# G. Hydrotherapy

Mandatory supplies that you need to bring to class.

**24b Hydrotherapy: Theory and Technique Demo**

- Your packet
- Yourself and nothing else

**25b Hydrotherapy: Dry Brushing, Cold Water Wash, Hand & Foot Treatment**

**Dry brushing**

- One dry brush (may be purchased at TLC)

**Cold Water Wash**

- 1 wash cloth for the cold water wash

**Hand and Foot Treatment**

- Sea salt to create a scrub (4-5 spoonfuls)
- Massage cream to make the scrub
- Small cup for mixing the scrub
- 1 bath towel to place under the legs/feet to collect the scrub
- 2 hand towels that will stay dry for collecting the scrub under each arm/hand
- 4 hand towels to place in the towel warmer to remove the scrub

**26b Hydrotherapy: Cold Water Treading, Hot Towel Treatment**

**Cold Water Treading**

- Flip-flops/ footwear to put your wet feet into after you tread water
- Shorts/ pants that can be rolled up to your knee so they don't get wet
- Towel for drying legs

**Hot Towel Treatment**

- 2 hand towels to place in the towel warmer for the back/neck/face treatment

**Select 1 additional treatment from the three treatments in Class 25b (see above)**

Dry brushing
Cold water wash
Hand and foot treatment

**27b Hydrotherapy: Cold and Contrast Treatments**

- 4 hand towels or washcloths to dry hands after contrast treatments and to wipe up ice dripping from ice cup treatments

**28b Integration Massage: Swedish and Hydrotherapy**

- Partners assigned in Class 27b for opportunity to prepare
- Receiver chooses 3 treatments from classes 25b, 26b, and 27b

| | |
|---|---|
| Dry Brushing | Cold Water Wash |
| Hand and Foot Treatment | Hot Towel Treatment |
| Ice Cup Treatment | |

**Please note: Not having supplies for any hydrotherapy class will result in you having to make it up.**

# 24b Hydrotherapy: Theory and Technique Demo

## Hydrotherapy

**Hydrotherapy** Internal and external therapeutic use of water and complementary agents.

**Complementary agents** Soaps, essences, aromatics, minerals, seaweed, salt, carbon dioxide, and oxygen.

## Hot Versus Cold

**Thermotherapy** External therapeutic application of heat. Examples: hot pack, hot compress, hot tub, and herbal wrap.

**Cryotherapy** External therapeutic application of cold. Examples: cold pack, cold water treading, plantar fasciitis treatment, ice massage, and ice bath.

## Hydrotherapy Effects

**Intrinsic** Direct result of the temperature on the tissue it is applied to.

**Reactive** Result of the body's protective (homeostatic) reaction to the temperature.

## Homeostatic Reactions

**Vasodilation** Enlargement of the vascular lumen's diameter.

**Vasoconstriction** Narrowing of the vascular lumen's diameter.

**Vasostasis** Laxity in tone of circulatory vessel wall. Retards venous return causing blood to pool at the site.

# 24b Hydrotherapy: Theory and Technique Demo

Factors that Contribute to the Effects of Water on the Body

**Chemical factors (AKA: mineral content)** Minerals dissolve very easily in water to form a therapeutic solution that can be applied externally or taken internally. pH or other chemical properties are altered by the addition of minerals to water.

**Physical factors (AKA: mechanical effect)** Water weighs 8.33 lbs./gallon.

- **Hydrostatic pressure (AKA: Law of Pascal)** When the body is immersed in water, the sideways pressure exerted against the body is uniform. This pressure increases with depth and fluid density. This pressure reduces edema (swelling) and generally facilitates blood and lymph flow. 1 hour immersed in water increases urination by 50%.

- **Principle of relative density** Buoyancy "unloads" the body of much of its weight allowing range of motion with reduced stress.

  Density of water = 1.0

  Density of water with minerals added > 1.0

  Density of adult human = 0.97

**Thermal factors (AKA: temperature effect)** The greater the difference between the body temperature and water temperature, the greater the effect will be.

- **Vasoconstriction** Narrowing of the vascular lumen's diameter.
- **Vasodilation** Enlargement of the vascular lumen's diameter.
- **Vasostasis** Laxity in tone of circulatory vessel wall. Retards venous return causing blood to pool at the site.

