

# **SNS COLLEGE OF PHYSIOTHERAPY**

**Affiliated To The Tamil Nadu Dr. MGR Medical University, Chennai  
Coimbatore– 641035**

---

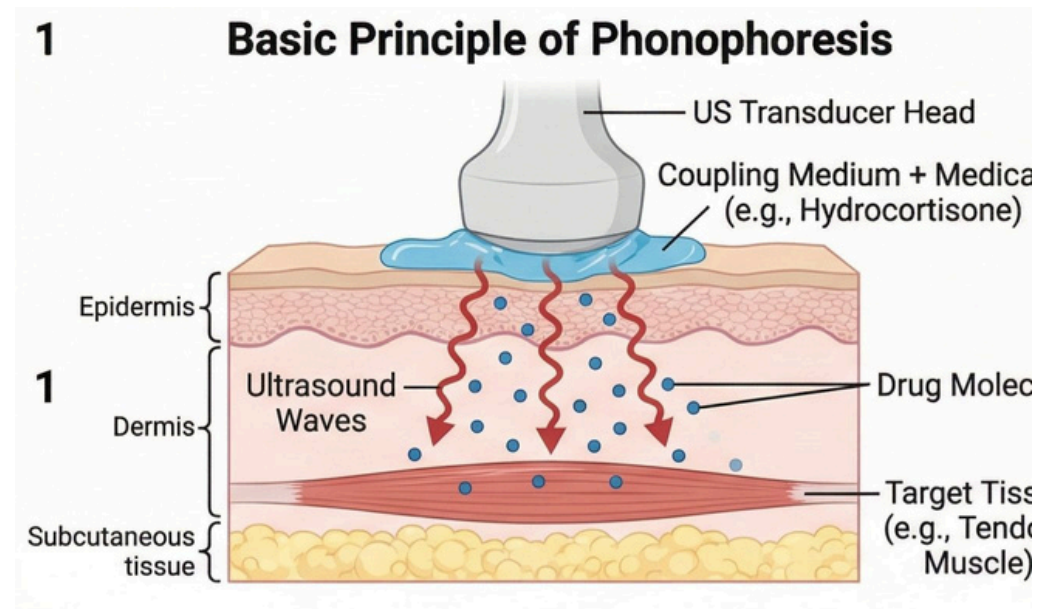
**COURSE NAME : ELECTROTHERAPY**

**SUBJECT CODE : 6282**

**TOPIC : PHONOPHOROSIS**

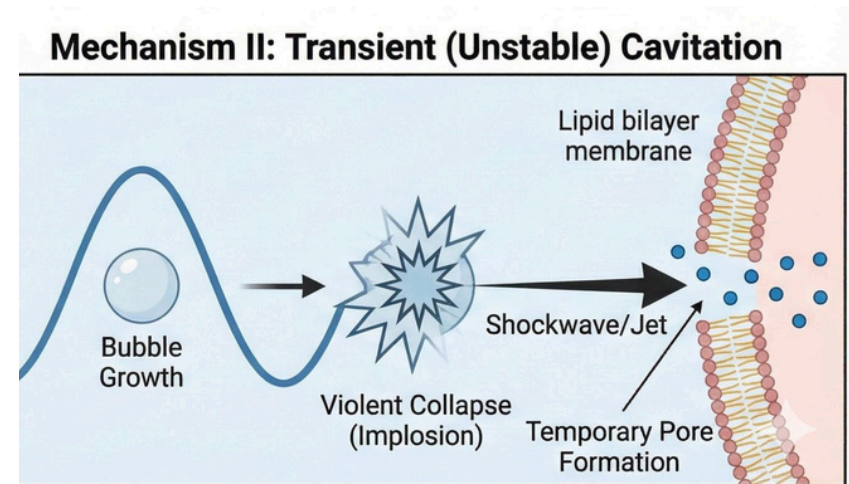
# Definition

- Phonophoresis is a therapeutic technique that uses ultrasound to enhance transdermal drug delivery
- It allows medications to penetrate deep tissues
- Commonly used drugs:  
Anti-inflammatory agents  
Analgesics
- It combines ultrasound therapy + topical medication



