

PREVENTING THE SLOW ACCIDENT

By Richard Crampton

EXPLORING THE LYMPHATIC SYSTEM OUTSIDE OF THE BOX RESULTS IN AN INTERESTING THEORY OF "KEEPING IN MOTION"

These "Slow Accidents" occur over long periods and often do not generate accident reports that contribute to accurate statistics. The following hypothesis looks at the relationships of the circulatory system and motion, to muscle development and maintenance. This paper will be taking a hard look at muscle neglect rather than muscle abuse. It will present an incredible amount of empirical evidence, identifying the root cause of lowback trouble, and present many therapies for prevention.

Let's begin by asking questions about the circulatory system.

- 1) Are the arteries, veins and capillaries a closed loop hydraulic system with the capillaries leaking plasma into the body tissue?
- 2) Do the lymph nodes reclaim the spent plasma (lymphatic fluid) through a network of ducts and transport that fluid back to the right and left subclavian veins above the heart?
- 3) Is muscular activity necessary to move plasma (lymphatic fluid) through the body tissue for complete circulatory system function?
- 4) If the lymph nodes plug, would that impairment likely cause fluid retention in the body tissue?
- 5) Are the lymph nodes filters that stop any solids or particulates from returning to the blood system through the lymphatic ducts?
- 6) Does the bursa around your joints collect lubricants from the migrating lymphatic fluid?
- 7) If the lymphatic system is impaired for any reason, would capillary discharge be reduced and create extra pressure in the veins?
- 8) Is it possible that much of our muscular activity has been engineered away by man and his endeavor to automate, support and stabilize, leaving this part of our circulatory system sluggish and impaired?
- 9) Would this excessive fluid retention result in fat cells building and could this contribute to part of our society's weight problems?
- 10) Would that retention impair the body's ability to rid itself of the non-solid toxins that would have gone back to the blood system through the thoracic artery, so the heart can pump it to the kidneys and liver for cleansing.
- 11) Is it possible that the sinus and tonsils' purpose is for excreting solid body waste (dead body tissues) and other unwanted invaders from the lymphatic system and could that make the common head cold a natural event?
- 12) Would a chill neurologically trigger capillaries to dilate; resulting in excess pressure in the lymphatic system and drainage from the nose and throat?
- 13) Would this theory explain why aching joints often accompany the common head cold? (Diluted joint lubricants)?
- 14) Is it possible that our evolving environment and social behavior has made nature's way of excreting (spitting), this body waste unacceptable, resulting in our passing this body waste back through our digestive system?
- 15) Would this theory imply that our sinuses and tonsils are the lymphatic system toilet, excreting waste that the lymph nodes would not allow back into the blood system?
- 16) Should we be exploring the possibility that a contaminated or dysfunctional lymphatic system may explain the excessive surgery room infections?

17) Could streptococcal or other bacteria exist in our lymphatic systems where the surgical knife commingles the blood system with the lymphatic system?

18) Why is it, that so many medical doctors ignore the second half of our circulatory system (lymphatic) and the significance of its function?

19) Does muscle development, maintenance, and joint lubrication, depend on this circulation?

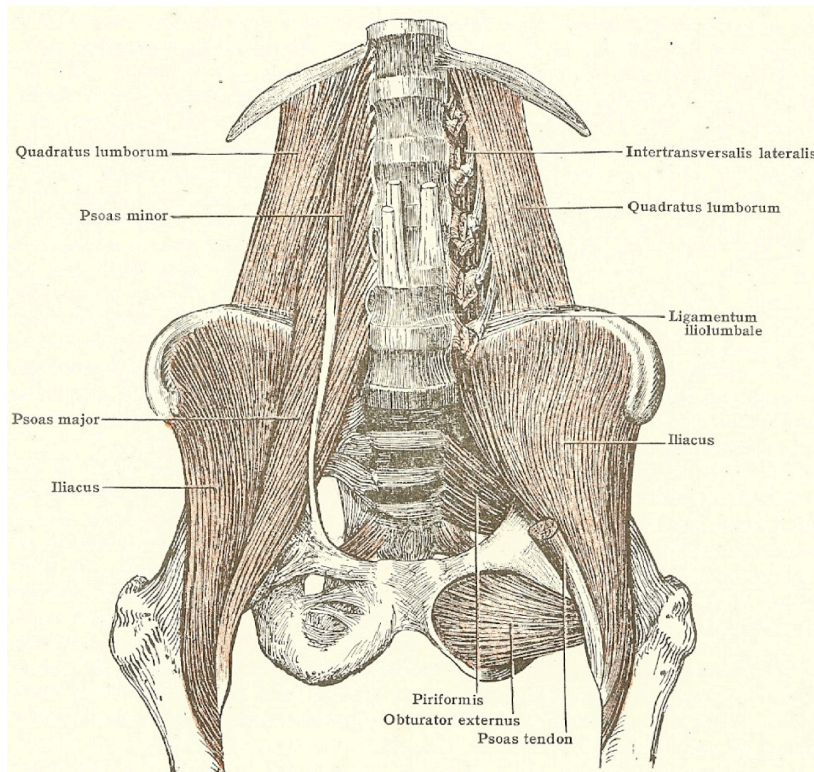
NOW.....

