



New perspectives on pain management, including the roles of opioids and medical cannabis

Thursday 31 August 2023

The content in this session is valid at date of presentation

Acknowledgement of Country

North Western Melbourne Primary
Health Network would like to acknowledge the
Traditional Custodians of the land on which our
work takes place, The Wurundjeri Woi Wurrung
People, The Boon Wurrung People and The
Wathaurong People.

We pay respects to Elders past, present and emerging as well as pay respects to any Aboriginal and Torres Strait Islander people in the session with us today.



Housekeeping – Zoom Meeting

All attendees are muted

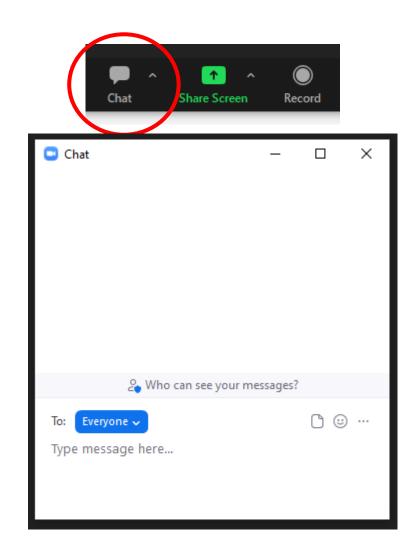
Please keep your microphone on mute

Please ask questions via the Chat box

This session is being recorded

Please ensure you join the session using the name you registered with so we can mark your attendance

Certificates and CPD will not be issued if we cannot confirm your attendance



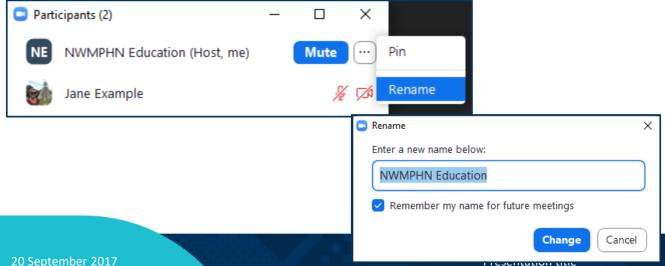
How to change your name in Zoom Meeting

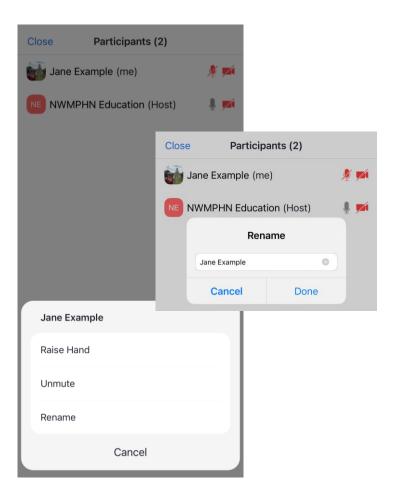
- 1. Click on *Participants*
- 2. App: click on your name

Desktop: hover over your name and click the 3 dots

Mac: hover over your name and click More

- 3. Click on *Rename*
- 4. Enter the name you registered with and click Done / Change / Rename





Speakers

Associate Professor Dr Malcolm Hogg, Staff Specialist, Anaesthesia and Pain Management, Royal Melbourne Hospital, Head of Pain Services, Melbourne Health & Clinical Associate Professor, University of Melbourne.

Nicole Moore - Senior Pain Physiotherapist and Project Lead, Merri Health, Lecturer, Doctor of Physiotherapy, University of Melbourne & Director, mindfulBeing Melbourne.

COMMON BELIFS BUSTED

> WATCH YOUR BACK!





ROADMAP

- What have we been doing to manage low back pain (LBP)...
- ... and what have we got?
- Common societal beliefs about LBP put into question
- Considerations for high value LBP care

PAINFUL BACK-FACTS

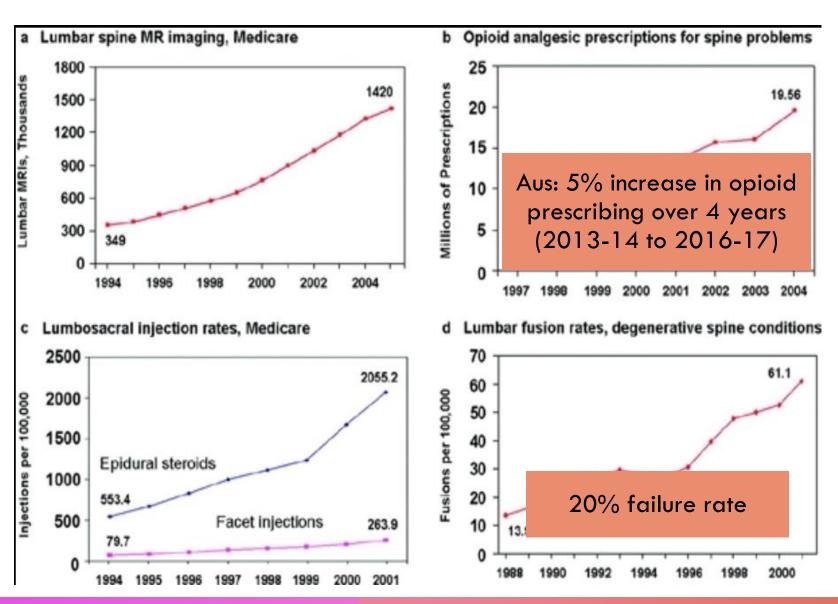
- Australian population prevalence:
 - accounts for 1/6 (4 million Aussies)
 - over-represented in people with low economic status
 - the second most common reason people go to their GP
 - one of the top 5 reasons people present to the ED



(O'Sullivan et al BMC Pub Hlth 2011; Stanton et al. Spine (Phila Pa 1976). 2008;33:2923-8)



