

Rebounding: Aerobic Resistive Exercise

by Tina Wellman, Ph.D.

What is the weakest force in the universe and has the most profound effect on the human body? Gravity. As we age, the relentless pull of gravity causes our body to sag in a southerly direction. We develop wrinkles, flabby forearms, portly midriiffs, varicosities, edemic feet and ankles, stooped shoulders, turkey necks and compressed spines, to name a few multifarious insults to our body shape. To compensate for this G-force we must continually work against it through body movement. Regular exercise is essential to maintain optimal health. Apiarian Royden Brown noted, "It has been scientifically documented that exercising regularly increases longevity and enhanced quality of life." The proverbial expression either use it or lose it applies to the body's need for daily exercise as well as to maintain musculoskeletal strength, immunity and psychobiological balance. The best nutrition in the world cannot sustain us if our circulation is stagnant and we do not receive oxygen-rich blood to our body's three trillion cells.

G-force—Gravitational Force:

Gravitational force is key to understanding resistive rebounding's health benefits. By combining the forces of acceleration and deceleration, body cells are tricked into believing they are being subjected to increased gravity. NASA clearly demonstrated the virtues of rebounding when they designed an exercise protocol in the zero gravity of space. Loss of bone density and muscle mass are the negative results incurred to astronauts soaring through the cosmos at zero gravity. Scientific blood analysis that included subjecting weakened blood cells (of returning astronauts) to increased G-force evidenced an increase in cellular strength. It is this increase in G-force during rebounding (specifically during deceleration) that challenges body cells to strengthen.

An Exercise for All Ages:

Rebounding knows no social boundaries and has no age limitations. Exercise guru Jack LaLanne often demonstrated rebounding on his popular TV exercise program. Comedian Bob Hope once noted, "I keep my rebounder at the foot of my bed and use it daily." Morning talk show host Regis Philbin enjoyed a rebounding session during one of his interviews with fitness expert and nutritionist to the stars, Rheo Blair, on his IS^Os "A.M. Los Angeles" television program. A rebounder even found its way into the White House during the Reagan administration.

Virtues of Rebounding:

Rebounding, or jumping on a mini trampoline, has universal exercise appeal and a plethora of health benefits. The repetitive rhythmic motion of bouncing on a mini trampoline provides a zero impact simple exercise method with high impact long-term (mental and physical) health benefits that extend from youth to old age:

- © Rebounding is 68 percent more efficient than jogging (as noted by NASA in a study published in the Journal of Applied Physiology). Improves digestion and elimination of cellular waste.
- © Accelerates metabolism to burn calories for weight control.
- © Increases oxygen uptake and promotes detoxification via the lungs, skin and lymph.
- © Has a natural analgesic effect on the body, relieving pain in the neck, back and head by increasing circulation and oxygen flow.
- ® Lowers blood pressure, triglycerides and cholesterol naturally by increasing oxy-genation and dilating the blood vessels for smoother and easier blood flow.
- © Improves circulatory disorders by increasing cellular respiration.
- © Promotes regular elimination. Exercise is known to increase metabolism and relieve constipation.

- © Has a stabilizing effect on the nervous system, thereby reducing stress. Rebound exercising increases endorphin output, thereby promoting the relaxation response. Increased oxygen flow increases our sense of well-being without the toxic side effects of narcotics or antidepressants.
 - © Is an excellent precursor to sports training, including golf, tennis, skiing, skating, mountain climbing and kick boxing without incurring joint trauma.
 - © Promotes physical and mental efficiency (and stability) by increasing oxygen levels and decreasing toxicity (heavy metals and cellular waste).
 - © Provides no impact aerobics, especially by Tina Wellman, Ph.D. helpful for those who are handicapped, arthritic, elderly or immune compromised with limited mobility.
 - © Is an optimal exercise method for pregnant women to stay in shape without incurring musculoskeletal trauma.
 - © Provides aerobic exercise without incurring stress to the joints.
 - ® Is an ideal method for teaching youngsters coordination and balance while encouraging physical fitness.
 - ® Provides a superior exercise for those who are immune compromised, including cancer and MS. Rebounding stimulates healing and cleansing. Rebound author and lecturer Linda Brooks notes rebounding two minutes every hour "is the ideal protocol for defense against cancer; in just two minutes the entire lymphatic system is flushed." The white blood cell count nearly triples, providing a greater defense system to destroy cancer cells.
 - ® Is a year-round exercise that can be performed indoors or outdoors and is easily portable to provide exercise on the go for those who travel. Great for stay-at-home moms, home business owners or office executives who can easily store a fold-up rebounder in a nearby room for easy access and convenience.
 - © Has a triple E rating—economical, efficient and effective. A single rebounder can provide years of daily exercise. It is convenient for those who are homebound, unable to jog or access a gym. It is readily portable (folds and fits into its own travel case) and stores neatly out of the way. Great for apartment, home, trailer dwellers or travelers. One can rebound year-round—indoors or outdoors, rain or shine. Six minutes of rebounding equals one mile of jogging. One can run several miles in place while rehearsing a speech, singing, talking on the phone, watching TV, listening to music or while jumping outdoors enjoying "helio" or sun therapy.
 - © Will not incur repetitive motion injuries.
 - © Has an optional stabilizing bar that makes this rebounder even more secure for those unsteady on their feet or having disabilities requiring a bar to hold onto while bouncing.
 - © Is excellent for toddlers. Movement affects balance.
- Rebounding has a positive effect on stabilizing right and left hemispheric brain balance.
- © Has positive implications for improving the mind/body connection, especially for learning disabled children exhibiting a poor sense of rhythm, coordination and balance. Medical journalist Dr. Morton Walker notes, when you move and exercise, you engage every brain and body cell. This has a profound and positive impact on stimulating neural activity.
 - © The father of modern aerobics exercise, Dr. Kenneth Cooper, discovered that alternating aerobic exercise with weight training actually increased strength. His Institute of Aerobic Research documented the strength gains from resistive rebounding in 1981.