Assuming this is a reasonable possibility of how the circulatory system works and that it is functional, how well does it function without muscular activity? Plasma, once out of the capillaries, no longer has a pumping system.

For the last hundred years we Americans have been extremely successful in automating and creating gadgetry to reduce muscular activity and provide support. We teach, preach and market support, stabilization and automation as the ergonomic solutions for our musculoskeletal problems.

Could it be that we are neglecting a more subtle muscle system with our creative engineering? The proprioceptive muscles that keep us upright, balanced and stabilized may be the most overlooked and neglected muscles we have, yet we expect so much from them.

- While we sleep 1/3 of our life, they get no exercise.
- While we sit or stand stabilized, they are only stressed.
- While we walk or stand on flat firm stable surfaces that we have assigned ourselves to live on, there are two muscles in our low back that have very little to do. The Psoas Major connects our lumbar vertebrae to the head end of our femur and the Psoas Minor connects the beginning of the lumbar vertebrae to the pelvic bone. They act as stabilizers and assist in changing the elevation of our feet. They also belong to the proprioceptive system that keeps our bodies upright, balanced and aligned. These muscles, when used and kept in good condition, provide support, nourishment and lubricant to the lumbar spine. Allowed to atrophy, they only leave soft tissue around the lumbar spine.



- When we make no demands on a muscle, it goes away; atrophies and becomes vulnerable to strain.
- Note that the Psoas' Major insertion (attachment) is precisely the most commonly troubled area, (the lumbar vertebrae).

- The Psoas Minor is absent in 30-40 percent of our society, as found by (Gruber) and (George) Morris Human Anatomy. Its' attachment to the pelvis, is closer to the center of the body, giving it even less to do on flat, firm, stabile surfaces. This finding could mean atrophy rather than birth anomaly.

FINAL QUESTIONS

Eighty percent of our society suffers from episodes of low back pain.

20) Could atrophied muscles be responsible for much of this reported low back trouble?

21) Could we on occasion, unwittingly place a demand on this atrophied muscle that results in an unexplainable low back attack and could that sudden demand result in muscle strain or even a tear?

22) Is it possible that many accident reports and worker comp claims are generated by frightened, worried, honest citizens that have these unexplainable attacks, consider themselves physically impaired, and are seeking some type of financial security?

23) Is it possible that the high rate of SLIPS, TRIPS, and FALLS, may also be related to the neglect of these proprioceptive muscles? When walking, we don't raise our feet any more than necessary.

24) Could this missing muscular activity, flexing of the spine, even affect the performance of the bowel?

Man has been upright for thousands of years spending most of his time on nature's soft uneven earth and rarely conducting repetitive work. Concrete, blacktop and other forms of flat, firm, level, and stable surfaces have only been around a short time and the hours we spend on them continues to increase.

These questions, though provocative to some, may stimulate thinking that produces solutions for many of the thousands experiencing low back trouble.

I believe the development and maintenance of all muscle requires activity/motion, and not necessarily strenuous or extreme.

THE FOLLOWING LIST CHRONICLES THE EVENTS AND GATHERING OF EMPIRICAL EVIDENCE SUPPORTING THE RELATIONSHIP OF MOTION (muscle use) AND LOW BACK TROUBLE

1) A case study has revealed that flight attendants do not have low back trouble. Their proprioceptive muscles are constantly challenged and become well developed while standing in flight. In contrast, pilots, static in their seats typically report excessive low back trouble.

2) Seamen, Sailors, Fisherman will likely have fewer incidents of unexplainable low back pain due to demands placed on their proprioceptors by the unstable surfaces they work on.

3) Farmers, Ranchers and others who spend more time active and not doing static or repetitive work on flat stable surfaces will also prove to report fewer incidents of low back attacks.

4) Executives having low back trouble seldom make statistics as they don't go on workers comp. file accident reports or sue. They only become a huge expense for their health care insurance provider.

5) Static standing workers, such as grocery checkers and food processors, report excessive low back trouble.

6) An animation of a human skeleton walking or running on a flat level surface from the rear view, compared with one walking or running on uneven surface, clearly shows the effect to the spine and other load bearing joints.

7) It is well understood that while standing static, the lubricant is forced out from between the condyle surfaces of our load bearing joints by our bodyweight and the affect of gravity.

8) It is well understood that stressed muscle will degenerate due to lack of nourishment and lubrication.

9) Most generally, if the circulatory system is working, muscle will develop within reason, to the demands we place on them.

10) The lower back is the axis of motion when we walk or run. It sees very little motion and even less on stable flat firm surfaces.

11) Executives have excessive low back troubles, not only from the surfaces they walk on, but from the supportive seating they use that allows very little motion or muscular activity. Most conventional accepted seating is designed for support and stability.

12) It is suspected by many that the excessive use of bras that shape, form, support, and inhibit motion or circulation, may be responsible for some breast cancer in women.

13) I personally had no low back trouble while sailing in the Coast Guard from 1959 through 1963. Within 6 months of discharge and a job on concrete floors, I began visiting a Chiropractor for low back trouble.

