

# SNS COLLEGE OF PHYSIOTHERAPY

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

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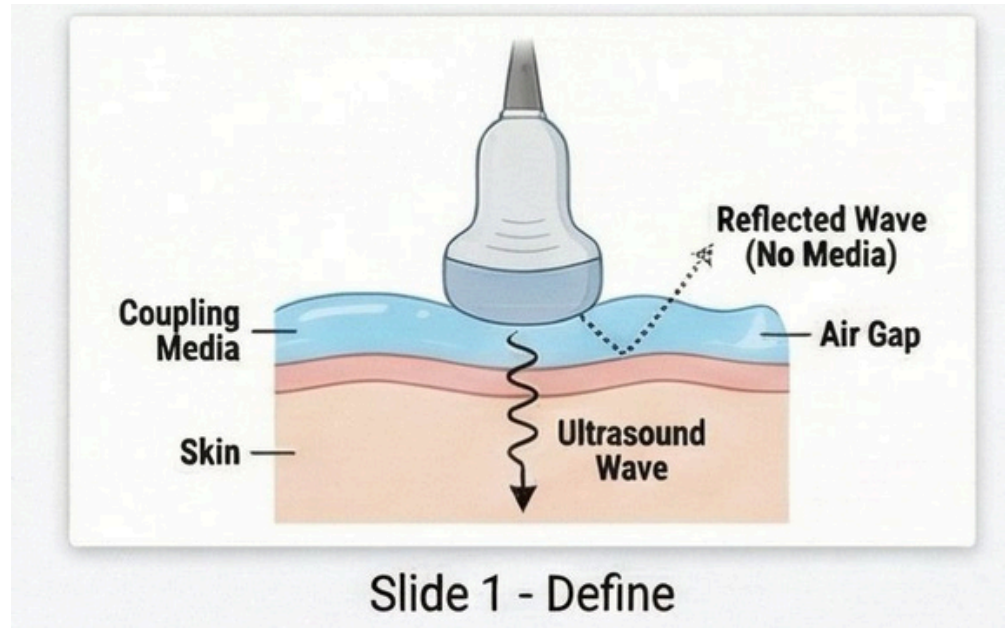
**COURSE NAME : ELECTROTHERAPY**

**SUBJECT CODE : 6282**

**TOPIC : COUPLING MEDIA**

# Definition

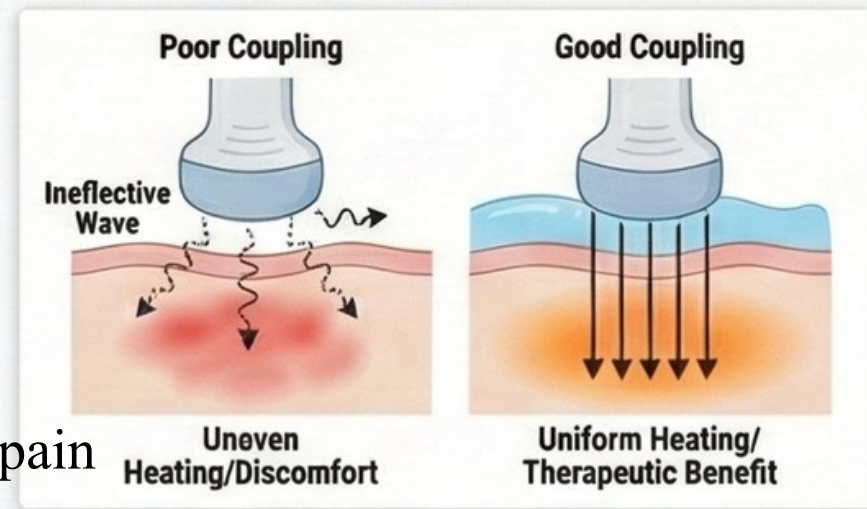
- Coupling media are substances used between the ultrasound transducer and skin
- They allow efficient transmission of ultrasound waves
- Prevent reflection of waves at the air–skin interface
- Essential for effective ultrasound therapy



