

## ACA Research: Unlocking spinal health for older Australians.

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### Ground-breaking research ‘Unlocks spinal health for older Australians’

As part of national **Spinal Health Week (20 - 26 May 2024)**, the Australian Chiropractors Association (ACA) has released new research out of CQUniversity on the detrimental impact low back pain (a musculoskeletal disorder) is having on the overall health and wellbeing of older Australians.

Funded by the ACA, the 12-month longitudinal study, ‘*Back Complaints in the Elderly: Chiropractic – Australia*’ (BACE:C-A) investigated the clinical course and predictors of disability in older adults with low back pain (LBP) and identified strategies to limit the negative impact it has on older people.

Conducted by Lead Investigator, Associate Professor Katie de Luca, the study found that quality of life, comorbid chronic health conditions and lower leg limb pain all have detrimental effects on the overall health and wellbeing of older adults.

Concurrent musculoskeletal pain, loss of mobility, frailty, falls, urinary incontinence, poor sleep, and moderate to severe disability are all adverse health outcomes associated with chronic primary low back pain (CPLBP) in older people.

“Older Australians, particularly those over 65 years, are at high-risk of developing a musculoskeletal disorder including CPLBP which, if left untreated can have devastating consequences such as reduced physical capabilities, the loss of independence, social isolation, restricted mobility that could lead to disability, and progressive decline in mental capacity,” said A/Prof de Luca.

A recent systematic review, co-authored by A/Prof de Luca, found that older people with CPLBP had significantly greater declines in multiple cognitive areas such as long-term memory, selective attention, processing speed, and executive function than older adults who do not have CPLBP.

“With the high prevalence of CPLBP in Australia’s ever-growing aging population, the evidence that cognitive functioning declines in older Australians with LBP is concerning,” said A/Prof de Luca.

“There is also strong evidence that depressive symptoms show a risk of future reporting of back pain onset that raises serious concerns about its impact on the mental health of our older people who suffer LBP.”

A/Prof de Luca’s research reports that community-dwelling older women with spinal pain have significantly poorer health status, lower physical and mental quality of life scores, and decreased functional ability than women without spinal pain.

The study showed that women with spinal pain also had an increased risk of multiple comorbidities (*the number of chronic diseases and conditions experienced at the same time*) and a significant incremental increase in the risk of spinal pain associated with an increased comorbidity count.

Diabetes, cardiac disease, pulmonary disease, mental health disorders and obesity were all found to be more common among women with spinal pain than in women without spinal pain demonstrating that comorbid chronic diseases may contribute to allostatic load (*the wear and tear on the body*) which accumulates with a person’s exposure to chronic physiological, biological and/or psychological stress.

In older women, over 50% of those with spinal pain reported 2+ comorbidities. 56% of those with arthritis had experienced spinal pain in the previous month; 33% who experienced spinal pain had cardiovascular

disease; 20% had some form of mental health disorder, and over 70% of women with spinal pain were classified as overweight or obese.

Addressing CPLBP among older populations can facilitate healthy ageing to ensure older people have the functional ability to maintain their own health and wellbeing to improve their overall quality of life.

With LBP the leading cause of disability world-wide and common in older Australians this can lead to the loss of physical and mental capacities, restricted mobility and the ability to participate in society, and the associated risks of significant comorbidities, higher mortality and a decrease in health-related quality of life; older Australians require healthcare that is tailored specific to the needs of the individual suffering LBP.

In response to a lack of research on healthcare options for older adults with back pain, A/Prof de Luca recently launched the COMEBACK study at CQUniversity to assess the feasibility of adapted exercises for older people with back pain and comorbid conditions.

The findings were significant in revealing that participants in the exercise program showed an overall increase in functional capacity and aerobic stamina, a decrease in depression and anxiety, and importantly, decreased frailty - all leading to an increase in reported quality of life.

However, according to A/Prof de Luca, evidence suggests the common treatment for LBP in the majority of older patients in Australia conflicts with her findings and the conservative care recommendations including those in the *WHO guideline - for non-surgical management of chronic primary low back pain in adults in primary and community care settings*.

“As a result, older people are significantly burdened by spinal conditions and a range of additional negative implications associated with back pain that could be effectively treated,” said A/Prof de Luca.

