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# Common musculoskeletal problems in women: A case study of postnatal period

Your  
global  
future  
**begins**  
here

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& Health Sciences

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Musculoskeletal conditions are a diverse group with regard to pathophysiology and anatomically risk factors and by their association **with pain and impaired physical function**.

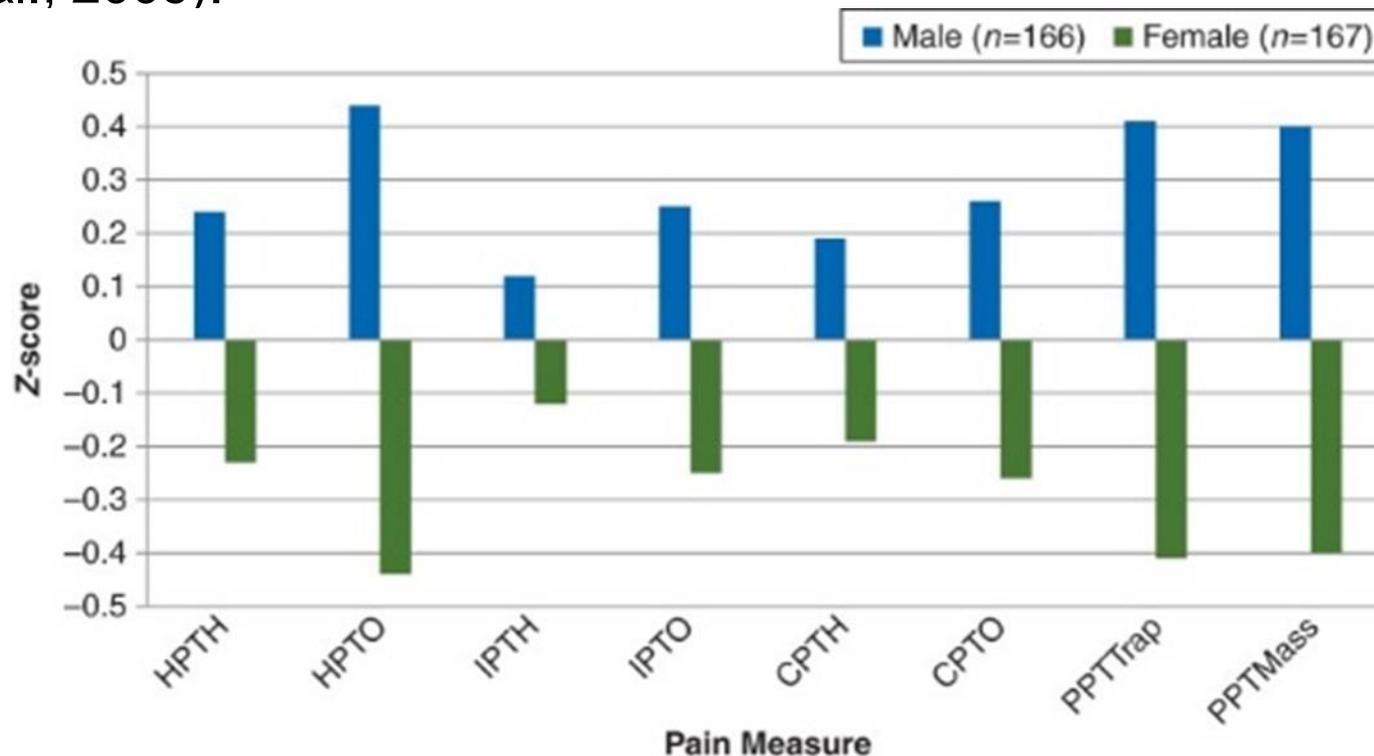
They encompass a spectrum of conditions, from those of **acute onset** and short duration to **lifelong disorders**, including osteoarthritis, rheumatoid arthritis, osteoporosis, and low back pain (Woolf et al., 2003).

They affect hundreds of millions of people around the world. They significantly affect the psychosocial status of affected people as well as **their families and carers** (Woolf et al., 2001).

