# Behind the headlines

Your guide to the science that makes the news

Brought to you by the NHS Knowledge Service

## Alexander Technique for back pain

**UK National Health Service** 

Knowledge Service, 20 August 2008

http://www.nhs.uk/news/2008/08August/Pages/BackpainandAlexandertechnique.aspx

The technique aims to change movement habits in everyday activities

Extensive coverage has today been given to a study that found the Alexander Technique – a method of teaching improved posture – is beneficial for easing back pain. The study on the technique involved over 500 people with chronic back pain from general practices across the UK. It found that people who received one-to-one instruction in the Alexander Technique, along with exercise, had reduced back pain and improved disability after one year compared to those receiving standard care.

Low back pain is a highly prevalent condition in the UK, with many adults suffering at some point in their lives, some experiencing recurrent problems. It can also be highly disabling, cause significant work loss, and reduced quality of life for the individual. It is now well known that remaining active, rather than bed rest, is the best approach to back pain; however, there has been conflicting evidence about the effectiveness of posture or exercise education. These new findings are likely to promote further research into the benefits and possible limitations of the Alexander Technique, the people for whom it would be most suitable, and the best approach to instructing sufferers.

### Where did the story come from?

The research was carried out by Professor of Primary Care Research, Paul Little, and colleagues from the School of Psychology at the University of Southampton, the Academic Unit of Primary Care at the University of Bristol and the Society of Teachers of the Alexander Technique. The study was funded by the Medical Research Council. The study was published in the (peer-reviewed) British Medical Journal.

#### What kind of scientific study was this?

This was a <u>randomised controlled trial</u> designed to examine the effectiveness of the Alexander Technique, massage, exercise advice, and behavioural counselling for chronic and recurrent low back pain. The Alexander Technique involves assessment of the individual's normal posture and movements, aiming to release tension from the head, neck and spine, and improve musculoskeletal use when seated and moving.

Sixty-four GP surgeries from the south and west of England were recruited to the study. From each sur-

gery a random selection of patients (aged 18 to 65) with chronic or recurrent back pain were invited to participate. Participants had presented to the surgery with back pain more than three months previously (this criteria excluded acute presentations), were suffering pain for three or more weeks and scored above four on the Roland disability scale. The researchers excluded anyone with potential spinal disease, a previous spinal surgery, nerve root pain in the leg, alcohol abuse, a history of psychosis, unable to walk 100m, or who had previous experience in the Alexander Technique.

People from each surgery (total of 579) were randomly allocated to one of eight treatment groups (average 72 in each group). Four of the groups were instructed to do extra exercise (doctor prescription of exercises and nurse-led behavioural counselling) along with one of the following treatments: normal care, six sessions of therapeutic massage, six lessons in the Alexander Technique, or 24 lessons in the Alexander Technique. The other four groups had the same treatments but with no added exercise.

A total of 152 teachers and therapists were involved in educating and carrying out the techniques. People were assessed by postal questionnaire at start of the study, three months, and one year after they had been allocated a treatment. The main outcome that the researchers examined was disability, assessed using the Roland Morris questionnaire and covering issues such as types of activities limited by pain. They also looked at other outcomes of quality of life and other back pain and disability scales.

## What were the results of the study?

Of the 579 people who were allocated a group and completed the questionnaire at the beginning of the study, 80% of the study sample (463) completed the one-year follow-up. When they first enrolled in the study, the characteristics of the participants were similar across all treatment groups and the majority had chronic back pain, experiencing 90 or more days of pain over the past year.

At three months, after exercise had been taken into account, Roland disability score and average number of days with back pain over the past month had significantly decreased in all groups compared to control

(massages and 6 or 24 Alexander Technique lessons). At one year, 6 or 24 Alexander Technique lessons had significantly decreased Roland disability score and average number of days with back pain compared to control, but massage no longer showed significant decrease in disability score. The greatest improvement was seen in the 24-lesson group. Compared to control, exercise, following adjustment for the other techniques, significantly decreased both Roland disability score and average number of days with back pain at three months, but at one month, exercise was only significantly effective on disability score.