MEDICALISED MANAGEMENT

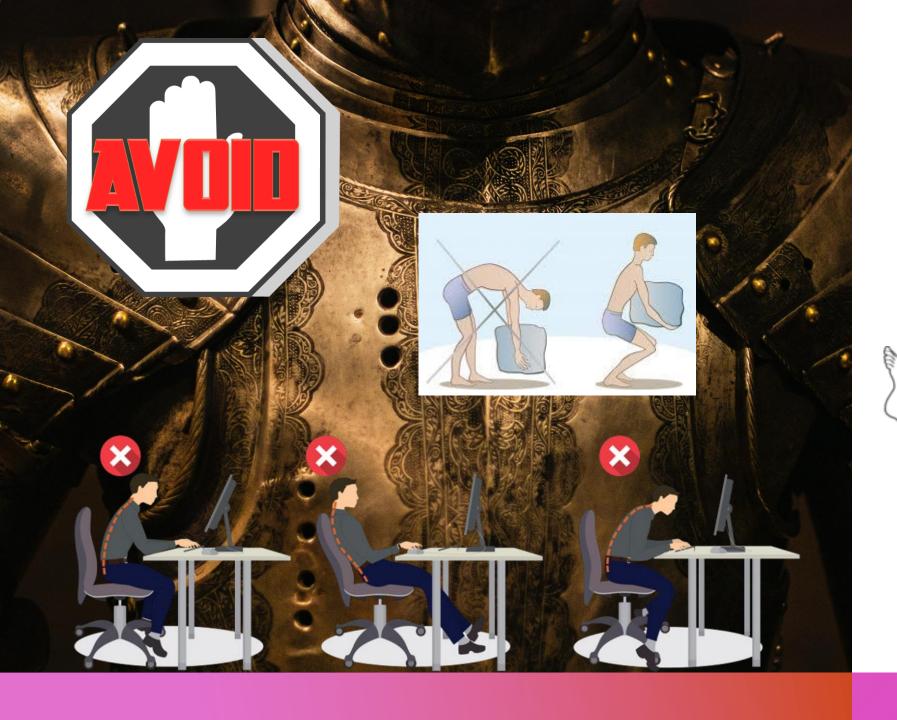


- MRI's 300%
- Procedures 130-700%
- Surgeries 300%
- Opioids 690+%
- Friedly, J., Standaert, C., & Chan, L. (2010). Epidemiology of spine care: the back pain dilemma. Physical Medicine and Rehabilitation Clinics
- Mafi, J. N., McCarthy, E. P., Davis, R. B., & Landon, B. E. (2013). Worsening trends in the management and treatment of back pain. JAMA internal medicine
- Atluri, S., Sudarshan, G., & Manchikanti, L. (2014).
 Assessment of the trends in medical use and misuse of opioid analgesics from 2004 to 2011. Pain physician Sehgal, N., Colson, J., & Smith, H. S. (2013). Chronic pain treatment with opioid analgesics: benefits versus harms of long-term therapy. Expert Review of Neurotherapeutics

VARIATION IN CARE OF LBP BETWEEN AUSTRALIAN LGA'S

11.8% variation in CT imaging for lumbar spine

4.8% variation in lumber spine surgery admissions



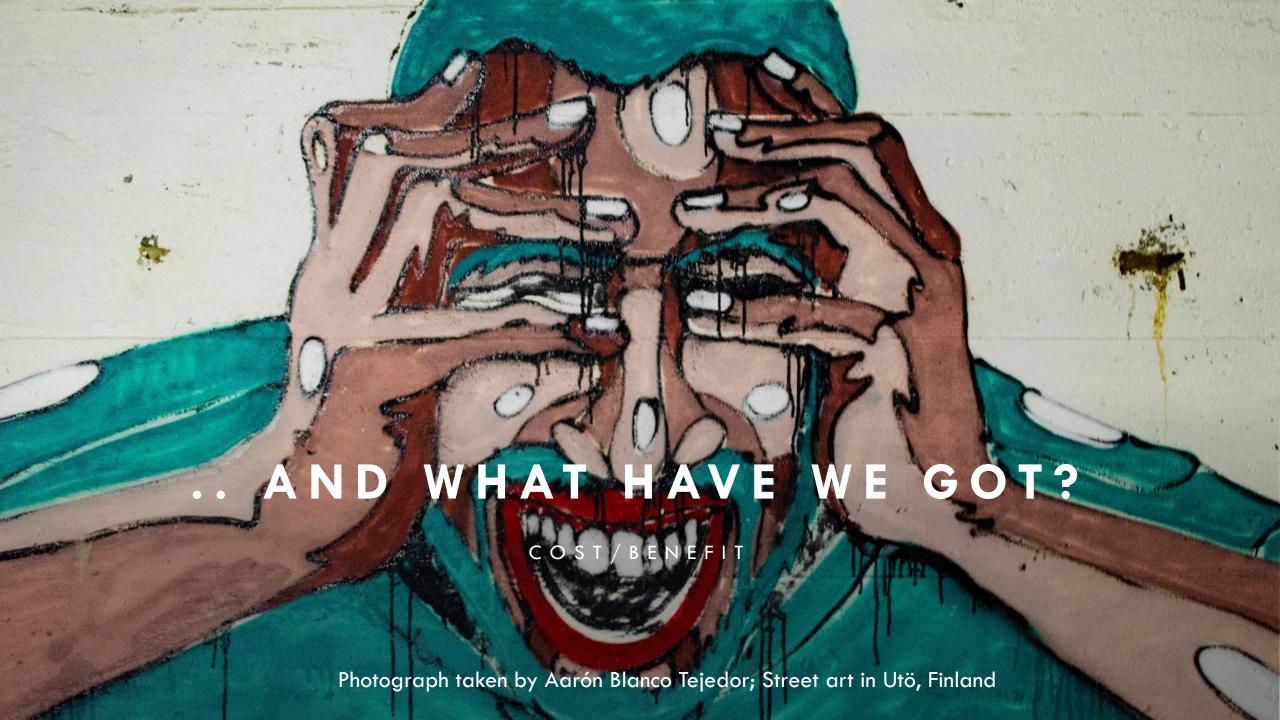
MESSAGING

- Protect
- Avoid
- Stabilize
- Correct lifting
- Correct posture
- "Let pain be your guide"

