

COLD WATER DOUSING

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The Russian Martial Art of Systema incorporates five essential principles in their underlying health system:

Fasting can take on three essential forms:

1. Cleansing the body through fasting;
2. Health through correct movement;
3. Breathing;
4. Interaction with nature and;
5. Strengthening the body with water.

The purpose of this brief article is to explain the practice of cold water dousing and to call upon varied fields of research to substantiate its value. Throughout history, cold water dousing has been used by different cultures to improve strength and awareness safely and inexpensively. This takes on two forms: **cold water dousing** and **cold water bathing**. These traditions were often integrated into religious and warrior traditions and as such have appeared in martial arts training regimens. Although this article will focus on the manner in which this approach is taught in the Russian Martial Art of Systema, it should be duly noted that similar practices exist in the Asian arts as well. Most notably, Zen masters are renowned for cold-water therapy. Aikido founder, Morihei Ueshiba was renowned for his daily dousing routine. Every morning, regardless of season, he would douse with ice-cold water and then commit to an hour of Zazen (kneeling meditation). Similarly, to this day, in Japan, the Nichiren Buddhist priests celebrate life by stripping to their loincloths and pouring ice-cold water over themselves at the culmination of 100 days of fasting and meditating.

Dousing involves taking a large bucket, filling it with water as cold as you are able to get it from Nature (in our case, the tap) and then pouring the contents over your standing body, from the head down and repeating this immediately a second time. In the Russian tradition, dousing should be performed twice a day, with two buckets being poured in the early morning and two in the late evening before going to bed. Ideally, dousing should be performed in Nature, with your bare feet directly in contact with the earth, regardless of the weather or temperature. Failing this, it is acceptable to perform the douse while standing in your bathtub or shower stall although the connection to Nature will be far less powerful. While its permissible to take a hot shower or bath first, it is important to never follow your douse with hot water or else you will negate the benefits.

From a mental discipline perspective, dousing can be a constant challenge. Every douse, your inner dialogue will be at war with your common sense, looking for a dozen reasons not to continue between the moment of “filling” and the moment of “spilling”, but it is precisely this battle that will make you mentally tougher. One of the top three researchers on pain tolerance and conditioning in the world, Suzanne Kobasa, has noted that there are three universal personality characteristics that comprise the psychologically “hardy” individual. They are: Control, Commitment and Challenge. In a detailed study of executives, she found that it was precisely these three attributes, which made the difference between a highly stressed individual thriving or becoming ill. Survivors, she noted, viewed stress as a challenge and maintained their sense of control over events by actively engaging themselves in such situations, practicing the act of commitment and control through their volition. Those more prone to illness, were “comfort-seekers” who found excuses to avoid pain and discomfort.

Added to this, is the sheer psychological power of cold. The most universally accepted pain threshold test is known as the Cold Pressor Test. Simply stated, this test involves having a candidate volunteer to submerge their bare arm in a vat of ice water up to the elbow. This test has been widely used to measure pain tolerance, precisely because it is inexpensive, safe (providing you do not submerge for more than 5 minutes at a time) and effective in conducting a tremendous amount of pain. Cold is a universal deterrent. Throughout the history of our planet, cold has been a powerhouse motivator. Whether, driving us to seek out shelter and become sedentary (which led to a host of related advancements like art and writing), or simply motivating us to migrate and seek warmer climates, or possibly even pushing us to discover fire, cold has been an integral stimuli in our evolution.

Building on Kobasa’s work, a research team at the University of Hull, proposed that there was a fourth component as well--confidence. Their research in the field of mental toughness, showed that confidence and “skill familiarity” played a key role in pain tolerance. The more familiar an individual became with an activity, the more pain they were able to withstand within that activity. This process of conditioning through the gradual and continued exposure to stress within a controlled dynamic is known as “Stress Inoculation”. Weiss and colleagues observed this “toughening up” phenomenon after exposing animals to a variety of stressful stimuli, which included electric shock, injections and cold-water swimming for a 14-day period. Even within this brief time period, the animals were found to become more tolerant to the stimuli. As an interesting side note, in keep with the findings of the Cold Pressor Tests, cold exposure was found to be the most painful of the stimuli.

This idea of stress inoculation teaches the practitioner to counter “learned helplessness” with self-control. Research has shown that this technique is even more effective when the subject volunteers for the pain or in some way controls it, as we do in dousing. Research has also shown that continued, controlled exposure to stress in a safe environments, teaches the body to become more effective at dispersing secreted stress chemicals (like

adrenalin and cortisol) and with conditioning, the body learns to return to normal baseline chemical levels more quickly, thereby avoiding many of the chemicals injuries that can occur ranging from the jitters to full-fledged post traumatic stress disorders. For this reason, dousing becomes more effective every day as its cumulative effects are collected.

