



Fenton Physical Therapy

400 Rounds Drive
Fenton, MI 48430
(810) 750-1996

Linden Physical Therapy

319 S. Bridge Street
Linden, MI 48451
(810) 735-0010

Milford Physical Therapy

135 S. Milford Rd
Milford, MI 48381
(248) 685-7272

If Your Lumbar Spine Could Talk

Stop Twisting Me

Listen—there are only two or three degrees of rotation at each of my bones. I am not designed to be twisted back and forth. All that rotation is supposed to happen at the hips below me and the thoracic spine above me. One of the reasons my joints get beat up and arthritic is because people are always making me twist much farther than normal. This mashes my joints against one another and causes excessive wear. I will put up with it for a while, but keep it up, and I will make you pay.



Ask any happy healthy lumbar spine and he or she will tell you that their best friend is a free moving set of hips with big strong gluteal muscles. Do me a favor and get your hips in better shape.



Just Hold Me

I am made up of a loose set of five block shaped bones that connect with softer discs between each bone. The muscles that attach to each lumbar vertebrae are designed to hold me stable under load, and allow me to transfer force efficiently. My muscles are not supposed to create movement, but rather resist movement. They need to be able to turn on and hold a steady contraction for prolonged periods of time. If you want to help me, teach my muscles how to resist rotation and extension—not create rotation and extension. Perform isometric strengthening drills that challenge my muscles to hold me still.

I Am Tired Of Sitting All The Time



While the rest of you lounges in that Lazy Boy, the compressive forces on my lower lumbar segments shoot through the roof. Sitting increases the load placed on my lower lumbar discs and ligaments by 80 to 120 percent. If you are overweight or deconditioned, that load is significantly greater. Tolerance of sitting is often the last thing that gets better after I am injured. Give me a break and stand up more.

Why Do I Have To Do All The Work?

I am part of a team of joints that is supposed to work together to enable you to move around. If your hips get tight or weak, this puts much more mechanical stress on me. I have to make up for the movement and forces you are not performing with your hips.

I May Look Bad But Still Work Just Fine



As I get older and more weathered, my joints will look a little worn, and my discs might even bulge quiet a bit. That doesn't mean I am going to fall down on the job. Modern imaging tests such as MRIs show all my flaws in high definition. Just because I start to look rough and often "out of alignment" doesn't mean I am in trouble. Just

don't twist me, sit less, keep my muscles strong, and my hips functional.

What Your Lumbar Spine Would Want

Below is a short list of activities that provide the strength and mobility to keep the lumbar spine functioning properly and free of the overload that causes pain. These drills require minimal equipment and can be added to any fitness program.

Posterior Slides



This exercise does many good things for the lumbar spine all at once. It stretches the hip flexors, improves core stability, enhances posture, and strengthens the gluteals and hamstrings. Place a furniture slider under the left foot. Keep 80% of the weight on the right foot, and if necessary, use a support for balance in the left hand.

Slide the left foot back with a bent knee. Keep the torso tall and the abdominal muscles tight as you move to a genuflexion position. Push back up with the right leg. Perform ten repetitions on the right, and then switch to the left. As you get stronger, add a pair of dumbbells held at the sides.

Standing Tubing Anti Rotations

Your lumbar spine is surrounded by small muscles whose fibers run in a spiral and diagonal fashion. They are laid out to counteract the forces that would rotate your lumbar vertebrae. They are properly

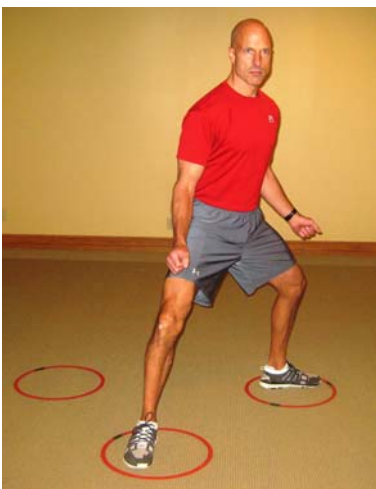


trained with sustained isometric forces. To perform this anti rotation exercise, you will need some resistance tubing attached at chest level. Stand in an athletic position with the arms extended and the spine tall and tight. Hold the band so the force of the pull comes from the left side. Stay still and tight through the torso for 30 seconds, and then repeat on the other side.

Lateral Rotational Lunges

We are all born with great hip rotation and lose it as we sit more and move less. If you lose hip rotation, your daily activities will put more stress on the lumbar joints to make up for the deficits in the hips. Lateral rotational lunges can restore lost hip rotation. Stand in an athletic position facing a mirror. Keep the left foot flat on the ground, and the left knee pointed straight ahead. Take the right

leg to the side and rotate open so the right knee pushes away from the left knee. Do not let your knees fall inward. You should feel this in your hips and groin muscles. Perform ten times on each side.