- Differences in the documented injury rates of men and women may be at least partially due to differences between the sexes in symptom reporting (Almeida et al., 1999).
- In general, men and women with similar orthopedic injuries should be treated similarly.
- However, many musculoskeletal injuries are seen more frequently in women or are in some way its risk factors are unique to women (McClure et al., 2005).

# Gender difference in pain perception

- Population-based research consistently demonstrates greater pain prevalence among women relative to men. For example, large-scale epidemiological studies across multiple geographic regions find that pain is reported more frequently by women than by men (Fillingim et al., 2009).

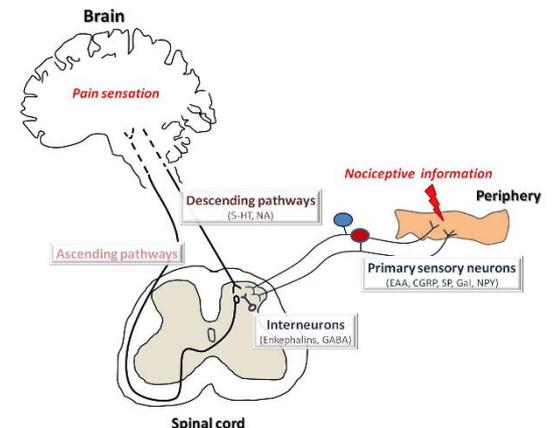


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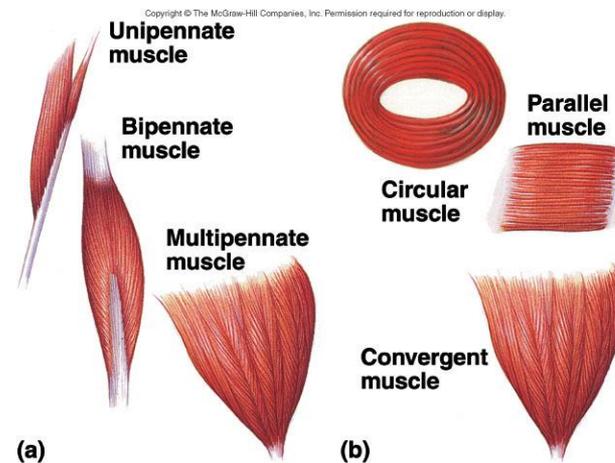
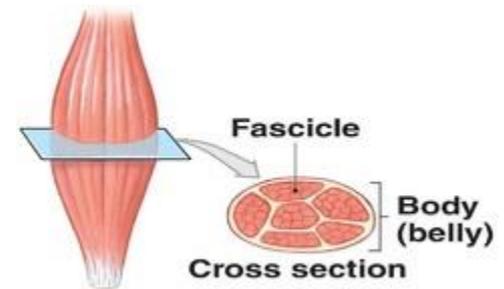
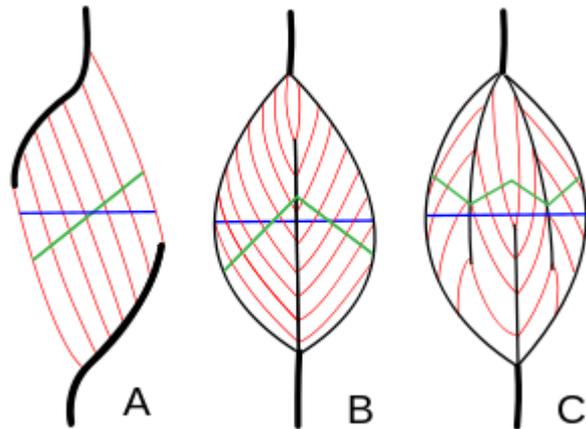
- Epidemiologic and clinical findings clearly demonstrate that women are at: (Bartley and Fillingim, 2013)
  - I. Increased risk for chronic pain
  - II. More severe clinical pain.
  - III. Greater pain sensitivity
  - IV. Enhanced pain facilitation
  - V. Reduced pain inhibition

- Estradiol and progesterone's effects on pain sensitivity are relatively complex (both exert pro-nociceptive and anti-nociceptive effects on pain) (Smith et al., 2006, Craft 2007)
- Testosterone appears to be more anti-nociceptive and protective in nature, (Craft 2007)
- There is an association between decreased androgen concentrations and chronic pain.(Cairns 2009).