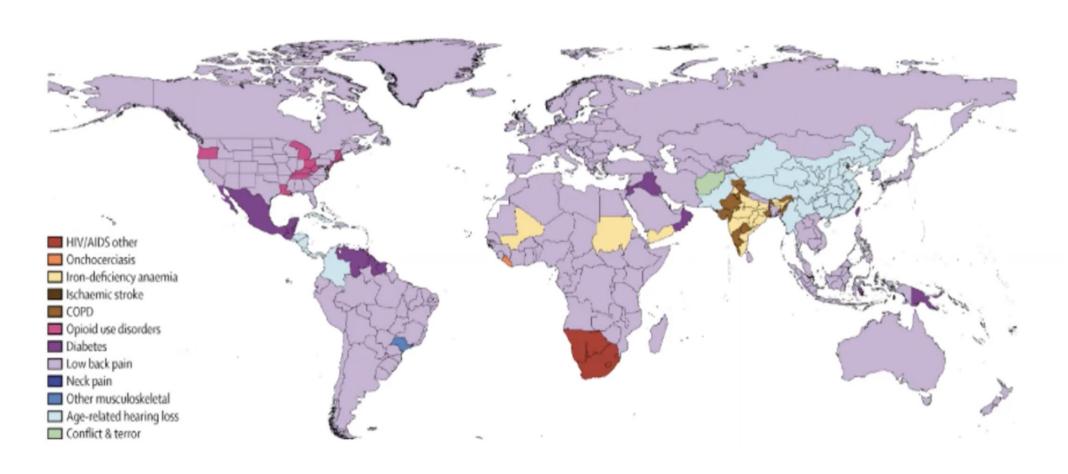


IN 2018-19, MORE MONEY
WAS SPENT ON MANAGING
MUSCULOSKELETAL
DISORDERS, INCLUDING
BACK PROBLEMS, THAN ANY
OTHER CATEGORY OF
DISEASE, CONDITION OR
INJURY IN AUSTRALIA

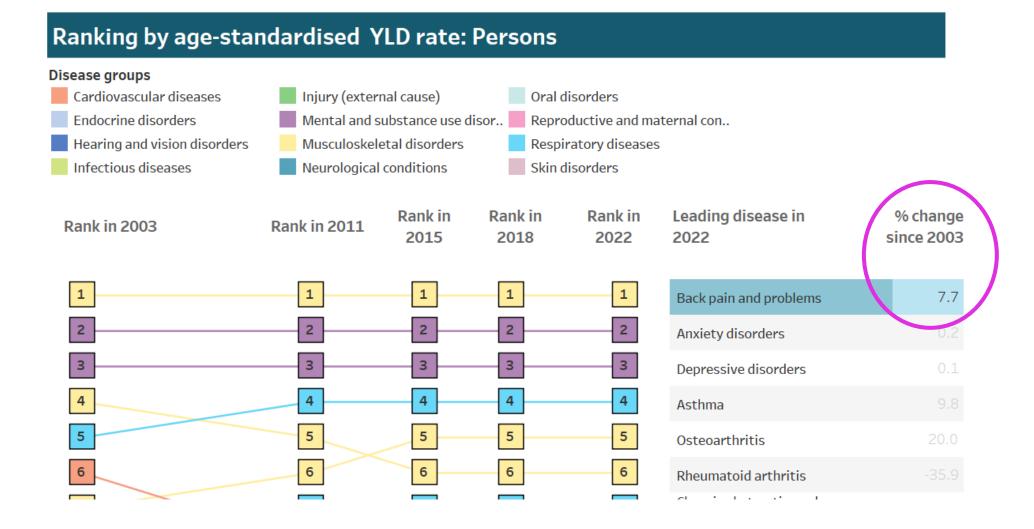
Australian Bureau of Statistics (ABS) 2017–18 National Health Survey (NHS); Australian Institute of Health and Welfare. Disease expenditure in Australia 2018-19. Canberra: AlHW; 2021; GP ref - Britt et al. 2016 General practice activity in Australia 2015–16; Australian Institute of Health and Welfare. Australian hospital statistics: emergency department care 2020–21.



LBP - LEADING CAUSE OF DISABILITY WORLDWIDE (AND INCREASING)



AU BURDEN OF DISEASE STUDY



THE 2018 LANCET LOW BACK PAIN SERIES

Low back pain 1

What low back pain is and why we need to pay attention

Jan Hartvigsen*, Mark J Hancock*, Alice Kongsted, Quinette Louw, Manuela L Ferreira, Stéphane Genevay, Damian Hoy, Jaro Karppinen, Glenn Pransky, Joachim Sieper, Rob J Smeets, Martin Underwood, on behalf of the Lancet Low Back Pain Series Working Group†

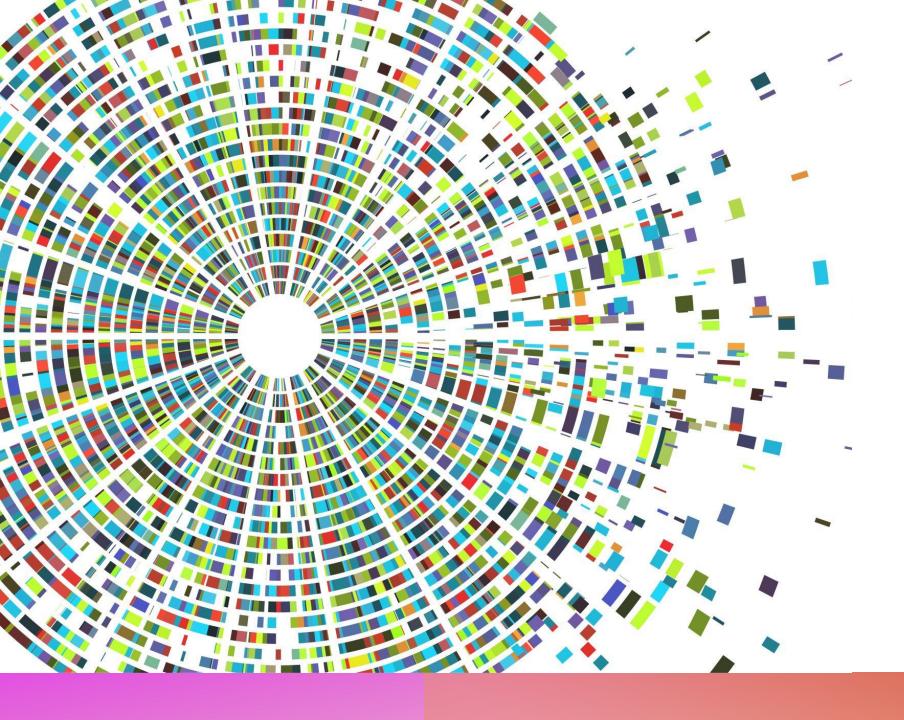
- 3 papers
- 31 authors from disparate disciplines
- > 12 different countries

