

Increasing Flexibility

In aquatic bodywork we work from a comprehensive perspective that embraces both Eastern and Western models of the body. According to this expanded view, loss of flexibility in joints and muscles is not only physiological in origin, but emotional as well. We see improvements in flexibility in clients whether our work is clinical, that is, with a set intention, or if it flows in the spirit of Zen with no intention at all.

Furthermore, these gains occur even without following the "rules" as understood by present day exercise physiology. Perhaps the explanation lies in a holistic approach. There are several elements in aquatic bodywork contributing to a compellingly effective equation for flexibility, not the least of which is the conducive environment of warm, still water. Those elements that each practitioner personally brings into the equation are nurture, movement, massage and stretches--the water does the rest.

Watsu increases passive flexibility as opposed to dynamic or active flexibility. Therefore gains in flexibility reached in a session need to be consolidated and integrated afterward. The patient must work on her own to get the strength to have a usable range of motion and to establish new habits of posture and body alignment. Although some conditions can improve through simple passive receiving, this alone can never take the place of self awareness and a lifestyle that itself is health sustaining.

Watsu can successfully intervene to release a patient from a self-perpetuating pain cycle. Such a cycle progresses from pain to immobility, weakness, tightness, decreased ability to work, financial difficulties, depression, low self esteem, stress, and muscular tension leading back to pain. The patient must take the impetus given by the session and take responsibility for good habits of living. These include the self care of stretching and adequate exercise.

How Aquatic Bodywork Increases Flexibility

Physical therapists, those pragmatic angels in our midst, are drawn to Watsu in part because it produces dramatic increases in flexibility. What factors account for this?

1. Practitioner Attitude

As a holistic-minded practitioner, your own state of being is the key to nurture, moving and stretching in aquatic bodywork. If you are flowing in your psyche, if you understand flexibility and freedom in your body, if you love yourself, then you have these qualities to draw from, to offer to another. According to vibrational healing, we only have to offer what we are.

2. Relation to Receiver

Of equal importance is your attitude toward the receiver. To think, "*There's*

nothing wrong with this person; there is no need to change, there is no fear," both affirms the receiver and sees beyond a temporary state of contraction. In the intimate embrace of Watsu, your subtle energy field melds with and interpenetrates the receiver's. Do you really want to cast a net of negative thought over your defenseless partner with such thoughts as, *"He is really tight, there's no movement happening here."*? Another way to state this principle is unconditional positive regard, or more simply, love. This is a love that need not be earned, that asks nothing in return, in the presence of which, trust, surrender and deep relaxation naturally occur. Yet, if there's nothing to change, how can stretching be justified? Why not for the sheer sensual pleasure of it, both in receiving and giving? Yes, it feels good and is fun to do. The impulse to stretch simply comes.

3. Nurture

In Watsu we not only touch the receiver with our hands, but embrace her to our chest, wrap her in our arms, nestle her head against ours on our shoulder, and place her across our lap and legs. The level of skin on skin contact is significantly higher than in traditional massage. The technique of Zen Shiatsu employs a "mother" hand that remains still and soothing while the "father" hand massages into the body. In Watsu, clearly, a larger surface of our skin is often in the mother role, giving Watsu its maternal flavor. This global touch deactivates subliminal anxieties, for instance the sense of aloneness we learned to live with once our parents stopped carrying us, holding us, and touching us. The very positions themselves are invested with a power by association with uterine, infant and childhood states. Patterns of breath, muscular holding and hormonal output are all affected as the receiver enters the safe harbor of Watsu.

4. Water Pressure

The body is subjected to a greater pressure in water than out of it. This squeezing pressure increases both lymphatic and venous return from the limbs, helping to clear metabolites from the muscles and connective tissues, rendering the body more amenable to stretches. The raised levels of blood and lymph entering the right atrium of the heart slows it down, producing a calming effect, also favorable to stretching. Beyond this, the equal and omni-directional pressure in water stabilizes joints, making stretches safer.

5. Buoyancy and practitioner support

Supported in the arms of the practitioner, the receiver senses she can relinquish all muscular responsibility for posture and for staying on the water's surface. With sensitivity, you can inspire trust, reducing or eliminating much holding. The person can then yield to the water, to your facilitation, and to the experience. A

second source of support in the water is the buoyant force. According to James McMillan, the founder of the Halliwick Method, when the proprioceptors cease to register weight, an automatic reduction of tone ensues. This occurs after 15 minutes of immersion. These benefits of reduced tone are said to linger for one and a half hours following immersion, but in Watsu we see results exceeding that, leading us to believe that there are other processes operating. Indeed, a second factor made possible by the buoyant force in water is joint decompression, in which they unload, additionally reducing internal resistance in joints to stretches. Taken together, these sources of support in Watsu allow a complete letting go physically, a level of relaxation only possible in water.

