

SHOWCASE™ Institute



General Wellness

Reversing Gravity can lead to a Better Body!

Inversion's benefits exceed those solely related to the prevention and/or relief of back pain. Reversing gravity can lead to a better body:

Increases oxygen to the brain

Your heart must work against gravity to pump blood up to your brain, which is the body's largest consumer of oxygen. Although it is only 3% of the body's total weight, the brain consumes 25% of your body's oxygen.

Win Wenger, in [How to Increase Your Intelligence](#), noted; "only those brain cells which are closed to an ample capillary blood supply are thoroughly developed. Away from such source of supply, brain cells remained undeveloped and useless. In short you can much improve the physical state of your entire brain." A brain, which is better, nourished simply works better. Peter Russell notes in [The Brain Book](#) "the brain operates 7% faster and 14% more accurate while inverted."

While in the final development stages, a baby is inverted in the mother's womb. This inverted "downhill" pull forces oxygen and nourishment laden blood into the brain to accelerate development by the time of birth.

A treatment for hair loss

Andy Bryant, the author of [The Baldness Cure](#), sites three prime causes of hair loss:

- 1) Blood has difficulty getting through to the hair follicle owing to vasoconstriction and muscular tension.
- 2) The blood that does get through carries with it insufficient nutrients for hair growth.



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3) The waste products from cellular activity find it difficult to drain away from the scalp through the lymphatic system.

Bryant achieved his dramatic hair growth by placing optimum blood flow back into the scalp. He accomplished this by inverting with the aid of an inversion device. Inverting with the inversion table allows for a balanced, controlled inversion session. If the process was not controlled, the body could become distressed, which brings about a restriction of blood flow.

Not only does inversion make it easier for blood to run downhill toward the capillaries in the scalp, but the capillaries are opened further when bar receptors in the neck and chest sense an increase in blood pressure to the head and act to reduce that pressure by dilating all the capillaries in the body (including those that service the hair follicles.) Additionally, our bodies react to stress by diverting blood away from the hair follicles to other parts of the body. The blood in the body thickens, the body becomes slightly dehydrated and the cholesterol level increases. High stress levels can eventually cause permanent damage, so that no blood gets through to the hair follicle. Using inversion therapy can therefore open the capillaries and force blood into the damaged area.

Increases blood circulation

The cardiovascular system is made up of the heart, veins, arteries, and capillaries. It is your body's transportation system, carrying food and oxygen to your body's cells. Your heart pumps blood through the system: oxygen-rich blood from the lungs goes out through the arteries and waste-filled blood comes back from your legs and lower torso, carrying it upwards against the downward pull of gravity. Inversion allows your body to work with gravity to ease the circulation process. When you are inverted, gravity works for you, helping your heart move venous blood from your legs and torso to your heart and lungs to be purified.

Accelerates cleansing of blood and lymph fluids

Equally important, inversion speeds the flow of lymphatic fluid, which in turn clears the body's wastes from your cells and circulates antibodies important to your immune system.

Unlike the cardiovascular system, the lymphatic system has no pump. Only the alternating contraction and relaxation of muscles moves lymphatic fluid "uphill" through capillaries and one-way valves to the upper chest where it enters the blood stream for cleansing. Inverting the body so that gravity works with, not against, these one-way valves helps to push the lactic fluid up to the chest. The faster the lymphatic system is cleared, the faster the ache and pain of stiff muscles disappears.

Improving skin tone

Increasing the circulation of blood to the head through inversion may also improve the color and tone of your skin. On her return to earth, an American Astronaut stated she was happy to return home - her only regret was that in space (a gravity-free environment) she had lost all her wrinkles. (Under research)



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Decongests Abdominal Organs

The older we get, the longer our bodies have been exposed to the compressive effects of gravity. As your body gets older, organs begin to prolapse. Inversion helps these organs (kidneys, stomach, intestines) resume their normal shape and position in the body. Middle age spread is partly due to the relocation of internal organs. Digestion and waste elimination problems are common symptoms of prolapsed abdominal organs. We blame these problems on old age but they are more directly related to the long-term effects of gravity.

