

Carpal Tunnel Syndrome

Contents

- Structure and contents of Carpal Tunnel
- Definition
- Clinical features
- Causes
- Pathophysiology
- Diagnosis

CRPS



Contents

- ▶ History
- ▶ Definition
- ▶ Causes
- ▶ Types
- ▶ Clinical features
- ▶ Diagnostic criteria
- ▶ Pathophysiology
- ▶ Treatment options

Compartment syndrome






Contents

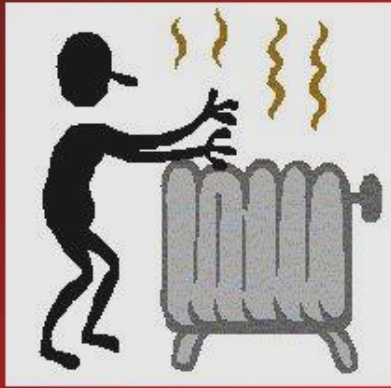
- × Definition
- × Pathogenesis
- × Causes
- × Clinical presentation
- × Diagnosis
- × Management



BIOMECHANICS OF HIP JOINT

FUNCTIONS

- Hip joint / Coxofemoral joint
 - To support weight of head, arms and trunk (HAT) both in static and dynamic posture
 - Weight bearing purpose
 - Connects trunk and lower limbs
 - Transmits the loads from upper body to the lower limbs
- 



Heat

Thermal Energy



SI units of Temperature

- Calorie
- Celcius
- Fahrenheit
- Kelvin

Cyriax

Introduction

- Dr. James Cyriax
- Father of modern manual therapy
- Developed a way to make a medical diagnosis of musculoskeletal disorders
- Clinical Examination – Key for diagnosis



De Quervain's Disease

Contents

- Structure
- Definition
- Etiology
- Clinical features
- Pathophysiology
- Diagnosis and physical findings
- Management



