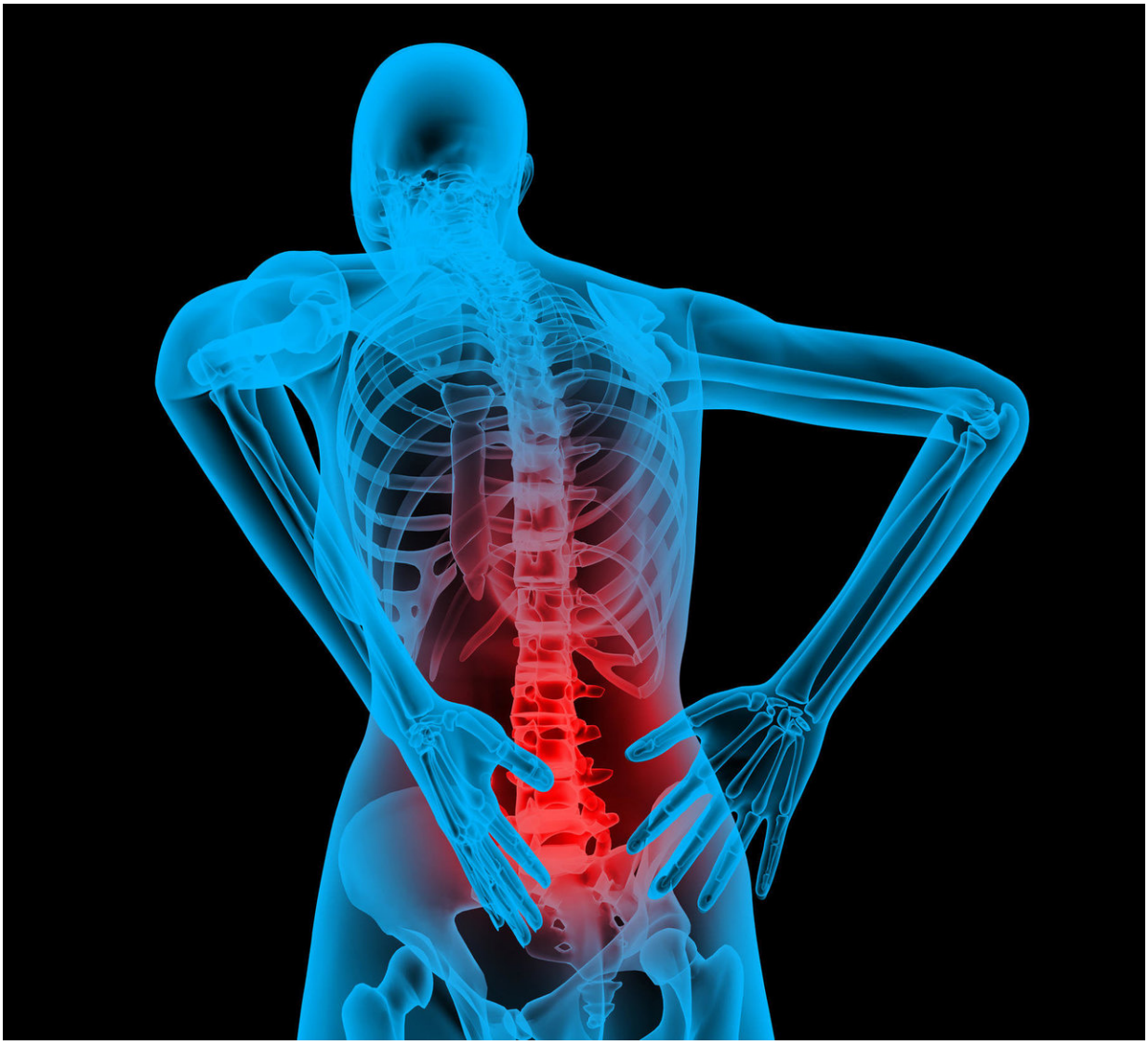
Back pain: we're treating it all wrong

March 22 2018, by Rachelle Buchbinder



Credit: Monash University

Imagine a medical condition that becomes worse the more it's treated – let's call it Malady X. Millions are spent on expensive therapies, on surgery, injections and pills, yet Malady X continues to strike down the young and the old, and especially the poor.

