

# No pain, all gain

An Israeli engineer and physicist who developed a method to fix his own knee went on to found a revolutionary physical therapy, based on doing as little as possible. Cate Montana reports

**D**r. Moshé Feldenkrais, an Israeli mechanical and electrical engineer with a doctorate in physics, was a physically active man, but in his late forties, a chronic knee injury sustained during a soccer game years earlier led to a total life change.

Refusing surgery on his knee, Feldenkrais decided to apply his considerable knowledge of physics, body mechanics, neurology, learning theory and psychology to figure out a way to

correct the knee problem naturally. Feldenkrais had worked for a number of years in the French nuclear research program at the Radium Institute before moving to England to work in the science division of the British Admiralty during World War II.

After several years of self-investigation and self-directed therapy, his knee had healed completely. In the process, he developed a new understanding of human body function and maturation, resulting in the healing technology of somatic (body) education he dubbed the Feldenkrais Method. After moving to Tel Aviv, at age 50 Feldenkrais left the hard sciences to become a full-time healing practitioner and teacher of his method.

At a time when Jane Fonda's famous "No pain, no gain" philosophy



epitomized the modern world's attitude about exercise, physical therapy and bodywork in general, the Feldenkrais Method proved to be a major anomaly. "Feldenkrais is easy to experience but hard to explain," says Stacy Barrows, a doctor of physical therapy and co-owner of Century City Physical Therapy in Los Angeles. "What we try to do is explore the blind spots that we carry around injuries and repetitive patterns... and learn how to do things with efficacy."

After an injury, says Barrows, "we have to learn a new adaptive way of being. The old way that we're doing things cannot necessarily be restored, and so we can't drive it from a top-down revision."

Feldenkrais work is slow, gentle, meticulous and deeply hinged upon the client developing greater personal awareness. Clients are coached to notice differences in muscle tension, areas of the body that are in or out of contact with other surfaces, and how different parts of the body relate to each other positionally.

Teachers also observe a student's ability to absorb subtle feedback and use it to create change in their posture and movements. Force and drive are avoided at all costs, and goal-oriented structural gains eschewed.

The Feldenkrais Method has two forms: group lessons called Awareness

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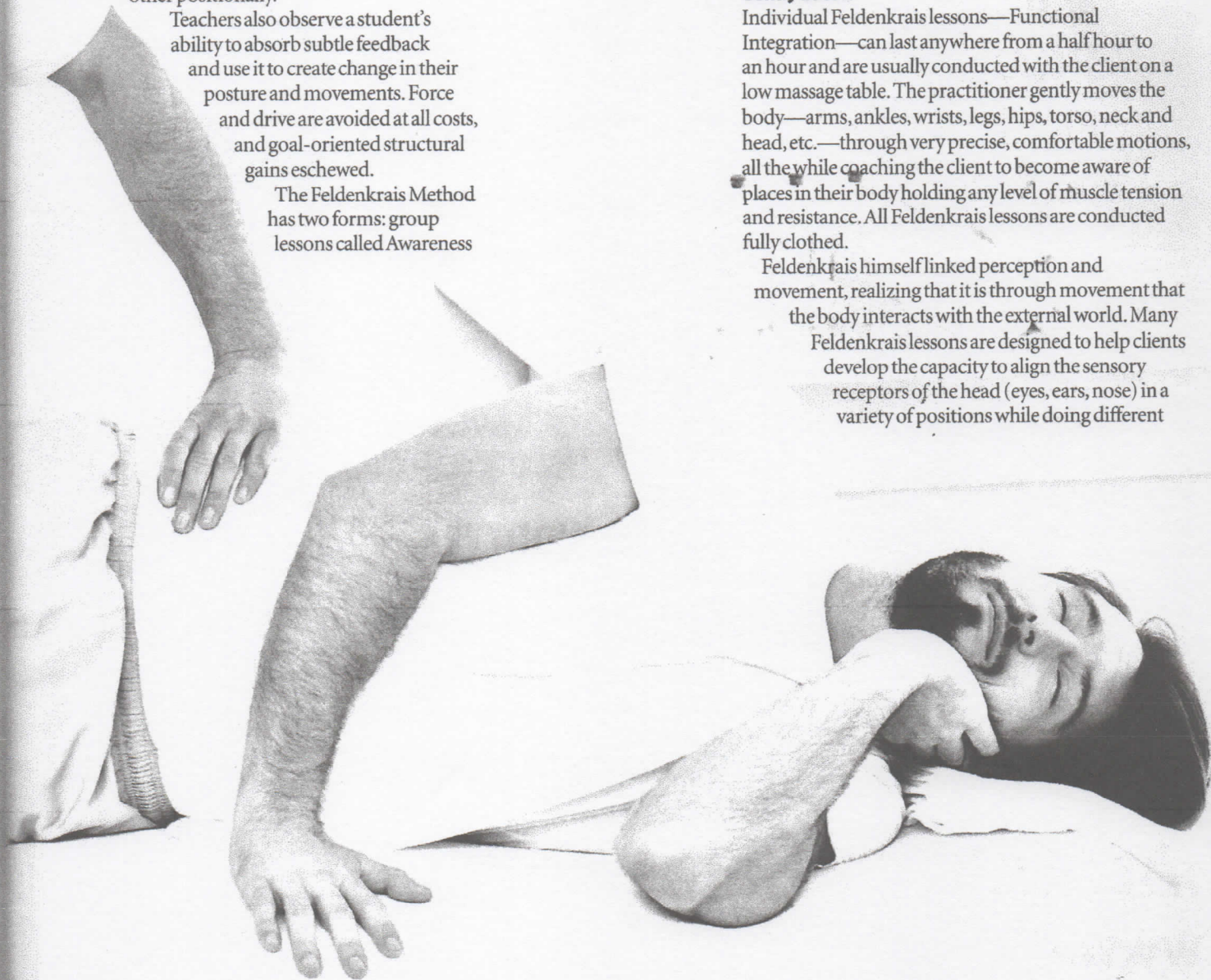
Through Movement, which last about an hour, and individual lessons called Functional Integration. During group lessons, the teacher verbally guides people through simple movements done in both sitting and standing positions. Unlike most forms of exercise and body therapy, there are no 'right' ways of doing the movements. People are recognized as having unique bodies, conditions, limitations and abilities, and are coached to move at their own pace and in their own way.