Selecting the Ideal Rebounder:

Price point, aside from durable materials and construction, is a common denominator when selecting exercise equipment. Knock off toy rebounders are readily available market wide. If you are truly rebounding for health, selecting a high quality mini trampoline that will enable you to jump the extra mile in comfort and that meets high quality manufacturing standards is paramount. Needak Mfg. of O'Neill, Nebraska is the only USA-based manufacturer of Soft-Bounce™ rebounders. Since its inception in 1990, Needak® prides itself in setting the gold standard as the premiere mini trampoline manufacturer in the industry, maintaining quality control from design to finished product.

Needak's Soft-Bounce rebounder weighs 25 pounds and includes three main components: a mat, a set of springs and a frame. A tightly woven stretch and UV resistant Permatron™ matting is mounted on a 40-inch diameter heavy gauge steel round shaped platform that provides the framework needed to support a Soft-Bounce comfortable jump.

This unique design (as opposed to square or octagon shape) provides uniform stress upon all components—mat, springs and frame. Needak's barrel shape springs absorb an estimated 85 percent impact per bounce. This feature is in stark contrast to low end, imported, mini trampolines constructed with shorter springs that are significantly more rigid.

Obviously age, wear and tear on any metal spring will eventually cause any spring to succumb to breakage. However, choosing durable materials at the outset provides for longer active life before spring replacement becomes necessary.

Needak's hinge design is virtually indestructible. It includes spring-loaded legs which

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complement their half-fold system (carrying bag included) that provides for easy portability (to hotels, in a trailer or in a car trunk) or storage (in a closet or under a bed). An optional stabilizing bar can be secured to the trampoline frame for seniors and those with injuries or health issues that require additional support.

On initial inspection one might conclude that aerobic resistive rebounding restricts the exerciser to bouncing in place. However, resistive rebounding instructor, author and lecturer Linda Brooks quickly enlightens us on rebounding's diverse applications including strength training and toning the abdomen. Needak offers a wealth of videos and books including Linda Brooks' library of rebounding techniques and health benefits for a diverse audience. These learning aids even address issues involving degenerative illnesses and cancer.

Additionally, Olympic fitness trainers Dr. and Mrs. H. Sneider (owners of Sneider's Fitness Center in Pasadena, Calif.) illustrate a comprehensive fitness program in their book Olympic Trainer.

The Sneiders encourage using sandbag weights for building upper arm strength and endurance.

Rebounding is no stranger to the health community, totalhealth editor and nutritionist Ann Louise Gittleman Ph.D., CNS, and exercise personality Joanie Greggains note the importance of rebounding as an effective way to stimulate the lymph system in their book, The Fat Flush Fitness Plan to be published by McGraw-Hill in January 2004. They advocate rebounding as part of their regimen for maintaining health and well-being.

Reflections for long-term health:

As children we are inherently inclined to move from a young age ... we crawl, walk, run and jump. As we transition from childhood to adulthood we exchange our active and mobile lifestyle for a sedentary and immobile one, where our daily exercise routine is restricted to clicking a computer mouse or the remote con-

trol, or depressing the microwave keypad to heat up a prepackaged dinner. We sit at our desk, on our couch, in our car, on a train, in a plane and expend brain energy without physical movement. Then we wonder why we experience intermittent brain fog and increasing weight gain in unwanted places.

In our high-tech society where everything around us is increasingly automated and demands less physical effort, our lack of movement is increasing our health

risks (and abdominal girth) while negatively affecting our mental acumen. We require high levels of oxygen to think clearly—something sitting cannot accomplish. Movement is vital to circulate the blood that carries oxygen to the brain. The moral: Keep active and take advantage of a simple non-toxic method of exercising that is easy on the budget and beneficial to the entire body.

Given our nation's health crisis which includes cardiovascular disease, cancer and obesity, let's find the time to take a few minutes each day to improve our health. What a difference those few moments make in providing us with improved mental and physical well being. Otherwise we will have to resort to toxic measures to treat failing health conditions which could be avoided by taking some preventative measures like rebounding. Why take blood thinners and blood pressure pills when we can avoid the problem by encouraging good circulation?

We all learn what we live as children. Isn't it time to set the pace for the next generation and encourage everyone to preserve their youthful health, vim and vigor? Why not make our next coffee break a time to jump for health and well being? Let us all reverse gravity by exercising daily.