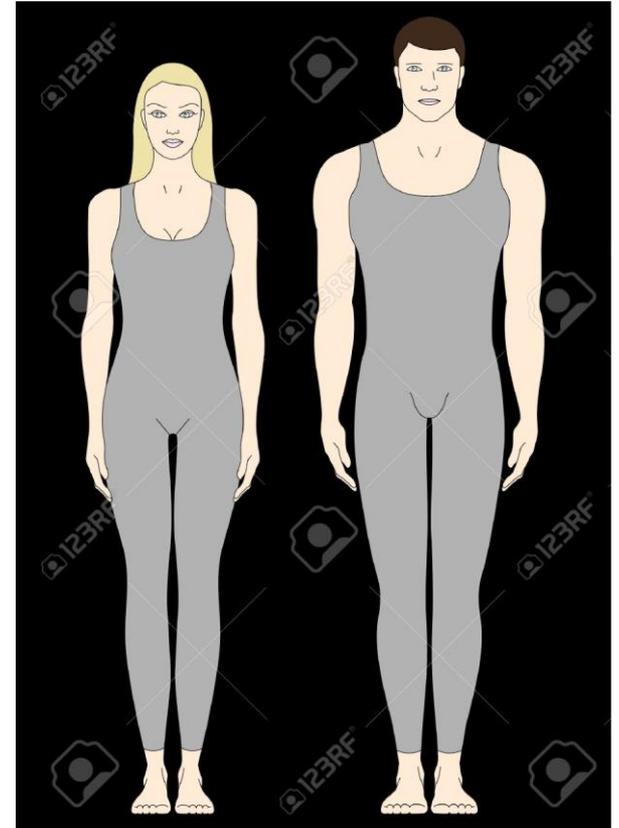
# Biological mechanisms

- Differences in physiology between men and women, including hormonal effects on the connective tissues and **decreased total muscle cross-sectional area**, may play a role (Bell et al., 2000 & Knapik et al., 2001).



# Biological mechanisms

- Anatomical differences in women are wider pelvis, more Genovalgus, increased foot pronation, may increase the risk to develop lower extremity injuries (Bell et al., 2000 & Knapik et al., 2001).



# Psychosocial mechanisms

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- Men tend to use behavioral distraction and problem-focused tactics to manage pain.
- Women tend to use a range of coping techniques including social support, positive self-statements, emotion-focused techniques, cognitive reinterpretation, and attentional focus