The emphasis is about not pushing or trying to achieve a particular goal. Participants are assisted in listening to their bodies, developing ever-deeper awareness of how they sit, stand and move, eliminating any excess effort. As a result of this process, they consciously learn what works and what doesn't, discovering more comfortable and effective alternatives to old habits of movement and posture that have led them into pain and restriction.

#### Gently does it

Individual Feldenkrais lessons—Functional Integration—can last anywhere from a half hour to an hour and are usually conducted with the client on a low massage table. The practitioner gently moves the body—arms, ankles, wrists, legs, hips, torso, neck and head, etc.—through very precise, comfortable motions, all the while coaching the client to become aware of places in their body holding any level of muscle tension and resistance. All Feldenkrais lessons are conducted fully clothed.

Feldenkrais himself linked perception and movement, realizing that it is through movement that the body interacts with the external world. Many Feldenkrais lessons are designed to help clients develop the capacity to align the sensory receptors of the head (eyes, ears, nose) in a variety of positions while doing different



movements in order to become more sensitive to incoming sensory data—and thus more capable of consciously fine-tuning how the body operates in space and time.

New research in brain function shows that the brain and our neural pathways and connections are easily able to reorganize, particularly after injury. Although we all develop habits of thinking and habits of movement, many of these patterns end up causing us pain.

What Feldenkrais discovered is that painful patterns are not set in stone. Long before the word ‘neuroplasticity’ was ever coined, Feldenkrais learned that acute observation followed by consistent, subtle, incremental changes can literally rewire our brains—and thus our bodies—for more optimal function.

### Breath work

The breath is also a vital component of Feldenkrais work in both group and individual lessons. In both lesson styles, teachers coach clients to notice their breath, the rhythmic patterns it falls into (or not), the depth of their breathing and where their breath comes from—chest or abdomen—how their diaphragm feels as they breathe and whether it’s fully engaged.

Doreen Quinnell, a Feldenkrais practitioner in London who specializes in working with children with special needs as well as high-performance athletes, musicians and other adults, says that how a person breathes affects their posture and movements. It also works the other way around.

Structural problems, restrictions and adhesions (fibrous bands of tissue that bind together), and habitual ways of holding the body also restrict our breathing. A child with cerebral palsy, for example, might be very tight in their chest, diaphragm and rib cage, which affects many mechanical functions such as breathing.

“I teach them how to take actions, such as putting their hand on the table so that the hand can push back, which moves the clavicle and moves the rib cage and the diaphragm. And then their breath opens up,” says Doreen. “They get more oxygen to their brains and to their body’s cells. They’ve got more movement in the torso, so then their hips and the shoulder girdle open up. Their head moves into a different position, and their eyes receive different information. They start experiencing what it’s like to have movement—but movement that they are in control of. It’s very potent.”