Low back pain 2

Prevention and treatment of low back pain: evidence, challenges, and promising directions

Nadine E Foster, Johannes R Anema, Dan Cherkin, Roger Chou, Steven P Cohen, Douglas P Gross, Paulo H Ferreira, Julie M Fritz, Bart W Koes, Wilco Peul, Judith A Turner, Chris G Maher, on behalf of the Lancet Low Back Pain Series Working Group*

Low back pain: a call for action



2022 AUSTRALIAN BACK PAIN CLINICAL CARE STANDARDS

Low Back Pain Clinical Care Standard, Aust. Commission on Safety & Quality in Healthcare, Sept. 2022.

Peter O'sullivan Michael Nicholas Ass Prof Liz Mar Dr. James Edward

Hopelessness

Confusion

Abuse



PTSD









ACES

are

ADVERSE CHILDHOOD EXPERIENCES

ABUSE

NEGLECT

HOUSEHOLD DYSFUNCTION



Physical



Emotional



Physical



Emotional



Mental Illness



Incarcerated Relative



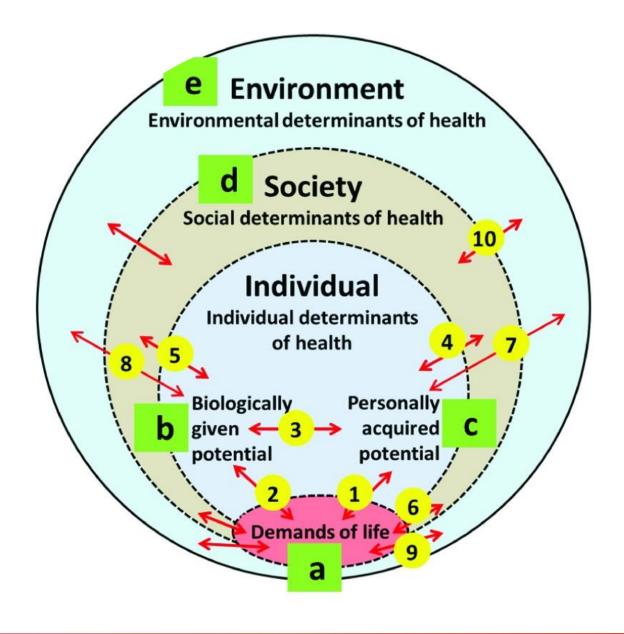
Mother treated violently

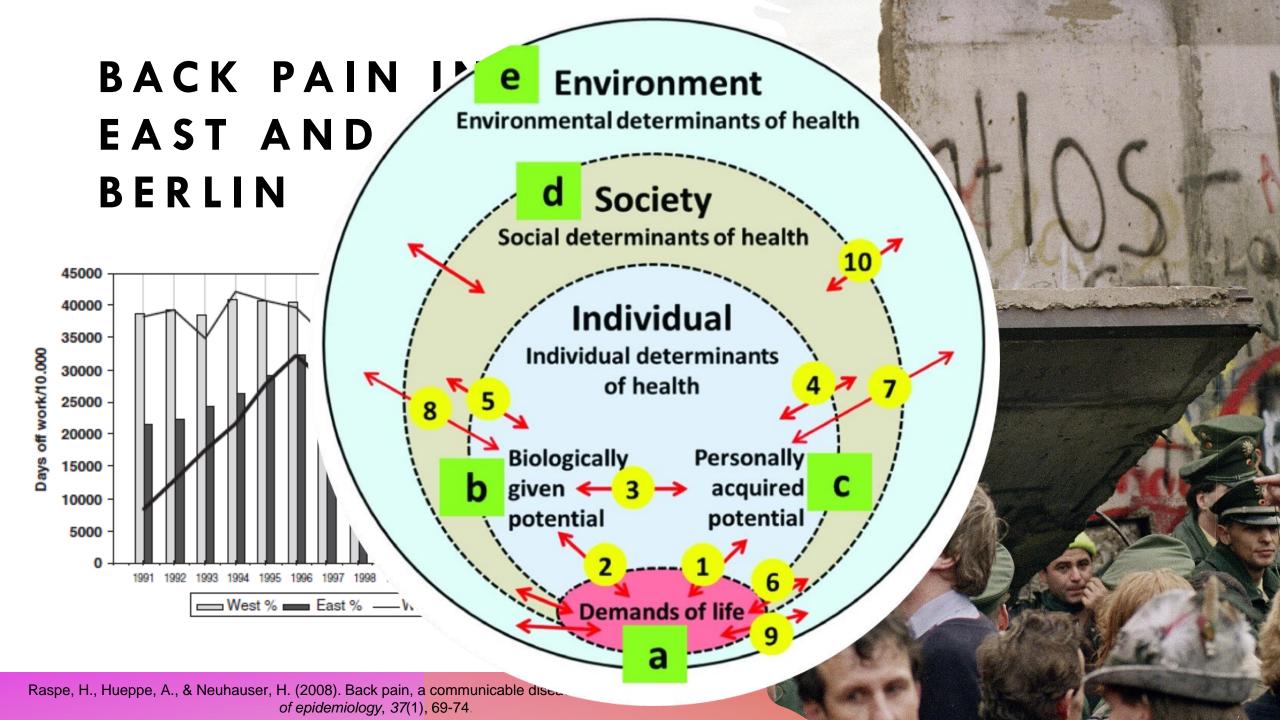


Substance Abuse



Divorce







1. Persistent back pain can be scary, but it's rarely dangerous

Persistent back pain can be distressing and disabling, but it's rarely life-threatening and you are very unlikely to end up in a wheelchair

2. Getting older is not a cause of back pain

Although it is a widespread belief and concern that getting older causes or worsens back pain, research does not support this, and evidence-based treatments can help at any age.