# 24b Hydrotherapy: Theory and Technique Demo

Factors that Contribute to the Effects of Water on the Body, continued

**Moisture factors (AKA: wetness)** Percentage of moisture contributes pros and cons to hydrotherapy treatments.

- **Steam bath** Moisture content: 100%. Moistens nasal passages and throat. Keeps skin supple. Breathing difficulties due to heaviness of the air.

- **Sauna** Moisture content: 10 - 20%**.** Easier to breath**.** Drying and irritating to skin and mucous membranes.

Hydrotherapy (to promote wellness or address pathology)

**Relax, pamper, and cleanse:**

- Dry brush, facial, foot treatment, and herbal wrap.

**Clinical therapy for pathology:**

- Cold wash, cold-water treading, hot treatment, cold treatment, contrast bath.

Useful Properties of Water

**Availability** Water is cheap and found everywhere.

**Safety** Water is non-toxic, easy to clean up, and does not stain.

**High-conductivity** Water gives up its heat or cold readily to another object.

**Fluidity** Water conforms easily to the shape of the body, providing for even more effective conduction.

**High specific heat** Water can store a lot of heat or cold.

**Latent heats** Water allows a lot more transfer of heat and cold at temperatures we can readily access.

# 24b Hydrotherapy: Theory and Technique Demo

Contraindications for Thermotherapy
(exacerbations, infections, or too demanding)

- Acute injury (abrupt onset, short duration)
- Autoimmune conditions (immune system attacking the body)
- Fresh bruises (skin discoloration due to internal bleeding)
- Hemorrhaging (bleeding)
- Recent burns (including sunburns)
- Cardiac impairment (heart problems)
- Stroke survivors (lack of blood flow to brain)
- Edema (swelling)
- Fever (body temp above 98°-100° F)
- Hypertension (blood pressure above 140/90)
- Hypotension (blood pressure under 90/60)
- Inflammation (pain, heat, swelling, redness, loss of function)
- Chronic illness (persistent or long-lasting disease)
- Significant obesity (excess body fat)
- Open wounds (abrasions, blisters, cuts, etc.)
- Phlebitis (inflammation of veins)
- Pregnancy (except for paraffin treatments)
- Rosacea (facial redness)
- Skin rash (abnormal color, texture, appearance)
- Sensory impairment (not able to detect unsafe temperature changes)

# 24b Hydrotherapy: Theory and Technique Demo

Contraindications for Cryotherapy
(exacerbations, infections, or too demanding)

- Arthritis (joint inflammation)
- Stroke survivors (lack of blood flow to brain)
- Open wounds (abrasions, blisters, cuts, etc.)
- Hypertension (blood pressure above 140/90)
- Raynaud's Syndrome (sensitivity to cold)
- Fibromyalgia (tender points, fatigue, sleep, depressed mood, headaches, problems)
- Rheumatoid conditions (chronic systemic inflammation)
- Sensory impairment (not able to detect unsafe temperature changes)
- Skin Infection (pathogenic invasion)
- Rashes (abnormal color, texture, appearance)
- Endometriosis (cells from the lining of the uterus appear and flourish outside the uterine cavity, most commonly on the ovaries)

Variables of Hydrotherapy

**Intrinsic** Direct result of the temperature on the tissue it is applied to

**Reactive** Result of the body's protective reaction to the temperature

**Stimulative**

- Circulation: vasodilation
- Metabolism: increased oxygen absorption, carbon dioxide excretion, and increasing demand for fuel (energy sources)

**Depressive**

- Circulation: vasoconstriction or vasostasis
- Metabolism: decreased oxygen absorption and carbon dioxide excretion