Relieves varicose veins

The veins in your legs work against gravity to bring blood back to the heart. These veins have valves to assist in the upward movement and to keep the blood from draining back downward. When the valve gives in to the downward pull and allows blood to slip back, blood tends to pool in that spot, which causes the vein to distend or bulge.

A distended vein can be painful. When inverting, you are helping your heart to clear the blood from your feet, legs, and lower body. This allows the blood in your lower limbs to circulate more easily, draining blood from varicose veins.

Improves vision

Increasing the blood flow and oxygen to any organ will enhance its function. Your eyes, particularly the retina, are large consumers of oxygen. Flooding the retina once or twice a day with blood may enhance and maintain their acuity. (NOTE: Consult with your medical advisor if you have retinal detachment or glaucoma before beginning an inversion program.) 2

Summary

Every organ in your body requires oxygen. Increasing the blood circulation, thereby increasing the oxygen to your organs benefits your eyes, ears, brain, hair, and skin tone.

Inversion encourages your organs to retain their natural shape and position in the body.

Inversion aids circulation in your legs helping to prevent varicose veins.

INVERSION THERAPY CAN BENEFIT EVERY ATHLETE

People who are into fitness and athletics are probably expecting some long-term health benefits from any activity they undertake. As athletes increase the duration or the intensity of an activity the body is forced to adapt to the increased stress and grow stronger. In its simplest form that is the process of exercise, and it's how we condition our bodies and more become fit.



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What may not be so easily recognized are the potentially negative effects exercise can have on the body as athletes pursue fitness and recreation activities. The most powerful force athletes must overcome, both during and after training, is one of the immutable laws of nature: gravity.

Unless someone spends time as an astronaut, gravity is with the athlete every day. In the search for ultimate fitness, physical activity only increases the compressive effect of gravity on the spine and organs. Inverting the body is a naturally restorative process that cuts across every form of physical activity to help reduce spinal compression, the build up of lactic acid in the muscles, and the slight skeletal ***misalignments*** athletes create during exercise. Inversion can indeed benefit every athlete.

The daily use of what's come to be known as inversion therapy, hanging by the lower limbs and allowing body weight to decompress the spine, is a simple, yet highly therapeutic way of naturally creating a mild form of spinal traction. It's a way to counteract the forces that compress the spine when sitting, standing, or exercising. Additionally, by hanging upside down, a mild stretch is placed on the calves, shins, quadriceps, buttocks, and the lower and upper back, which can also relieve the tension created by various activities.

Inverting the body for only a few minutes twice a day in simulated weightlessness will decompress spinal discs, relax muscles, realign the spine, and reduce stress and tension. Inversion provides an optimal method of relaxation for the upper body and back. Inversion will stretch and decompress the back muscles while promoting better circulation of blood, fluids, and waste products.

Hang Ups has categorized four groups of athletic activities which can receive substantial benefit from inversion therapy.

COMPRESSION FATIGUE

Nearly every physical activity involves some form of compression of the spine. The compressive effect of gravity is compounded by activities such as running, weightlifting; aerobics, skiing and biking that can exact an incredible toll on the spine, discs, and muscles.

ONE-SIDED SPORTS

One-sided activities may be the most damaging and troublesome for the athlete for two reasons; one, because the body will tend to compensate for the strong-side muscle groups, pulling the spine out of alignment, and two because these activities involve rotation of the spine, often under incredible loads. Examples of these activities are golf, water skiing, tennis, bowling, racquetball, and baseball.

STRETCHING SPORTS

Stretching activities tend to create tension in the muscles due to contraction of the major muscle groups and the body positions maintained while performing the activity. In-line skating, swimming, windsurfing, and rowing are examples of activities, which, while stretching the muscles and ligaments, tend to create a great



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deal of lower back strain. Athletes in these sports can receive a tremendous recuperative boost from daily inversion therapy.

INVERTED ACTIVITIES

Man operates in an upright position, with our orientation in the gravitational field being established through several sensory cues. When we find ourselves upside down it's disorienting, and sometimes uncomfortable. But the performance of inverted activities can be enhanced significantly through inversion training. For skydivers, gymnasts, springboard divers, and scuba divers, inversion therapy fine-tunes the body and the inner ear to the inverted world.