When the researchers compared individual groups, they found that the effect of 24 Alexander Technique lessons combined with exercise was no different to the effect of 24 Alexander Technique lessons alone. Six Alexander Technique lessons combined with exercise were 72% as effective as 24 lessons alone without exercise. No adverse effects were reported for the Alexander Technique.

## What interpretations did the researchers draw from these results?

The researchers conclude that one-to-one instruction in the Alexander Technique by registered teachers has long-term benefits in chronic back pain. Six lessons combined with exercise had almost comparable effectiveness to 24 lessons in the Alexander Technique.

# What does the NHS Knowledge Service make of this study?

This well conducted randomised trial has strengths in that it involved a large number of participants with a sample size large enough to assess meaningful differences in the measured outcomes for each of the different treatments. It also followed the majority of these participants across the one year period. The study demonstrates the effectiveness of the Alexander Technique, with and without exercise, in reducing disability score on a recognised scale. A few points to consider:

- Instruction and education in the techniques involved a large number of trained professionals (152) and there may have been minor differences in the treatments given across the sample.
- The fact that the Alexander Technique requires education by a registered professional does mean that referral is going to be affected by local care arrangements and resources across the country.
- Although the effectiveness was measured up to one year, longer follow-up would be valuable to assess longer-term outcomes and possible adverse effects.
- Assessments were by postal questionnaire and disability, quality of life and pain are highly subjection.

- tive measures. How one person views their level of pain and disability is going to be different from another.
- All people in the groups had chronic back pain and fulfilled certain criteria. Many that the researchers contacted initially were not eligible for the study. Importantly, this study has no implications for care of acute low back pain.

Low back pain is a highly prevalent condition in the UK with many adults suffering at some point in their lives, some of whom experience recurrent problems. It can also be highly disabling, cause significant work loss, and reduced quality of life for the individual. It is now well known that remaining active, rather than bed rest, is the best approach to back pain. However, there has been conflicting evidence on the effectiveness of posture or exercise education. These new findings are likely to promote further research into the benefits and possible limitations of the Alexander Technique, the people for whom it would be most suitable, and the best approach to instructing sufferers.

#### Links to the headlines

<u>Health: Alexander Technique 'does ease back pain'.</u> The Guardian, August 20 2008

Alexander posture technique 'most effective at reducing back pain'. The Daily Telegraph, August 20 2008

Back pain eased by good posture. BBC News, August 20 2008

<u>Alexander Technique effective for back pain.</u> The Times, August 20 2008

An old cure for a modern malaise: Alexander Technique can beat chronic back pain. Daily Mail, August 20 2008

#### Links to the science

Little P, Lewith G, Webley F, et al. Randomised controlled trial of Alexander Technique lessons, exercise, and massage (ATEAM) for chronic and recurrent back pain. BMJ 2008; 337; a884

#### **Further reading**

Hayden JA, van Tulder MW, Malmivaara A, Koes BW. Exercise therapy for treatment of non-specific low back pain. Cochrane Database of Systematic Reviews 2005, Issue 3

Ostelo RWJG, van Tulder MW, Vlaeyen JWS, Linton SJ, Morley SJ, Assendelft WJJ. <u>Behavioural treatment for chronic low-back pain.</u> Cochrane Database of Systematic Reviews 2005, Issue 1

Furlan AD, Brosseau L, Imamura M, Irvin E. Massage for low-back pain. Cochrane Database of Systematic Reviews 2002, Issue 2



## Back pain eased by good posture

http://news.bbc.co.uk/2/hi/health/7568948.stm

BBC News, London, UK, 19 August 2008

Long-term back pain can be relieved through encouraging sufferers to adopt good posture through the Alexander Technique, say UK researchers.

The technique teaches patients how to sit, stand and walk in a way that relieves pain by focusing on their coordination and posture.

Until now there had been little evidence of the therapy's long term effectiveness.

The latest work is published in the British Medical Journal.

About half the UK population suffers from back pain during a year with up to 15% going on to have chronic problems. It is the second biggest cause of sick leave, accounting for five million lost working days a year. The trial was funded by the Medical Research Council and the NHS Research and Development fund.



Low back pain is one of the most common conditions seen by GPs

#### Longer-term relief

Researchers from Bristol and Southampton universities used a combination of normal GP care, massage and Alexander Technique lessons on 463 patients over the course of a year.

