

## **Warm Water Aquatic Bodywork Fact sheet for Health Care Providers**

I.	What is Warm Water Aquatic Bodywork .....	1
II.	Indications to Warm Water Aquatic Bodywork .....	1
III.	Contraindications to Warm Water Aquatic Bodywork .....	1
IV.	Physiological Effects of Warm Water .....	2
V.	Effects of Hydrostatic Pressure During Warm Water Aquatic Bodywork? .....	3
VI.	Benefits of Warm Water Aquatic Bodywork .....	3
VII.	Conditions Improved by Warm Water Aquatic Bodywork .....	3

### **I. What is Warm Water Aquatic Bodywork**

Aquatic Bodywork is a form of warm water hydrotherapy and massage, encompassing many differing techniques. It is holistic in nature; that is, it acknowledges that a human being is not only physical, but emotional, energetic and spiritual, as well. The client receives gentle movements and stretches, as they are moved through a pool of warm water. Supported by water, the client is moved with the rhythm of their breath, resulting in greater flexibility and freedom. The weightlessness that is characteristic of this technique can free the spinal vertebrae, rotate joint articulations and elongate muscles in ways not possible on land. Being floated in water reduces pain, releases stress, and quiets the mind.

### **II. Indications to Warm Water Aquatic Bodywork**

- Relief from mild cramps or muscle spasms
- Desire for deep relaxation, nurturing, rebonding, reconnecting with self. Assists in Body-Mind-Spirit homeostasis
- Articulates joints, increases range of motion and stretches muscles, relieves tension and reduces stress
- The warmth of the water increases circulation and reduces muscle tension while the fluid, joyous movements remind the autonomic nervous system of homeostasis
- Can offer powerful healing for fear of water, or previous near drowning experiences
- Aquatic therapy is recommended for Chronic Fatigue Syndrome, Insomnia and Sleep Disorders, Headaches, Hyperactivity, Chronic Pain, Fibromyalgia, Parkinson's, Anxiety Disorders, Multiple Sclerosis, Abuse Issues, Depression, repressed emotions and other stress-related diseases.

### **III. Contraindications to Warm Water Aquatic Bodywork**

#### **A. Absolute Contraindications - not appropriate for aquatic therapy**

- Fever over 100 degrees
- Acute inflammation
- Uncontrolled epilepsy
- Cardiac failure
- Significant open wounds
- Respiratory disease of vital capacity less than 1500 cm<sup>2</sup>
- Severe urinary tract infection
- Severe respiratory tract infection
- Blood infection
- Tracheostomy
- Bowel incontinence
- Menstruation without internal protection
- Infectious disease

## **B. Relative Contraindications - may not be appropriate / necessary precaution may need to be taken**

- Skin infections with drainage
- Small open wounds (can be covered with tegrederm)
- Uncontrolled blood pressure (moderate high blood pressure OK, but be careful with low blood pressure; ask doctor)
- Unstable angina, cardiac arrhythmias or additional cardiac considerations (ask doctor if it would be appropriate to go in warm water)
- Intravenous lines, heplocks, hichman line, external collection devices (ask doctor)
- Cerebral hemorrhage (should wait at least 3 weeks after bleeding has ceased; ask doctor)
- Multiple sclerosis - may not tolerate warm water well (depends on client)
- Chlorine or Copper sensitivity
- Absence of cough reflex (would need to be monitored closely)

## **C. Range of motion precautions - ask doctor if Warm Water Aquatic Bodywork would be appropriate for client**

- Recent total hip replacement
- Recent spinal surgery
- Recent surgery
- Acute ligamentous instability
- Recent bone fracture
- Arthritic cervical spine (be very careful with neck position, especially hyperextension)
- Pain with spinal or peripheral joint range of motion - many can be treated with modifications to technique, just ask client to give feedback during the session if a particular movement is aggravating their symptoms
- Bulged/herniated disc, facet irritation, spondylolethsis, arthritis (avoid extreme positions of spine)
- Frequent ear infections - may be appropriate to use ear plugs or medication
- Excessive vertigo (dizziness) or other vestibular disorders - need to move slowly and monitor client's tolerance frequently, especially with first session. To check tolerance, ask client to open eyes during the session and check for nystagmus (involuntary rhythical movement of the eyes back and forth), as well as asking if client feels dizzy or nauseous.

