

ELECTROTHERAPY

FSC PT 1

FSC PHYSIOTHERAPY TECHNIQUE I

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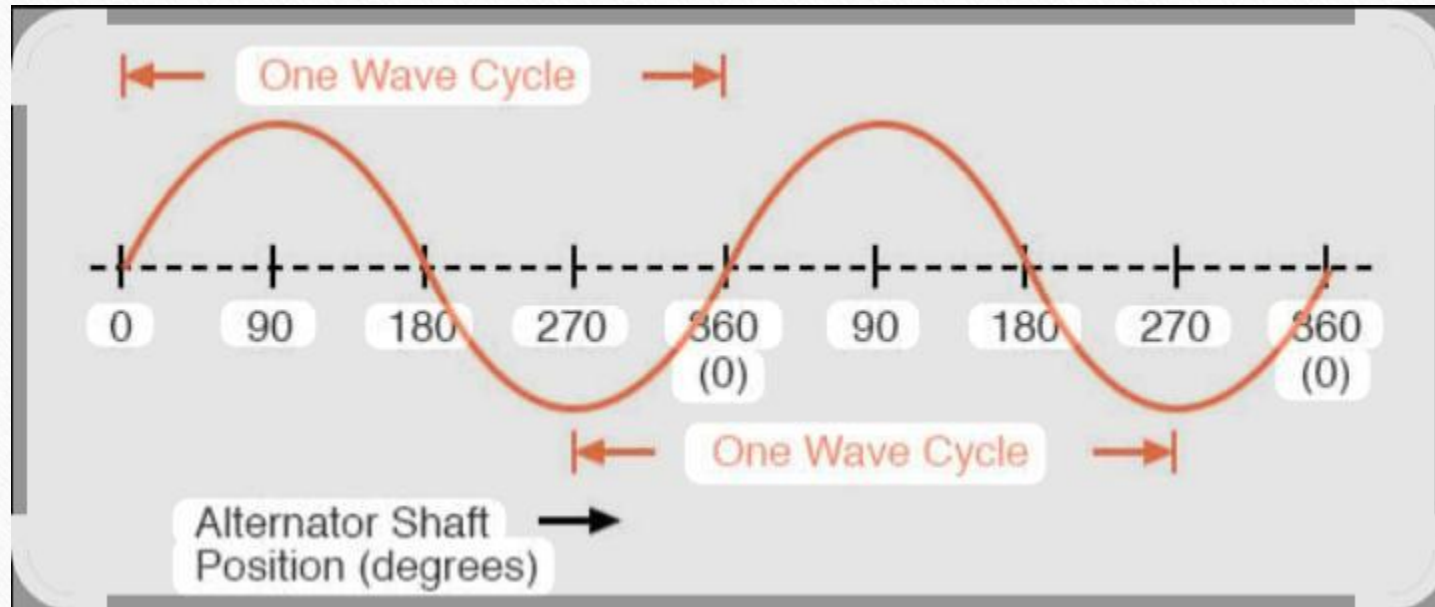
Sinusoidal Current

- Definition
- - Sinusoidal currents are evenly sine wave alternating currents.
- - Frequency of 50Hz.

CHARACTERISTICS

- Characteristics
- - Produced from mains by reducing voltage to 60-80 volts with a step-down transformer.
- - Gives 100 pulses or phases in each second.
- - 50 in one direction.
- - 50 in other direction.

Continued



Effects and Uses

- Relieves pain and reduces edema.
- Causes rhythmical muscle contractions.
- Often used over large areas for sensory stimulation.
- Rarely used for local muscle stimulation.

Sinusoidal current

- Sinusoidal Current:
 - - Similar to faradic current
 - - Alternating current that produces mechanical contractions that tone the muscles
 - - Produce impulses on muscles & force them to contract

Advantages

- - Supplies greater stimulation, deeper penetration, & is less irritating than faradic current.
- - Soothes the nerves & penetrates into deeper muscle tissue.
- - Is best suited for the nervous client.

EFFECTS

- - **stimulation**
- - When applied continuously, it causes a tetanic muscle contraction and tingling sensation due to stimulation of motor and sensory nerves.
- - *The sensory stimulation help for pain relief by the mechanism same as that of TENS and the rhythmic muscle contraction help in relief of edema.*
- - **Metabolism:**
- - It also helps for enhancing blood flow and intramuscular metabolism.
- - **reduction of edema***: - The un-surged sinusoidal current also helps for reduction of inflammatory exudates.

Application

- Application of Sinusoidal currents:*
- - Sinusoidal currents can be applied in the same way as other low frequency currents by means of Electrodes and pads.
- - This current is applied to large areas due to marked sensory stimulation.
- - It is rarely used for local muscle stimulation.

Indications

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- ***Pain:*** For pain control continuous sinusoidal current is applied at intensity close to patient tolerance and applied for approx. 5 min and repeat if there is insufficient immediate side effects.
- **Edema:** For reduction of edema and to increase the limb circulation surged sinusoidal current is suggested; causing rhythmical muscle pumping action.
- - ***Used during scalp & facial manipulations:*** Sinusoidal current is used during scalp & facial manipulations.
- - ***Usage in modern Physiotherapy:*** Sinusoidal current is rarely used in modern Physiotherapy.

Contraindications

- Skin lesions
- Unstable fracture
- Impaired cognitive ability
- Pregnancy
- Over carotid sinus
- Cancer ,cardiac pacemakers,superficial metals.

Any Question





THANK YOU