**Hot** 105° F - 110° F

**Cold** 55° F - 65° F

# 24b Hydrotherapy: Theory and Technique Demo

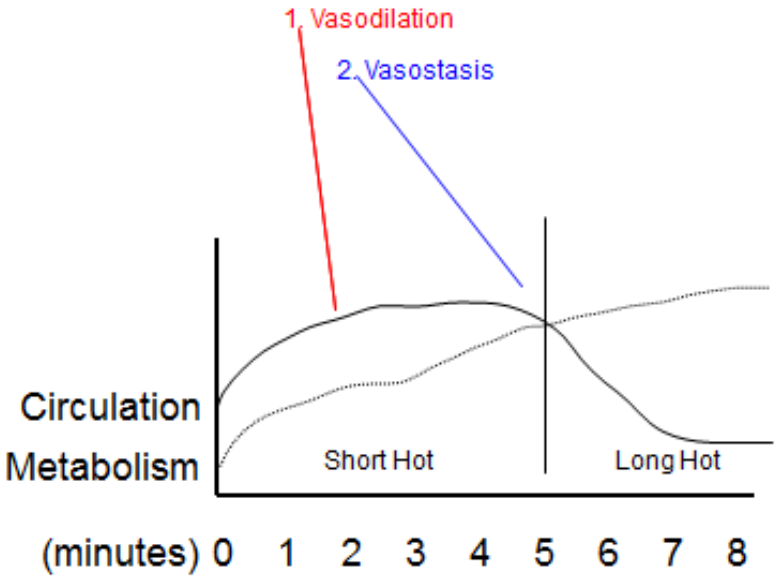
Thermotherapy Treatments

**Short hot**

- Temperature: 105-110° F
- Time: < 5 minutes
- Circulation: stimulated (intrinsic vasodilation)
- Metabolism: stimulated
- Tissue tone: decreased
- Flexibility: increased

**Long hot**

- Temperature: 105-110° F
- Time: > 5 minutes
- Circulation: depressed (reactive vasostasis)
- Metabolism: stimulated
- Tissue tone: decreased
- Flexibility: increased



# 24b Hydrotherapy: Theory and Technique Demo

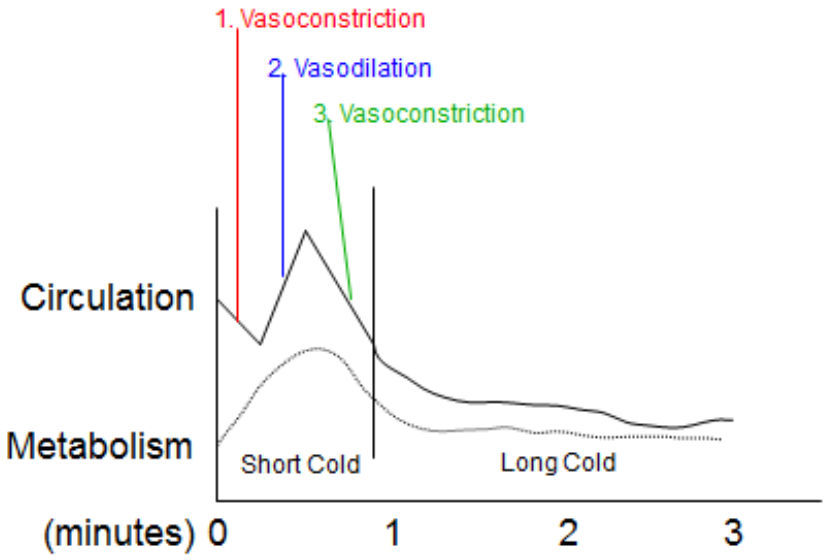
Cryotherapy Treatments

**Short cold**

- Temperature: 55-65° F
- Time: < 1 minute
- Circulation: stimulated (reactive vasodilation)
- Metabolism: stimulated
- Tissue tone: increased
- Inflammation: decreased

**Long cold**

- Temperature: 55-65° F
- Time: > 1 minute
- Circulation: depressed (intrinsic vasoconstriction)
- Metabolism: depressed
- Tissue tone: increased
- Inflammation: decreased



# 24b Hydrotherapy: Theory and Technique Demo

Contrast Bath (short hot, short cold, repeat up to 3 times)