14) A 62 year old retired executive of 37 years, having had 2 back surgeries, 4 times having nerve roots burned and approximately 25 cortisone shots, spent 5 days in a small fishing boat and his condition surprisingly improved. He had never done heavy work, participated in extreme sports, or had an accident to explain his back trouble.

15) The Queen's Guards are taught to stand on the balls of their feet. This survival technique creates instability that puts their proprioceptive muscles in motion.

16) In November 2003, the oldest known living human on the planet died at 114 years of age. She was a Japanese farmer who had worked until she was 100. Her environment did not provide flat firm stable surfaces nor was her work repetitive.

17) A 50 year old jet engine mechanic, after years of struggle with low back attacks avoided surgery with 30 days of self prescribed therapy of walking on the beach, an unstable surface.

18) Grocery checkers have a high rate of low back trouble. My Observations reveal that many checkers will stack the provided stress relief mats to achieve relief.

19) When you walk on soft or uneven surfaces, you vary the elevation of your hip sockets, thus flexing your spine and engaging the psoas muscles. This occurs due to the determination of the proprioceptive system to stabilize your vision, and keep your body plumb.

20) It was reported by the surgeon General, Vice Admiral Richard Carmona in the Nov. 04 U.S. News and World Reports that: Calcium, Vitamin D and PHYSICAL ACTIVITY significantly reduce the incidence of osteoporosis and increases bone health.

21) Scientific study has shown that static standing results in periodically shifting of weight from leg to leg. It is pain that signals this shifting. That pain is nature's signal that muscles are stressed, joints need lubricating and circulation is being impaired. A scientific study would reveal swelling in the lower extremities. This painful static condition can be remedied by creating a minor amount of instability under foot that stimulates proprioceptive muscle activity.

22) Many back surgeons will admit that they are missing something in their diagnosing that has resulted in a high rate of unsuccessful back surgeries.

23) Many chiropractors and therapists sell alignment solutions. This does give relief, however without muscle development and maintenance, the next appointment needs to be made.

There are many therapeutic devices on the market that stimulate and strengthen the proprioceptive (balancing) muscles such as:

- The Roller Board ----- P.T., Gyms
- The Therapy Ball ----- P.T., Ergo supply
- Z-Coil Shoes -www.zcoil.com
- Spira shoe—Foot Solutions
- MBT shoe—www.swissmasaius.com
- The Swopper —work seat— Working Concepts Inc.
- Air-Ex (Sweden) ----- P.T.
- Ergokneel Extreme Standing Mats—Working Concepts Inc.
- Cobblestone walking mats----- China
- Disco Sit (Italy) ----- Ergo supply
- The Back Energizer (Canada) ----- Distributors
- The Springboard -----P.T.,Gyms
- The Rockerboard ----- P.T.,Gyms
- Stacked stress relief mats.—any safety supply
- The Balance Board. ----- P.T., Gyms, Ergo supply

- The Wobble Board ----- P.T., Gyms, Ergo supply
- The Bongo Board ----- P.T., Gyms, Ergo supply
- Weeble Boards -----P.T., Gyms, Ergo supply

The following is a list of occupations that naturally provide low back therapy:

Flight Attendants - Foresters - Sailors – railroaders - Fishermen – landscapers - Farmers – loggers

The following is a list of surfaces that could naturally provide therapy:

- Cobblestone sidewalks or streets – sloping sidewalks – grass – the earth

The following is a list of recreations that naturally provide low back therapy:

-Hiking on trails – Walking or jogging on woodchip paths – Skiing – Fishing – Boating, especially standing – Walking on the beach – Gardening – cycling – camping– sailing – etc.

The following is a list of suspected offenders:

-Static supportive seating – Flat level stable floors and sidewalks – repetitive static work – television – computers – Video games – excessive automation

While therapy and recreation are good, in the real world most of us must work. Modifying our static work environments where possible to stimulate gentle muscular activity should be recognized as sound advice. We have looked at an incredible amount of empirical evidence supporting the significance of MUSCLE NEGLECT. Individuals plagued with unexplainable low back attacks should consider these alternatives to surgeries and drugs. For those confined to sitting, the simple rocking chair can provide the much needed gentle muscular activity to aid our circulatory system.

In summary, we spend billions of hours and dollars treating abused and over worked muscle while not giving any thought to the consequences of neglected atrophied muscle. We, as a society, should be taking a hard look at our advising support and stabilization and recognize the possible consequences of changing our environment from the earth to flat, firm, and stable surfaces. Muscle neglect may be causing more trouble than muscle abuse.

Maybe our society should be taking a good look at the medical bureaucracy, whose focus seems to be on surgeries and treating symptoms with drugs, rather than prevention.

This paper began in 2000, stimulating thought and accumulating relative information that may make life better for many. Both debate and endorsements are solicited.

This writing hopes to attract the interest of University Physiology departments and Insurance companies in conducting scientific studies. The product of such studies could move this empirical evidence to a meaningful forum, saving millions and the agony of low back attacks and other health issues related to muscular neglect.

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