In less affluent times, Malady X sufferers kept working because they had no choice. In most cases their trouble eventually went away.

But then the world became richer, people exercised less and medicine became more sophisticated. Paradoxically, this has caused Malady X – otherwise known as low back pain – to become a bigger problem.

In fact, it's now the number-one cause of disability worldwide, with the proportion of global disability due to low back pain doubling in the past 25 years. (In Australia, it causes more disability than lung, bowel and breast cancer combined.)

Monash Professor Rachelle Buchbinder has spent decades trying to stop doctors from making bad backs worse. They do this by ordering expensive imaging tests that worry patients unnecessarily, or by administering treatments that don't work.

Although Professor Buchbinder has received international recognition for her research excellence, her findings and recommendations haven't significantly changed how backs are treated. "It's very frustrating," she admits, wearily, from her rooms at Cabrini Hospital, in Malvern.

"One of the big problems is that patients aren't always being given the right advice," she says. "Rather than evidence-based advice to stay active and exercise, much care for low back pain is of low value and is making the problem worse."

Global papers on back pain

Her latest effort to send out a message that cuts through and changes back pain treatment is a series of three papers, by 31 authors around the world, published in international medical journal *The Lancet*.

Professor Buchbinder chaired the steering committee that led the series, and was the lead author of the third paper, "A Call To Action."

The series documents the extent of back pain globally, including its escalating over-treatment in low and middle-income countries. One of the actions recommended in the third paper is for public education programs to tackle misconceptions among health professionals, patients and the general public about how to manage back pain.

The publication date in *The Lancet* (Thursday, March 22) coincided with the opening of a National Health and Medical Research Council-funded Centre for Research Excellence for the Australia and New Zealand Musculoskeletal (ANZMUSC) Clinical Trial Network, established to improve outcomes for people with arthritis and other musculoskeletal conditions, based at Cabrini Institute, Malvern.

Led by Professor Buchbinder, the centre is a collaboration involving more than 200 clinician-researchers from more than 20 universities and research institutes across Australia and New Zealand, including University of Sydney, University of New South Wales, Bond University and The George Institute.

She's been the director of the Monash Department of Clinical Epidemiology since its inception in 2001, and a professor in the Monash University Department of Epidemiology and Preventive Medicine since 2007.

Professor Buchbinder is also a rheumatologist.

In the 1990s, she evaluated the world-leading "Back pain: Don't take it lying down" campaign developed by the then Victorian WorkCover Authority, and demonstrated that it resulted in a significant improvement in public and professional beliefs about low back pain – which continued after the campaign ended.

The campaign also reduced the number of WorkCover claims, the number of days taken off work because of back pain, and significantly reduced medical costs. But then the Victorian government changed at the end of 1999 and the campaign was abandoned – it's since gone on to inspire similar campaigns in many countries overseas.

Personal experience

Professor Buchbinder practises what she preaches. She has intermittent low back pain and has had "severe sciatica" twice. On both occasions she kept moving.

She remembers how difficult it was to drive, how she couldn't find a comfortable sitting or standing position. She didn't have imaging and didn't seek medical care – she even flew to Canberra for a National Health and Medical Research Council panel.

She recalls having trouble sitting during the flights and how she had to keep shifting positions during the week-long panel sitting. Eventually the severe discomfort went away, as she knew (hoped) it would.

On the run: the best advice for low back pain is to remain active and continue to do the exercise you enjoy most. Credit: Monash University

"For most people, back pain is really an everyday part of life, like the common cold," she says.

"Nearly everybody gets it. In most instances the pain is short-lasting with little or no consequence, but we know it often recurs."

About one in three people will have a recurrence within a year of recovering from a previous episode. For this reason, low back pain is increasingly understood as a long-lasting condition.