# Empathize

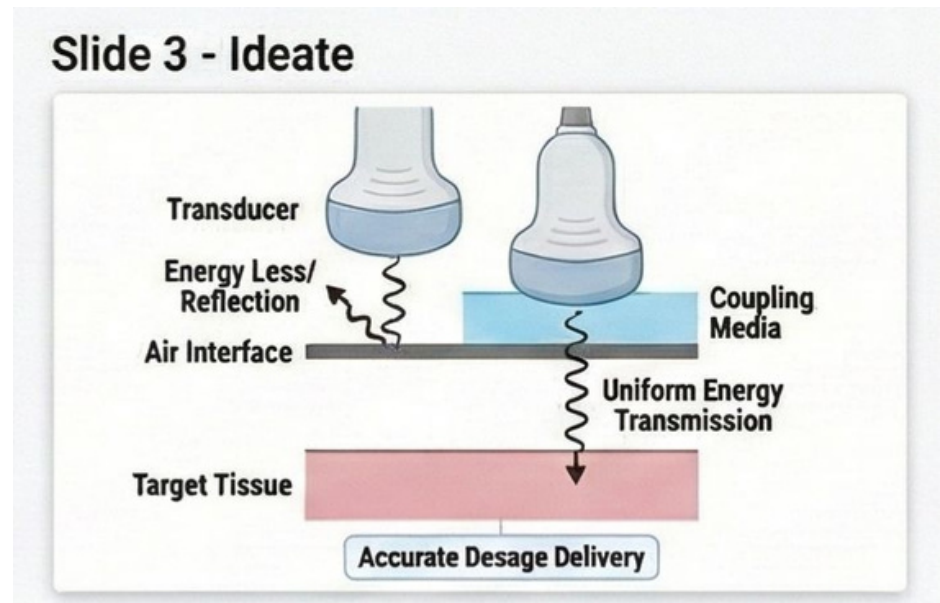
- Without proper coupling media:
- Ultrasound becomes ineffective
- Patient may not receive therapeutic benefit
- Poor coupling can lead to:
  - Uneven heating
  - Discomfort
- Proper selection improves:
  - Treatment outcome
  - Patient comfort
- Widely used in musculoskeletal pain management