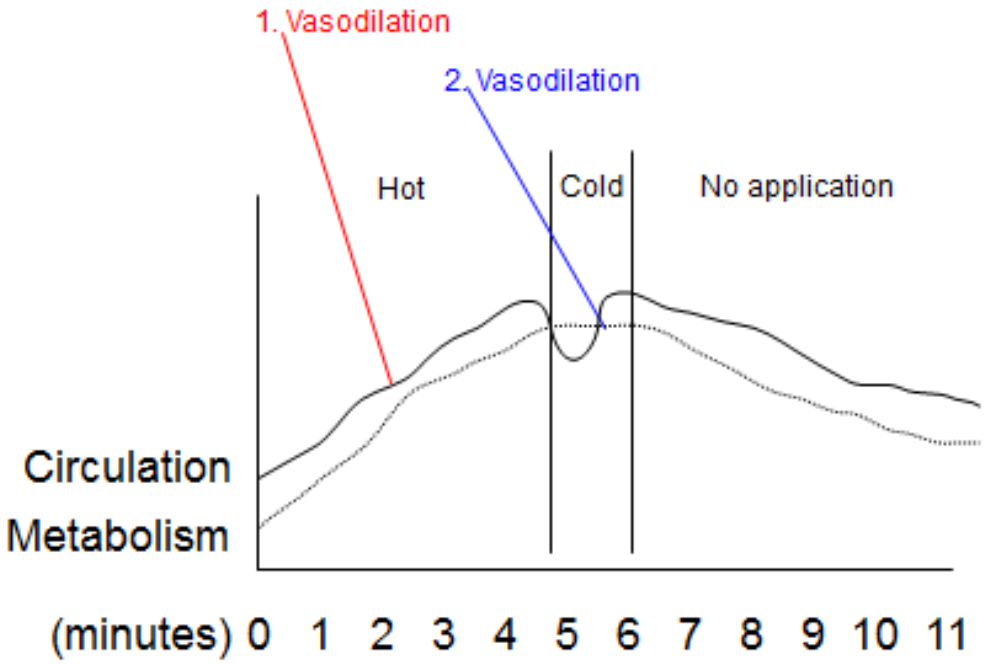
**Short hot**

- Temperature: 105-110° F
- Time: 1 minute OR 3 minutes

**Short cold**

- Temperature: 55-65° F
- Time: 30 seconds OR 1 minute

Note: This is the most effective means of flushing the area with fresh blood.



# 24b Hydrotherapy: Theory and Technique Demo

Dangers of Long Hot Treatments

- Circulation depressed, Metabolism increased
- Lack of nutrient delivery and waste removal at the same time as increased consumption of nutrients by cells can result in toxic tissues.

Avoiding the Dangers of Long Hot Treatments
(by stimulating circulation)

- Exercise, Massage, Cold application

Acute Inflammation or Nerve Root Compression
(how it is affected by a long cold treatment)

- Local metabolism is slowed which kills pain by causing the neurons to fire more slowly.
- Reduces the likelihood of secondary cell death.
- Minimizes swelling.

# 24b Hydrotherapy: Theory and Technique Demo

Survey of Hydrotherapy Modalities and Methods

**Balneology / Balneotherapy** Therapeutic use of baths.

**Crenology / Crenotherapy** Therapeutic use of mineral water.

**Ablution** Applying water by hand using a towel (cold water wash)

**Affusion** Pouring water in a stream onto the body (to lower body temperature during fever).

**Poultice / Cataplasm** A soft, moist mass spread between the layers of cloth and applied hot to create moist, local heat or to counter irritation (mustard plaster).

**Compress** A pad of moist, folded linen applied with pressure, sometimes it is medicated.

**Heating compress** A mild application of moist heat for several hours by means of a cold compress applied to a part and covered with dry flannel which allows the compress to be warmed by the circulation it stimulates. THIS IS NOT A HOT COMPRESS!

**Fomentation / Stupe** A very hot, moist application, usually made of wool and sometimes medicated.

**Alternate** A series of alternating hot and cold applications to the same body area consisting of at least three applications of each, the duration of the cold being ¼ to ½ as long as the hot. (contrast baths)