A wide body of research has also shown that pain tolerance correlates directly to competitiveness and athletic performance. This is hardly surprising, given that a fear or anticipation of pain will create reluctance in the individual that will hinder their capacities. If we think of any truly great athlete, we will likely all remember instances of them thriving despite adversity. Muhammad Ali's first victory over Sonny Liston comes to mind. Devastated and surprised by Ali's capacity, Liston's corner man slathered toxic resin on Liston's boxing gloves which he then rubbed in his Ali's eyes. During the middle rounds of that fight, Ali can be heard screaming, "My eyes, my eyes. I can't see" as he covered up and weathered the most unbearable barrage of punches. His corner would not throw in the towel however and within two rounds, his sweat began to wash the toxin away and Ali immediately continued his onslaught. The moment Ali's vision was regained, Liston miraculously complained that he had torn his shoulder and like all bully's (who by their natures seek to avoid true challenge) he sat cowering in his corner as Ali was declared the new champion of the world.

Beyond sheer pain thresholds, dousing will massively increase your overall body awareness or what researchers call "kinesthetic intelligence". Kinesthetic researchers have found one common truth in their studies: it is difficult if not impossible to move a body part unless you are first able to feel it. From this perspective alone, cold water dousing will give you an entirely new awareness of your total body and make you able to explore and discover new subtleties in your movement. In Systema, we often say that you will live the way you douse. If you run away from the challenge of dousing and choose the comfort and warmth of your bed over the conditioning and intentional work of dousing, you are in effect choosing to reinforce weakness and the self-image of yourself as a quitter. If you douse, but race through the activity as something you simply "should" or "must" do but fail to appreciate the practice, then you will likely live most of your life in the identical way, without the mindfulness and joy you deserve. As Jack London wrote, "the purpose of man of to live, not to simply exist." The way in which you douse will also evidence your body's natural flinch responses. If during your douse, you flinch, hunch your body, grow tense and forget to breathe, you would likely react in the same manner in the face of any pain or extreme stress. Dousing will reveal much of your true nature.

The work of dousing begins with awareness. Make a conscious effort every time you douse, to maintain a strong and correct standing posture. Your body should feel balanced and in alignment, relaxed and natural, with every component of your column stacked above the one beneath it. Your joints should be loose and elastic, not rigid and locked. It is essential that you do not stop breathing. In Systema, emphasis is placed on inhaling pain through the nose and exhaling sharply through the mouth as quickly or as slowly as the situation dictates. With time, your breathing should become

more and more relaxed until it is entirely unaffected by the introduction of the water. At this point, you will notice a feeling of absorbing both air and water throughout your entire body and a gentle sense of fluctuation moving like a wave across your structure. With each douse, your body will instantly grow warmer and you will feel more free until it seems as if you were radiating like a small sun. Master Vladimir Vasiliev in *The Russian System Guidebook* wrote:

“It’s almost like having a mini-explosion take place inside of you. Your body temperature rises to nearly 42.2 degrees Celsius (that’s nearly 108 degrees Fahrenheit). It feels like a pleasant warmth and surge of energy inside. Meanwhile, this explosion of warmth will kill off most bacteria and viruses. Indeed, 40 degrees Celsius is deadly for most viruses and bacteria and this procedure raises body temperature 2 degrees Celsius (and nearly 4 Fahrenheit) above that.”

It is important to note that simply running the cold water in your shower is not the same as dousing. A cold shower, must run for much longer to generate the same quantity of water as a bucket and will never pack the same punch as a bucket. The prolonged exposure in the shower necessary to contact the same quantity of water, while refreshing in some ways, risks adding tension to the body tissue instead of removing it and can even strain or tear muscles. There is also a strong psychological component to the bucket. As you fill it, there is an unmistakable element of intention. You are preparing it with your will. This goes back to Kobasa’s mental toughness research. A shower by comparison is much less conscious and can be turned on and off quickly, permitting you to quit. With a cold shower, the difficulty is staying in the water. You become so preoccupied with the endurance aspect that you fail to appreciate it. With dousing, the work requiring will power occurs before the act, not during, which allows you a fuller enjoyment of the water’s power as it occurs. Most of us have enjoyed the minor benefits of dousing by washing our faces with cold water. This simple routine triggers a natural response, known as the **Mammalian Diving Reflex**, which signals the heart and lungs to slow in order to conserve oxygen and energy to fight the cold. This is something widely understood and employed by cold water scuba divers who understand that because of this conservation aspect, with training it is possible to hold one’s breath much longer in cold water than warm water.

Dousing offers this same feeling of overall refreshment and awareness on a bodily scale and to a much greater degree. The reason this is so refreshing is that when the body is exposed to hot water, it draws blood to the surface of the skin and away from the internal core, causing blood vessels to expand. By comparison, exposure to cold water causes blood vessels to temporarily tighten, draining blood out of the extremities and carrying the lactic acid and toxins that have gathered there away. A moment later, the body surges with a wash of “new” blood that invigorates the muscles with fresh oxygen and improves cellular function. This response carries a wide number of measurable physical health benefits that include:

1. Stimulating glandular activity;
2. Stimulating and increasing muscle tone and nerve force;
3. Improved digestion and increased metabolism;
4. Increased immune system activity leading to better resistance to illness;
5. Increased blood count;
6. Brain and central nervous system stimulation;
7. Improved oxygen intake in the tissues.