### Moshé Feldenkrais

Moshé Feldenkrais was an Israeli mechanical and electrical engineer with a doctorate in physics. In the process of trying to heal his own knee injury, he developed a new understanding of human body function and maturation resulting in the healing technology of somatic (body) education he dubbed the Feldenkrais Method

## Case study 1: Not such a pain in the neck

Nina C., a 65-year-old woman from Ravena, New York, suffered for more than 20 years from chronic neck pain, experiencing sharp, biting pains in her neck multiple times a day.

She had many X-rays and MRIs carried out and did just about everything imaginable, short of surgery, to get relief: anti-inflammatories, muscle relaxants, prescription pain medications, cervical nerve blocks, cervical nerve ablation, acupuncture, chiropractic, Botox injections and massage.

When she first went to Rob Cohen, she was at the end of her rope, fully believing she would never receive help.

He noticed how fearful she was of any neck movement and how stiff she was overall as a result. He had to coax and coach her into trusting him to move her neck.

“With time, Rob taught me to relax my own muscles by being mindful of body posture,” she says. “It was not an overnight result, but rather a process.”

Today Nina is completely free of the sharp pains that plagued her for over two decades, and when her muscles start getting tense, she says she now knows how to handle it. “I can also consult with Rob to get a tune-up, to remind me—and my brain—on what I need to do!”

She’s even planning to work with him after a scheduled foot surgery to make sure she’s holding herself in ways that are conducive to healing and optimal functioning.

## Case study 2: Out of touch

Alice N. from upstate New York presented with strange symptoms—facial neuralgia and the on-and-off sense of being off-balance and unstable on her feet, especially when she turned her head.

After an intense vertigo episode, she went to see a general practitioner. The doctor suggested she might be experiencing a problem with her cervical vertebrae and referred her to a chiropractor and a physical therapist.

After two months of no change in her symptoms, she was referred to an ear, nose and throat specialist. He couldn’t find anything wrong and suggested she have a brain scan.

“At that point I decided it was time to try a different approach,” she says.

When she went to see Rob Cohen, she was surprised when he didn’t touch her during the first two sessions. “All he did was talk to me and observe that my voice, chest and shoulders were raised from stress.

He said, ‘It’s not anything physical. It’s just that you’re not grounded at all. It’s something you need to work on inside yourself.’”

It turns out she was so stressed that she was literally not in touch with her body. Cohen coached her in getting out of her head, teaching her to ground herself deeply in her solar plexus area. And that was that. Her symptoms subsided.

“Aside from those two sessions where we just talked, I took a group class,” she says.

“It was not what he did on the table or in the class. It was about me learning to be present in my body. It’s constant work, but I couldn’t have done it without him.”

Studies show that using the Feldenkrais Method improves people's posture, physical flexibility and muscle coordination. It reduces chronic pain and tension, including back pain,<sup>1</sup> improves balance and coordination in people suffering from multiple sclerosis<sup>2</sup> and reduces our body's anxiety response to a perceived threat or danger.<sup>3</sup>

It also helps the mobility of people suffering from osteoarthritis,<sup>4</sup> improves balance and coordination in older adults<sup>5</sup> and even improves cognitive function.<sup>6</sup> Feldenkrais has also been shown to have a therapeutic effect for those with eating disorders, alleviating anxiety and helping them become more comfortable with their bodies and their own self-perception.<sup>7</sup>

People who have suffered from strokes find the method helpful as well.<sup>8</sup> For example, Quinnell worked with a 68-year-old international jazz saxophone player who, after a severe stroke, found himself hospitalized, unable to talk without profound slurring, with facial palsy and incapable of raising his arms. He could not stand or walk without losing his balance and was totally unable to hold an instrument, let alone play music.

"I worked with him for two weeks after he got out of the hospital," she says, "and at the end of two weeks he started to show great signs of improvement. He now plays internationally again, his voice returned, and the only thing that I wasn't able to correct completely was the little finger on his left hand. But he's able to work with that.

The Feldenkrais Method improves people's posture, flexibility and coordination

The whole process took about three months."

For sports enthusiasts (aging and otherwise) dealing with injuries, Feldenkrais work can accomplish what appears to be miracles. Barrows recalls a 52-year-old karate student who came to her with his anterior cruciate ligament (ACL) completely blown. His doctor prescribed surgery, but instead he went to Barrows, who coached him in strengthening alternative muscles and ligaments around the ACL. Three months later, he was back on the karate mat.