Two methods of inversion are currently available from for the athlete.

EZ -UP INVERSION SYSTEM (Inversion Boots)

This is the classic form of inversion made famous by **Richard Gere's** role in the movie **American Gigolo**. By using the EZ-UP inversion rack (a modified, dual-handle chin bar with lower handholds) hung between a doorway, and a pair of flexible, padded SL Spyder Gravity Boots, athletes can hook their ankles over the inversion bar to experience the benefits of inversion.

However, using the boot and bar allows the athlete to only hang in one position - completely upside down. Hanging free from a bar enables the user to stretch, twist, rock back and forth, and perform sit-ups, plus it helps to orient athletes to their body position while inverted. And while complete inversion does provide an optimal level of spinal traction, it's not for everyone. The EZ-UP Inversion System is best suited for the active, fit person. **Showcase does not sell inversion boots.**

INVERSION TABLE

On the other hand, an inversion table allows someone to put himself or herself into an inverted position very easily, and with greater control. An athlete can choose varying degrees of inversion to gradually become comfortable with the process. The Showcase Inversion table has a tether strap to hold the inversion table at any level of decline.

Using an inversion table works on the same principle as the teeter-totter; by adjusting the table to your height, and then making an adjustment for your upper body weight, you can balance the inversion table. Raising the arms above the head will make the table go into a more inverted position. By lowering the arms to the waist the table will return to the more upright position.

With a little practice, it's easy to quickly move the body back and forth from the head-up to the head-down position. This rhythmic oscillation improves circulation throughout the body, draws fluid to the spinal discs, and creates a natural pumping action for the lymph system, one of the prime movers of waste products in the body.

No matter which method an athlete chooses, the reason inversion can be so stimulating for the body, and so relaxing for the mind, is because inversion decompresses the spine and increases the circulation and flow of fluids throughout



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the body and to the brain. At the same time, being inverted allows the muscles to temporarily stop contracting in their constant attempt to maintain an upright body position against the force of gravity.

All athletes should acquaint themselves with inversion therapy. From the broad spectrum of recreational athletes needing a decompressive stretch after a workout, to the professional athlete who has to be at full strength for the next day's event, inversion has a place in their training program. The benefits of allowing the body to naturally realign and relax every day are simply too substantial to overlook in the quest for athletic improvement.

INVERSION THERAPY: A NATURAL APPROACH TO CORRECTING BACK PROBLEMS

So you think hanging upside down to relieve back pain is some wacky, new age idea? Think again. It's believed that inversion was used as early as 400 B.C., when Hippocrates, the father of medicine, first watched a patient have his knees and ankles tied to a ladder to be hoisted upside down for a dose of what's come to be known as spinal traction.

The Greek theories on inversion are still valid, but today there is a much easier way to relieve the back pains most people experience from time to time. The process is called inversion therapy, and it can be the natural way to a better back and a better body.

Back pain is one of the most common physical complaints in the world. Every day, it's estimated that some eleven million Americans struggle to get through a day complicated by an aching back. In the United States alone, some 93 million workdays are lost each year due to back problems. There is overwhelming evidence that spending a few minutes each day hanging upside down can be beneficial to your back, and to your general health, by simply counteracting the continuous downward pull of gravity. Hang Ups inversion equipment offers a safe and comfortable way for anyone to benefit from the soothing sensation of inversion.

The concept of turning the body upside down for better health has been around for centuries. In yoga, yoga practitioners have used the Shirsonana headstand position as a rather painful form of postural exchange (reversing the direction of gravity). However, not everyone wants to do headstands, and that created the market for Hang Ups inversion tables, gravity boots, and racks.

Over time, the compressive force of gravity is particularly harsh on the spine because of the flattening effect on the spinal discs. The intervertebral discs act as shock absorbers between the vertebra, and consist of a cartilage covering which surrounds a gelatine-like center. Combine the compressive effect of gravity with stress, weak back and stomach muscles, or an exercise program, and you have all of the ingredients for back pain.