# 24b Hydrotherapy: Theory and Technique Demo

Hydrotherapy Precaution: Question and Answer

**Q.** Why should there always be time for the client to rest after a hydrotherapy treatment?

**A.** To allow the body time to recover from the reactive effects.

**Q.** Why should hot always be followed by cold in hydrotherapy?

**A.** To prevent vasostasis caused by hot treatment.

**Note:** Always start with HOT, always end with COLD.

**Q.** Why treat the young, old, feeble, and obese with care especially while doing cold hydrotherapy applications?

**A.** Poor capacity to respond to intense treatments.

**Q.** What should you do if your client is chilled by a hydrotherapy treatment?

**A.** Stop the treatment and warm the client with heat, friction, blankets and warm drinks.

**Q.** Why should hydrotherapy be administered before meals?

**A.** To avoid interference with food digestion.

Hydrotherapy Video Demos for class 24b Hydrotherapy: Theory and Technique Demo

- Dry brushing (Pages G: 15–16)
- Cold Water Wash (Pages G: 16-18)
- Hand & Foot Treatment (Pages G: 19-20)

# 25b Hydrotherapy:
# Dry Brushing, Cold Water Wash, Foot & Hand Treatment

Dry Brushing –

**Materials supplied by the student:**

- 1 natural bristle dry brush (sold at the front desk)
- 1 set of sheets and blanket

**Basic information**

- Removes build-up of dead skin cells on the surface
- Stimulates lymphatic drainage
- Improves arthritis, hypertension, and depression
- Same lymphatic benefit as a massage or 20 minutes jogging
- Work distal to proximal, lateral to medial, toward the heart (centripetally), and toward the intestines when on the abdomen
- Avoid the face
- Eczema, psoriasis, open or infectious skin, and varicose veins are contraindications for dry brushing
- Daily for 5 minutes before a shower

Generally done with strokes toward the heart, but small circular strokes may be interspersed to fit special areas or intensify the treatment.

Occasionally you may wish to wash the brush to remove excess body oils. Detergent and water will suffice for this. To disinfect (which you must do if to be used on another person) soak the brush for a few minutes in a 10% bleach solution (10 parts water, 1 part bleach) – then wash with detergent and water. Don't soak too long, or the wooden part of the brush will be adversely affected by water.

# 25b Hydrotherapy:
# Dry Brushing, Cold Water Wash, Hand & Foot Treatment

Dry Brushing, continued

**SUPINE (drape chest before beginning)**

1. Begin with right side always
2. Do sole of foot
3. Brush dorsum of foot, lower leg, thigh; stroking toward the heart, working lateral to medial
4. Repeat on left foot and leg
5. Right hand and arm (dorsum first), stroking toward heart
6. Left arm
7. Right, then left side of neck, stroking down and out, working lateral to medial
8. Stroke down from clavicles to abdomen, and/or work horizontally (lateral to medial) across chest and ribs (avoid nipples)
9. Clockwise strokes around abdomen

**PRONE**

1. Up back of legs, up and around gluteals (right, then left)
2. Down neck, out shoulders
3. Circle around scapulae
4. Down erector, and/or horizontal strokes, sweeping in from sides to middle, down the back

# 25b Hydrotherapy:
# Dry Brushing, Cold Water Wash, Hand & Foot Treatment

Cold Water Wash / Body Washing –

**Materials supplied by the student:**

- 1 washcloth
- 1 set of sheets and blanket (same as used for dry brushing)
- 1 medium trash bag

**Materials supplied by TLC:**

- Plastic tub for cold water
- Cold water for the tub (55° to 65° F)

Body washing is done in the early morning while still in bed. The body must be warm before washing is done. If you are doing your own body washing, you will find it nice to do it around 5 am. Then you have time to get back in bed and get warmed. The person should always be warm before the washing.

A thick washcloth is used. It is folded then immersed in cold water (55° to 65° F). Squeeze the cloth so it is still good and wet but not dripping. It is important to wash each area quickly and cover it up immediately. After the treatment is done, wrap the person well.

After the body washing the person is not dried off but returns to bed and is covered thoroughly with blankets. The body has to work to re-warm the skin. A friction mitt may be used but has to be dipped in the water much more frequently. In those persons with sensitive skin, a small glass of vinegar may be added to the water. If one is too sensitive to cold or dislikes body washing, dry brushing may be substituted.