3. Persistent back pain is rarely associated with serious tissue damage

Backs are strong. If you have had an injury, tissue healing occurs within three months, so if pain persists past this time, it usually means there are other contributing factors. A lot of back pain begins with no injury or with simple, everyday movement. These occasions may relate to stress, tension, fatigue, inactivity or unaccustomed activity which make the back sensitive to movement and loading.

4. Scans rarely show the cause of back pain

Scans are only helpful in a minority of people. Lots of scary-sounding things can be reported on scans such as disc bulges, degeneration, protrusions, arthritis, etc. Unfortunately, the reports don't say that these findings are very common in people without back pain and that they don't predict how much pain you feel or how disabled you are. Scans can also change, and most disc prolapses shrink over time.

5. Pain with exercise and movement doesn't mean you are doing harm

When pain persists, it is common that the spine and surrounding muscles become really sensitive to touch and movement. The pain you feel during movement and activities reflects how sensitive your structures are - not how damaged you are. So it's safe and normal to feel some pain when you start to move and exercise. This usually settles down with time as you get more active. In fact, exercise and movement are one of the most effective ways to help treat back pain.



6. Back pain is not caused by poor posture

How we sit, stand and bend does not cause back pain even though these activities may be painful. A variety of postures are healthy for the back, it is safe to relax during everyday tasks such as sitting, bending and lifting with a round back - in fact, it's more efficient!

7. Back pain is not caused by a 'weak core'

Weak 'core' muscles do not cause back pain, in fact people with back pain often tense their 'core' muscles as a protective response. This is like clenching your fist after you've sprained your wrist. Being strong is important when you need the muscles to switch on, but being tense all the time isn't helpful. Learning to relax the 'core' muscles during everyday tasks can be helpful.

8. Backs do not wear out with everyday loading and bending

The same way lifting weights makes muscles stronger, moving and loading make the back stronger and healthler. So activities, like running, twisting, bending and lifting, are safe if you start gradually and practice regularly.

9. Pain flare-ups don't mean you are damaging yourself

While pain flare-ups can be very painful and scary, they are not usually related to tissue damage. The common triggers are things like poor sleep, stress, tension, worries, low mood, inactivity or unaccustomed activity. Controlling these factors can help prevent exacerbations, and if you have a pain flare-up, instead of treating it like an injury, try to stay calm, relax and keep moving!

10. Injections, surgery and strong drugs usually aren't a cure

Spine injections, surgery and strong drugs like opicids aren't very effective for persistent back pain in the long term. They come with risks and can have unhelpful side effects. Finding low-risk ways to put you in control of your pain is the key.







D'Sullivan P, Caneiro JP, O'Sullivan K, Lin I, Bunzli S, Wernli K, O'Keeffe M. Back to Basics: 10 facts about low back pain. BJSM, 2019













Chronic non-specific low back pain (CNSLBP)

Editorial

Back to basics: 10 facts every person should know about back pain

Peter B O'Sullivan , 1,2 JP Caneiro, 1,2 Kieran O'Sullivan , 3,4 Ivan Lin o, 5 Samantha Bunzli, 6 Kevin Wernli o, 1,2 Mary O'Keeffe o 7

- ▶ Fact 1: LBP is not a serious lifethreatening medical condition.
- ► Fact 2: Most episodes of LBP improve and LBP does not get worse as we age.
- ► Fact 3: A negative mindset, fearavoidance behaviour, negative recovery expectations, and poor pain coping behaviours are more strongly associated with persistent pain than is tissue

WHAT I HEAR PEOPLE SAY ...

- 1. "I keep reinjuring myself"
- 2. "I'm getting old"
- 3. "I have terrible posture"
- 4. "I have been bending properly!"
- 5. "I've got a labourers back"
- 6. "I tried exercise and it didn't work"

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BELIEF 1: BACK PAIN IS CAUSED BY INJURY/DAMAGE

- 'Pathology' is very common in people without pain
 - Nevertheless, in people younger than 50 years, some MRI abnormalities are more common in those with LBP than without: Modic type 1 change (OR 4) Disc bulge (OR 7.5), disc extrusion (OR 4.4), spondylolysis (OR 5) (Brinjikji et al, 2015)
 - Disk herniations are more common in people with radicular pain yet the importance of disc herniations diminishes over time
- Symptom severity does not directly correlate with pathology
- Degree of pathology does not predict future pain or disability
- 30% of individuals who have surgery to 'fix' what is seen in a scan don't do well

WE ALSO KNOW THAT...

- "What triggered your back pain"? 1/3 of people can't recall a mechanical trigger
- Acute LBP linked to periods of high emotional distress linked with somewhat minor, insignificant mechanical stress
- The strongest predictors of a flare-up: (Suri, P., et al. SPINE, 2018)
 - Inactivity
 - stress
 - depression

Pain flares are not just about the 'bio'...

PAIN FLARE "Out of the blue. I cant think of what I have done differently"

Poor night sleep

Reduced exercise lately

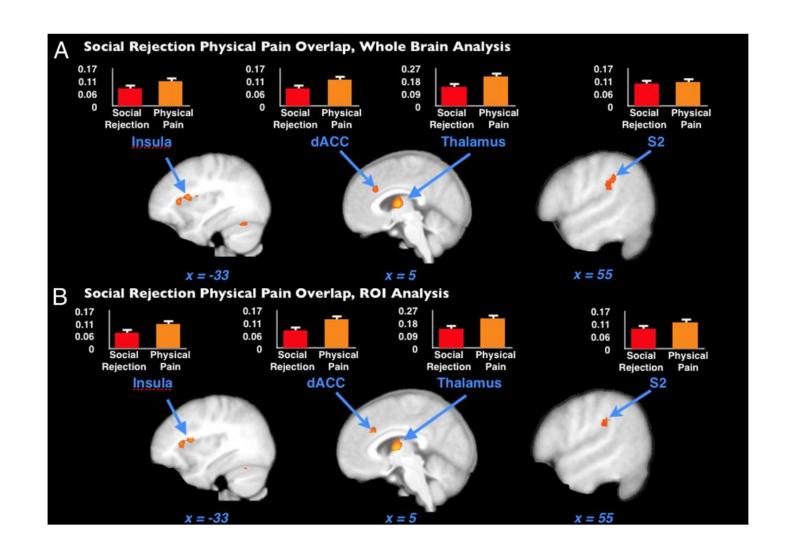
Challenging phone call to sister in the UK

... but "how have you been <u>feeling</u>"?

