

Space age healing in your pocket

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This handheld device, created by the Soviets to heal cosmonauts while in space, is creating a revolution in pain treatment here on Earth. Cate Montana investigates

Eight years ago, John Hayward, 61, of East Sussex in the UK, suffered pain and weakness in his right arm and shoulder. There was a loss of nerve control in his right hand, which meant he struggled to write his name and even to straighten his fingers; it also seriously reduced his ability to work on his landscape-gardening business.

After five years of neurological investigations on the NHS (National Health Service), numerous trips to King's College London and three magnetic resonance imaging (MRI) scans, the conclusive diagnosis was vertebral growth impinging on a nerve, following trauma from a broken neck during a motocross fall when he was younger.

The proposed treatment? An operation involving the insertion of metal spacers between the fourth to sixth vertebrae through the front of his neck, with possible damage to his vocal cords.

Instead, three SCENAR treatments reduced his pain, so he continued for a total of 10 treatments over the course of three months. By the end, the pain had “virtually reduced to zero” and he had regained full mobility of his fingers.

“Today I am fully active in my business, which sometimes requires lifting and carrying mini-digger buckets weighing approximately 50–60 kg.

“I am also playing football every week against youngsters 40 years younger. And my signature is normal,” says John.

SCENAR, which stands for ‘Self-Controlled Energo-Neuro Adaptive Regulation’, is a handheld device the size of a television remote control that was invented in the 1970s by Dr Alexander Karasev, currently the head of LET Medical Research Laboratory in Taganrog, Russia. His ideas for a device designed to powerfully stimulate the body’s own healing capacity were swiftly adopted by the Russian space programme because they offered an answer to the issue of how to provide medical treatment to cosmonauts on long space flights.

So, for years, Karasev was part of the medical team at the Cosmonaut Training Center in Star City near Moscow that was developing the technology. During the patenting process, several other scientists were brought on board, including Professor Alexander Revenko a specialist in neurology and psychotherapy. When the Soviet Union collapsed in 1991, the technology—commonly referred to as ‘energy medicine’—was rapidly commercialized and made its way to Europe and, from there, to the rest of the world.

TENS machines work by stimulating A and B nerves to produce amines (chemical neuromediators in the nervous system) like acetylcholine and noradrenaline (norepinephrine), and amino acids like alanine, cysteine and glutamic acid—all of which have short-term physiological effects. With SCENAR, however, the devices also stimulate the production of neuropeptides, including enkephalin, neurotensin and bradykinin, and endogenous opioid neuropeptides—also known as endorphins, dopamine and serotonin, the brain’s natural antidepressants—as well as other agents that affect cognitive ability.

The body produces around 2,000 neuropeptides in all. They are believed to regulate the body’s self-healing mechanisms, prompting the body to heal itself.

Lowe himself began using SCENAR after successfully treating a frozen shoulder. More recently, while pruning a tree this past October, he fell off a step ladder onto his left sacroiliac joint—“the kind of thing most people go into A & E for.

“But my son knows how to treat me, and with his help in treating myself every two hours for 24 hours with SCENAR and PEMFs, within 48 hours I was able to go for a long walk and do some gardening.”

The difference between SCENAR and other PEMF devices is that it claims to be able to mimic the body’s own EM emissions, uncover errant frequencies and automatically change its output to correct the abnormalities.

With SCENAR, the pain relief is often just as immediate and powerful as with TENS, but the effects are long-lasting. “I remember one guy,” says Lowe. “He fractured his ribs and was diagnosed as such by his doctor. He

was in a lot of pain, especially at night. After one SCENAR treatment, most the pain had gone and he could sleep normally. I think I only gave him two treatments and he was done.

“He went back to his doctor, who couldn’t believe what he was seeing. And that was just in the space of a few days.”

Although licensed in most countries, including the UK—but only for treatment of acute pain conditions and general ‘dysfunction’—over the past few decades, SCENAR has also proven highly effective for the treatment of systemic and chronic disorders and pathologies.