Slide 2 - Empathize

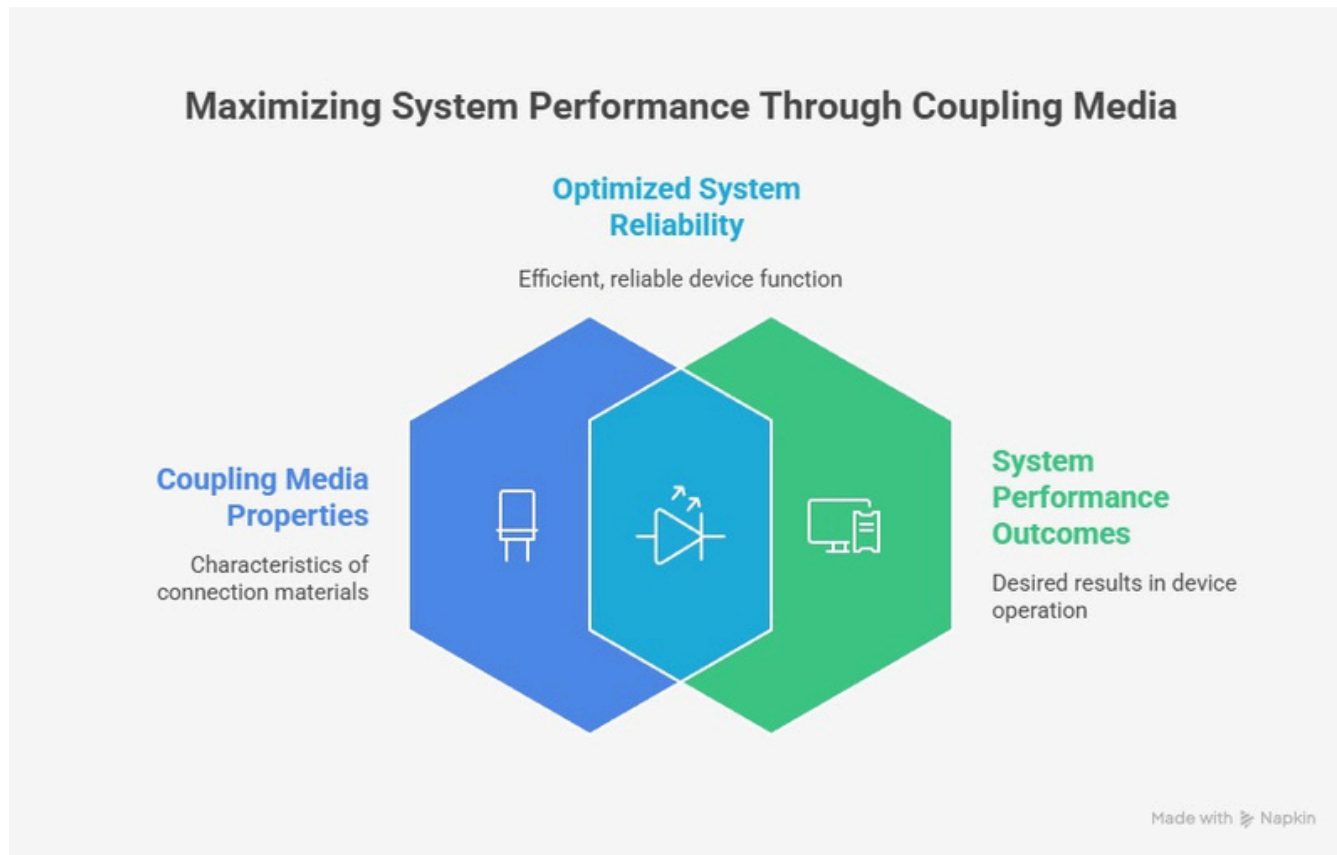


# Ideate

- Ultrasound waves do not travel through air
- Coupling media:
- Eliminate air gaps
- Reduce energy loss
- Help in:
- Uniform energy transmission
- Accurate dosage delivery
- Vital for safe and effective electrotherapy



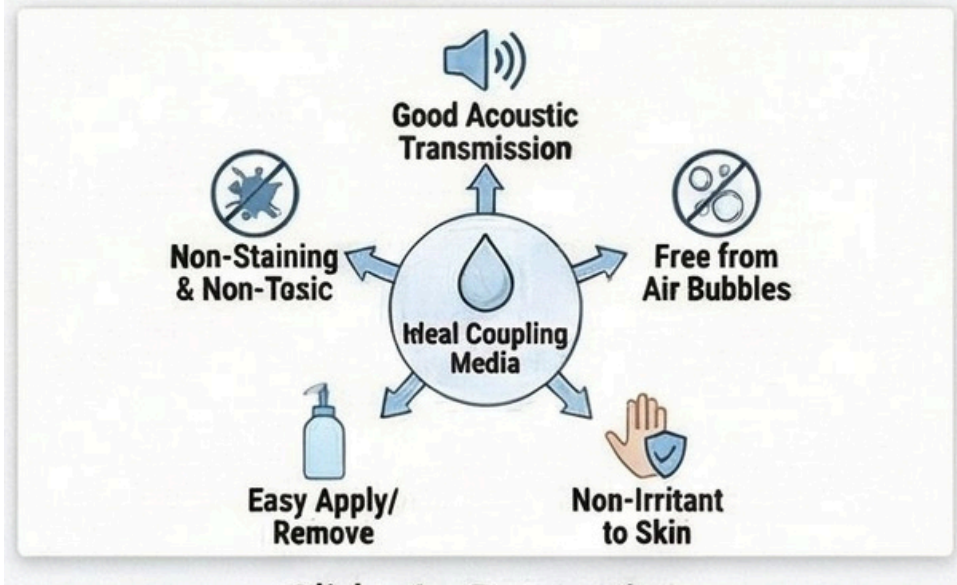
# Flow Chart



# PROPERTIES

- Good acoustic transmission
- Free from air bubbles
- Non-irritant to skin
- Easy to apply and remove
- Non-staining and non-toxic