“Currently, 50% of older LBP patients are less likely to receive a recommendation for exercise for their spinal pain than younger patients, and medications are being recommended for spinal pain in 849 of every 1000 problems in over 55-year-olds. That’s 85% of patients who could access improved spinal healthcare if the recommended treatments were followed by prescribing physicians,” she said.

Faced with a wide range of potential serious implications to the long-term health of older Australians including loss of cognitive impairment and physical disability, the findings of the ACA funded BACE:C-A study, together with recommendations from the WHO present a strong argument for improved assessment of older patients with LBP and treatment options including chiropractic healthcare.

ACA President, Dr David Cahill said, “In line with the University of Sydney’s study (*Lancet medical journal, 23 June 2023*), the WHO recommends against the commonly prescribed use of opioids and paracetamol to treat low back pain as these medications have proven largely ineffective and come with a range of significant associated risks and side effects.

“A/Prof de Luca’s research findings are consistent with interventions endorsed in the WHO guideline, which importantly include spinal manipulation and warn against bed rest,” said Dr Cahill.

“Having invested over \$2.2 million into neuromusculoskeletal research overall, the research conducted by A/Prof de Luca has added value to the field of chiropractic by presenting vital insights into improving the spinal health and overall health and wellbeing of older Australians who suffer spine-related pain,” he said.

With prevention the best protection from back pain, people can download the free *Back Pain Factsheet*, the *Sitting, Standing, Lifting/Bending Factsheets*, the *Back Pain Checklist* and *Stretching Poster* and the *Straighten Up app* from [www.spinalhealthweek.org.au](http://www.spinalhealthweek.org.au).

#SpinalHealthWeek #ConsultAChiro #LowBackPain #BackPainConsultAChiro #BackPain

**-ENDS-**

## INTERVIEW REQUESTS

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**NOTE: Please refer to Journalist Notes for research details and outcomes.**

## ACA MEDIA SPOKESPERSONS

### Associate Professor Katie De Luca

Katie de Luca PhD, is a chiropractor and Associate Professor at CQUniversity, Brisbane, Australia. A/Prof de Luca is a member of the Australian Chiropractors Association. Her primary research focus is the epidemiology and management of musculoskeletal disorders across the lifespan, with expertise in older adults and healthy ageing. Katie was the second author on the recent Global Burden of Disease study 2021 low back pain estimates ([Lancet Rheumatology](#)), that showed global low back pain prevalence and disability due to low back pain peaked in older adults (80-84 years). A/Prof de Luca has >60 peer-reviewed publications, ~\$5.9M in research funding, and is the Chair of the World Federation of Chiropractic, Disability and Rehabilitation Committee where she sits on the WHO Rehabilitation Programme..

### Dr David Cahill – President, Australian Chiropractors Association - National, NSW & Victoria

ACA President, Dr David Cahill has been a registered, practicing chiropractor since 1991, in the Malvern East area since 1998. He loves helping people of all ages, from newborn babies and toddlers, to those in their more senior years. David has always been very active in post-graduate education, continually upskilling in many aspects of chiropractic. From 2016 to 2020 David was also the chiropractor for the Hawthorn Football Club. He enjoys taking care of the elite footballers, integrating his chiropractic care in a team with the other support disciplines, particularly physiotherapy. David's passion is to truly help people have transformative experiences through chiropractic, and to better explore their magnificent potential.

### Dr Roger Engel, Chair of the Australian Chiropractors Education and Research Foundation (ACERF)

Dr Roger Engel is an experienced clinician scientist and Honorary Senior Research Fellow in the Faculty of Medicine Health and Human Sciences at Macquarie University. He has an Honours degree in Anatomy from UNSW and a PhD from Macquarie University. Roger has been involved in research for over 40 years working across a range of fields including back and neck pain, chronic respiratory disease management and more recently, chiropractic scope of practice. He is the current chair of the Australian Chiropractors Education and Research Foundation (ACERF), the largest continuous funder of chiropractic research in Australia. The aims of ACERF are to fund research, encourage cross-disciplinary collaboration, and foster partnerships between researchers and clinicians.

## THE AUSTRALIAN CHIROPRACTORS ASSOCIATION

Established in 1938, the Australian Chiropractors Association (ACA) is the peak body representing chiropractors. The ACA promotes the importance of maintaining spinal health to improve musculoskeletal health through non-invasive, drug-free spinal health and lifestyle advice to help Australians of all ages lead and maintain healthy lives.