For example, SCENAR has been clinically proven to nearly halve (by 46 per cent) the number of angina attacks in patients compared with 39 per cent reduced attacks in those taking nitroglycerine pills.³ And it’s been found to be significantly more effective than “conventional drug rehabilitation” in patients recovering from strokes.⁴

When the approximately 3,000 SCENAR practitioners in Russia were asked to complete a survey a few years into the millennium, the collated results showed, on average, a 79 per cent improvement in all musculoskeletal conditions, including muscle injuries, arthritis, sciatica and osteoporosis. In addition, there was also 82 per cent success in treating circulatory disorders like heart failure and stroke, an 84 per cent success rate with respiratory conditions of every variety and a 93 per cent success rate with disorders involving the eyes or digestive tract.

A 2006 study looking into the efficacy of SCENAR therapy for myofascial pain syndrome at Pochon CHA University in Seongnam, South Korea, revealed that patients experienced “significant improvement”, with 87 percent reporting “effective pain relief” that lasted at least a month after the treatment.⁵

And in a 2011 study, the effectiveness of SCENAR therapy for digestive disorders such as GORD (gastroesophageal reflux disease), peptic ulcers and inflammatory bowel disease (IBD) was undertaken at Rostov State Medical University in Rostov-on-Don, Russia.

Patients treated with SCENAR for peptic ulcers improved in 92 per cent of cases, while those treated with basic therapy plus SCENAR for ulcerative colitis reported positive effects in 82 percent of patients compared with 63 percent receiving basic therapy alone.⁶

How does it work?

SCENAR devices—and there are lots of them on the market nowadays—send electrical impulses in milliamperes (mA), the standard international unit for measuring electrical currents, into the body via electrodes attached to the skin. The maximum level of the current varies from device to device, but is usually no more than 70 to 85 mA. The electrical impulses are very brief in duration, lasting around five seconds, and have a frequency greater than 15 Hz, so they’re usually audible.

The signals sent to the body are designed to mimic natural nerve impulses, so both the brain and the rest of the body easily accepts the impulses being delivered.

Where SCENAR technology claims to take a quantum leap forward is in its biofeedback function. Devices like the RITMSCENARPro (one of the most popularly used models) not only send out electrical signals accepted by the nervous system and readily interpreted by the brain, but they can also read the body’s responses, second by second, and adjust the output signal according to the body’s needs.

Indeed, it's an interactive interface—which is why SCENAR is apparently so effective for chronic conditions as well as acute pain.

The body is designed to survive and consequently built to respond to any needs and crises that arise. Whether in response to a new injury, toxins or stress, the body sends a signal to the brain, which then 'instructs' all of the body's adaptive systems—the endocrine system, the nervous system, the skin, all part of the healing process—to get into action. And each part of the system sends back information, creating a healing information-feedback loop.

But often, the healing is incomplete. The body is interrupted and has to respond to another crisis, and then another and another. In the process, it 'forgets' the older injuries and chronic pain conditions.

It gets accustomed to the previous signals of distress—chronic low back pain is a perfect example—and ignores those signals, thereby closing the door to further healing in that particular area.

"When that happens, disease develops and the energy can become stuck," says Dr Rob Esser, a Canterbury acupuncturist and SCENAR practitioner now living in Het Gooi, The Netherlands.

"In Russian medicine, they call it an 'energy cyst'. When that happens, the SCENAR device intervenes, acting as a part of the functional system for a few moments and starts reminding the body, basically telling it there's something wrong. The body has to respond to the SCENAR's message and starts paying attention to what it was not paying attention to before."

And unlike TENS, the SCENAR signal is so variable that the brain/body doesn't become habituated to it and tune it out. Although TENS and other modalities like LED (light-emitting diode) therapy and low-level laser therapy (LLLT) provide visible and near-infrared light that is healing, SCENAR signals are even richer in information.

Like Lowe and many other SCENAR therapists, Toni Bark, MD, founder and medical director of the Center for Disease Prevention & Reversal in Chicago, expanded her homeopathic medical practice to include the devices because of a personal experience. "I really wasn't interested in SCENAR," she says. "But I had an opening in my client schedule one day and agreed to meet the woman who was representing a company bringing it into the States."