# 25b Hydrotherapy:
# Dry Brushing, Cold Water Wash, Foot & Hand Treatment

Cold Water Wash / Body Washing, continued-

**PRONE**

1. Neck and back
   - Uncover the back
   - Right side first, slide down the neck and back to the gluteals
   - Return by coming back up the back and neck
   - Repeat on the left side
   - Cover the back and form the sheet and blanket to the back
2. Lower extremities
   - Right leg first
   - Uncover the leg
   - Slide down the **lateral** aspect of the foot, leg, and gluteals
   - Go up back of the leg
   - Finally, slide down the **medial** aspect of the foot, leg, and thigh – take care not to be invasive
   - Cover the leg and form the sheet and blanket to the leg
   - Repeat on the left leg

**SUPINE (drape chest before beginning)**

3. Lower extremities
   - Right leg first
   - Uncover the leg
   - Slide down the **lateral** aspect of the foot, leg, and gluteals
   - Return up the **anterior** aspect of the gluteals, leg, and foot
   - Finally, slide down the **medial** aspect of the foot, leg, and thigh – take care not to be invasive
   - Cover the leg and form the sheet and blanket to the leg
   - Repeat on the left leg

# 25b Hydrotherapy:
# Dry Brushing, Cold Water Wash, Foot & Hand Treatment

Cold Water Wash / Body Washing, continued-

**SUPINE, continued**

4. Abdomen
    - With chest drape in place, uncover the torso down to the belly button
    - Slide down the right side of the abdomen and back up
    - Repeat on left side
    - Make a circle clockwise around the abdomen
    - Cover and form the sheet and blanket to the abdomen, leaving the chest drape in place

5. Upper extremities
    - Right arm first
    - Uncover the arm
    - Starting at the back of the hand, slide up the **dorsal** of the arm
    - Return down the **anterior** aspect of the arm and hand
    - Wash in the axilla two times
    - Cover the arm and form the sheet and blanket to the arm
    - Repeat on the left arm

6. Neck and upper chest
    - Uncover the neck and upper chest
    - Right side first
    - Slide down the neck and over the upper chest
    - Repeat on the left side
    - Cover and form the sheet and blanket to the neck and upper chest

# 25b Hydrotherapy:
# Dry Brushing, Cold Water Wash, Foot & Hand Treatment

Hand & Foot Treatment -

**Materials supplied by student:**

- Ground Coffee or Sea salt
- Massage cream or lotion
- Small mixing bowl or non-breakable cup
- Spoon or utensil to mix with
- 3 Bath towels
- 6 Hand Towels

**Materials supplied by TLC:**

- Plastic tub for cold water
- Cold water for the tub (55° to 65° F)

Please review Video Material on the student resource page, full class videos class 25b

Supine Hand treatment-

1. Lay hand towel under hand and arm up to the elbow.
2. Apply pre-made coffee or sea salt scrub (mixed with base cream or lotion) to hand and forearm.
3. Scrub into the skin and potential rough or dry areas to exfoliate the skin, while providing massage to all muscles of the hand and fingers.
4. Once application and massage is complete, take a hot damp towel from microwave or slow-cooker, shake it out briefly so as not to burn your client and fold in half long ways, then apply to forearm and hand.
5. In one deep stroke drag towel distally down the arm and hand to remove product from skin. Repeat until arm and hand(s) are clean.
6. Lift arm and fold the towel under the arm in half to capture remnants of scrub material and remove from massage table.
7. Cover arm(s) with sheet and blanket.
8. Repeat on other side.
9. Apply massage lotion, cream or oil for massage.

# 25b Hydrotherapy:
# Dry Brushing, Cold Water Wash, Foot & Hand Treatment

Supine Foot Treatment

1. Lay hand towel under feet & ankles up to the calves.
2. Apply pre-made scrub (coffee or sea salt mixed with base cream or lotion) to feet & lower leg.
3. Scrub the skin and potential rough or dry areas to exfoliate the skin, while providing massage to all muscles of the feet and lower leg.
4. Once application/massage is complete take hot damp towel from microwave or slow cooker, shake out briefly so as not to burn your client and fold in half long ways, then apply to lower leg & foot.
5. In one deep stroke drag towel distally down the lower leg and feet to remove product from skin. Repeat until lower leg & feet are clean.
6. Lift foot/lower leg and fold the towel under the arm in half to capture remnants of scrub material and remove from massage table.
7. Cover lower leg & feet with sheet and blanket.
8. Repeat on other side.
9. Apply massage lotion, cream or oil for massage.