The ACA is the premier association for chiropractic in Australia. With around 3,000 members, the ACA is Australia's largest chiropractic health body and has taken a leadership role in promoting the importance of maintaining a healthy spine to improve the overall health and wellbeing of every Australian. ACA develops

and promotes professional standards for chiropractors, has invested \$2.2 million to advance research in neuro musculoskeletal healthcare, builds evidence-based practice for chiropractic healthcare and actively promotes the importance of spinal health through its annual flagship campaign, national Spinal Health Week.

Every week 400,000 chiropractic healthcare consultations are creating well-adjusted Australians. With so many Australians visiting a chiropractor every week, chiropractors play an important role in improving the spinal health of everyday Australians.

## **AUSTRALIAN CHIROPRACTORS ASSOCIATION – ‘Investment in spinal health research’**

ACA is proud to be the largest chiropractic research funders in Australia, having invested over \$2.2 million in research to date. These research grants not only add value by enhancing knowledge and practices within our field but also elevate the profession's standing in the scientific community. The impact of neuro musculoskeletal research is impossible to measure in the short term, but over the long term, with 400,000 Australians seeing chiropractors every week, the effect of improving outcomes could be immense. There is also the possibility of research findings influencing future government policy and funding, which may be vital for many Australians with musculoskeletal problems being the cause of such immense burden. This is especially true for an ageing population.

## **AUSTRALIAN CHIROPRACTORS ASSOCIATION RESEARCH FOUNDATION PROGRAM**

The Australian Chiropractors Association is committed to evolving evidence-based practice with the integration of the best available research with clinical expertise and patient values at the heart of their vision to improve neuromusculoskeletal health for all Australians.

Since 2004, ACA's significant investment of \$2.2 million in research supports the association's core vision of advancing the chiropractic profession to achieve its highest potential and its desire to have more people experience the benefits of holistic, non-invasive drug-free chiropractic healthcare.

To bring to together the ongoing development of research in the profession, the ACA founded the Australian Chiropractors Education and Research Foundation (ACERF); a registered charity and public ancillary fund regulated by the Australian Charities and Not-for-profits Commission.

The aims of ACERF are to fund research, encourage cross-disciplinary collaboration and foster partnerships between researchers and clinicians through a grant scheme that is open to submissions by ACA members. Through this process, ACERF aims to:

1. Strengthen partnerships between researchers, chiropractors, other healthcare professionals, governments and the community.
2. Develop academic capacity in researchers, chiropractors, and other healthcare professionals and encourage collaboration across disciplines and sectors.
3. Support and fund research to investigate chiropractic science and practice.
4. Support implementation of new and existing models of care to advance health outcomes and clinical practice.
5. Support the implementation of health promotion programs in the Australian community.

All submissions to the ACERF undergo a critical assessment through a highly competitive process. Chaired by Dr Roger Engel Honorary Senior Research Fellow in the Faculty of Medicine Health and Human Sciences at Macquarie University, the ACERF Advisory Committee oversees research activities and makes recommendations to the ACA Board on the allocation of funds. To date, funding by ACA has included parity funding to universities, various chiropractic research initiatives and higher degree research scholarships.

## CQ UNIVERSITY AUSTRALIA - School of Health, Medical and Applied Sciences (Chiropractic)

CQUniversity has been delivering its Chiropractic course for more than 12 years, producing over 280 high-quality, work-ready graduates.

CQUniversity's chiropractic degree begins as a Bachelor of Science (Chiropractic) and transitions into a Master of Clinical Chiropractic – both of which are required for a student to register and practice as a chiropractor.

The chiropractic discipline at CQU has a strong team of domestically and internationally trained educators, allowing them to draw on a wide range of experiences to ensure that students get the best education possible.

CQUniversity Chiropractic Masters program provides extensive work integrated learning opportunities with 100 per cent employment rates over the past seven years. It is the only shared chiropractic and physiotherapy student clinic in Australia, allowing graduates to develop cross-discipline teamwork skills and build wide professional networks before graduating which helps them to enter the healthcare workspace equipped with important skills such as collaboration, leadership and inclusive treatment options.

## CHIROPRACTIC TREATMENT FOR BACK PAIN FOR OLDER AUSTRALIANS

Members of the Australian Chiropractors Association (ACA) are 5-year university educated healthcare professionals who effectively treat a wide range of musculoskeletal disorders including the causes of back pain and a range spinal health conditions.