Toxins from overuse can collect in the tissues like bruises and cramps and over a long period time can contribute to a feeling of fatigue, heaviness, limitations in ranges of motion and poor motor control. Dousing regularly helps improve the internal circulation in your body and encourages a higher degree of cleansing and function.

In the past 2 decades, the ancient practice of cold-water therapy, known as “tempering” has grown in popularity, specifically in the form of “ice baths”. This involves having athletes simply submerge their body (often up to neck) in ice cold baths to speed recovery times. According to physiotherapist Craig Smith, the process is about helping the muscles, tendons, bones and nerves recover more quickly from workouts. Smith notes that most of the players at the 2003 Rugby World Cup were regularly taking ice baths after training and games to avoid injuries.

In a report from the 2004 Olympic games it was similarly noted that Ice baths were a tried and trusted method for recuperating in the Olympic village. In fact, ice baths were in such demand, that huge rubbish bins were being used as substitutes to supply the athletes there. Benny Vaughn, a physiologist with the American teams explained “it’s tough for the first two minutes, but once you feel the benefits, you start to crave it.”

From a more therapeutic perspective, ice baths have begun to be used among stroke victims. Lowering the temperature of stroke victims is now believed to reduce brain damaged and limit further damage caused by clot-busting drugs that restart blood flow—a phenomenon know as reperfusion damage. In a recent study, researchers induced mild hypothermia in patients and found the effects entirely safe and effective. Studying 19 stroke patients who had shown little to no improvement after drug treatment, they subjected 10 to cold water treatment. Three months later, researchers found that cooled patients had significantly lower levels of disability and higher level of motor control and kinesthetic awareness. (www.bbc.uk).

A story in the Indianapolis Star (6/4/04) found that ice baths are also being effectively used to combat heat stroke. Similarly, research published in a Russian medical journal (Davydova OB, Turova EA, Teniaeva EA) found that dry-ice baths are being used to successfully treat diabetic patients with micro and macroangiopathies. This led to a decrease in hyperglycemia, glucosuria, and an increase in muscular performance, myocardial reserve and cardiac efficiency. (PMID: 8597210 [PubMed - indexed for MEDLINE])

Caution should be taken however. Most of the research on Ice Bathing has been conducted on individuals with specific conditions under medical supervision, or by high performance athletes. In fact, specialists at the Institute of Physiology, The Komi Research Center, The Russian Academy of Sciences and The State University of Syktyvkar have found that “winter swimming” with individuals between the ages of 40-48 can in fact be dangerous and can lead to overstrain of the body’s heat regulation mechanism. The researchers noted that the main difficulty was that the individuals did not require extreme submersions and that it was precisely the prolonged nature of the bathing and swimming that offset the benefits of the cold water. This is precisely the reason why Systema advocates dousing rather than ice bathing.

In the end, Dousing remains a psychological stepping-stone to true self-mastery. Returning to the research conducted at Hull University, one of the exercises conducted involved 23 volunteers performing 30-minute cycling on a stationary bike. In the first study, they performed at 3 different intensities (30, 50 and 70% optimal oxygen intake) and they rated the physical demands at five-minute intervals. Participants were classified as having either high or low mental toughness based on their responses. As predicted those with higher levels of mental toughness reported lower exertion at 70% of maximum. No difference was detected at lower exertion levels. The researchers believe that the differences at higher levels of exertion could reflect a tendency of the more tough-minded to somehow act on the incoming stimuli before it reaches the level of perception to reduce the perception of strain. To use Kobasa’s language, the mentally tough were more likely to perceive the stimuli as a challenge rather than a threat. In a second study, 79 participants were given either positive or negative feedback after completing a variety of motor tasks and then asked to perform a planning task that was used as the objective performance measure. As predicted, mentally tough participants performed better on planning tasks, delivering consistent performances regardless of the feedback they received. Those with lower levels of mental toughness performed significantly worse after negative feedback, confirming the correlation between mental toughness and physical resilience.

A person’s reaction to pain and suffering is largely perception-based. A prominent American Hypnotist notes that in Lithuania, there are no laws permitting financial compensation for whiplash. In a study of 200 people who survived serious car accidents in Lithuania, it was found that only 1/3 of these people reported headaches or neck pain and most said they already

had that before the accident. No one reported whiplash. In North America, we validate whiplash through financial compensation. With this in mind, if we build dousing into an insurmountable pain and convince ourselves that it is too uncomfortable or tough for us, we will fail and never be able to achieve it. If by comparison, we turn it into a game and see it as a challenge, or as a medicine that we take pre-emptively every day to make ourselves stronger, we will crave it.

*Experiencing fear is no reason for discouragement.
Because we experience fear, we are entitled to
experience true fearlessness.*

—Chogyam Trungpa—