© Worldwide Aquatic Bodywork Association

## **IV. Physiological Effects of Warm Water**

- Reduces pain sensitivity. The warmth "distracts" the pain, with sensory input which travels on nerve fibers larger, faster, and with a greater conductivity than the pain fibers.
- Relieve stiffness and soreness
- Decreases muscle spasm by inhibiting the efferent motor nerve activity and muscle spindle activity.
- Increases peripheral circulation and cellular metabolism in temperatures greater than 93° F. (34° C).
- Decrease in general metabolism.
- Stimulation of nervous system initially, then sedation
- Increases digestion by increasing the release of digestive enzymes.
- Increases peristalsis of the stomach, small and large intestine.
- Increases body temperature when water temperature is higher than skin temperature.
- Increase in cutaneous vasodilation of capillaries (which may be produced by local axon reflexes initiated by stimulation of skin receptors).
- Increased migration of leukocytes through vessel walls in locally heated areas.
- Relaxation of skeletal and smooth muscles.
- Causes loss of sense of body shape and boundary when water temperature approximates skin temperature.
- Relaxes white connective tissue (dense fibrous) thereby preparing it for stretching.
- Distends and softens superficial fascia by altering the viscoelastic state of the yellow connective tissue.

## V. Effects of Hydrostatic Pressure During Warm Water Aquatic Bodywork?

- Helps stabilize unstable joints, making Warm Water Aquatic Bodywork quite safe for injuries when administered conservatively. Provides more resistance to the expansion of the ribcage and abdomen in breathing, thereby strengthening the diaphragm and intercostals muscles.
- Compresses all soft tissues, enhancing lymphatic return. Normal lymphatic pressure is a negative pressure system, so that even minimal water depth immersion exceeds the lymphatic pressure.
- Aids venous return in the legs. A body immersed to a depth of 48 inches is subjected to a force equal to 88.9 mm HG, slightly greater than diastolic blood pressure. This is the force that aides the resolution of edema.
- Displaces approximately 700 cm<sup>3</sup> of blood from the extremities and abdominal vessels into the great veins of the thorax and into the heart on immersion to the neck. This causes a significant increase in right atrial pressure, stroke volume, and cardiac output, resulting in bradycardia. Increases inter-thoracic blood volume.
- Water pressure on the external wall of the ribcage exceeds that of the air within the lungs, resulting in a negative air pressure system. This raises the volume of air within the ribcage.
- Renal Response to Immersion
  - Natriuresis--increased sodium excretion
  - Kaliuresis--increased potassium excretion
- Diuresis, that is increased urine excretion, is stimulated by immersion. An increase in central blood volume (enhanced venous return and negative pressure breathing within the lungs) plus increased right atrial pressure respectively suppress ADH and stimulate ANH.

© 1996 Alexander Georgeakopoulos

## VI. Benefits of Warm Water Aquatic Bodywork

- Diminished muscular tension
- Increased range of motion
- Reduction of pain
- Augmented peripheral circulation
- Fuller respiration
- Improved posture
- Normalization of muscle tone
- Reduced stress and anxiety
- Increased body awareness
- Release of emotional stress
- More peaceful sleep
- Improved disposition and reduced fatigue

## VII. Conditions Improved by Warm Water Aquatic Bodywork

- Chronic and acute pain
- Neuromuscular disorders
- Migraine
- Peripheral muscle dysfunction
- Chronic head pain
- Poor disposition
- Hyper-tension
- Disorders associated with stress/anxiety
- Depression
- Conditions associated with physical, mental or sexual abuse
- Insomnia
- Chemical substance abuse