ACA chiropractors use specialised drug-free, evidence-based, non-surgical techniques including specific spinal adjustments to manage spinal health. They apply low-force intervention and use various manual therapies including soft tissue techniques while assessing lifestyle factors and providing relaxation methods to reduce reliance on medication and minimise stress caused by back pain. By treating the cause of back pain and not just the symptoms, chiropractic healthcare improves the overall health and wellbeing of Australians of all ages.

## NATIONAL SPINAL HEALTH WEEK 2024

**National Spinal Health Week (20-26 May 2024)** is the initiative of the Australian Chiropractors Association (ACA). ACA has conducted national Spinal Health Week for more than 25 years. It is Australia's longest running, and award-winning national health awareness campaign dedicated to improving the spinal health of Australians of all ages.

Annually, the national campaign focusses on a specific spinal health issue while promoting the importance of maintaining good spinal health to improve overall health and wellbeing. In 2024, the campaign focusses on improving musculoskeletal health to address back pain and the impact it has on 4 in every 5 Australians. ACA is encouraging individuals, the community, businesses and organisations to participate by registering at [www.spinalhealthweek.org.au](http://www.spinalhealthweek.org.au)

With the cost of Musculoskeletal Disorders (MSDs) to the Australian economy exceeding \$55.1 billion annually (including direct health costs, lost productivity and reduced quality of life); with 6.1 million Australians already affected, of which 58% are of working age in peak income earning years (25-64); and, with the growth in musculoskeletal cases projected to be 43% over the next two decades (including older Australians living with spinal health conditions), the health burden on Australians and our economy is significant. By promoting a pro-active approach to improving spinal health through effective drug-free solutions, national Spinal Health Week 2024 will increase awareness of MSDs that can cause back pain and restrict the quality of life and increase the psychological distress and bodily pain of sufferers.

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## ADDITIONAL LINKS

**Global, regional, and national burden of low back pain, 1990–2020, its attributable risk factors, and projections to 2050: a systematic analysis of the Global Burden of Disease Study 2021:** [https://www.thelancet.com/journals/lanrhe/article/PIIS2665-9913\(23\)00098-X/fulltext](https://www.thelancet.com/journals/lanrhe/article/PIIS2665-9913(23)00098-X/fulltext)

**Musculoskeletal Australia - The rising cost of musculoskeletal conditions:** <https://msk.org.au/a-problem-worth-solving/#:~:text=This%20groundbreaking%20report%20details%20the.and%20reduced%20quality%20of%20life>

**The profile of older adults seeking chiropractic care: a secondary analysis:** <https://bmcgeriatr.biomedcentral.com/articles/10.1186/s12877-021-02218-6>

**TGA decision to reduce paracetamol pack sizes:** [www.tga.gov.au/news/media-releases/tga-makes-final-decision-reduce-paracetamol-pack-sizes](http://www.tga.gov.au/news/media-releases/tga-makes-final-decision-reduce-paracetamol-pack-sizes)

**University of Sydney - Opioids ineffective for acute low back or neck pain: Study:** [https://www1.racgp.org.au/newsgp/clinical/opioids-ineffective-for-acute-low-back-or-neck-pai#:~:text=and%20neck%20pain.\\_.Opioids%20are%20the%20one%20of%20the%20most%20prescribed%20pain%2Drelief,prescribed%20opioids%20such%20as%20Oxycodone](https://www1.racgp.org.au/newsgp/clinical/opioids-ineffective-for-acute-low-back-or-neck-pai#:~:text=and%20neck%20pain._.Opioids%20are%20the%20one%20of%20the%20most%20prescribed%20pain%2Drelief,prescribed%20opioids%20such%20as%20Oxycodone)

**WHO guideline for non-surgical management of chronic primary low back pain in adults in primary and community care settings. Geneva: World Health Organization; 2023. Licence: CC BY-NC-SA 3.0 IGO:** <https://www.who.int/news/item/07-12-2023-who-releases-guidelines-on-chronic-low-back-pain#:~:text=LBP%20affects%20life%20quality%20and,accumulate%20less%20wealth%20for%20retirement.>

**World Health Organisation:** <https://www.who.int/news-room/fact-sheets/detail/musculoskeletal-conditions>