There is a minimum of 32 pounds per square inch (psi) of pressure on each spinal disc, even when a person is lying down. When we stand up, the pressure triples to about 100 psi. And when you sit down, spinal disc pressure rises to a whopping 225 pounds per square inch! Inverting the body is the only way to completely reverse the negative effects of gravity.



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Of course, it's impossible to offset the postural debit of a lifetime just by jumping on an inversion table. But by spending a few minutes inverted each day, two or three times a day, people begin to feel results by the end of the first week. After a month of inversion, most people don't know how they ever got along without it.

Both physicians and chiropractors report positive results from using natural gravity-inversion traction with patients. A neurosurgeon in San Francisco says it [inversion] seems to get people over the acute phase quicker than other forms of therapy. We believe that inversion can benefit the discs, strengthen ligaments and soft tissues, and relieve muscle spasms. We've also had success with patients suffering from herniated discs.

Besides providing relief from back pain, a daily dose of inversion can help to promote good health by correcting common spinal alignment problems, eliminating tension headaches, reducing haemorrhoids, alleviating the discomfort of varicose veins, and stimulating mental alertness.

Dr. Robert Martin, a Pasadena orthopaedic specialist, popularized inversion. Dr. Martin encouraged his patients to pursue an inversion-therapy program as a first-round alternative to back surgery. He provided relief to hundreds of patients through inversion, and patented his own brand of inversion equipment in 1963.

In 1982, Dr. Martin told The Wall Street Journal, it's very simple why inversion works. All day long we're either standing or sitting, with gravity pressing down on us. Hanging by the feet allows our bodies to decompress, our spines to be realigned, and our joints to separate. A little inversion goes a long way, and the relief it brings is often almost instantaneous.

Quite simply, inversion allows gravity to help the body to naturally correct and align itself. You stretch out and elongate your spine, get blood to the brain, invert and reposition internal organs, and take stress off of the heart, which usually has to pump blood uphill to the brain.

As with any new exercise program, if someone is in doubt about his or her level of fitness, or if they are over the age of 40, consult a physician before starting an inversion program. Inversion is not recommended for people with extreme weight problems, those with a history of stroke, acute back injuries, or high blood pressure, and it is very important that people with these conditions consult with their doctor before trying inversion. Also, individuals who have bone disease, retinal detachment, or any other serious eye disorders would be advised to avoid inversion without their doctors permission.

For someone with a back problem about to begin a program of inversion therapy, Hang Ups has a few helpful suggestions.

Begin slowly: Invert only 15 to 20 degrees at first, and stay inverted only as long as it feels comfortable, which may only be a few seconds at first. Remarkably, you can gain all of the benefits of inversion without ever fully inverting yourself. Most people find 20 to 60 degrees of decline adequate and very comfortable.

Make changes gradually: Increase the angle of decline only if it is comfortable, and only increase the angle a few degrees at a time. The Hang Ups F5000III inversion



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table has a tether strap to help people stay within their inversion range. People can add rocking back and forth (rhythmic traction) to their inversion program once they feel comfortable.

Pay attention to your body: You're unique, and your body will tell you what's good for it. You determine the pace when adapting to the inverted world.

Keep moving while inverted: Use intermittent traction (pull and release) or rhythmic traction to encourage blood, lymph, and spinal fluid circulation. Moving, twisting, stretching, and light exercise while inverted aids in the alignment of bones and organs while minimizing any increase in blood pressure, but strenuous exercise is not recommended while inverted. Just relax and enjoy!

Do it regularly: There are a variety of inversion programs and exercises. Trust yourself to find the approach that is best for you, and then do it every day. Two or three short sessions a day seem to work best for most people.

Based on years of research and the testimonials of hundreds of people who have found relief from back pain, inversion is a powerful, natural option for people who want to relieve lower back pain. Sometimes there is an explanation for why inversion works, and sometimes there isn't - it works for some and not for others. We only know that, for many people, literally turning their world upside down through inversion therapy can provide an alternative to drugs and surgery in a life filled with daily pain.