Hovers: Front, Right, Left

Think of core stabilization training as a series of anti extension, anti rotation, and anti side bending isometric exercises. The goal is to create a system of muscles that produce "pillar strength" through the spine. Work up to holding these hover positions for sixty seconds each. You can start on your knees and work up to holding the hovers on your feet. Keep the spine from sagging or shaking for the duration of your hold.



Cooking Up A Better Fitness Program



Marty arrived at our clinic with complaints of neck, lower back, and hip pain. He stated that his pain had been present for years, and that treatment with chiropractic, acupuncture, and prior physical therapy had not helped. Marty worked as a chef and was surrounded by food. He had lost forty pounds over the last two years with a daily program of exercise and a disciplined diet. His pain had recently become more intense, and this prevented him from running and using the elliptical machine. Marty was worried about the pain, but was even more concerned that if he was unable to exercise, he would regain the weight he had worked so hard to lose.

On his initial evaluation, the most significant finding was that Marty was weak and had terrible posture. He sat in such an extremely slouched position that the bottom of his ribs almost touched his pelvis. The most pronounced strength deficits were in the mus-

cles in the posterior portion of his body. He was unable to hold a tight and tall position secondary to this "posterior chain weakness". Marty informed us that his fitness program consisted of treadmill running, elliptical machine, and lots (100's) of crunches and sit ups.

Marty was taken off his fitness program and began a daily program of exercise to strengthen the posterior chain muscles. Throughout the day, he used a physioball at home and tubing at work to neurologically reconnect with the muscles that hold up his spine, support his hips, and pull back his shoulders. Once the function of these muscles was restored, he began core stabilization isometric exercises to regain endurance and strength in the postural muscles. He had to relearn how to squat, lunge, and balance using his gluteal muscles and hamstrings properly. At the end of six weeks, he reported his long standing pain was now mild and episodic. He could abolish the pain with correction of posture and daily exercise. He finished in therapy with a better understanding of how his body worked, and a fitness program of strengthening and stabilization drills that will last him a lifetime.

New Director At Linden Physical Therapy

Kathryn Wood, DPT, ATC, OCS



Physical Therapist, Kat Wood is the new Director at Linden Physical Therapy. She has worked at our Fenton Clinic for the past five and a half years. Kat is board certified by the American Physical Therapy Association as an Orthopedic Specialist, and by the National Athletic Trainers Association as an Athletic Trainer.

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This newsletter, published monthly, is available by email. If you would like to be added to our email list, simply give your email address to any staff member or send your request to bohara430@earthlink.net. You will receive the newsletter, as well as updates on events at our physical therapy clinics and fitness center.

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Hours
Mon-Thur: 5:30am-10pm
Friday: 5:30am-9:00pm
Saturday 8am-5pm
Sunday 8am-2pm

Ten Things I Learned Over The Last Decade Of Training

Part II

From 2000 to 2009, I have traveled from 41 to 51 years of age. During that time, I have consulted with hundreds of physical therapy patients and fitness clients on exercise programs. I have kept fairly close track of my own training and regularly reevaluate my progress. I have attended seminars, read books, and have sought the advice of multiple coaches and trainers. This is the second part of my suggestions for anyone training through their forties.



Make single leg training part of your life. Training one leg at a time has many benefits. It reduces spinal compression, improves balance, and produces carry over to daily activities. Single leg training often reveals movement asymmetries that can lead to injuries if not corrected. Step ups, posterior slides, single leg deadlifts, and single leg squats all take time to master, but are worth the effort.

Older trainees need to be mindful of spinal compression. Look at all the activities you perform in the gym, and count how many of them create a load on your cervical or lumbar spine. Remember that running is compressive, as are movements that flex the spine, such as sit ups and crunches. Unfortunately, as we age, some spinal changes occur--joints get arthritic, and intervertebral discs get thinner. The lower cervical and lower lumbar vertebrae are more sensitive to compressive loads, so when exercising, treat them with care.

Train your feet. Most of the shoes I see in the gym are so well cushioned that the joints and muscles in the feet never receive any stimulation. When your feet function more efficiently, all lower extremity movements get easier. Purchase a flatter and less

cushioned exercise shoe such as Converse Chuck Taylors or Nike Frees. Go barefoot for some of your training. Try Airex pad or BOSU single leg stance exercises in socks only. When I started Pilates training, my de-conditioned feet got incredibly sore from all the barefoot training, but my squatting and lunges got better almost immediately.



