

Pulsing skin patch could end the misery of chronic pain for arthritis sufferers and diabetics

- **The ActiPatch uses electromagnetic pulse therapy to disrupt pain signals**
- **Battery-powered device, weighing eight grams, can be worn 24 hours a day**
- **The skin patch is suitable for diabetics, people with arthritis and the elderly**

By [Roger Dobson for The Mail on Sunday](#)

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A new patch that fires pulses of energy at 1,000 times a second is being touted as a drug- and side-effect-free way to banish chronic pain.

Worn next to the skin, the ActiPatch uses electromagnetic pulse therapy to disrupt pain signals and help ease long- term pain in the knees, back and shoulders.

The battery-powered device, which weighs just eight grams, can be worn 24 hours a day and is suitable for diabetics, people with arthritis and the elderly.

Trials involving 254 people show that nine out of ten patients who used it saw a 60 per cent reduction in pain.

Dr Ian Rawe, director of clinical research at ActiPatch manufacturer BioElectronic, says: 'Musculoskeletal pain is widespread in the UK, greatly impacting people's quality of life and causing significant costs.

'Our study showed that 68 per cent of the patients had been experiencing adverse side effects from medication.



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Worn next to the skin, the ActiPatch uses electromagnetic pulse therapy to disrupt pain signals in the knees, back and shoulders (file photo)

‘The ActiPatch is a type of pain relief that uses changes in nerve activity, which has no side effects over time.’

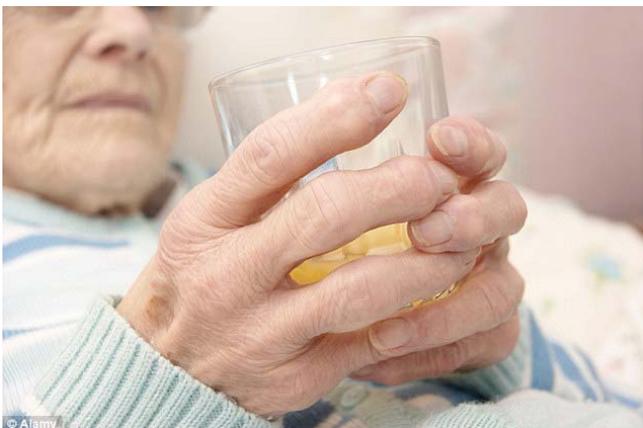
About two billion people worldwide suffer from musculoskeletal conditions such as arthritis and back pain, and the NHS says more than eight million Britons are affected by osteoarthritis.

Existing treatments to tackle chronic pain include over-the-counter painkillers and physiotherapy, nerve blocks and surgery, including joint replacements.

The ActiPatch delivers a safe level of pulses that do not give off heat or vibration, and it can be used alongside medication and overnight.

One theory is that the patch’s electromagnetic pulses may help to reset the central nervous system to ‘turn down’ pain signals. When the brain detects the electromagnetic pulses, it tries to block this ‘noise’, but this also turns down the volume of other messages travelling along the nerves, including pain.

Dr Nicholas Silver, consultant neurologist at the Walton Centre NHS Foundation Trust, said electromagnetic devices could be an alternative to prescription and over-the-counter painkillers.



ActiPatch can be worn all day and is suitable for diabetics, arthritis sufferers and the elderly (file photo)

‘Many painkillers are associated with complications including an increased risk of bleeding, kidney damage or even heart disease and stroke,’ he says.

‘They may also turn on brain centres and have the opposite to intended effect, causing amplification of pain.’

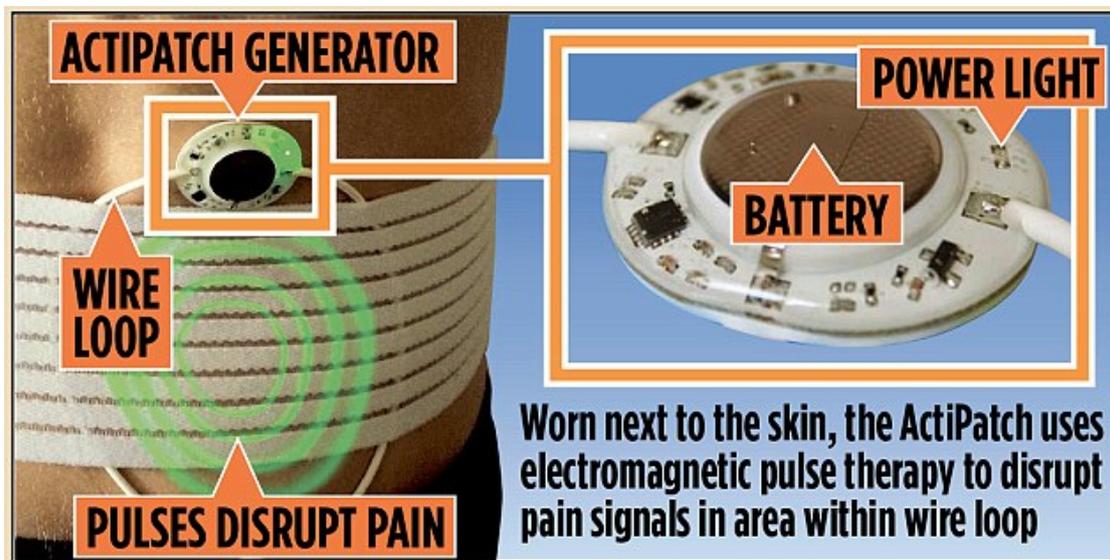
‘It is extremely exciting to see the development of “electroceutical” treatments that treat the problem directly and safely without causing such side effects.’

ActiPatch’s energy comes from a battery and generator, together smaller than a 5p coin, connected to a wire loop that surrounds the area that will receive the pulses.

The patch is placed over the painful joint, or on the back, and held in place with plasters or over clothing or a bandage.

A green light glows when the device is switched on, and 24-hour stimulation of the painful area is provided for about a month.

A six-month study of 254 men and women with different types of chronic pain suggest that it can be highly effective and lead to improved quality life and less dependence on strong painkillers.



The ActiPatch uses electromagnetic pulse therapy to disrupt pain signals and can be used by diabetics

More than 90 per cent had continued relief averaging a 61 per cent reduction in pain, and nine out of ten had improved sleep. Some 89 per cent were more physically active, 86 per cent reduced their medication use, including prescription opioids, and 65 per cent said they spent less money on over-the-counter painkillers.

Pauline Levi-Tilley, from Hampshire, suffered with back and shoulder pain for nearly 20 years before trying ActiPatch.

The 59-year-old had developed stomach problems from taking painkillers.

She says: 'The patch is the only thing that has taken the chronic shoulder pain away. I also have lower back pain, and on one occasion it became so bad that I didn't know what to do, so I tried the patch.

'I was skeptical because the pain had become so acute. But almost instantly, it took the edge off the pain, and within five or six days I was more or less back to normal.'