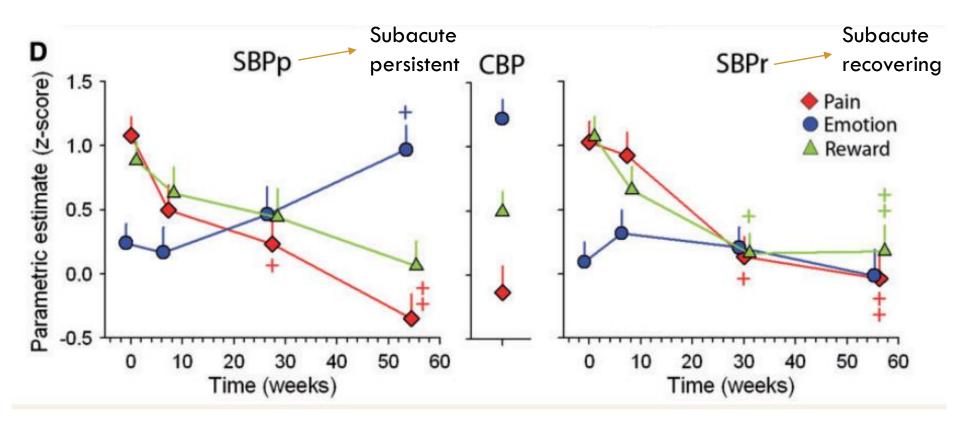
Learned news about other sister, from another sister.

Jackpot!!

EMOTIONAL PAIN = PHYSICAL PAIN



ACUTE TO CHRONIC LBP SHIFTS IN BRAIN REGIONS DOMINATED BY SOMATOSENSORY AREAS TOWARD LEARNING, MEANING AND EMOTIONAL AREAS

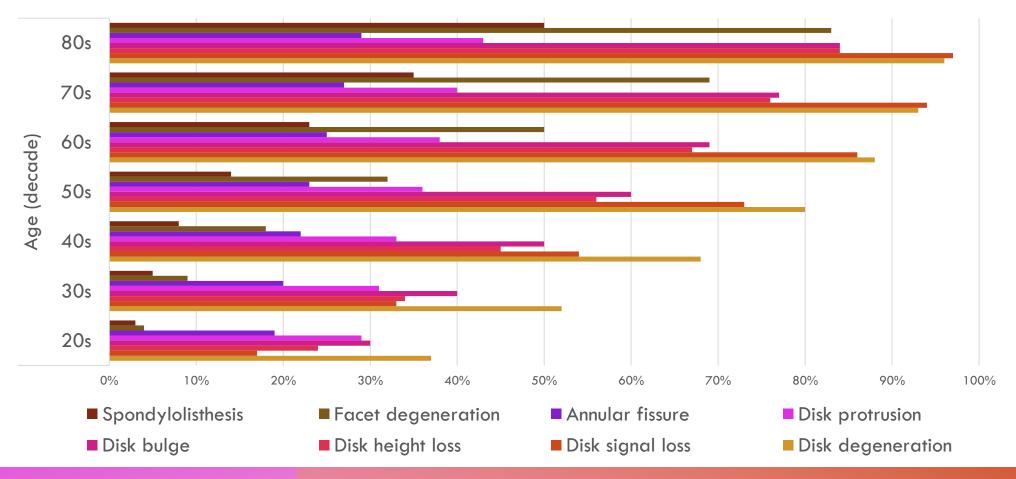


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BELIEF 2: DO BACKS GET WORSE WITH AGE?

Age-specific prevalence estimates of degenerative spine imaging findings in **asymptomatic** individuals



DO BACKS GET WORSE WITH AGE?

Rev Saúde Pública 2015;49:73

Facts:

- 2015 systematic review demonstrates back pain peaks between 40's – 60's and then tapers off
- LBP can be effectively managed at any age

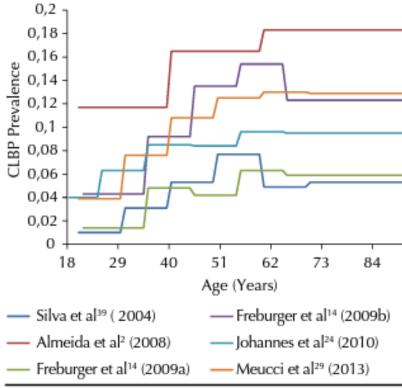


Figure 2. Chronic low back pain prevalence (CLBP) according to age (six estimates).

Table 4. Odds Ratios for Chronic Back Pain in 2013/14 Relative to 2001/02

	P-VALUE
1.10 (1.05-1.16)	<.001
1.07 (1.01-1.12)	0.014
1.29 (1.24-1.34)	<.001
1 10 (1 05-1 15)	~ 001
1.44 (1.38-1.49)	<.001
1.19 (1.14-1.24)	<.001
	1.07 (1.01-1.12) 1.29 (1.24-1.34) 1.10 (1.05-1.15) 1.44 (1.38-1.49)

Abbreviations: CI, confidence interval; OR, odds ratio.

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BELIEF 3: LBP, CAUSED BY 'POOR POSTURE'?

- Little-no evidence for:
 - preventative benefit from: shoe insoles, back
 belts, ergonomic furniture (Steffens D, et al. systematic
 r/v. JAMA Intern Med 2016)
 - the way we sit or stand
 - poor alignment
 - trunk, pelvic and spinal asymmetries or scoliosis
 - leg length difference
- as a cause for LBP



FACTS

People in pain are more tense, stiff, hold more upright postures, are more guarded and rigid and protective!