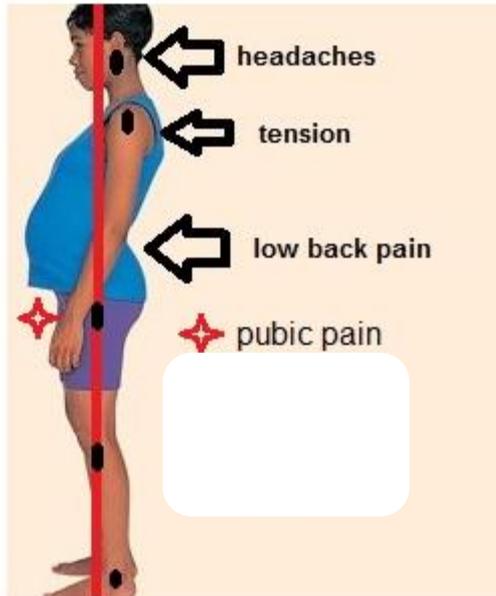
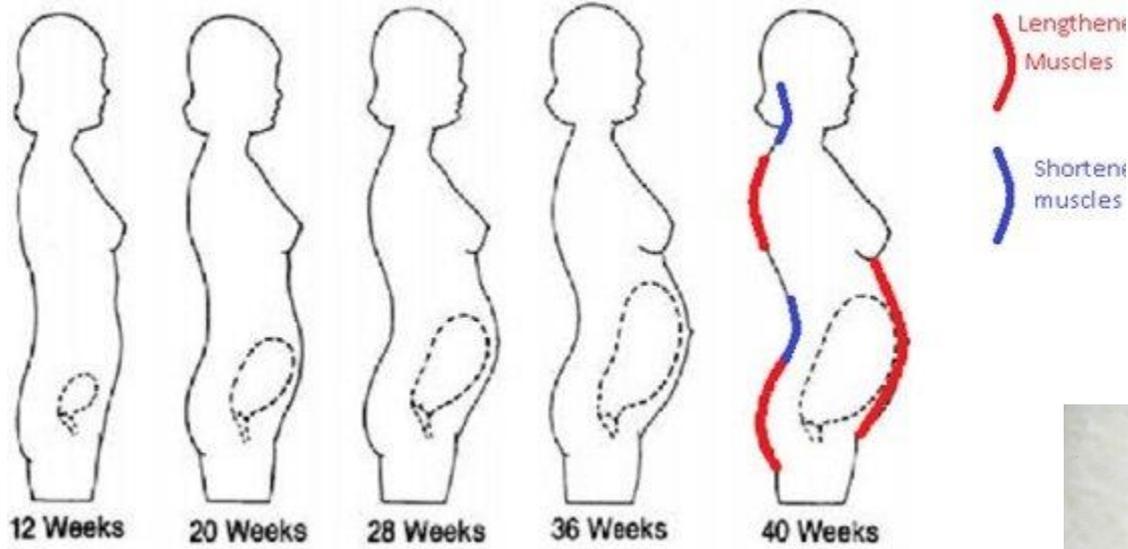
(Keogh and Eccleston 2006, Racine et al., 2012)



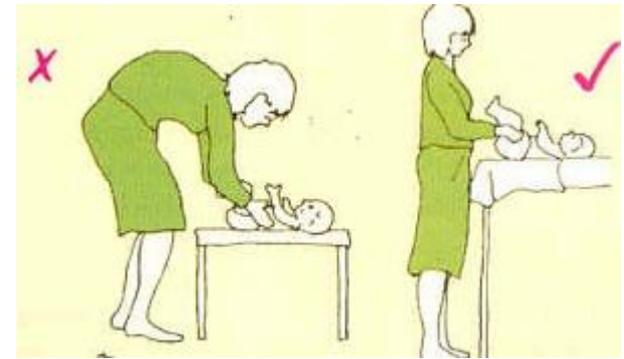
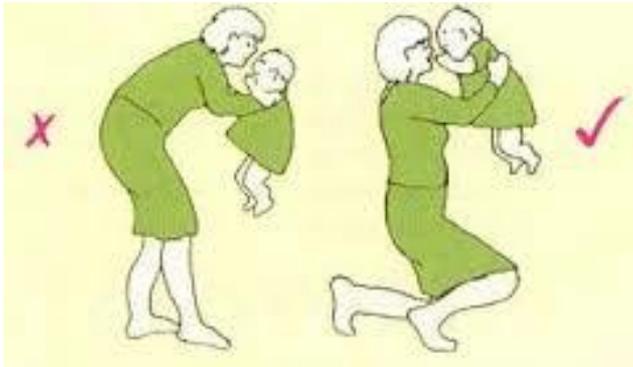
# Postnatal period



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# Take care of the new born



# Postnatal low back pain

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Postpartum chronic backache was defined as backache of at least 6 weeks duration beginning within 3 months after delivery.

It is estimated that 68% of women experienced back pain during their pregnancy.

The most common areas of low back to experience pain postpartum are the sacroiliac joints and 18 lumbar spine.