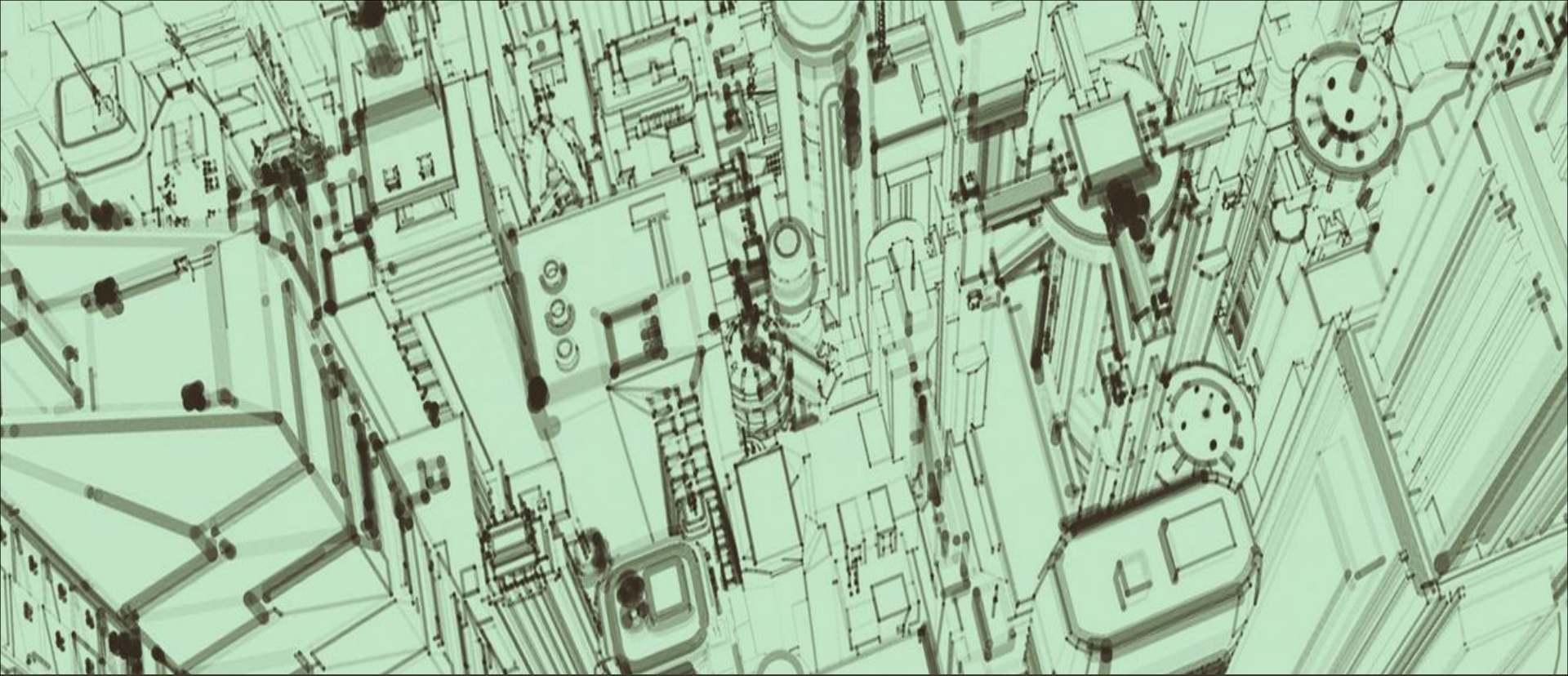
IONTOPHORESIS



- It is a clinical use of electric current

DEFINITION

- Introduction of substances into the body for therapeutic benefit by means of direct current
- It involves the movement of ions across biological membranes by means of an electric current
- Also called as 'Ion transfer'



Elbow Complex



Humeroulnar
joint

Humeroradial
joint

Superior
Radio-ulnar
joint

Inferior
Radio-ulnar
joint



Electromagnetic Spectrum

- Electromagnetic radiation:

The diagram consists of three light blue circles on a dark blue background. The top-left circle is labeled 'Electric', the top-right circle is labeled 'Magnetic', and the bottom-center circle is labeled 'Radiation'. The circles are arranged in a triangular pattern, with 'Radiation' positioned centrally below the other two. The background features a subtle pattern of light blue lines radiating from the bottom-left corner.

Electric

Magnetic

Radiation

Pathomechanics Of Elbow Joint


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Screening examination

- On observation:
 - Active movements- Quantity, Quality, Pain
 - Deformity
- Examination:
 - Passive movements ; with overpressure
 - End-feels
 - Special tests- including varus, valgus tests
 - Cervical spine examination
 - Shoulder examination

Paraffin wax bath



- Superficial heating modality
 - Use of paraffin wax for therapeutic purpose
 - Mode of delivering heat energy to the body
- 

Special tests for Elbow



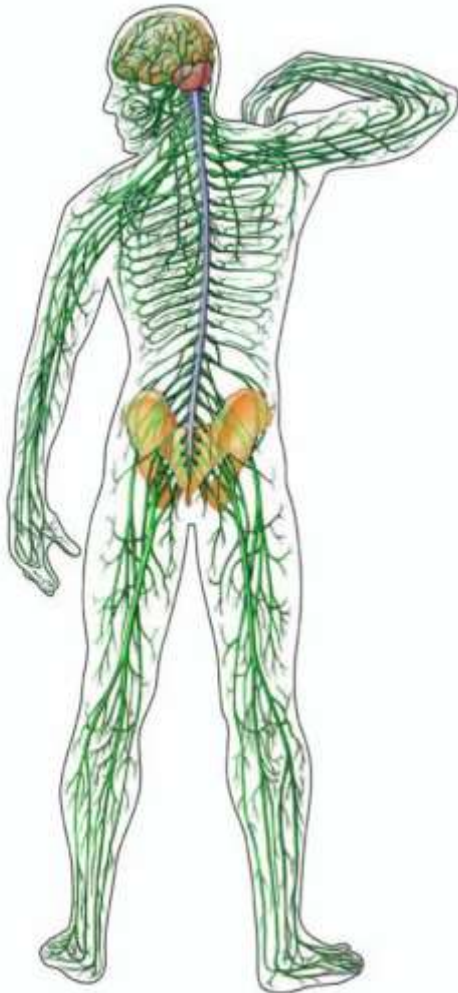
Cozen's Test

- Pathology: Lateral Epicondylitis
- Patient's Position: sitting with arm supported on arm rest/pillows
- Test: Elbow is stabilized by examiner's thumb (Lat epicondyle). The patient is asked to make a fist, pronate the forearm and extend the wrist against resistance given by the examiner.
- Positive test: Sudden , severe pain around lat epicondyle

The background is a dark grey, textured surface with faint, light-colored sketches of various scientific and mathematical symbols. These include a globe, a microscope, a test tube, a plus sign, a percentage sign, and a right-angle symbol. A white rectangular area is positioned in the upper right, and a solid yellow horizontal bar is at the bottom.