6. Heat

As the temperature of the therapy pool approaches body core temperature, heat energy is absorbed into the body through conduction in stillness and through convection when moved. Heat production metabolism slows down as warmth is supplied from outside in a sort of "slow cook". The viscosity of muscles is reduced and circulation to them is enhanced manyfold. In this softer, juicier state they are more amenable to stretching. Additionally, the sensory feedback of warmth travels over quicker and more numerous nerves than those carrying messages of pain, effectively overriding them. Stretches on the borderline of pain, then, are more easily received.

7. Movement

The movements of Watsu have the effect of fostering flexibility in different ways.

- a. Taking joints through their range of motion, whether flexing and extending, or with the added components of circumduction and rotation where possible, will distribute the lubricating synovial fluid evenly throughout the joint, leaving them more responsive to stretches. Just as the gentle circling of all joints is recommended for the beginning of an athlete's warm-up, it is likewise beneficial at the beginning of a water session.
- b. When we send wave movements through the body, as in Lengthening Spine and Undulating Spine, we duplicate two primal movements: the developmental "fish" wiggle and the ecstatic response, as discovered in Bio-energetics. Depending on where we initiate the wave motion, particular joints are more strongly articulated than others. For the body to experience itself as a wave, as a boneless length of seaweed, is a strong antidote to the message it daily acts out as it holds itself together in the field of gravity, performing mundane movements within a very limited range of motion.
- c. Much tightness is purely psychological (holding), in contrast to having a structural

or physiological origin. The work of Milton Trager has demonstrated that repetitive, rhythmic movements, as well as chaotic movements such as Arm Play and Buttock Rock, act to confuse and dissolve patterns of holding originating in the central nervous system.

- d. The stretches of Watsu are pleasurable because they move, rather than being static. As a stretch is moved it subtly modulates, alternating the fibers being affected, making a strong stretch easier to receive. . Numerous tractions to the neck and spine, such as Neck Lift and Spine Pull, are especially effective: the weight of the body gently tugs in various directions as the receiver is towed along by the head.
- e. Pain tends to cause stress and contraction. If the sensations arising from a stretch are below a threshold of pain, then a receiver can focus on letting go, on awareness, on the message inherent in the sensation. According to the gate theory of afferent inhibition, a distracting volume of sensory input can inhibit painful sensations from reaching the brain. The stretches of Watsu, because they move, are thus aided by the many other sensations (warmth, turbulence, vestibular stimulation and other proprioceptive feedback of movement) being received simultaneously with those from the stretch.
- f. Movement in general creates an environment that invites surrender. It gives the receiver something tangible to yield to.

8. Massage

Muscles stretch more easily when first massaged. The Shiatsu massage techniques employed in Watsu include squeezing (as in Arm and Foot) and pressing points (as in Bladder Meridian). Other techniques are fanning (Hand Opening) and deep tissue strokes performed on the thoracolumbar fascia (Sacrum Pull, Spine Pull). Considered together, these massage techniques promote greater flexibility by restructuring shortened fascial tissue, releasing contracture in muscle, and assisting the removal of metabolites from muscle.

9. Hydrodynamic force

Hydrodynamic force is that property of water whereby it resists to the degree to which it is acted upon. This is what sustains the receiver at the surface in transitions when we turn on ourselves or travel across the pool, the so-called "surfing effect". Hydrodynamic force also comes to the aid of several turning stretches, such as Near and Far Leg Rotation and Seaweed. It makes the stretch easier to do, spreading it through the body and increasing its power with increasing speed.

10. Stretches

All stretches in Watsu are passive, that is, without the active participation of the receiver. Some are also static, in which a position is held. Push Leg and Thigh Press are examples of passive static stretches. Other stretches are dynamic, meaning muscles are stretched in movement, though still without the involvement of the receiver. Accordion, Rotations of the Near and Far Leg, Arm Lift and Lengthening Spine are examples of these, what I term "passive dynamic" stretches. Physical therapists often begin treatments with Watsu as a warm-up and then progress to isometric or PNF stretching, consolidating and extending the gains in passive flexibility achieved through the initial Watsu.

Some qualities of stretches in water...

a. **Movement** As described above, most of Watsu's stretches are dynamic, enhancing their effect.

b. **Totality** Many of the stretches of Watsu are full-body, that is they are absorbed and distributed through the entire body. The body is able to adjust to them, unrestricted by being anchored to the ground at any point by gravity. Examples are Arm Play and Lift and Arm Leg Rock.

c. **Uniqueness** The positions in which bodies are stretched in the water cannot be duplicated on land. Sometimes partner is half in the water, half out; or the upper body is nestled securely while the rest of the body is moved and stretched freely. Imagine trying to do Seaweed on land!

d. **Maneuverability** Partner floats before us at chest level and can be moved from position to position effortlessly with neither discussion nor active participation from the partner required.