They found that by the end, the Alexander patients suffered just three days back pain a month. This compared to 21 days for those receiving GP care, which tended to include regular consultations, pain killers and exercise regimes for some, and 14 for those who had massages.

The Alexander patients were split into two — one group received 24 lessons and one six. Those who had 24 lessons were suffering just three days pain, compared to 11 for the other group.

She added: "Lessons in the Alexander Technique offer an individualised approach to develop skills that help people recognise, understand, and avoid poor habits affecting postural tone and neuromuscular coordination.

"It can potentially reduce back pain by limiting muscle spasm, strengthening postural muscles, improving coordination and flexibility, and decompressing the spine."

Dries Hettinga, researcher manager for Back Care, a charity which offers support and advice to people with back pain, said: "There is little evidence available about the effectiveness of the Alexander Technique so this research is welcome.

"The Alexander Technique is something we do recommend and the feedback we have got is good.

"But I would say that it may not be effective for everyone. Back pain is different for each person and you often need a combination of things to help relieve it."

See a video of Diana Maclellan giving Jane Hill a lesson in posture:



http://news.bbc.co.uk/player/emp/2\_3\_3887/player.swf

# Telegraph.co.uk

## Alexander posture technique 'most effective at reducing back pain'

An alternative therapy used to improve posture is more effective at treating back problems than conventional treatments, research has found.

by *Graham Tibbetts* and *Jessica Salter*The Telegraph, London, UK 20 Aug 2008 www.telegraph.co.uk/news/2585404/Alexander-posture-technique-most-effective-at-reducing-back-pain.html

The first major scientific trial of the Alexander Technique discovered that after a year's treatment, it could dramatically reduce symptoms. Massage, by contrast, offered little benefit after three months.

The technique teaches people to move and hold their bodies correctly by using frequently forgotten muscles to aid balance, and avoiding poor posture.

Problems stem from overusing some muscles and neglecting others in various parts of the body, not just the stomach or back.

However, once the imbalance is corrected sufferers are better able to adopt a more upright posture, such as when seated, standing or walking. Sitting correctly becomes more comfortable, reducing the desire to slouch.

It is popular with a host of professions, including performing artists and office workers, and is used by women to cope with labour pains.

After a year of treatment patients in the study receiving normal care, such as massage, endured 21 days of back pain in the previous month. However, those who received 24 lessons of Alexander Technique experienced 18 fewer days of misery.

In addition the Alexander Technique group reported improved quality of life, according to the findings published online today by the British Medical Journal Online.

Professor Paul Little, a primary care specialist who led the study, said: "Massage is helpful in the short term, but the Alexander Technique retained effectiveness at one year.

"The results should apply to most patients with chronic or recurrent back pain."

The method was devised in the 19th century by Frederick Matthias Alexander, a Tasmanian actor who performed in Sydney and Melbourne and was affected by vocal and breathing problems. Seeking a cure he watched himself in the mirror, reciting Shakespearean sonnets, and found the answer appeared to lie in his posture. He had to re-educate both body and mind, he believed, to resist his instincts and learn new behaviour.

Many continue to follow his technique, among them John Cleese, Paul Newman and the Duchess of York. It helps people overcome problems, such as hunching over at the desk or while climbing stairs, by making them aware of overusing some muscles and neglecting others. By bringing greater balance in muscle use it allows the neglected muscles to strengthen without the need for exercise.

The Alexander Technique, which has limited availability on the NHS, involves one-on-one sessions with a qualified teacher.

It is estimated as many as 85 per cent of the population experiences back pain at some point, and the problem costs the NHS about £500m a year.

Previous research had shown the Alexander Technique and massage may help relieve pain in the short term, but little was known about the long term outcomes.

Prof Little, of the University of Southampton, and colleagues at the University of Bristol recruited 579 patients with chronic or recurrent back pain to compare the effectiveness of massage, exercise and the Alexander Technique for relieving back pain.

Patients were sent disability questionnaires at three months and one year to record which activities were limited by their back pain, such as walking more slowly than usual or getting out of the house often. Exercise was least effective in reducing days of pain.

