

Moving Out Of Back Problems

by Meir Schneider and Carol Gallup

Mark Donegan, of Redwood Valley, California, says, "I'm fidgety because of pain; my body's telling me to move, so I do it everywhere—on the bus, sitting around with friends, wherever I am." Donegan, 36, is recovering from a very painful back problem that nearly crippled him, a herniated intervertebral disk in the lumbar spine. He weaned himself off heavy medications offered by physicians and chose instead to heal himself through natural movement, the key element in self-healing.

Moving in a natural way frees you. It is well-known in movement science that the skilled performer has more degrees of freedom (movement choices) than the novice. When you look at a film of Fred Astaire and Ginger Rogers dancing, you feel their looseness, ease and pleasure in movement. It says a lot about our culture that they had to work hard to make it second nature to move easily. As they dance, you see that their muscles work only as hard as appropriate and don't substitute for the work of other muscles (the principle of isolation). Without tensing up the abdominals, they move loosely from their center (the navel area). It's much less effortful, energy-costly and wearing than the "normal" movement patterns most of us exhibit, which eventually create chronic health problems.

Athletes and dancers don't necessarily move naturally; when they use the body as a tool, they block out a sense of its problems and needs. Natural movement comes out of kinesthetic awareness, a deep, subtle sense of movement—of breath, energy, blood and other fluids throughout the body, of joints finding their full range in all planes, of muscles becoming supple, strong and balanced. You become aware of the body's specific need for movement at any given time. Natural movement heals—it increases circulation, reduces inflammation, creates strength, endurance and a sense of well-being, and nurtures every part

of the body, including the joints. Helping the client restore natural movement is essential in working with joint and spine problems.

Unfortunately, most people move in an unbalanced, constricted way. This kind of movement—patterns of overuse, underuse and misuse—is damaging to the joints, including those of the spine. Doing more of it in the name of "exercise" will only make you worse.

We suggest reviewing the article, "Movement is Life," (Issue #60, March/April 1996); those exercises and principles are helpful with back problems.

A back problem years in the making

When Donegan was 29, his job required him to climb up and jump down to fetch items from grocery stockrooms many times a day. "We were expected to move fast," he said. He woke up one morning feeling that his left leg didn't want to move. A chiropractor diagnosed herniated disk (also known as disk prolapse or slipped disk), a complication of degenerative disk disease. Like cartilage, intervertebral disks in the spinal column are believed by physicians to degenerate inevitably, beginning at early adulthood. As a complication, the disk may herniate or rupture. A strong ligament keeps it from bulging directly backward, so it moves posterolaterally, where it may compress or stretch a spinal nerve root. The result is radiating pain, muscle weakness and sensory losses, always along the distribution of the spinal nerve. This is actually one form of sciatica, which can also begin with compression further down the nerve. Most prevalent in young men, herniated disk is rare after middle age, because the disk has lost a lot of its mass.

Four months of chiropractic treatment only aggravated the problem. Donegan tried physical therapy, and it worsened again, until muscle spasm and pain prevented movement in the leg altogether.

Two surgeries brought only temporary respite. In the first operation, part of the disk and of the bony arch around the spinal cord were trimmed away; in the second, more of the disk was removed and two vertebrae were fused together. After the second surgery, new symptoms came on—numbness in the left leg, high blood pressure, irregular heart rate, bowel and bladder problems. The right leg had been the anchor for crutchwalking; now he lost sensation and movement in it, too.

"I was looking at a wheelchair next," Donegan said. "I was depressed—my whole world was falling apart. The pain gave me nausea and vomiting. Let me tell you about extreme pain. You can take it for a day and it's okay. Two days, and you start getting tired of it, but on the third day, you don't have anything left. You're not you anymore."