e. **Time and breath** The passive stretches in the sequence, such as Push Leg and Thigh Press, need time to set, to take effect: Although different sources recommend different durations from 15 seconds up to minute, 20 to 30 seconds is probably adequate. Holding a passive stretch gives time for the stretch reflex of the muscle spindles to habituate and also for the lengthening reaction (also called the inverse myotatic reflex, autogenic inhibition, and clasped knife reflex) of the Golgi tendon organs to activate. Yogis stay in their poses for several breaths in order that the stretch creates a shift in the tissue. Breathing relaxes. Holding stretches gives the receiver time to breathe with the stretch and to relax.

f. **Repetition** Stretching movements are repeated several times in a row and returned to throughout the sequence, as with the Basic Moves. Repeating a stretch

gives multiple opportunities for relaxation and shift. Also, the force applied to the stretch can be gradually increased with repetition. These repetitions and the fact that our clients are breathing and relaxing may account for the good results even when stretches are not held long, nor taken to the end of the range of motion.

What Stretches Do

Stretches have an immediate and direct effect on muscles, connective tissues, joints and meridians. As enumerated earlier in these notes, muscles experience improved circulation and strength, and reduced pain. Joints unlock, decompress, increase their range of motion, and allow beneficial shifts in alignment and posture. Moving beyond the Western medical paradigm into that of oriental medicine, we touch Watsu's roots in Shiatsu. According to this view of the body and health, under the influence of stretching, the meridians that lie in the loose connective tissue beneath the skin channel their energy more effectively, resulting in improvement to overall health.

Tips for Increasing Flexibility

Communicate, get feedback

In the water before a session begins, ask your partner, "*How do you like your stretches? Strong? Medium? Gentle?*" This leaves nothing to chance. Give her hand signals or a numerical system of feedback to use during the session, 5 being just right, 4 or less being not enough, 6 or more being too strong. Ask how the pressure was after the initial stretches. Tell her beforehand to please let you know if anything is uncomfortable.

Build trust

As you support the receiver in the Water Breath Dance at the beginning, you can get a sense of the degree of flexibility, and on the other hand, of holding due to fear and/or the unfamiliarity of the experience. Don't forget, partner is making quite an unaccustomed transition—that from self-reliance to surrender.

Explore range of motion

Allow a certain amount of time for the water's warmth and support to take effect, and for an overall relaxation to arise from breathing, surrender, and the automatic reduction of muscle tone. As resistance melts away, explore the range of motion of the spine, giving it an experience of its freedom and potential for letting go in all directions: rotation, lateral flexion, forward flexion and extension, to use the terms of kinesiology. Articulating the intervertebral joints in this way will also help distribute the lubricating synovial fluid.

Begin gently, hold

When a stretch is either initiated too quickly or is too extreme, the stretch reflex is activated, producing protective contraction. This reflex is mediated by the muscle spindles, complex sensory nerve receptors that register potentially harmful levels of tensile stress in the muscle fibers. Through a reflex loop to the spinal cord, the over-stretched muscle is stimulated to contract and its antagonist muscle is simultaneously relaxed. Holding stretches allows the muscle spindles to habituate, neutralizing the stretch reflex. Also, in a held stretch, the lengthening reaction controlled by the Golgi tendon organs has time to come into effect, further relaxing the muscle and allowing it to elongate.

Never work through resistance

Forcing generates resistance. We wish to convey to the receiver's subconscious that we respect and support her limits. Pushing beyond the limits of flexibility sends the opposite message.

Take into account tonus

Muscles have a natural resting length resulting from a certain amount of ongoing firing, individual to each muscle and the psychological state of the person. When a stretch acts upon a large number of muscle fibers, as in the Accordion, this natural tonus may be confused with resistance. With experience you will be able to gauge appropriate levels of effort to use, how far to take stretches.

Recognize hard and soft end feel

At the end of a stretch there will be a feeling of resistance. A hard end feel is bone impacting bone and signals beyond question the final degree to which the stretch may be taken. The neck of the humerus impacting the acromion process of the scapula in abduction is an example. The neck of the femur impacting the acetabulum is another example. A soft end feel results from soft tissue limiting the stretch. This can be muscle, tendon, ligament, joint capsule or fascia. Here the stretch may or may not have reached its limit. Watsu stretches are rarely taken to the absolute end of the range of motion.

Know when to apply certain stretches

Fuller stretches and more intimate stretches are reserved until later in a session. They include arches to the back (especially those lifted out of the water), twists to the spine and the Leg Over positions. Aside from applying more force, stretches may be strengthened in the following two ways:

1. Accelerate the position through the water. Hydrodynamic force does the work..
2. Lift the body partially out of the water. Those parts in the water pull down on the part you have hoisted.

Finish with the fullest stretch

Muscles exhibit kinesthetic memory. Repeated movements such as cycling that do not utilize the full range of motion tend to cause the muscles involved to "forget" their previous length and shorten. On the other hand they will "remember" the last stretch they receive as their reference point for a new resting length. Thus, they "set" at the length they are habitually or last stretched to. Therefore let the last stretch of any given series be the fullest.