The sales rep treated Bark, who had chronic tendinitis in both knees as well as low back pain. The treatment lasted 15 minutes and she only treated one knee. "The next day, my tendinitis of nine months left both knees and I was like, 'Wow I'm intrigued'. So I wound up getting trained and got a device."

What can it do?

Actually, it's easier to ask what SCENAR doesn't do. Across the board, therapists praise the technology for pain reduction or elimination and quicker healing times, using words like "sensational" and "stupendous", though the praise is more muted when it comes to chronic and systemic conditions; according to the Russian survey, the device is less successful for skin disorders and cancer.

But while the devices aren't legally approved for conditions like attention-deficit/hyperactivity disorder (ADHD), post-traumatic stress disorder (PTSD), depression, insomnia and osteoarthritis, most therapists have treated patients with chronic pain with SCENAR only to suddenly find other symptoms disappearing too.

This may have something to do with the fact that SCENAR has a major effect on neuropeptides, which influence everything from cellular respiration to DNA activity by triggering increased or decreased gene expression. Neuropeptides are also involved in regulating memory, and SCENAR signals interact deeply with the hypothalamus, which governs the metabolic processes involved in such widely diverse things as interpersonal behaviours and sleep rhythms.

Bark uses SCENAR in combination with homeopathy and dietary regulation for everything from Peyronie's disease (a form of erectile dysfunction) and chronic fatigue to fibromyalgia, trigeminal neuralgia, curable migraine and even cancer.

"If somebody is not taking in daily toxins and they're eating reasonably well and living a reasonable lifestyle, I've literally had absolute reversals of many conditions with one treatment," says Bark.

At the Garmonia Centre in Kiev, Ukraine, SCENAR therapy was clinically tested in 27 women with premenstrual syndrome (PMS). They were divided into two groups: one was a SCENAR-only group that received treatment starting seven days before menstruation for three menstrual cycles; the other group had the same SCENAR treatment plus a homeopathic therapy in the second phase of their cycle.

In the first group, 79 percent of the women experienced either full disappearance or a considerable decrease in their PMS symptoms whereas, in the second group, the rate was 92 per cent.⁷

The future is now

Although sometimes referred to as the 'Star Trek device' in the tabloids, hundreds of clinical tests have been conducted with SCENAR technology in Russia over the past 30 years—with consistently positive results.

A summary by Dr Yuri Gorfinkel of published papers provided by the International Academy of SCENAR Therapy in Moscow showed that, of the more than 18,000 cases covering dozens of pathologies—from acute heart failure, endometriosis and gastritis to hepatitis and pancreatitis—89 per cent were cured and 96 percent significantly improved.⁸ However, the analysis was never completed due to Gorfinkel's death in 1998.

Nevertheless, more is yet to come. According to Esser, who met and talked with Karasev, the originator of the technology, at a healing conference in Russia in 2010, Karasev now envisions three stages of development: SCENAR; Cosmodic (the second-generation SCENAR device); and an evolution of the technology currently in development.

According to Karasev's website, SCENAR is the technology of treatment and Cosmodic is the technology of regeneration. The latter devices additionally focus on stimulating and increasing the restorative capacity of the body at the cellular level, but without amplifying any pathological signals (which is how SCENAR tells the body that something needs healing).

We can only imagine where the third stage of technology will take us within just the next decade. Now, all that's needed is more Western research to confirm how many earthbound illnesses can be treated by what is, in many ways, one of the best things to come out of the Space Race.

Designed for the body electric

The human body is, in many respects, an electrical bio-machine. Chemical elements in the body have electrical charges, like the cells in the sinoatrial node of the heart, which contain the electrolytes calcium, magnesium and sodium. When these electrolytes pass through cellular membranes, they discharge electricity.¹

Electrical signals are how the human brain and nervous system communicate in the body's ongoing efforts to maintain homeostasis—keeping a healthy balance (within normal ranges) within the body's system of a wide variety of factors like pH, blood pressure, temperature and glucose levels. ECG (electrocardiography) measures electrical activity in heart muscle, while EEG (electroencephalography) measures electrical activity in the brain.