Professor Little said: "Back pain is a common condition managed in primary care and one of the commonest causes of disability in Western societies.

"As yet few interventions have been proved to substantially help patients with chronic back pain in the longer term. A series of 24 lessons in the Alexander Technique taught by registered teachers provides long term benefits for patients with chronic or recurrent low back pain."

Kamal Thapen, chairman of the Society of Teachers of the Alexander Technique (STAT), said: "For over 100 years people from all walks of life have learned the Alexander Technique to overcome back pain. We are delighted that this major clinical study now demonstrates that Alexander Technique lessons are effective.

One-to-one lessons, provided by STAT teachers, taught trial participants to improve body use, natural balance, co-ordination and movement skills, and to recognise and avoid poor movement habits that cause or aggravate their pain."





## An old cure for a modern malaise: Alexander Technique can beat chronic back pain

By Jenny Hope **Daily Mail**, London, UK, 20th August 2008 www.dailymail.co.uk/health/article-1047108/An-old-cure-modern-malaise-Alexander-Technique-CAN-beat-chronic-pain.html

Back pain costs the UK economy £5 billion each year in lost working days. A method of relaxation developed more than 100 years ago can help ease chronic back pain, researchers say.

The Alexander Technique, formulated by an Australian actor after he lost his voice, has been proved to be effective in clinical trials. The discovery could help British firms save vast sums of money. Each year back pain accounts for up to five million lost working days, and costs the economy an estimated £5 billion.

A study of almost 600 patients suffering chronic or recurrent back pain found significant improvements after a year among those having lessons in the Alexander Technique. They spent just three days in pain each month, compared with 21 days for those getting normal NHS care. And a short course of six lessons, combined with exercise, produced almost as much benefit as a full regime of 24.

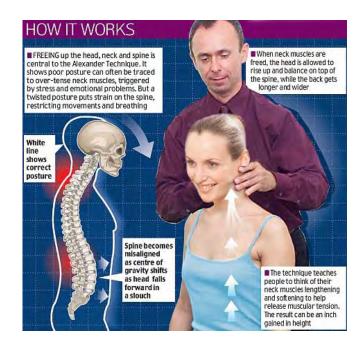
This is the first long-term study of its kind into the technique, which was originally devised to help its founder, actor Frederick Matthias Alexander, get over losing his voice during recitals. He believed his problem was caused by the way he stiffened his whole body as he prepared to speak. The technique has been taught in the UK since 1904, but until now there has been no thorough investigation into its long-term effectiveness and doctors have complained of the lack of evidence to support it.

Its aim is to make people more aware of how they use their bodies, and to get them to stop bad habits and excessive muscular tension.

In the latest study, published online in the British Medical Journal, a team from Southampton and Bristol Universities recruited 579 patients with chronic or recurring back pain from 64 GP areas in the south and west of England. They were allocated one of four types of treatment—normal care such as painkillers, physiotherapy or GP referral, massage, six Alexander Technique lessons, or 24 AT lessons.

Half of the patients from each group were also prescribed an exercise programme, consisting of brisk walking for 30 minutes a day five times a week.

The £750,000 study, partly funded by the NHS, showed that lessons in the technique provided an individualised approach to reducing back pain. Participants were taught on a one-to-one basis. They learned to sit, stand and move correctly, and they also worked on their posture.



All the patients involved in the study were sent questionnaires after three months and one year asking which everyday activities were limited by their back pain.

After a year, the researchers found that exercise combined with AT lessons significantly reduced pain and improved functioning, while massage offered little benefit after three months.

Those having AT lessons also reported fewer days with back pain over the previous four weeks.

Patients getting normal care had 21 days of back pain, compared with four among those having a full 24-lesson course of the Alexander Technique. Those who had six lessons had 11 days of pain and those having massage had 14.

Co-author Professor Paul Little of the University of Southampton said: 'This is a significant step forward in the long-term management of low back pain.

'The results of this study revealed that the Alexander Technique can help back pain. It probably does this by limiting muscle spasm, strengthening postural muscles, improving coordination and flexibility and decompressing the spine.'

