Hydrotherapy - Physical Therapy Cheat Sheet

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Hydrotherapy - Physical Therapy

What is Hydrotherapy?

Hydrotherapy, derived from the Greek words *hydro* and *therapeia*, meaning **"water"** and **"healing"**, is the application of water, either internally or externally, for the treatment of physical or psychological dysfunction.

Physical Properties of Water

Unique Properties of water include:

1.High specific heat
2.Thermal conductivity
3.Buoyancy
4.Resistance
5.Hydrostatic pressure

Types of Hydrotherapy

1.Immersion 2.Non immersion

Immersion Method

Whirlpool Bath

A whirlpool may be used by your physical therapist to help improve circulation, mobility, and comfort after an injury or after surgery. The typical goals of whirlpool use in the physical therapy clinic include:

- Decrease swelling
- Control inflammation
- Promote wound healing
- Improve motion
- Decrease pain
- Decrease muscle spasm

Hubbard Tank

Whitehall manufactures rectangular full immersion whirlpools as well as Hubbard tanks. Hubbard Tanks feature a signature contoured figure-eight shape that allow medical staff easier access to patients while providing full immersion to the patient. In this device, victims of joint injuries, paralysis, arthritis, and other ailments are effectively treated. The warmth of the water relaxes muscle spasms.

Aquatic / Pool therapy

Aquatic therapy, or pool therapy, consists of

Non Immersion Methods

Non-immersion therapy is becoming more popular.

These are some of the non-immersion tools used:

1. Saline Squeeze Bottle.
2. Piston Irrigation Syringe.
3. Water Pik.

Physiological Effects of Hydrotherapy

Cleansing Effect

- Water can be used as a cleanser.
- Water is most commonly used as cleansing agent for skin.
- Hydrating effects and friction of water used to soften and remove debris.
- Water is used clinically both as wound exudate or necrotic tissue, and as a cleanser to remove exogenous waste.

Musculoskeletal Effects

- The buoyancy of water unloads the weight bearing of anatomical structures and allow patients to perform exercise with less trauma and pain.
- Buoyancy effect can help patients with; decrease weight bearing (arthritis), increase blood flow to the muscles, muscle strengthening, ligamentous instability, other degenerative or traumatic conditions.

Cardiovascular Effects

- The cardiovascular benefits of hydrotherapy are primarily due to the effects of hydrostatic pressure.
- Increase venous circulation.
- Increase cardiac volume.
- Increase cardiac output.

Respiratory Effects

- Immersion of the whole body in water increases the work of breathing.
- Hydrostatic Pressure on the chest wall increases the resistance to lungs expansion.
- Water based exercise is also often recommended for patients with EXERCISE INDUCED ASTHMA because it appears

Renal Effects

- Increase sodium and potassium excretion.
- Increase urine production.
- May be used to treat the patient with hypertension and peripheral edema.

Contraindication - Local Immersion

Maceration around a wound.
When there is bleeding.
Impaired thermal sensation.
Infection is present.
Impaired cognition.
Areas of recent skin graft.

Contraindication - Full body immersion

Cardiac instability.
Infections.
Bowel or bladder incontinence.
Severe epilepsy.
Suicidal patient.

an exercise program that is performed in the water. It is a beneficial form of therapy that is useful for a variety of medical conditions. Aquatic therapy uses the physical properties of water to assist in patient healing and exercise performance.

that high humidity of the air inspired during water exercise, which prevents drying and cooling of the respiratory mucosa.

Psychological Effects

• Water immersion can be relaxing.
• The variation in the psychological effects depends primarily in the temperature of water.

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Published 29th October, 2022.
Last updated 26th March, 2024.