Another surgeon told Donegan he could remove the rest of the damaged disk and stabilize the region with bone transplants and internal braces and screws. There would be a new source of pain, however, from the braces. The surgery restored his ability to walk but left his back swollen and painful, and "I had nothing left, no will," Donegan said. At a pain clinic in Mendocino, California, Donegan began working with massage therapist Audrey Ferrell, who practices neuromuscular therapy. Ferrell gave him massage and movement exercises. Gradually his pain abated enough that he could resume his favorite activity, bicycling. "I gave the doctor back all of his prescription pain medications; the only thing I kept was over-the-counter ibuprofen." A year later, Ferrell brought him to Meir Schneider. "Meir glanced at me and told me where my pain was," Donegan recalls.

While Schneider's evaluation seemed fast and effortless to Donegan, he used, as always, the method he teaches students: start with observations of the client walk-

ing both forward and backward, sitting, climbing stairs and doing other functional tasks. Overall, Schneider says he assesses stiffness vs. fluidity in the movement of each body segment; these are issues with many health problems. The key is isolation, or independent movement of each body segment. "In the extreme case," he says, "paralyzed people have a concept of 'legs' that needs to be differentiated; they've forgotten that their legs can move separately from each other. Without isolation, you have stiffness.

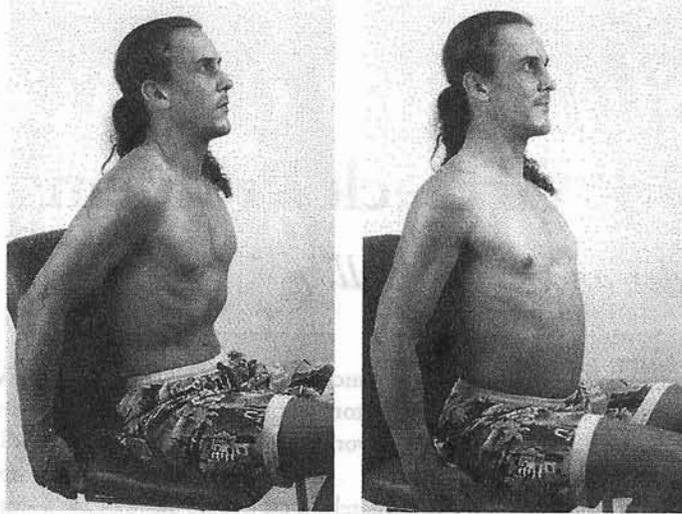
"Often, with back problems like Mark's," Schneider says, "the way one has used the legs throughout life creates lower back damage. Mark's knees never fully extend as he walks. He pushes himself from the upper back—there's too much forward lean. At the time, he held his head forward and his shoulders forward and up; this has improved. Bicycling fit right into this dynamic posture and aggravated it. Mark's back is poorly organized, with extreme stiffness in the thoracic paraspinals and weakness, comparatively, above and below.

"His face and neck hold a lot of unresolved emotion—jaw locked, sternocleidomastoids and anterior neck generally very tight. His abdominals are also extremely stiff. His stiff areas—anterior neck, anterior and posterior chest, and abdominals—dominate his every movement.

"Mark is strong, fast and capable—he's spent years weightlifting and wrestling. Unfortunately, being beefed up makes it harder to clear up movement imbalances; you've invested that much more in bad movement patterns.

"With movement imbalances, muscles are working in packs—big, insensate blocks, where a group of proximal muscles tense up to 'help' inappropriately with the work of a distal muscle. You may see a psoas/pectorals/ sternocleidomastoid/scalene block like Mark's. Or your client may have a gluteal/hamstring/paraspinal/shoulder block, coupled with weak neck and face, a pattern often seen in nearsightedness. Or you may see an arched lower back, protruding chest, with overworked upper trapezius, lower pectorals, rhomboids and paraspinals; this pattern goes with farsightedness. Massage therapists need to carefully identify the client's whole block."

Shortly after the dynamic posture evaluation, Schneider's massage begins; it is a major evaluative tool. "I observe the client's breathing habits, generally and specifically.



Sitting, Donegan performs navel rotations in the transverse plane. These are done both clockwise and counterclockwise.

People breathe into an area that is being massaged; areas where this is delayed are problematic. Mark's breathing was very shallow, in the chest mostly, with effortful exhalations. He didn't breathe at all into the back. And there were, as I expected, arthritic and fused joints in the lumbar area.