Benefits and uses:

Increased localized circulation to areas of concentration, exfoliating skin and moisturizing of the area, and deep relaxation. A great add on treatment in a private practice or small spa.

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# 26b Hydrotherapy:
# Cold Water Treading, Aromatic Hot Towel Treatment and other Real World Applications (Larger Spas/Destination Resorts)

Cold Water Treading –

**Materials supplied by the student:**

- 1 pair of flip-flops or sandals that can get wet
- Shorts or pants that can roll up
- 1 hand towel
- 1 medium trash bag

**Materials supplied by TLC:**

- Tubs for water treading
- Water and ice
- Thermometer

**Effects:**

- Local stimulation of circulation by dilating the blood vessels in an attempt to warm the area
- Metabolism and tissue tone is locally increased
- Inflammation is decreased

**Benefits and Uses:**

- Increased circulation can feel invigorating or refreshing for tired and overworked feet and ankles. This increased local circulation comes from a reaction to the cold water and from the pumping action of walking
- Sympathetic nervous system stimulation due to the combination of short cold and exercise

# 26b Hydrotherapy:
# Cold Water Treading, Aromatic Hot Towel Treatment and other Real World Applications (Larger Spas/Destination Resorts)

Depending on which 2 treatments you decide to repeat for this class you will need those items from class 25b (Please see pages- G-15, G-17, G-29-30)

Supplies for Aromatic Hot Towel Treatment/Add on- Supplied by student

- 5 Hand towels
- Your choice of essential oil (Optional)

Aromatic Hot Towel Treatment/Add on-

1. Prepare towels: soak and wring out 3-4 hand towels and place in slow cooker or microwave. Allow the towels to get hot (but not scolding).
2. After massage is completed in a given area, Back, leg or feet, uncover area.
3. Remove hot damp towel from microwave or slow cooker, shake out briefly to lower the intense heat and so as not to burn your client and then apply to desired area.
4. Towels will cool very quickly once applied to the body so use the time wisely and apply deep compressions, lift muscle from the bone for a deeper level of circulation and relaxation.
5. Use sheet and blanket to cover moist towel and re-drape the area. Pull the moist towel from under the drape without exposing the client and locking in the warm moist heat in under the drape.
6. Apply more deep compressions and rocking over the drape.

Benefits and uses:

Increased localized circulation to areas of concentration. Great add on treatment in a private practice or small spa.

# 27b Hydrotherapy: Cold and Contrast Treatments

Cold and Contrast Baths -

**Materials supplied by the student:**

- 5 hand towels
- 1 set of sheets and blanket
- 1 medium plastic trash bag

**Materials supplied by TLC:**

- Cold packs
- Plastic tubs for hot and cold water
- Thermometers

**Contrast Bath for Hands (total time spent is 45 minutes)**

1. Decide who will be the therapist first. All the therapists for the first round work together to prepare two tubs - one at COLD - 55-65; the other HOT - 105-110.

2. The clients will sit at the table, remove jewelry, and study pages G: 7-11.

3. Use the following revised intervals, submerging one or both hands up to the wrist. Start in hot then switch to cold: 4 minutes in hot, 1 minute in cold.

4. Repeat 3 times. Observe and experience effects of the treatment.

5. Now switch roles, taking 5 minutes for the new therapists to adjust the temperatures in the tubs while the new clients study their handouts.

**Notes:**

- This treatment facilitates healing of injury, by stimulating both circulation (brings nutrients and cells to repair damage) and metabolism (increase activity of cells doing the healing).

- It helps to decrease edema and pain in sub-acute and chronic conditions.

- It is not for use in acute cases of inflammation.

# 27b Hydrotherapy: Cold and Contrast Treatments

Ice Therapy-

- Ice application is one of the most important first steps for treating acute injuries such as strains and repetitive stress injuries. It is a component of **RICE therapy** (the acronym for rest, ice application, compression, and elevation).

- As opposed to placing an ice pack on the injury (which is acceptable as well), you can make or purchase an ice cup to perform an ice massage or make your own with household items. Ice massages are a form of cryotherapy that allows you to place gentle pressure on the area of pain and inflammation

- The ice reduces both pain sensations and blood flow, while the gentle rotating movement helps mobilize the soft tissue in the same way as a regular massage.