The interesting thing about this incident, Barrows says, was the follow-up. Several years later, the same man went to the doctor about an injury to his other knee. When the doctor performed a test to check the integrity of the ACL on the knee Barrows had helped rehabilitate years earlier, called a comparative drawer test, the test showed the knee to be perfect—despite the fact there was no longer a functioning ACL on that rehabbed knee.

"I was there when the doctor did the drawer test and checked the records showing the missing ACL," she says. "It was amazing."

Both Quinnell and Feldenkrais practitioner Rob Cohen, from Stoneridge, New York, agree that one of

## The Anat Baniel Method

The Anat Baniel Method (ABM), an extension of the Feldenkrais Method, is used by people of all ages for pain relief, increased performance, whole-body fitness and anti-aging, and is a proven way of assisting children with special needs.

An Israeli psychologist and dancer, Anat met Moshé Feldenkrais as a child because he was a friend of her father. She later studied with him, and in 1982, moved to New York at Feldenkrais' request in order to introduce the Feldenkrais Method to the US. Within a few years, she had expanded her work to such a degree that she ended up founding her own training organization, the Anat Baniel NeuroMovement Method, combining the teachings of Feldenkrais with her own understanding and techniques.

Both Doreen Quinnell in London and Rob Cohen in Stoneridge, New York, are Feldenkrais Method and Anat Baniel Method practitioners.

When asked what the "difference" between them is, Quinnell talked about how ABM is particularly well suited for working with children.

"ABM is Feldenkrais work," says Quinnell. "She has tweaked it and brought it into the 21st century, and

she has mastered the finesse, the accuracy, the subtlety and speed necessary for working with children and infants. But it's all Feldenkrais based."

The reason a slightly different approach with children is required—especially special-needs children—is due to the fact that children are small and move like lightning. They also don't have sophisticated communication skills. Frequently, they have no capacity to speak at all, unlike adults, who have a greater capacity to communicate their issues and receive verbal feedback.

"If it's a baby, obviously you have to be very tender, sensitive and gentle," says Quinnell. "The main difference is the non-verbal subtlety needed with children.

"Your hands and your whole body have to be in tune with where the child is. And you only do what you need to do. The touch is very direct. You look and you are aware of what needs to be done and you go to that place and then you go to the next place. The child gets through your touch that there is nothing to fear. They learn to trust and come to understand bit by bit about what physical control is. It's profound."



### The Anat Baniel Method

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the main reasons the Feldenkrais Method is so effective is that it takes the exact opposite approach to the one-size-fits-all drugs and surgery “focus on mitigating symptoms” philosophy of traditional Western medicine.

“Every human being is different,” says Cohen. “You have to be present with what’s happening with each individual, aware of what their brain is holding onto. Like, maybe the brain is holding onto a really tight shoulder, a really tight hip or a really tight stomach. You’ve got to closely observe the person in order to see how they’re creating the pain they have and then go from there.”

In Functional Integrative lessons, Cohen perceives a trouble spot and very gently moves and supports the part of the body that’s “holding on,” moving in the directions and ways that feel appropriate, eventually tricking the brain into letting go and releasing all the tension. “If I take over the work that the brain is doing, many times they will let go,” he says. “Once they let go, I start to create small, gentle movements, building range of motion, getting the brain and body to functionally integrate new patterns and ways of being—getting them to the way things are supposed to be working together.”

Cohen works with children with developmental issues and women who want a pain-free pregnancy and delivery. He also specializes in working with babies with torticollis (a condition where the baby is born with a twisted neck, bent head and/or misshapen face or jaw). Cohen recalls one mom bringing in her infant daughter at about six months of age. She’d received no therapy and was immense for her age. She never moved much and looked like she was in a total fog.

“Her head was way to the side and her hands were stuck close to the body,” says Cohen. “At the end of that session, this little girl was reaching for toys, extending her arms, and her head was dead center. It normally doesn’t happen that quickly, especially at that age. It was like the child was just waiting for someone to wake her brain and body up.”

Carol Passaro, a physical therapist at HamaspiK of Orange County in Monroe, New York, a non-profit organization providing health and human services, has also seen its benefit to pregnant women: “I’ve seen mothers who have received a few Feldenkrais treatment sessions while pregnant, and as a result they have had much more comfortable pregnancies and deliveries, as well as healthier babies,” she says.