"I saw that Mark's problems started a long time before he ever had symptoms. Too many people look at the end result—the herniated disk in Mark's case—of a life-long movement problem as if this symptom were the real problem you have to solve, but it's not. Mark learned early on that he has to fight for survival; it's in every move he makes (Mark is a survivor of childhood physical abuse). The problem may have started with psychological armoring. It wasn't the job-related jumping that hurt his back; it was the stiffness in his jumping. As his pain developed, Mark may have physiologically splinted against it (tightened up muscles to shore up an area the body perceives as weak or threatened), intensifying his muscle spasms or adding more. To heal himself, Mark was going to have to change his movement patterns, and this was going to create changes at every level of his being."

Physical therapy sees essentially two kinds of muscle imbalances involved in lower back pain—too much lumbar curve (hyperlordotic) or too little (flat lower back). They may apply the classic test—have the patient stand against a wall and see how many hands' widths he or she can fit into the lumbar curve—one is normal, zero or two are problematic. The patient is then asked to do a standing forward bend and backbend and describe how each

changes the pain. If it lessens or radiates less, this is the therapeutic direction for movement—pain in the flat lower back is relieved by backbending; in the hyperlordotic lower back, by forward bending. Two leaders in the rehabilitation of backs have lent their names to these diagnoses/regimens: the Williams protocol is predominantly a spinal flexion program for hyperlordotic backs; the MacKenzie, spinal extension for flat low backs.

Schneider says this is useful, as far as it goes. Carol Gallup thinks the Williams/MacKenzie distinction is often underemphasized in the holistic health community. "A few years ago, during physical therapy school, I worked briefly with a young woman with serious lower back pain, radiating down the legs, with movement and sensory losses in the legs. Kendra's back pain began after she allowed a friend who happened to be a holistic health practitioner to work with her for a few months to 'correct' her posture; before that she had had no problem. This practitioner believed, on the basis of his training, that the normal lumbar curve was unhealthy, and that every lower back should be flat. He did indeed flatten out her lumbar curve—and created a serious back problem for his client.

"I see two morals in this story—first, the old saying, 'if it ain't broke, don't fix it.' Second, listen to the bioengineers and biomechanics. They're telling us that the incredible ability of the back to withstand the stresses we subject it to every day is caused in part by its shape—essentially, it's a spring, with the resiliency of a spring, and it needs the normal amount of kyphosis in the upper back and the normal

In each of the photos shown with this article, Mark Donegan demonstrates the exercise regimen designed by the Center for Self Healing. Donegan is recovering from a herniated intervertebral disk in the lumbar spine. He chose to heal himself through natural movement, rather than rely on pain medications. In each photo, his limited range of movement is evident.

amount of lordosis in the lower back. So when I met Kendra she had a 'MacKenzie' back. I gave Kendra some standing and other [types of] backbends, and her pain immediately started to lessen and centralize (radiate less), a sure sign that backbending was an important direction to take with her therapy.

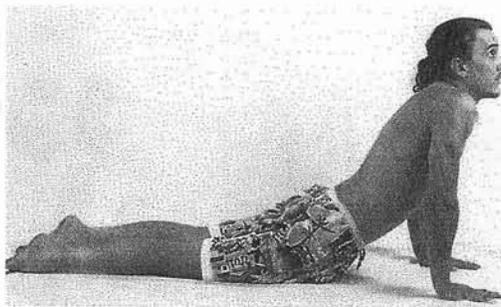
"I myself happen to tend in the opposite direction, hyperlordotic—a 'Williams' back. I've found that I do best if, for every six or eight spinal flexion exercises, I do two or three spinal extensions. Bear in mind also that serious lower back pain can occur when the lower back curve is normal—the client may still have muscle tightness, muscle spasm, very limited mobility."

With the Williams protocol, physical therapists tend to automatically add exercises to strengthen the abdominals. We know someone who had such severe back pain that he was admitted to the hospital; a physical therapist looked at his chart and said, "You'll have to strengthen those abdominals; you've got a muscle imbalance causing all that pain." To prove her point, she casually poked at his abdomen—and then looked shocked. The patient was a young rugby player with magnificent abdominals. He was indeed hyperlordotic, but those strong abdominals weren't correcting it.

