisol production
- Increased production of cortisol mediates the alarm reaction to stress
- Activates the sympathetic nervous system



Altered Autonomic Nervous System

Dysfunction of the ANS apparent with position changes from lying down to upright, associated with papitations and dizziness

Central Nervous System

- Involved in processing pain, fatigue, and sleep disturbances
- Difficulty with concentration, memory, depression, and anxiety
- Decreased pain threshold observed in patients with Fibromyalgia
 - Normal person requires 70mV of pressure to sense pain
 - Fibromyalgia patient requires 20mV of pressure

Why is there this atypical processing in the CNS, nociceptors, and HPA axis?

Symptoms of an inflammatory process in the body

Multiple components set off this chain reaction

- Hormonal changes – changes in estrogen during menopause
- Prolonged digestive system irritation – due to intolerances to lactose, gluten, sugar, soy, etc
- Stressful situation that changes body's ability to manage

What can Physical Therapy do to manage my Fibromyalgia symptoms?

- Modalities
 - TENS unit
 - Cold Laser
- Manual Techniques
- Balance
- Posture
- Exercise
- Stress Management

Modalities

- TENS unit
 - Applied to thoracic spine
 - Desensitizes sympathetic nervous system
- Cold Laser
 - Applied to the cervical-thoracic junction

Manual Techniques

- Myofascial release
- Soft tissue massage
- Joint mobilization
- Stretching

Balance

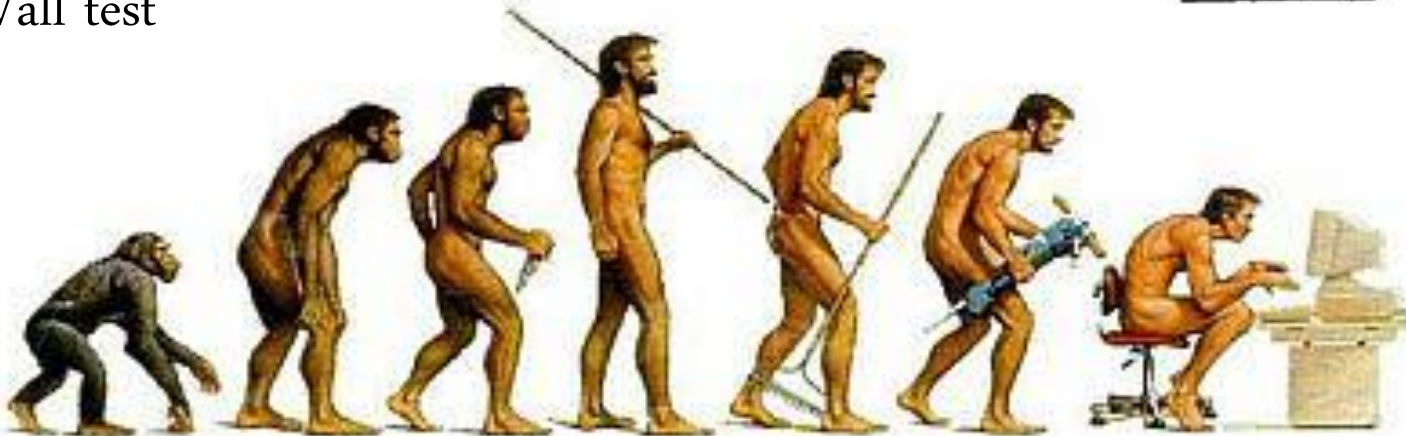
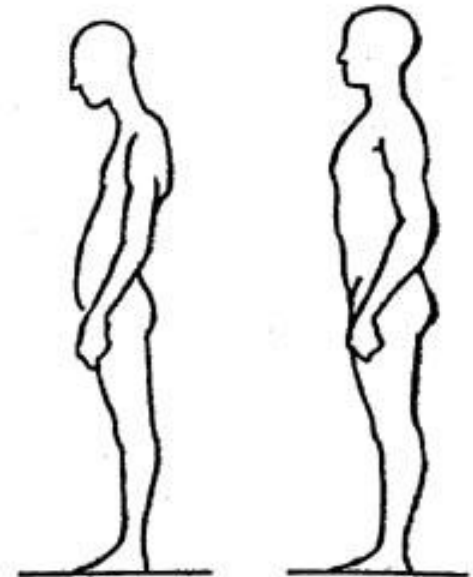
- Balance testing
 - Berg Balance test
 - Sit to stand test
- Balance training

Posture

Postural assessment

Stretches and strengthening program to address
your specific posture issues

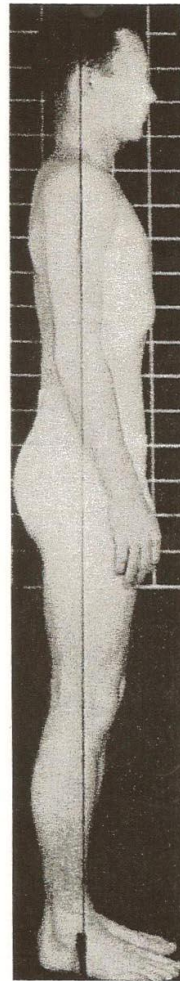
Wall test



Posture

Neutral spine is ideal

Ideal Plumb Alignment: Side View



Through lobe of the ear
(head is slightly forward)

Through bodies of
cervical vertebrae

Through the shoulder joint
(provided arms hang in normal
alignment in relation to thorax)

Approximately midway
through the trunk

Approximately through
greater trochanter of femur

Slightly anterior to a
mid-line through knee

Slightly anterior to
lateral malleolus.

Slightly posterior to apex
of coronal suture

Through external
auditory meatus

Through odontoid
process of axis

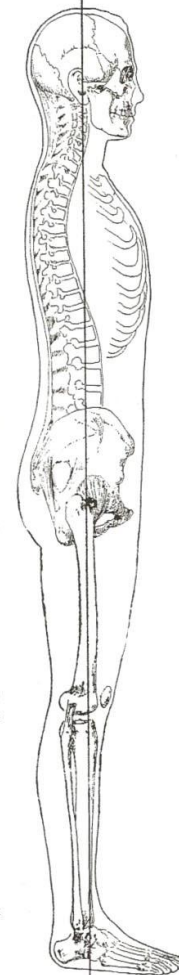
Through bodies of
lumbar vertebrae

Through sacral promontory

Slightly posterior to
center of hip joint

Slightly anterior to
axis of knee joint

Through calcaneocuboid joint



Strengthening program

- Muscle testing
- Program specified for you
- Cardiovascular program

Stress Management

- Relaxation techniques
- Breathing exercises

What can I do at the RAC to help manage my Fibromyalgia?

- Pilates
 - Grass roots class?
- Yoga
 - Return of chair yoga, gentle yoga?
- AFAP (Arthritis Foundation Aquatic Program)
 - Free to members, \$12 non members
 - Monday-Friday 8:35-9:35am
- AFEXOL (Arthritis Foundation Exercise on Land)
 - Free to members, \$12 non members
 - Return to the schedule in the fall

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