You’ve got to observe the person in order to see how they’re creating the pain they have

REFERENCES

- 1 Holist Nurs Pract, 2014; 28: 171–83
- 2 Neurol Rep, 2001; 25: 39–49
- 3 J Bodyw Mov Ther, 2002; 6: 102–7
- 4 Evid Based Complement Alternat Med, 2013; 2013: 479142
- 5 Evid Based Complement Alternat Med, 2011; 2011: 873672
- 6 J Bodyw Mov Ther, 2016; 20: 512–7; Adv Mind Body Med, 2016; 30: 19–23
- 7 Psychother Psychosom Med Psychol, 1997; 47: 170–80
- 8 Complement Health Pract Rev, 2005; 10: 203–10

RESOURCES

- [www.feldenkrais.com](http://www.feldenkrais.com)
- [www.movementandwellbeing.com](http://www.movementandwellbeing.com)
- [www.embodiedtransformations.com](http://www.embodiedtransformations.com)
- [www.anatbanielmethod.com](http://www.anatbanielmethod.com)
- [www.centurycitypt.com](http://www.centurycitypt.com)
- [www.houstonfeldenkrais.com](http://www.houstonfeldenkrais.com)

Feldenkrais exercise for low back pain

If you have low back pain, try this gentle Feldenkrais movement suggested by Mary Beth Davison Smith at The Feldenkrais Center of Houston. This little practice takes less than five minutes.

Remember, the most important thing about this practice is paying attention. It is not ‘exercise.’ Do not push yourself through painful spots or try to stretch your range of motion. Do the movement gently and easily. The whole purpose of the movement is to ‘rewire’ your brain and improve how your brain and body communicate with one another.

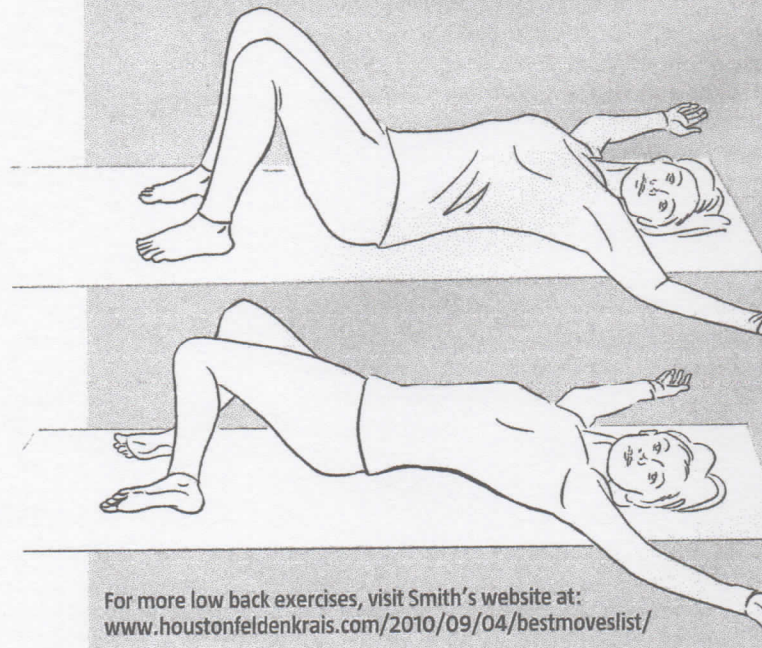
Tilting legs

Lie on your back, with your knees bent and the soles of your feet in contact with the floor. Gently let your knees tilt a little bit to the left, and then smoothly move to tilt them to the right. Repeat this movement many times. Don’t go as far as you can—consciously AVOID a stretching sensation for right now. Just a few inches to either side is plenty.

Make each repetition a little bit different—smoother, softer, easier, more comfortable. Try slowing down your breathing so that you are inhaling when you tilt your knees and exhaling when you bring them back to the middle. Smooth, continuous movement is your intention. Feel yourself gently rolling over the back of your pelvis. Is it possible to pay attention to the parts of yourself that contact the floor as you roll? What parts of your back do not contact the floor? Could they? Go easily, stop moving and rest after every few movements, whether you are tired or not.

• **VARIATION 1:** Try the movement a few times with your knees very close together and with your knees comfortably apart. Which movement feels more comfortable?

• **VARIATION 2:** Cross your right knee over the left. Re-position your foot on the floor if you need to so that you can be comfortable. Begin to tilt your knees slowly and easily to the right. Don’t go as far as you can. Pay attention to the way your left side peels up off of the floor and then sticks back down. Make it feel good. Rest. Slowly stand up and walk around a bit. How do you feel?



For more low back exercises, visit Smith’s website at: [www.houstonfeldenkrais.com/2010/09/04/bestmoveslist/](http://www.houstonfeldenkrais.com/2010/09/04/bestmoveslist/)