Neural tissue tension tests

Neural tissue????



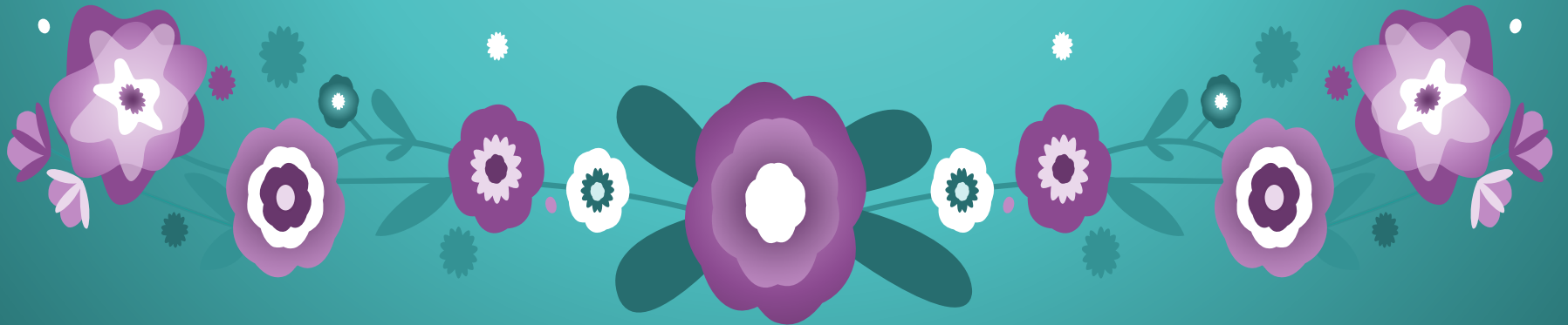
- Neural structures: brain, cranial nerves, spinal cord, nerve rootlets, nerve roots and peripheral nerves
- Electric wiring of the body



LASER

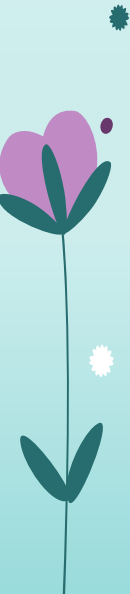
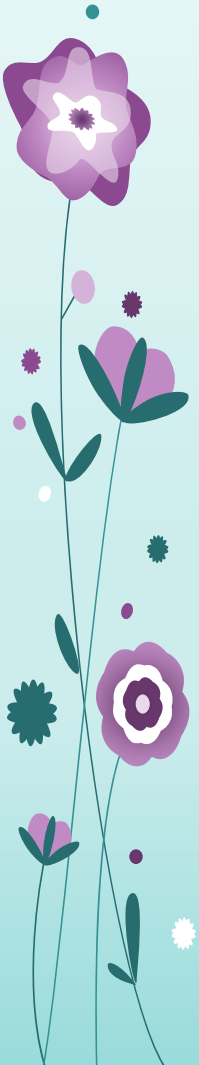
- LASER: Light Amplification of Stimulated Emission of Radiation
- Therapeutically, Low Level/ energy LASER therapy
- Monochromaticity- One wavelength and one frequency
- Coherence- Moving together in time and space(temporal and spatial variables); 'In phase'
- Collimation- Travel in one parallel direction, over long distances with very minimal divergence

Biomechanics Of Wrist



Functions:

- Acts as a spacer between forearm and hand
- Optimizes length-tension relationship of hand muscles
- Optimizes gripping activity



TENS

The background features a vertical blue gradient that transitions from a deep, dark blue on the left to a bright, light blue on the right. In the lower half of the image, there are several overlapping, wavy horizontal bands. From top to bottom, these bands are a light blue, a yellow, and a white. The waves are smooth and flow from left to right, creating a sense of movement and depth.

Indications

- Pain
 - Acute
 - Chronic
 - Muscle Spasm
 - Post surgical pain- Around the sutures
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