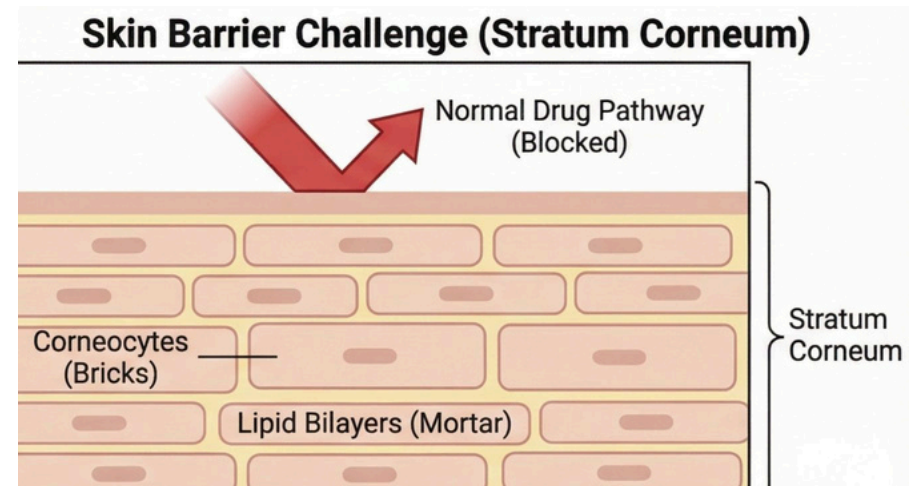
# Empathize

- Patients with pain and inflammation often:
  - Cannot tolerate oral drugs
  - Have delayed recovery
- Phonophoresis provides:
  - Localized treatment
  - Reduced systemic side effects
- Commonly used in:
  - Sports injuries
  - Chronic inflammatory conditions
- Improves patient comfort and compliance

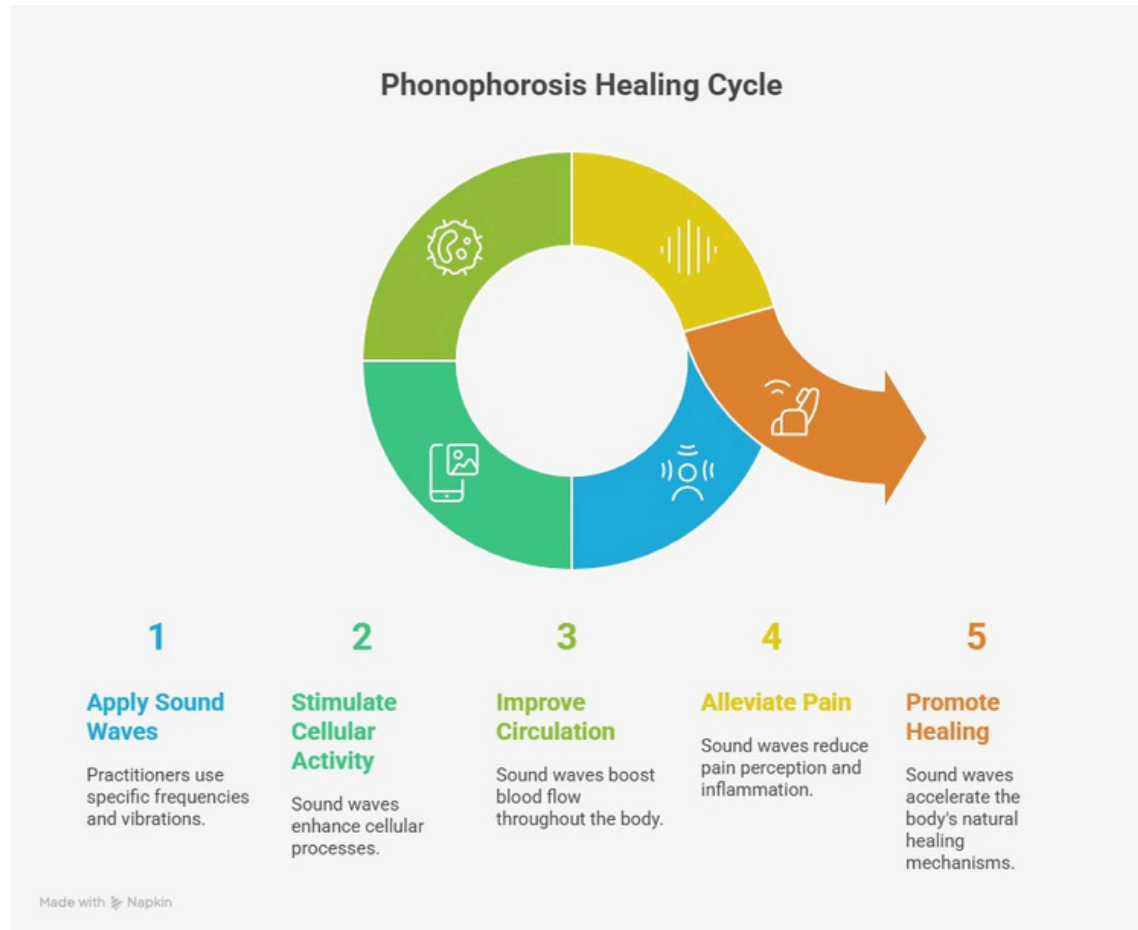


# Ideate

- Ultrasound increases:
  - Skin permeability
  - Cell membrane diffusion
- Drug molecules are pushed into tissues by:
  - Thermal effects
  - Mechanical vibration
- Leads to:
  - Faster pain relief
  - Reduced inflammation
- Useful where deep tissue drug action is required



