REFERENCES CONCERNING THE EFFECT OF ELECTRO-THERAPY (T.E.N.S.) ON ARTHRITIS

Excerpt from abstract:
These non-medicinal approaches can include ... transcutaneous electrical nerve stimulation (TENS);

2. Effect of varying frequency, intensity, and pulse duration of transcutaneous electrical nerve stimulation on primary hyperalgesia in inflamed rats, Archives of Physical Medicine and Rehabilitation, Volume 81, Issue 7, 2000, Pages 984-990 Gopalkrishnan P.; Sluka K.A.
Excerpt from Abstract:
... TENS reduces primary hyperalgesia to heat and mechanical stimuli for up to 1 day after treatment

3. The role of physical therapy and physical modalities in pain management, Rheumatic Disease Clinics of North America, Volume 25, Issue 1, 1999, Pages 233-248 Minor M.A.; Sanford M.K.
Abstract:
This article provides an overview to arthritis care of the common physical modalities (heat, cold, transcutaneous electrical nerve stimulation, low-energy laser, topical applications, and external devices). The rationale for use and effectiveness of the various physical modalities are discussed.

Excerpt from Abstract:
The literature reviewed suggested that ... TENS ... can provide pain relief in osteoarthritis if it is possible to deliver the treatment fully and persistently.

Extract:
TENS is a common clinical tool used to treat chronic conditions (e.g. low back pain, arthritis ...) as well as acute conditions (e.g. postoperative pain and pain associated with childbirth)
ARTHRITIS REFERENCES

1. Authors: Levy A. Dalith M. Abramovici A. Pinkhas J. Weinberger A.  
Title: Transcutaneous electrical nerve stimulation in experimental acute arthritis  
Abstract Quote:  
… TENS may be useful for reducing pain from inflammatory arthritis.

2. Authors: Lewis D. Lewis B. Sturrock RD.  
Title: Transcutaneous electrical nerve stimulation in osteoarthrosis: a therapeutic alternative?.  
Abstract Quote:  
As measured on visual analogue scales for pain relief 46% of patients responded to active therapy …

3. Authors: Abelson K. Langley GB. Sheppeard H. Vlieg M. Wigley RD.  
Title: Transcutaneous electrical nerve stimulation in rheumatoid arthritis.  
Abstract Quote:  
Transcutaneous electrical nerve stimulation was better than the placebo in relieving pain at rest and while gripping.

4. Authors: Bardwick PA. Swezey RL.  
Title: Physical modalities for treating the foot affected by connective tissue diseases.  
Abstract Quote:  
Physical therapy is often necessary in the … treatment of … disorders … particularly rheumatoid arthritis. … transcutaneous electrical nerve stimulation use for pain control are described.

5. Authors: Mannheimer C. Carlsson CA.  
Title: The analgesic effect of transcutaneous electrical nerve stimulation (TNS) in patients with rheumatoid arthritis. A comparative study of different pulse patterns.  
Abstract Quote:  
The average duration of pain relief after cessation of stimulation was 18 h …

6. Authors: Mannheimer C. Lund S. Carlsson CA.  
Title: The effect of transcutaneous electrical nerve stimulation (TNS) on joint pain in patients with
rheumatoid arthritis.

Abstract Quote:
It seems quite clear that TNS is effective in reducing joint pain.

7.
Author: Taylor P, Hallett M, Flaherty L.
Title: Treatment of osteoarthritis of the knee with transcutaneous electrical nerve stimulation.

Quote:
Patients reported significantly more pain relief (P = 0.03) using one of the two pain scales and less medication use (P = 0.06) with active compared with placebo therapy.

8.
Author: Fargas-Babjak A, Rooney P, Gerecz E.
Title: Randomized trial of Codetron for pain control in osteoarthritis of the hip/knee.

Quote:
74% of patients using active treatment reported more than a 25% reduction in pain

9.
Author: Osiri M. Welch V. Brosseau L. Shea B. McGowan J. Tugwell P. Wells G
Institution Department of Medicine, Ottawa Hospital, General Campus, 501 Smyth Road, LM-12, Ottawa General Hospital, Ottawa, Ontario, CANADA, K1H 8L6.
Title: Transcutaneous electrical nerve stimulation for knee osteoarthritis (Cochrane Review).
Source: Cochrane Database of Systematic Reviews [computer file], 4:CD002823, 2000.

Abstract:
REVIEWER'S CONCLUSIONS: TENS and AL-TENS are shown to be effective in pain control over placebo…

10.
Authors: Yurtkuran M. Kocagil T.
Institution Uludag University Medical Faculty, Department of Physical Therapy and Rehabilitation, Bursa, Turkey.
Title: TENS, electroacupuncture and ice massage: comparison of treatment for osteoarthritis of the knee.

Abstract Quote:
The results showed (a) that all three methods could be effective in decreasing not only pain but also the objective parameters in a short period of time; and (b) that the treatment results in TENS, … were superior to placebo.

Abstract:
Non-conventional therapies such as … transcutaneous electrical nerve stimulation can be tried at all stages; … Doctors should be aware of these neglected techniques for a better, well tolerated and cost-effective management of pain associated with osteoarthritis.


Abstract:
The results that were obtained clearly indicate the possibility of extinguishing the pain completely or reducing its intensity by application of the TENS which is to be used in medical treatment of knee arthrosis …