Concentric only training is "the bomb" for older people. Progressive resistance exercises involve a muscle shortening phase—*concentric* portion of the movement, and then a controlled, muscle lengthening phase—*eccentric* portion of the movement. The eccentric portion of resistance training is what makes you sore the next day and limits your recovery from an exercise. Concentric only training allows older trainees to perform a greater volume of work, and be ready a day or two later for the next training session. Sled dragging, rope pulls, box jumps, and medicine ball tosses are all examples of some great concentric only activities.



As you get older, your "sleep recovery needs" are greater. You do not get stronger in the gym. You get stronger while recovering from a session of exercise. If you want to go hard on your bike, on the treadmill, or in the weight room, you better be getting seven to eight hours of solid sleep a night. I have learned that when my sleep schedule gets upset, it is best to take some time away from training and get my sleep routine back on track.

Michael S. O'Hara, P.T., O.C.S., C.S.C.S.



Insight on Pilates

I have a hip replacement and my husband has a knee replacement. Can we still do Pilates?

The Pilates trainers at Milford and Fenton Physical Therapy are also licensed physical therapists. They work with post surgical knee and hip replacement patients every day in rehabilitation. Pilates is low impact, so it's very easy on your knee or hip replacement. Pilates training allows the client to work on joint conditioning, core strength deficits, and the resolution of muscle imbalances that often occur after joint surgery. We have been very successful with designing Pilates training programs for clients following orthopedic surgery.



How is Pilates different than weight lifting or other forms of resistance training?



Most resistance training programs are generic, one size fits all, regimens. Bodybuilding programs are designed to train individual body parts, often in different training sessions. You train your biceps one day, your legs another day, your back on a third day. The focus is on individual muscles. Pilates focuses on improving the function of the entire body. When you enroll in Pilates, your instructor assembles a series of drills designed to meet your greatest needs. You train away physical limitations in order to take your body to higher levels of function. Pilates training is very good at eliminating imbalances that develop from poor posture and improper training. You not only look better, but also move better. For this reason alone, athletes have found Pilates training an important addition to their training.

Individual Pilates sessions and mat classes are available at both Fenton Physical Therapy and Milford Physical Therapy. For more information, or to schedule your sessions, contact Kathy Pepper, PT (Fenton) at 810-750-1996 or Susan Fisher, MPT (Milford) at 248-685-7272. Package pricing available.

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Fenton Fitness Feedback

Our Trainers Answer Your Questions

Recent Relevant Research

Journal Sports Medicine and Physical Fitness: March 2009

Supervised versus non-supervised exercise for reducing weight in obese adults.

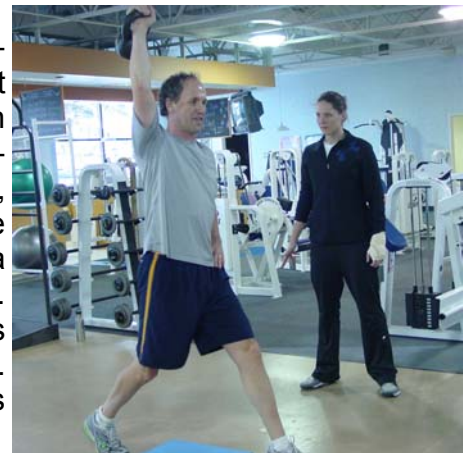


Two groups each consisting of six individuals per group. Group one exercised together under the direction of a personal trainer twice a week for four months. Group two received basic advice on exercise but no supervision. They trained together twice a week for four months, just like group one. The goal of the exercise program was fat loss, but in this study, no dietary advice was given to either group—just exercise instruction.

Results: The supervised trainees—group one—lost 362% more body fat than group two. This and numerous other prior studies point out the benefit of using a qualified instructor to optimize the time you spend in the gym.

I sit at a computer all day and my shoulders are very rounded over. What can I do in the gym to improve my posture?

Long standing postural problems require a commitment to the daily re-training of habits and modification of exercise activity. It is usually not enough to exercise in the gym twice a week and expect changes in how you sit or stand. Start with modification of your computer work station and seating. Most of us spend at least 30 minutes a day in the car, so altering your seat for a more upright and tall position is helpful. Hire a trainer to instruct you on stretches performed two or three times a day, and strengthening drills you work on twice a week in the gym. Drop all the gym activities that facilitate rounding over of the shoulders and spine—reading on the recumbent bike, crunches, and sit ups. Work on getting stronger in the exercises that pull your shoulder blades together and extend your thoracic spine.



The Personal Trainers at Fenton Fitness are available to assist you in reaching your fitness goals. For further information or to schedule an appointment call 810-750-0351.



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