# Flow Chart





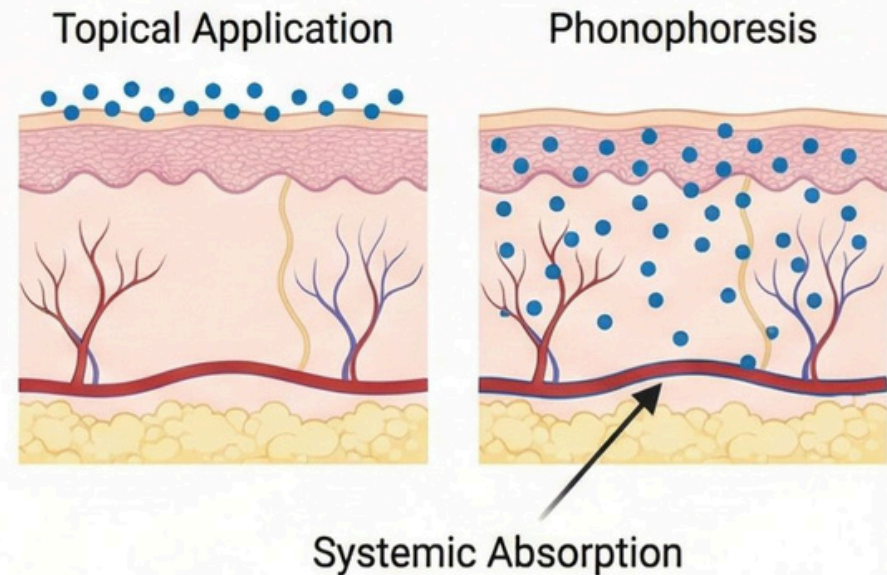
# DRUGS USED

- Hydrocortisone
- Diclofenac
- Salicylates
- Lidocaine
- Ketoprofen

Note: Drug must be:

- Water soluble
- Low molecular weight

## 7. Depth of Penetration Comparison



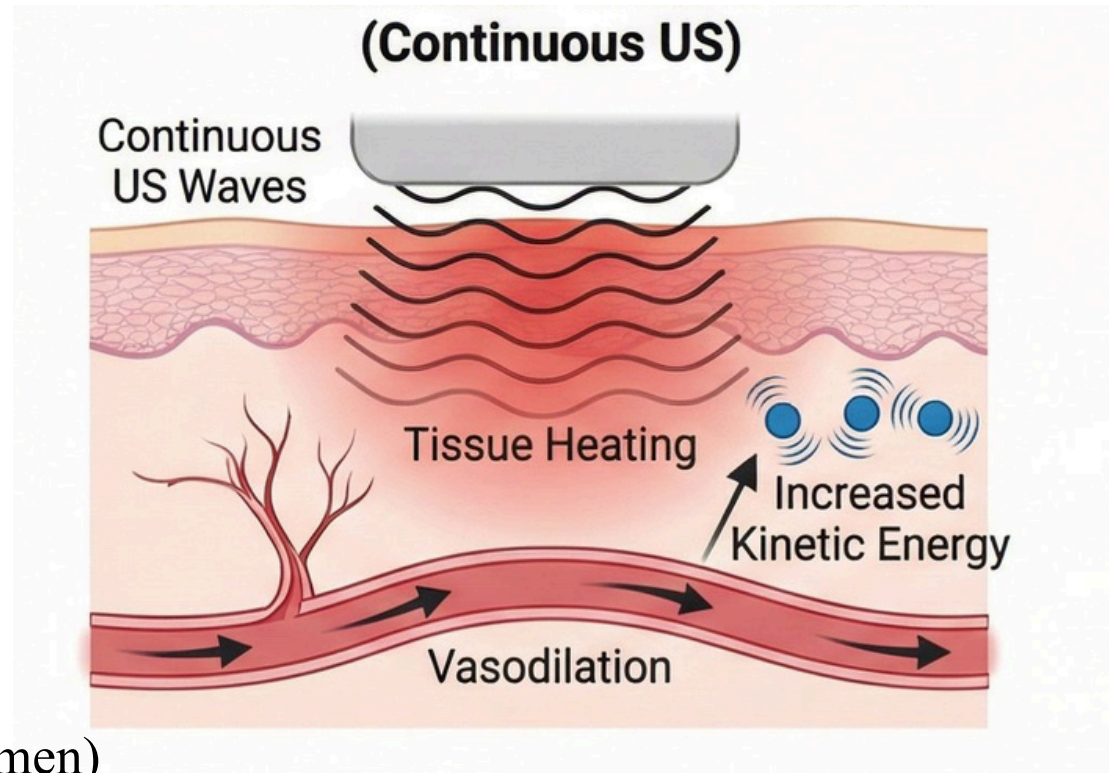
# Indication and Contraindication

## Indications:

- Tendinitis
- Bursitis
- Osteoarthritis
- Muscle strain
- Ligament sprain

## Contraindications:

- Open wounds
- Infection
- Malignancy
- Pregnancy (over abdomen)
- Allergy to drug



# In class assessment

---

1. Define phonophoresis.
2. Which modality is used in phonophoresis?
3. Name two drugs used in phonophoresis.
4. State one indication of phonophoresis.
5. Mention one advantage of phonophoresis.

# In class assessment

1. Explain the mechanism of phonophoresis.
2. List contraindications of phonophoresis.
3. How does ultrasound help in drug penetration?
4. Differentiate phonophoresis and iontophoresis.
5. Mention clinical conditions where phonophoresis is used.

# Thank you

---

## Common Clinical Indications Map