Throughout the last century, there has been tremendous scientific interest in developing electrical signal-producing devices for health and healing based on pulsed electromagnetic fields (PEMFs; see pages 56 and 63).

TENS (transcutaneous electrical nerve stimulation) devices, which stimulate the largest nerves in the body (the A and B nerves), arrived on the market in the late 1970s. Since then, numerous clinical studies have proven the effectiveness of TENS therapy for mitigating acute pain conditions.²

But it wasn't until the development of SCENAR that the ultrafine, body-wide network of unmyelinated, slow-conduction C fibres in the central and peripheral nervous systems, constituting around 85 percent of all nerves in the body, could be communicated with via electrical signals to induce pain relief and healing.

“One of the unique aspects of SCENAR is it easily makes contact with the C fibre in the central nervous system,” says Brighton physical therapist Paul Lowe, MA, MBCMA, one of the UK's 1,000 SCENAR practitioners. “And the advantage of being able to really make contact with the C fibres is that: (1) they're everywhere; and (2) they have a far greater potential than A and B fibres to release neuropeptides [protein-like chemical messengers in the brain] that are our main healing vehicles.”

SCENAR and depression

Although he's now a trained acupuncturist, Dr Rob Esser's first love was clinical psychology, for which he received his doctorate from the University of Amsterdam. After expanding his Coventry practice to include SCENAR, he was delighted to discover that the technology—in particular, Karasev's more advanced COSMODIC device—works exceedingly well for depression as well as other mental disorders.

His first depressive patient was a middle-aged man who was put on SSRI (selective serotonin reuptake inhibitor) antidepressants after his divorce. “Basically he found his wife with someone else, and that was such a shock to him that the doctor prescribed antidepressants,” says Esser. “After 12 years on medication, he felt like he was living in a prison. He was emotionally stable within a certain limited area of familiar circumstances. But the moment anything happened that put him outside of his comfort zone—and it didn't take much—he didn't know what to do. He might've killed somebody. He might've jumped out of a window. He was in a poor state and started drinking.”

Esser, who is currently reestablishing his practice in The Netherlands, says this patient's treatment was a remarkable experience in that, after every session, the patient would just stand outside and look at the world in amazement, watching people rushing by, all of them too busy with seemingly inconsequential things to pay attention to life going on around them.

“He suddenly had—I don’t know what you would call it—semi-enlightened moments.”

After a couple of treatments, the patient was able to slowly come off the SSRIs—missing one day a week at first and then increasing the length of time without medication. “In the end, he was completely free of it and has since rebuilt his life, remarried and had a child. He is now a totally different person.”

Another patient was depressed immediately after childbirth to the point of feeling suicidal. Her doctor wanted to put her on antidepressants, but she wasn’t convinced it was a good idea. “She had one session and she completely changed,” says Esser. “I gave her two or three more sessions, but she was basically lifted out of it in one session.”

Who’s who in energy medicine

The catchphrase ‘energy medicine’ includes several devices in addition to SCENAR, such as pulsed electromagnetic frequency (PEMF), low-level laser therapy (LLT) and light-emitting diodes (LED).

PEMF devices deliver a wide range of EM energy in rapidly pulsating bursts to cells, thereby stimulating cell energy, cellular electrical activity and chemical processes in the tissues of the body.

Bioresonance machines analyze aberrant waveform patterns from the body, then generate an equal but opposite waveform. The idea is to create an interference pattern that cancels out the abnormal patterns and so cures the problem.

LLLT uses laser light with power outputs of 1–1,000mW(milliwatts) to stimulate a photochemical response in the body’s cells that is healing.

LEDs don’t have the same concentrated focus of LLLTs, but they do produce light within the same general range of wavelengths (around 632–1,064 nm),for the same purpose of stimulating a healing photochemical response.¹

SCENAR doesn’t deliver much energy to the body; it uses a very weak electrical current. Instead, the device works with the feedback information it receives from the patient ‘s skin, using it to adapt its own electrical output, and by interacting with the body, constantly changing frequencies to ‘coach’ the body towards optimal neuropeptide production and the use of its own resources in an intense and highly focused way.