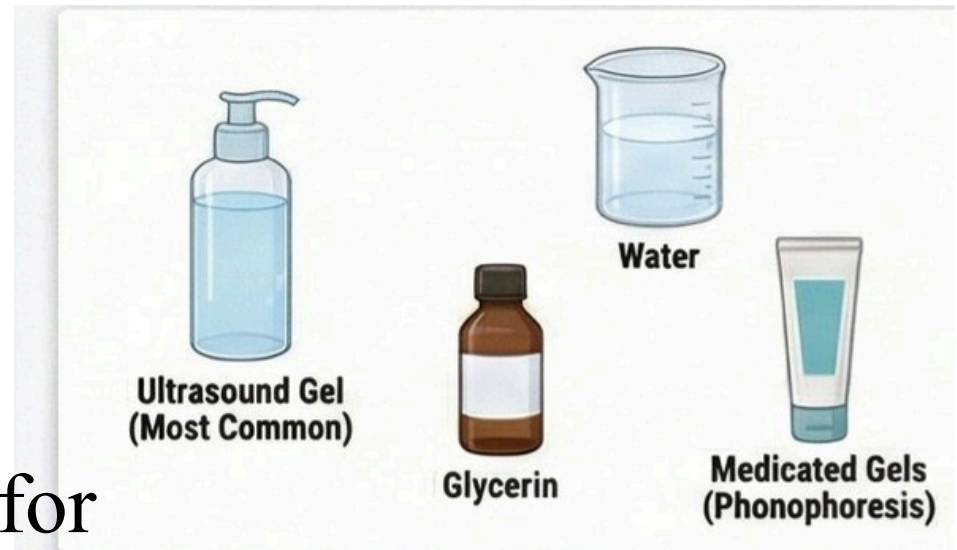
## Slide 4 - Properties



# TYPES

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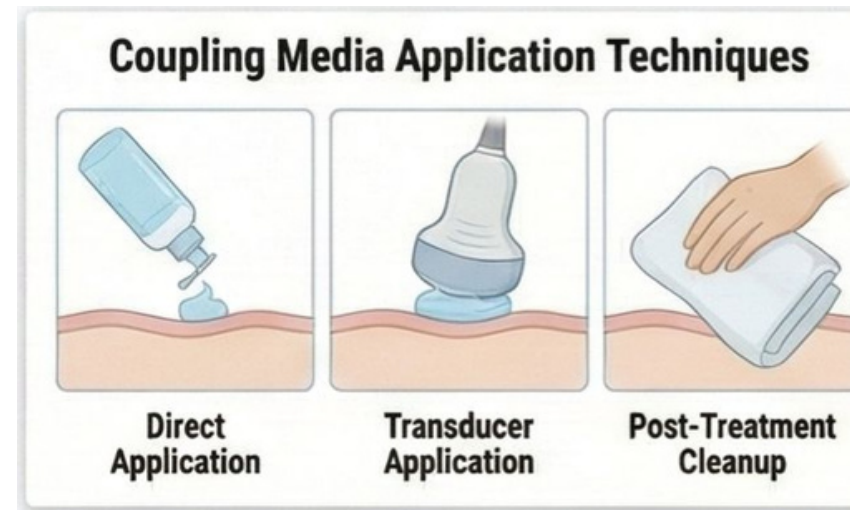
- Ultrasound gel (most common)
- Water
- Glycerin
- Mineral oil
- Medicated gels (for phonophoresis)



# Methods of Application

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- Direct contact method
- Water bath method
- Water bag method
- Gel pad method
- Choice depends on:
  - Treatment area
  - Surface contour



# In class assessment

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1. Define coupling media.
2. Why is coupling media necessary in ultrasound therapy?
3. Name two types of coupling media.
4. Mention one property of ideal coupling media.
5. State one method of applying coupling media.

# In class assessment

1. Explain the role of coupling media in ultrasound therapy.
2. List different methods of applying coupling media.
3. What happens if coupling media is not used?
4. Which coupling media is commonly used?
5. Mention precautions while using coupling media.

# Thank you

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Advantages	Precautions
 <p><b>Improves Treatment Efficiency</b></p>	 <p><b>Avoid Contaminated Gel</b></p>
 <p><b>Ensures Uniform Energy Delivery</b></p>	 <p><b>Check for Skin Allergy</b></p>
 <p><b>Enhances Patient Comfort</b></p>	 <p><b>Maintain Hygiene of Transducer</b></p>