Medical Studies

The Role of Spinal Inverted Traction

Diagnosis	Number of Patients	Improved After Inversion	Unimproved
Herniated Disc	85	76	9
Protruding Disc	66	57	9
Spondylolisthesis	10	10	0
Sciatica	10	10	0
Coccygodynia	4	2	2
Total	175	155	20

Sheffield, F.: Adaptation of Tilt Table for Lumbar Traction.
Arch Phys Med Rehabil 45: 469-472, 1964.

175 patients who were unable to work due to back pain were treated. After eight inversion treatments, 155 patients were able to return to their jobs full time. Study concluded that the main basis for improvement was the stretching of Para spinal vertebral muscles and ligaments and possibly the widening of intervertebral discs. Study found significant improvements in a variety of diagnosis including



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spondylolisthesis, herniated discs, lumbar osteoarthritis with sciatica, and coccygodynia. Patient experienced traction in a modified hip flexed position.

**Nosse, L.: Inverted Spinal Traction.
Arch Phys Med Rehabil 59: 367-370, Aug 78.**

Study found EMG activity (an indicator of muscle pain) declined 35% within the first 10 seconds of inversion. Study found that inversion increases the spinal length. Study concluded there are a correlation between a reduction in EMG activity and an increase in spinal length.

**Gianakopoulos, G, et al: Inversion Devices:
Their Role in Producing Lumbar Distraction.
Arch Phys Med Rehabil 66: 100-102, Feb 85.**

Study found all subjects experienced intervertebral separation in the lower lumbar vertebrae. Study concluded that although mechanical traction has been used for centuries, only gravity assisted traction (inversion) offers an effective means of achieving pelvic traction at home.

**Ballantyne, Byron, et al:
The Effects of Inversion Traction on Spinal Column Configuration, Heart
Rate, Blood Pressure, and Perceived Discomfort.
Jour of Orthopaedic Sports Phys Ther. 254-260, Mar 86.**

Study concluded that inversion could be an effective means of spinal traction. Subjects inverting in the hip flexed position experienced greater separation between the lumbar vertebrae.

**Kane, M, et al:
Effects of Gravity-facilitated Traction on Intervertebral Dimensions of the
Lumbar Spine.
Jour of Orthopaedic and Sports Phys Ther. 281-288, Mar 85.**

Study found gravity-facilitated traction (inversion), produces significant intervertebral separation in lumbar spine. Study concluded gravity facilitated traction may be an effective modality in the relief of low back pain.

**Goldman, R, et al:
The Effects of Oscillating Inversion on Systemic Blood Pressure, Pulse,
Intraocular Pressure, and Central Retinal Arterial Pressure.
The Physician and Sports Medicine. 13: 93-96, Mar 85.**

Study concluded that full inversion using oscillation procedure presents no risk to normotensive healthy subjects.

**Vernon, H.: Inversion therapy: a study of physiological effects.
The Journal of CCA 29: 138-140. Sep 85.**

Study found a general reduction of EMG (an indicator of muscle pain) after three minutes of inversion. Study found the flattening of the lumbar spine involved a stretching of spinal muscles and ligaments, which lead to a 25% increase in forward



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spinal flexion. Study found significant intervertebral separation (posterior and anterior). Study concluded that an inversion chair might be sufficient to reduce the majority of intervertebral disc protrusions. Study concluded that the cardiovascular system (heart rate and blood pressure) remained stable through three minutes of seated partial inversion. Authors conclude this stability is due to the full comfort and support of the chair during partial inversion.

Meshino, J.:

**The Role of Spinal Inverted Traction in Chiropractic Practice.
ACA Journal of Chiropractic 18:63-68, Feb 84.**

Study stated the hip flexed position facilitates lumbar traction by flattening the lumbar spine and decreasing the loading effect of the poses muscle on the lumbar spine during traction. Study stated inversion therapy is preferred over mechanical traction because there is no need for a constricting harness and the safe and simple operation of an inversion chair allows the patient to administer traction. Study stated inversion helps to negate the effect of gravity on the spinal column. Study stated inversion offers promise as a form of prevention, maintenance, and therapy.



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