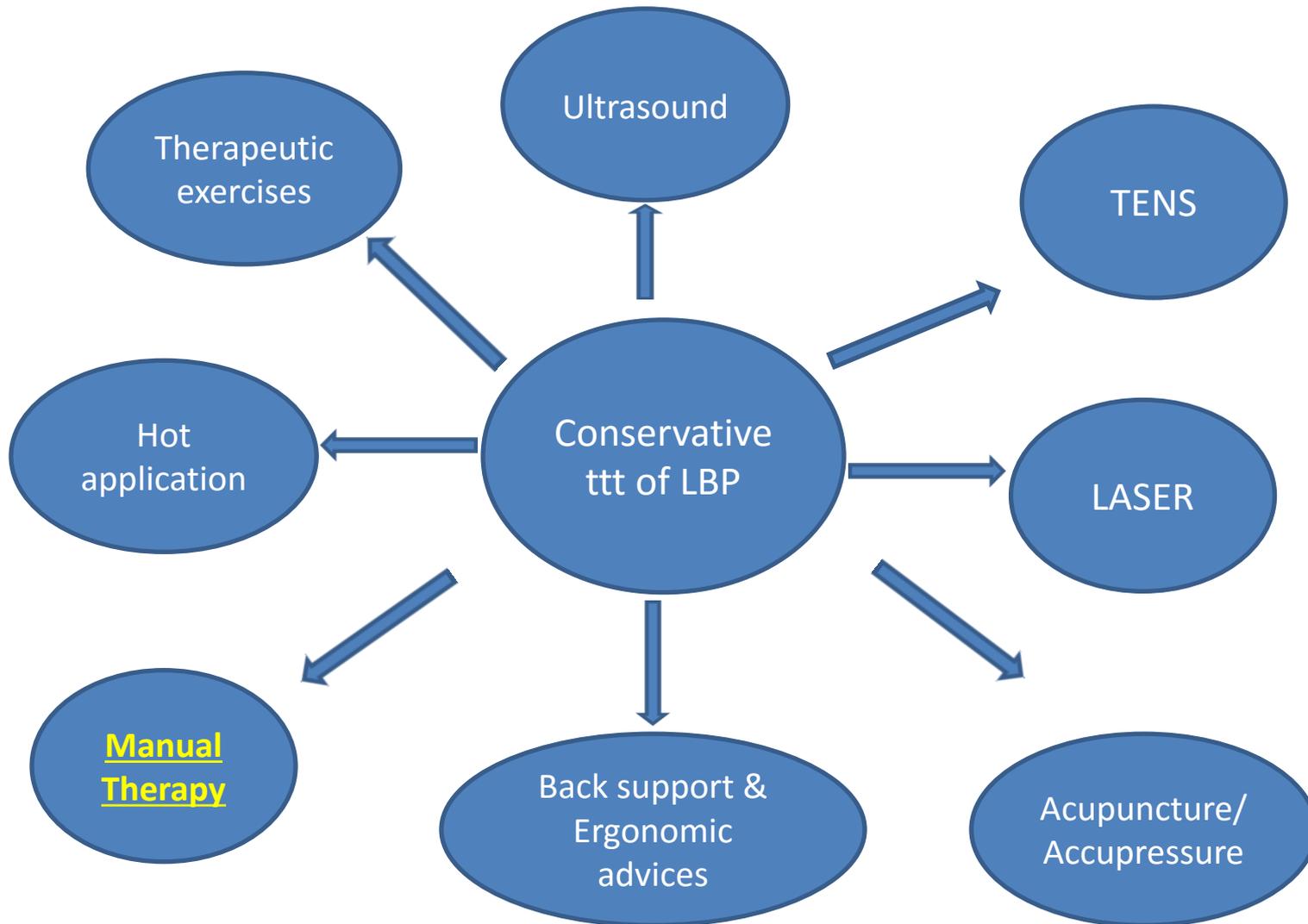


# Risk factors of postnatal LBP

- History of back pain during pregnancy (due to hormonal and postural changes) e.g. ↓ back and hip muscles endurance and joint hypermobility .
- younger age
- greater body weight.
- shorter stature.
- **Sedentary lifestyle by itself is not associated with LBP. Neither the epidural anesthesia nor the mode of delivery showed any significant impact in developing postpartum back pain.**



