



DAVID POOLE

# Can a few AA batteries relieve pain, gout and depression? The answer will shock you

By Alice Smellie

**T**wo thousand years ago, the Roman physician Scribonius Largus reported that headaches could be relieved with the sting of a live electric eel. Ever since then, scientists have been interested in the healing powers of electricity. The buzz term at the moment is microcurrent therapy – or MCT – which refers to a plethora of home-use gadgets that manufacturers claim can relieve countless conditions.

With names such as Alpha-Stim and Microdoctor, these devices are typically powered by little more than a few AA batteries, and deliver a tiny current to the skin via clips or sticky pads. The charge is so weak, it cannot usually be felt.

They are being touted as treatments for everything from joint and back pain to headaches, gout, multiple sclerosis and even depression.

Is this a revolution in symptom management and a one-size-fits-all alternative to drugs? Or are manufacturers cynically targeting vulnerable sufferers who will try – and pay – anything to alleviate chronic conditions?

Surprisingly, some experts are quite open to the concept. Our bodies are composed of billions of atoms, which produce electrical signals that run almost instantaneously through the body as nerve signals, controlling all bodily functions, both conscious and unconscious.

MCT device companies claim injury and illness upset these signals, and the treatment resets our 'natural electrical currents', aiding healing and reducing pain.

The concept will be familiar to the millions of Britons who have tried a TENS (transcutaneous electrical nerve stimulation) machine, which delivers electricity to the skin's surface via sticky pads.

MCT typically involves electrical currents measuring less than one milliamperere – a thousandth of an ampere (a measurement of electrical current). To put this in perspective, a lightbulb may use about 500 milliamperes. TENS uses a higher electrical current than MCT, often above 60 milliamperes, to stimulate the nerves

**NEGATIVE TO POSITIVE:** Joanne Thompson believes an Alpha-Stim device helped lift her depression

## DOCTOR DOCTOR

Q My verruca has withstood freezing. What next?

A A verruca can be frozen three times and then a podiatrist would have to try to cut it out.

and block pain. 'New applications are mostly used for pain relief and soft tissue injury,' says Tim Watson, professor of physiotherapy at the University of Hertfordshire.

His team reviewed the clinical evidence for its efficacy in medical use two years ago and concluded that it is unquestionably effective. 'There is no doubt that MCT works,' says Prof Watson. 'But we don't yet know whether it's the current strength, the pulse pattern or the treatment duration that makes a difference.'

His team concluded that microcurrent is most effective when used for significantly longer than the daily 20 minutes recommended by most manufacturers.

'We went up to three hours a day in our trials, but there's no reason why it couldn't be used for longer,' he said.

Even clinicians who are sceptical about MCT agree that our increasing dependence on painkillers means that there is a gap in the market for treatments that do not include drugs.

'We now know that patients need ever increasing amounts of painkillers as they develop a tolerance to them.

'They also become dependent on them and suffer from side effects,' says Dr Lourdes Gaspar, a consultant specialist in pain medicine.

'Manufacturers make outrageous claims [about MCT] that aren't substantiated,' says Dr Deane Halfpenny, consultant anaesthetist and pain specialist at the London Independent Hospital.

'However, I've read a recent study that showed that microcurrents reduce post-operative pain. And anecdotally it clearly makes a difference. If a patient wanted to use it, I wouldn't dissuade them on this basis. It's unlikely to cause any harm.'

Physiotherapist Andy Buckley says: 'I've been using a microcurrent device called a Tendonworks for the past 18 months for my older patients who have suffered injuries while jogging. Normal therapy might include mobilisation and exercises,

and MCT works well when used in combination with these.'

Prof Watson, who has no affiliation to any company, suggests that as long as they carry the European safety mark and provide less than one milliamperere of power, all MCT machines are similar.

'Don't feel you have to spend lots of money. More expensive does not automatically mean better,' he says.

One patient who has reported remarkable results is Joanne Thompson, 32, a photographer who lives in Cambridgeshire with her husband Steve, 41, a senior executive in distribution, and their daughters, Ella, eight, and four-year-old Amy.

**S**he developed depression four years ago after her youngest daughter was born with a rare bowel condition. Joanne says: 'By the time I went to my doctor the following December, I was having suicidal thoughts.

'I was put on antidepressants and referred to a therapist.

'For the next two years I was anxious and frequently in tears. I suffered panic attacks and had severe side effects from the medication – tummy upsets, nausea and weight gain.

'A friend of mine had been using a machine called Alpha-Stim to help with stress and she suggested I try it alongside the pills. I was sceptical, but did some research and was impressed by the clinical studies and testimonials.

'You attach the clips to your ears and turn it on. I used it daily for two to three hours and would fall asleep with it on.

'Within two months I felt a definite lift in my mood. After three months I felt I was able to cope with everyday life. It was a very gradual process.'

Dr Lesley Parkinson, a consultant clinical psychologist, believes Alpha-Stim may have had an effect: 'The pills didn't appear to have been working and they had been given plenty of opportunity to do so.

'Also, Joanne wasn't expecting MCT to work, which would indicate that the machine did help. Anything like this that doesn't have side effects is worth a try.'

## 5 of the best CHOLESTEROL BUSTERS

High blood cholesterol is a key factor in the development of heart disease. While persistently raised levels will require medication, plant sterols – naturally occurring chemicals found in vegetable oils, nuts, seeds and grains – in the diet have been proven to help. Sterols are now added to a variety of foods and there are numerous supplements on the market. Here are five that should keep blood cholesterol at bay.

### 1 HOLLAND & BARRETT CHOLESTAGUARD 60 CAPS - £12.29



Contains the sterol beta-sitosterol. Take five caplets daily – one or two with each meal, making a total of 2,000mg – for maximum benefits and

to help maintain normal cholesterol as part of a healthy lifestyle. [www.hollandandbarrett.co.uk](http://www.hollandandbarrett.co.uk)

### 2 HEALTHSPAN PLANT STEROLS 60 CAPS - £7.95



Two of these capsules daily provide 858mg of pure plant sterols with high levels of beta-sitosterol. Suitable for vegetarians and vegans.

[www.healthspan.co.uk](http://www.healthspan.co.uk)

### 3 CHOLESTEROL GEL SUPPLEMENT SEVEN SACHETS - £9.99



Each 20g serving of this orange-flavoured gel can be eaten straight out of the sachet and contains 800mg of active plant sterols per serving.

[www.boots.com](http://www.boots.com)

### 4 HIGHER NATURE RED STEROL COMPLEX 30 CAPS - £7.30



This complex provides red yeast rice, which has been eaten in China for centuries. The rice is fermented with yeast and provides vital plant sterols.

Also contains the antioxidant Vitamin E, which helps maintain normal blood flow. [www.highernature.co.uk](http://www.highernature.co.uk)

### 5 NATURE'S BEST PLANT STEROLS 90 TABS - £10.20



Plant sterols are naturally present in vegetable oils and grains, but if your diet is low in these a daily supplement may make sense. Each tablet contains 400mg of plant sterols. [www.naturesbest.co.uk](http://www.naturesbest.co.uk)