"The emphasis is on trying to prevent it becoming more chronic and

interfering with people's lives," Professor Buchbinder says. "We know that psychosocial factors are really important in this. People who are fearful of moving their back, or those with depression or stress and who have little control over their job and life may be at higher risk of being disabled, and these types of factors might be even more important than the pain itself.

"There are a lot of misconceptions about back pain. Many people, including clinicians, think that people with back pain should rest in bed, yet we know that resting in bed and not remaining active delays recovery.

"The best advice is therefore to keep trying to move normally, remain active and at work. Another misconception is that imaging is needed to identify the cause of back pain and to guide treatment. But even with the most sensitive scans that are available today, we still can't usually identify a specific cause in most people."

Testing overused

One of the messages of The Lancet series "is that we do too many tests. Not only are tests often not helpful, they can cause harm. These harms include radiation exposure (from plain x-rays and CT scans), unnecessary patient concern, and the fact that imaging often leads to unnecessarily aggressive treatments such as use of strong opioids, spine injections and surgery," she says.

"Importantly, many asymptomatic people have similar changes to those who have back pain … In fact, it's normal to have 'wear and tear' in the structures of your back. These changes increase with age."

In recent years, according to Medicare Benefits Schedule data, the number of lumbar x-rays being reimbursed through the MBS have

declined, but the number of CT scans and MRIs have risen markedly.

"These tests are more sensitive than plain radiographs, so they're picking up even more abnormalities, even though these are no more likely to be of clinical significance, but lead to more chance of those harmful, downstream effects," she says.

"These problems are not specific to Australia, but are seen across the world, and unfortunately these same problems are already being seen in low-income and middle-income countries."

Many health systems exacerbate the problem by funding unnecessary or harmful tests and treatments, but not adequately funding the physical and psychological therapies that are known to be helpful.

A parallel issue is that "more people are calling ambulances and/or presenting to emergency departments with back pain".

Emergency departments routinely respond by doing imaging tests, too, and although back pain is best managed out of hospital in community facilities, hospital admissions for back pain have increased in the past decade. Many people continue to seek a specific cause for their symptoms, hoping this will lead to a cure.

Professor Buchbinder says these people are "especially vulnerable to care for low back pain driven by vested interests".

(Asked whether it's better to see a physiotherapist, a chiropractor or an osteopath, Professor Buchbinder says what matters most is the competence of the practitioner – any one of them can offer good evidence-based advice, education and treatment if they know what they're doing. And when asked what type of exercise is best for a bad back, she says research can't distinguish which is better; the important

thing is to keep moving and to do exercise you enjoy.)

So what else works? Victoria's public health campaign from the 1990s – starring cricketer Merv Hughes and Con the Fruiterer (comedian Mark Mitchell) – was fun, popular and changed attitudes. It continues to inspire copycat campaigns around the world.

"There were four main messages. If you've got back pain, you need to self-manage, it's up to you; you don't need to see a doctor; you don't need an x-ray; stay at work," she says.

"We showed a significant positive shift in population beliefs in Victoria [compared to NSW, where there was no campaign]. That was irrespective of who you were, and even whether you saw the ads or not. This shift in beliefs was sustained for at least six years after the end of the campaign [the last time population beliefs were measured]. It also really improved GPs' beliefs and management of low back pain.

"The only group that didn't change as a result of the campaign – and we only tested GPs – were doctors with a special interest in low back pain. They were also much less likely to believe that they needed guidelines. They thought people with back pain should stay in bed until they got better, they thought they should stay away from work, and they thought they needed imaging."

There are now other promising solutions that may help ease the rising global burden of low back pain. They've been described in the second paper of The Lancet low back pain series, but need to be tested before they can be implemented more widely. Professor Buchbinder and her colleagues hope that by drawing attention to the rising global burden of low back pain, it'll be given a higher priority both nationally and internationally. She's still trying to convince anyone who will listen that a bad back is not the end of the world.