# Conservative treatment of LBP



# Efficacy of lumbar mobilization on postpartum low back pain in Egyptian females: A randomized control trial

Dalia M. Kamel, Neveen A. Abdel Raouf, Sayed A. Tantawy

Back Musculoskeletal Rehabilitation 2016;29(1):55-63. doi: 10.3233/BMR-150598

## joint mobilization:

- 1- stimulate articular mechanoreceptor
- 2- stimulate muscle receptors
- 3- Inhibit nociceptors
- 4- decrease or relax muscle tension



# Postnatal carpal tunnel syndrome

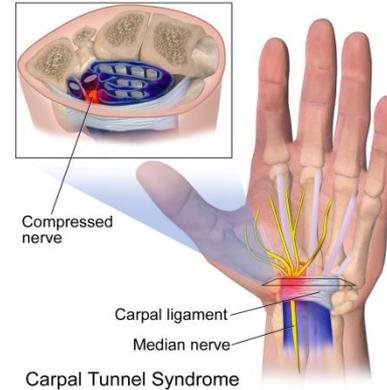
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- Carpal tunnel syndrome (CTS) is the most common entrapment neuropathy, which results from median nerve compression.

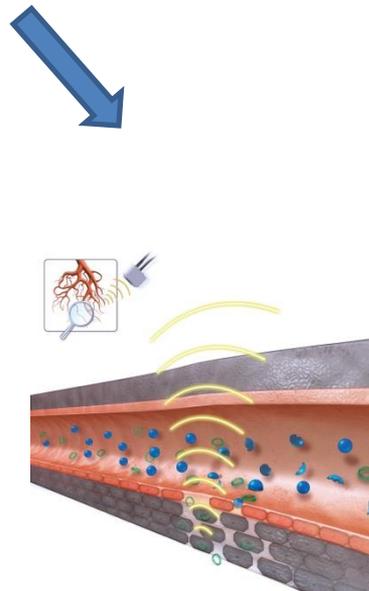
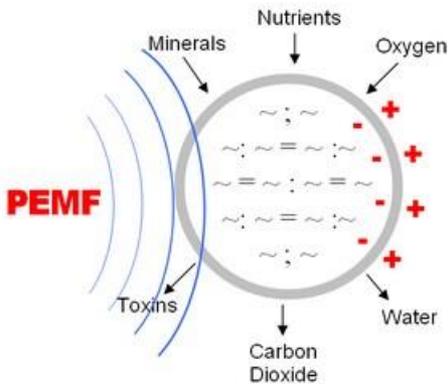


- Women are more susceptible to CTS, with a 70% incidence rate, especially middle-aged women and 62% during pregnancy.

# Pulsed Magnetic Field versus Ultrasound in Treatment of postnatal Carpal Tunnel syndrome: Randomized control trial on female Egyptian population.



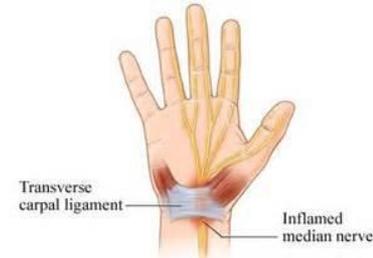
VS



# Pulsed Magnetic Field versus Ultrasound in Treatment of postnatal Carpal Tunnel syndrome: Randomized control trial on female Egyptian population.

Dalia M. Kamel, Nashwa S. Hamed, Neveen A. Abdel Raouf, Sayed A. Tantawy

**Journal of Advanced Research (2017) 8, 45–53**



PEMF had a significant compared to therapeutic US. In terms of reduction in pain, improvement in the electrophysiological studies, and hand grip strength.

There are no reported side effects, discomforts, or known health risks from PEMF therapy, and it is generally accepted that brief exposure to this modality is safe.

PEMF has lower treatment costs than surgery, but its cost effectiveness in comparison with other therapeutic options needs further investigation.

There is a need to develop a treatment guideline for CTS, which includes a combination of different modalities and techniques.



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# Thank you



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