Why not? Schneider feels that the problem in unbalanced movement patterns lies with the nervous system predominantly and the muscles only secondarily. Thus, strengthening the underused muscles alone or in conjunction with spinal flexion or extension exercises will not correct the problem. "The brain ignores muscles in areas it regards as unsupported," he explains. "Support' is good mobility in the muscles, not brute strength; Mark, for example, is very strong but stiff in the thoracic back, and his brain registers this as nonsupport and tends to ignore the muscles above it." Schneider's view is at odds with that of chiropractors and physical therapists, who routinely make use of lumbar belts, believing they support the lower back by immobilizing it.

"Hyperflexibility is also seen by the brain as nonsupport—if your client is pathologically loose-jointed, congenitally or from bad stretching programs, there's compensatory muscle tightness."

We need to interfere with the neural habit of overusing some muscle groups, as if they are the only muscles it is natural to



In the prone position, Donegan passively extends the upper back by extending his elbows, then he actively extends both the upper and lower back.



work, and ignoring others. A good program for clients with spine, joint and many other problems involves serious reprogramming. Most of us have immobile toes, for example, from walking in shoes on cement sidewalks, so that our toes and feet didn't develop a pattern of pleasurable sensorimotor interaction with the ground; we can create such a pattern by walking and running on a beach or grassy surface. This is important—stiff feet and calves contribute stiffness to every other joint in the body. And we can interfere with other rigidities in our walk by walking and running backwards. Coordination exercises are very helpful. We can explore the full range of motion of our joints, with movements that take us through many planes (we tend to live in the sagittal, or forward/backward, plane). Massage is essential, since it breaks adhesions and creates new sensory input to the brain, sending it the message that muscles can be soft and mobile. And it is essential for clearing up muscle spasms. Rolling on the floor or the ground is especially helpful, recruiting side muscles that are usually ignored.

We've used the general terms "stiffness," "fluidity," and "immobility" purposely when talking about evaluating movement; these are fairly easy distinctions to make, visually and through touch. Later, the evaluator can note muscle spasms or limited range of motion at the joint. Schneider found limited joint mobility in Donegan's lumbar spine and habitual muscle spasm in his psoas, pectorals, serratus anterior, intercostals, scalenes and sternocleidomastoids.

"More natural ways of moving—muscles doing only their own work, not adding unnecessary effort, what we call isolation—can't fully take hold until habitual muscle spasm is gone. And it goes away slowly, very slowly, over time. You can clear it up in the session—with Self-Healing Neurological Massage (a light-pressure, very vigorous vibrating touch that is a cross

between brisk shaking of the muscle and tapotement), tapotement, deep tissue massage, breathing exercises—and the client walks out much looser, feeling great, thinking you're wonderful. But the dynamic posture and the lack of awareness that put it there didn't go away. The client will go home and torque or overload or suddenly strain the back, and the pain may return in full force, and unless you've educated them about the process, they may think the session was a failure. You need to loosen them up and get them doing the movement exercises that teach the brain how to isolate, how to move naturally. There's a long transition period with ups and downs as the new adaptations start, and then eventually they're complete and the spasm is gone."

Donegan was already on a one-hour daily exercise regimen of exercycle workouts, standing lateral and forward bends, knee bends, and stretches for the groin, hamstrings, and calves—"the standard ones for back pain, on printed sheets that you get from the physical therapist and the chiropractor," Donegan recalls. "They were teaching me movements, trying to figure out how to get my legs going again, and it wasn't helping. Meir taught me how to move. He pointed out places I was holding myself; I had an immediate knowledge that the movements he gave me would release that area and that release there was the key. Every exercise improved a symptom."

The regimen that Schneider gave Donegan is described below because it is helpful with his pattern of stiffness and muscle tension, and above all, because it is helping him develop kinesthetic awareness, so that he can sense for himself the movements that his body needs. No one program is universally helpful; this one should