(Smith et al. JOSPT 2017)

People with back pain move slower, have reduced range of movement and don't relax

(Laird et al BMC MS 2014)

Getting a
variety of

"movement
nutrients"

may be the key

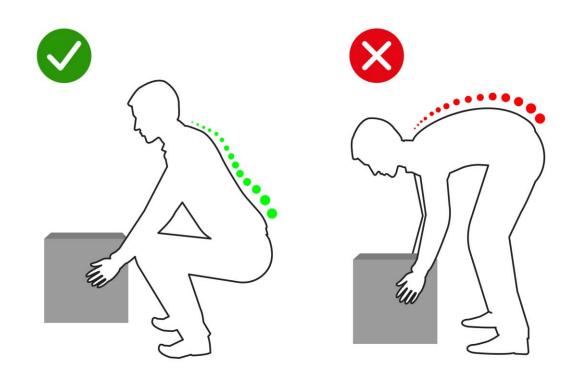
Spine posture
during sitting,
standing and
lifting does not
predict
LBP or its
persistence
(Abenhaim et al., 2000)

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BELIEF 4: IT DANGEROUS TO BEND WITH A FLEXED SPINE?





People with disabling LBP bend less (Nolan et al SJP 2019)

[LITERATURE REVIEW]

NIC SARACENI, PT¹ • PETER KENT, PhD^{1,2} • LEO NG, PhD¹
AMITY CAMPBELL, PhD¹ • LEON STRAKER, PhD¹ • PETER O'SULLIVAN, PhD^{1,3}

To Flex or Not to Flex? Is There a Relationship Between Lumbar Spine Flexion During Lifting and Low Back Pain? A Systematic Review With Meta-analysis

"There is no credible in vivo evidence to support the dogma that lumbar spine flexion should be minimized when lifting to prevent LBP onset, persistence or recurrence"

BMJ

RESEARCH

Effect of training and lifting equipment for preventing back pain in lifting and handling: systematic review

Kari-Pekka Martimo, medical specialist, ¹ Jos Verbeek, team leader, ² Jaro Karppinen, medical specialist, ³ Andrea D Furlan, associate scientist, ⁴ Esa-Pekka Takala, medical specialist, ¹ P Paul F M Kuijer, senior researcher, ⁵ Merja Jauhiainen, information specialist, ⁶ Eira Viikari-Juntura, research professor ¹

Study	Intervention	Control	Odds ratio (fixed) 95% CI	Weight (%)	Odds ratio (fixed) 95% CI
Van Poppel 1998 ^{w5}	30/84	29/83	+	87.66	1.03 (0.55 to 1.95)
Yassi 2001 ^{w6}	2/24	3/26		12.34	0.70 (0.11 to 4.58)
Total (95% CI)	108	109	+	100.00	0.99 (0.54 to 1.81)
Total events: 32 (intervention), 32 (control) Test for heterogeneity: χ ² =0.15, df=1, P=0.70 Test for overall effect: z=0.02, P=0.98			.01 0.1 1 10 1	00	
		i F			

Fig 2 Meta-analyses of two trials (adjusted for effect of clustering) on advice on lifting and handling compared with no advice in prevention of back pain or back injury at intermediate follow-up

PAIN-FREE BIOMECHANICAL STUDIES

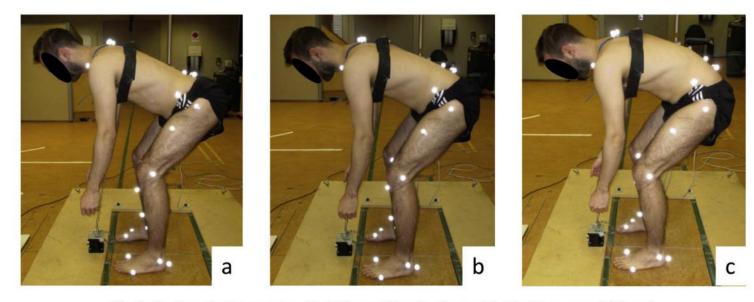
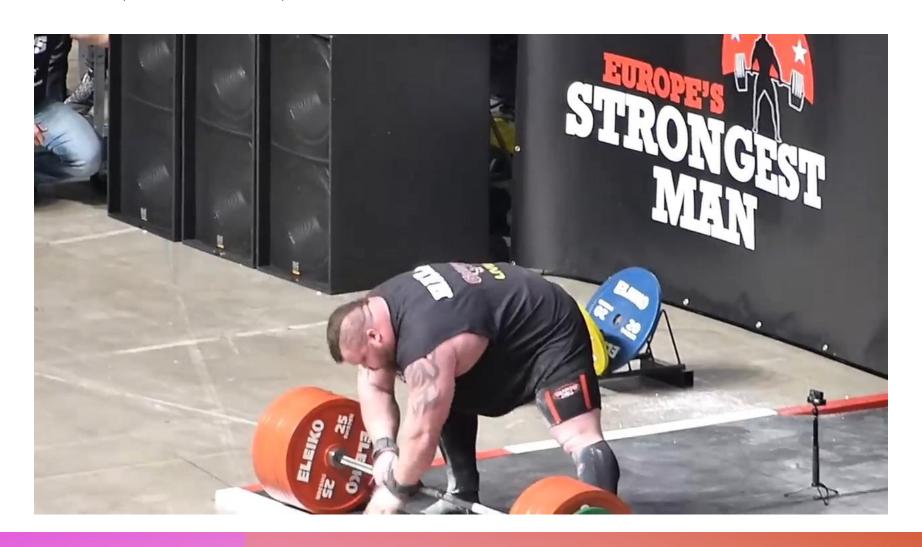


Fig. 1. The three lumbar postures adopted by participants: a) extended; b) mid-range; and c) flexed.

- Do not support an increase in disc pressure, compression or shear strain when lifting with a flexed versus a straight spine
- Lifting with a lordotic posture (a) resulted in reduced neuromuscular efficiency
- Lifting with a flexed spine (c) significantly improved overall strength and neuromuscular efficiency when lifting

EDDIE HALL DEADLIFT WORLD RECORD 500KG (2016)



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BELIEF 5: REPEATED SPINAL LOADING CAUSES PERSISTING BACK PAIN

"I have a ..."

