

SUBJECT: PHONOPHORESIS	REFERENCE #8138
DEPARTMENT: REHABILITATION SERVICES	PAGE: 1 OF: 2
APPROVED BY:	EFFECTIVE: REVISED:

DEFINITION:

- Phonophoresis is the transmission of high frequency sound waves through a medicated couplant, moving whole complex molecules through the skin in situ. The ultrasonic energy increases the permeability of the membrane and increases the diffusion of analgesics, anesthetics and anti-inflammatory agents.
- Common Conditions Treated Effectively with Phonophoresis:
 - Achilles tendonitis
 - Adhesive chondromalacia
 - Bicipital tendonitis
 - Carpal tunnel syndrome
 - Chronic sprains
 - De Quervain’s disease
 - Humeral epicondylitis
 - Neuromas
 - Olecranon bursitis
 - Osgood-Schlatter arthritis
 - Osteoarthritis
 - Patellar tendonitis
 - Plantar fasciitis
 - Posterior tibial tendonitis
 - Reiter’s syndrome
 - Rheumatoid arthritis
 - Subdeltoid bursitis
 - Subscapular bursitis
 - Supraspinatus tendonitis
 - Synovitis
 - Tarsal tunnel syndrome
 - Trigger points
 - Trochanteric bursitis

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DEPARTMENT: REHABILITATION SERVICES	PAGE: 2
	OF: 2
APPROVED BY:	EFFECTIVE:
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POLICY:

- The following parameters are followed with treating a patient with phonophoresis:
 - US Intensity:
 - Between 1.0 and 3.0 W per cm², with intensity determined by patient sensation and warmth.
 - Duration:
 - Five (5) to 10 minutes depending on the treatment intensity. The treatment area should be no bigger than three (3) times the size of the transducer head. Lower intensities and longer times have been proved to be more effective in introducing medication into the skin.
 - Frequency:
 - At least 30 minutes each week. If patient shows no improvement within two (2) weeks, discontinue use.
 - Commonly used medications:
 - Anti-inflammatories: Hydrocortisone 1-10%, cortisol, salicylates, dexamethasone, ketoprofen
 - Analgesics: Lidocaine
 - Using a medication with poor transmission capabilities may reduce or negate the effectiveness of phonophoresis. Mixing the medication with a coupling media can increase the transmission capabilities.

REFERENCE:

Prentice, W. E., PhD, PT, ATC, *Therapeutic Modalities in Rehabilitation*, McGraw-Hill Medical; Third Edition, 2005, p.389