- Ice application is one of the first things you can do upon experiencing a sports or repetitive injury. Thereafter, for the next 24 to 48 hours, an ice massage may be used in place of an ice pack. It is especially good for treating back strains, pulled calves, and other large muscle injuries.

- The ultimate aim of cryotherapy is to reduce the skin temperature by 10 F to 15 F. If used correctly, cryotherapy is both analgesic (pain-relieving) and provides rapid constriction of blood vessels with only a minimal risk of injury

- **Contraindications**: Hypersensitivity or poor tolerance to **cold**, Raynaud's disease, peripheral vascular disease, open wounds, clients with impaired sensation (neuropathy) or impaired ability to communicate (dementia or dysphasia).

# 27b Hydrotherapy: Cold and Contrast Treatments

**Ice Massage Precautions-**

- To avoid getting an ice burn, there are several precautions to take with ice therapy:
- When applying ice directly to the skin on the back, be sure to keep the ice moving in a slow, circular motion to avoid staying in one place too long.
- Limit the ice massage to no more than five minutes at a time.

**Ice Massage Preparation and Protocol- See Corresponding Video**

1. Fill the small paper cup three-quarters of the way with water and place in the freezer until solid. (This will be prepared by TLC Staff)

2. Peel off around an inch of the bottom of the cup, exposing the underlying ice. The remaining part of the cup is for you to hold onto.

3. Place a hand towel between the skin and the ice cup or directly to the skin if the client is not adverse to it. If they are cold sensitive do not place the ice directly on the skin.

4. Gently massage the injured area with the ice cup in a circular motion. Do not allow the ice to rest in one place. Use additional towels to collect melting ice/water, so as not to drip and cause discomfort to client.

5. Focus on massaging the soft tissues rather than bones. This is especially true with regards to the spinal column in which ice may aggravate pre-existing nerve pain.

6. As the ice begins to melt, peel off extra paper as needed. The towel underneath will absorb the excess water.

7. Limit the ice massage to no more than 5 minutes to avoid burning.

8. Repeat the ice massage two to five times daily. Allow at least 60 minutes between massages to allow the superficial skin temperature to return to normal.

# 27b Hydrotherapy: Cold and Contrast Treatments

**Some Conditions we will use Ice Massage with-**

**Tennis Elbow-**

- Lateral epicondylitis, also known as "Tennis Elbow", is the most common overuse syndrome in the elbow. It is a tendon injury involving the extensor muscles of the forearm.

- These muscles originate on the lateral epicondylar region of the distal humerus. In many cases, the insertion of the extensor carpi radialis brevis may be involved.

**Shin Splints-**

- The extreme and debilitating pain of shin splints can be felt on the front of the lower leg along the medial (inside) edge of the tibia, the larger of the two bones that make up the lower leg.

- Shin splints are usually classified as an overuse injury caused by the repetitive stress of running or jumping, which leads to inflammation of the connective tissue sheath surrounding the tibia.

**Sore Low Back Muscules-**

- Most episodes of lower back pain are caused by muscle strain. The large paired muscles in the low back (erector spinae) help hold up the spine, and with an injury the muscles can become inflamed and spasm, causing low back pain and significant stiffness.

- Common causes of muscle strain of the large back muscles include: a sudden movement, a fall, lifting a heavy object (using the back muscles), or a sports-related injury. Any strain accompanied by a twisting motion is more likely to hurt the lower back muscles and cause pain.

# 28b Integration Massage: Swedish and Hydrotherapy

Class will be split into two groups and assigned one of the case studies below. Students will begin their SOAP notes to create a treatment plan then perform that treatment. Based on the scenario given, students will weave relevant hydro protocols from class's 25b, 26b, and 27b into an approximately 60 minute session.

**Group A-**
36-year-old client, avid runner experiencing a burning pain in both lower legs and across the low back. Tired with extremely dry feet and a lack of sleep due to stress at work.

**Group B-**
Client is a 46-year-old woman with chronic stress, she is unable to sleep or concentrate on normal daily tasks. Upon meeting the client, she expresses that she's always cold and her desire to be pampered during the session.

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