# guardian.co.uk

## Health: Alexander Technique 'does ease back pain'

by Sarah Boseley, health editor **The Guardian**, London, UK, Wednesday August 20 2008 www.guardian.co.uk/society/2008/aug/20/health.healthandwellbeing

Chronic back pain, which causes probably more disability and days off work than any other health condition, can be eased through teaching better posture via the Alexander Technique, doctors say.

Back pain is notoriously difficult to treat and many people suffer from it for years. It is the biggest cause of sickness absence in the UK and some people are unable to work at all. Lower back pain affects seven in 10 people at some time in their lives.

A study published online today by the British Medical Journal, referring to a trial with 500 patients, offers some hope.

The experiment, run by researchers at the universities of Southampton and Bristol, found that patients who were taught Alexander Technique and combined it with exercise were significantly better at the end of a year.

The technique helps align the head, neck and back muscles. The patients reported less pain and a better quality of life after taking up the technique, and some said they were able to do things which previously had been difficult - such as walking normally, getting out and about, and doing household jobs.

Professor Paul Little of Southampton's faculty of medicine and his colleagues recruited 579 patients from 64 GP practices in the south and west of England. Each practice wrote to a random selection of patients who had seen a doctor because of recurrent back pain over the previous five years. They excluded any with serious spinal disease and those who had tried the Alexander Technique before.

The patients were either given normal care, massage, six lessons of Alexander Technique, or 24 lessons. Half the patients in each group were also given an exercise programme involving walking briskly for 30 minutes a day, five days a week.

Massage relieved the pain for the first three months, but the benefit did not last. But patients who had been trained in the Alexander Technique reported less pain and an ability to do more by the end of the year. Those who had had six lessons and stuck to an exercise routine did almost as well as those who had 24 lessons.

Little said he was a little surprised at the result. "I had a pretty good suspicion that people who were well-motivated would do well with the technique, but you have to be committed to learning it for it to benefit you. I suspected most folks might not be that committed and so we might not show terribly much." Although most trials of back pain interventions have not had particularly good or convincing results, Little said

this one was significant. "This is a good, large, trial. It is good enough evidence for people to take it seriously."

Those who combined Alexander Technique with exercise improved by about 40% to 45%, he said. Generally they had been limited in eight or nine activities, but at the end of the 12 months they could do three or four of those without restriction. "It's a simple, cheap intervention," said Little. "But at the moment the Alexander Technique is not available on the NHS."

The cost was about £30 a lesson, he said, which would make even a six-lesson course something of a bargain if it cut the amount of NHS time and resources taken up by back pain sufferers.

### **Backstory**

Alexander Technique was developed in the 1890s by Frederick Alexander, an Australian actor who feared the hoarse voice he had developed towards the end of performance would finish his career. He reasoned that he was straining his vocal organs through tension not only in his head and neck but in his entire neuromuscular system. The technique aims to restore the body to the easy posture of the young child, re-establishing, according to the Society of Teachers of the Alexander Technique, the natural relationship between the head, neck and back which form the core of the body. As well as reducing pain, it is said to help ease tension and stress.

This article appeared in the Guardian on Wednesday August 20 2008 on page 7 of the UK news section. It was last updated at 15:20 on August 20 2008

# TIMESONLINE

## Alexander Technique effective for back pain

By David Rose **The Times**, London UK, August 20, 2008 http://www.timesonline.co.uk/tol/life\_and\_style/health/article4568602.ece

An alternative therapy used to improve posture and to help women to cope with labour pain can be more effective at treating backache than conventional treatments, a study suggests.

Combining exercise with practising the Alexander Technique could significantly reduce back pain and improve mobility, researchers found.

The technique was developed by the actor Frederick Alexander (1869-1955) to help his vocal and breathing problems. It is designed to change the way people move their bodies, with an emphasis on balance, posture and co-ordination. A team from the universities of Bristol and Southampton compared the effectiveness of massage, exercise and the Alexander Technique in 579 patients with back pain. Those who had received 24 lessons in the Alexander Technique reported 18 fewer days of back pain over four weeks compared with those who had been taking exercise alone, according to the study published online by the British Medical Journal today.

Advocates of the Alexander Technique include the Duchess of York, Sir Paul McCartney and Sting.