...nurses back

...runners back

...labourers back

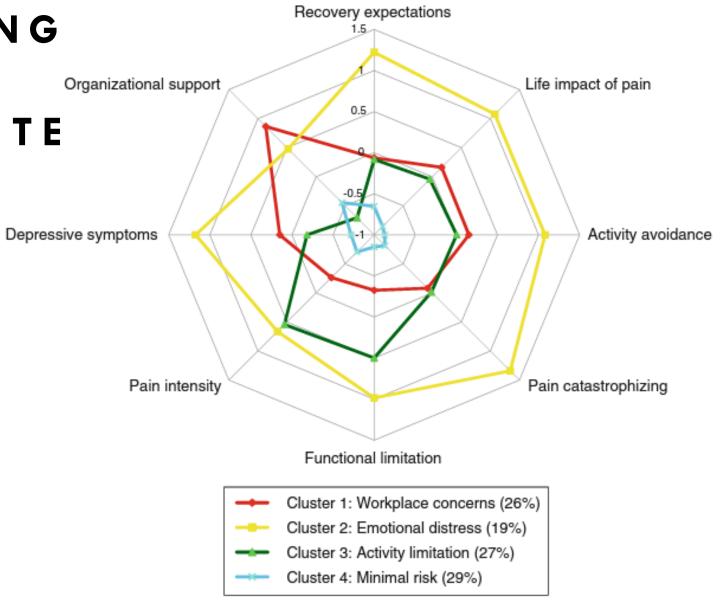
...farmers back

"Psychological stress and mental processing during lifting resulted in an increase in spinal compression associated with increases in trunk muscle co-contraction and less controlled movements"

(Davis et al., 2002)

INDIVIDUALS SEEKING
TREATMENT FOR
WORK-RELATED ACUTE
LBP

- 1,225 participants who completed a screening questionnaire and were followed up at 3 months
- Revealed 8 measures with significant associations with functional recovery and return-towork.



Spine loading does not predict MRI findings

(Battiè et al Spine 2009)

Backs get stronger with graded movement & loading

(Belavy et al Scientific Reports 2017)

FACTS

The use of
degenerative
language such as
wear and tear with
OA patients is
associated with
passive behaviours
and a poor
perceived prognosis

(Darlow, B et al 2018)

Long distance runners and joggers have improved IVD composition than non-athletic individuals

(Belavy et al. 2017)

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IT IS NOT
SAFE TO
EXERCISE IF
PAIN
INCREASES



Regular exercise can reduce central facilitation of pain

(Lima et al, 2017)

When we restrict people from their usual activity and exercise, they become more anxious, tired, depressed and have increased pain

(Smith et al. BJSM 2017)

FACTS

Review



Should exercises be painful in the management of chronic musculoskeletal pain? A systematic review and meta-analysis

Benjamin E Smith, ^{1,2} Paul Hendrick, ³ Toby O Smith, ⁴ Marcus Bateman, ¹ Fiona Moffatt, ³ Michael S Rathleff, ^{5,6} James Selfe, ⁷ Pip Logan²

Increased pain is
to be expected
with exercise.
Learn to exercise
with pain and
avoid pushing
through pain

Painful exercises
offered a small
but significant
benefit over painfree exercises in
the short-term

(Smith et al. Systematic Review, BJSM 2017)

WHAT'S THE *RIGHT* TYPE OF EXERCISE?

Walking

"Low quality evidence that walking is as effective as other non pharmacological management methods for NSCLBP. Lawford et al, Clin Rehabil 2015

Pilates

"Some evidence for the effectiveness of Pilates... no conclusive evidence that it is superior to other forms of exercise. The decision to use Pilates may be based on the patient's preference and costs" (Yamato et al, Cochrane 2015)

Core Stability

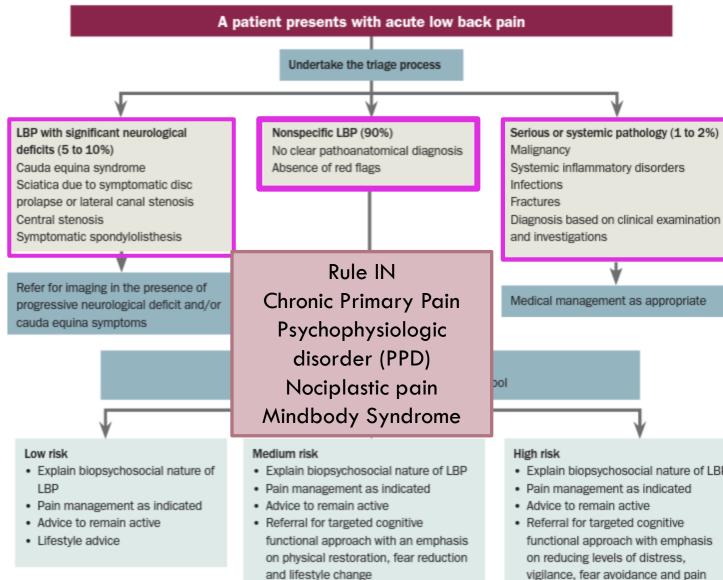
"Strong evidence that stabilisation exercises are **not** more effective than other forms of active exercise in the long-term" Smith et al, BMC Musc Disord 2015

EXERCISE FOR MENTAL HEALTH

- Much lower 'dosage' than for physical gains
- New set of guidelines need to be created
- "Some is better than none"
- Best is interval training



Framework for assessment and targeted management of patients with low back pain (LBP)*



Web evidence-based resources on pain for patients and healthcare practitioners are available at: http://painhealth.csse.uwa.edu.au/pain-management.html and www.pain-ed.com

* Management should be underpinned by a strong therapeutic alliance, which emphasises person-centred care and utilises a motivational communication style, active management planning and consideration of the patients' health, comorbidities, 'life' context, goals and health literacy.

- · Explain biopsychosocial nature of LBP
- · Pain management as indicated
- Referral for targeted cognitive functional approach with emphasis on reducing levels of distress, vigilance, fear avoidance and pain behaviours, combined with targeted functional restoration
- Psychological management will be required, if psychological comorbidities dominate

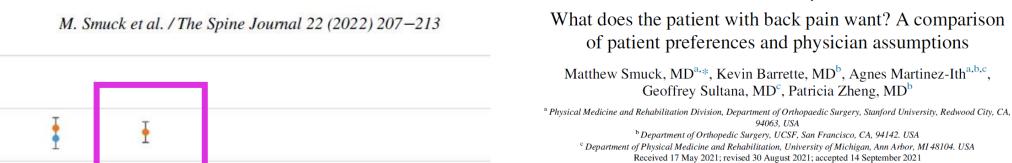


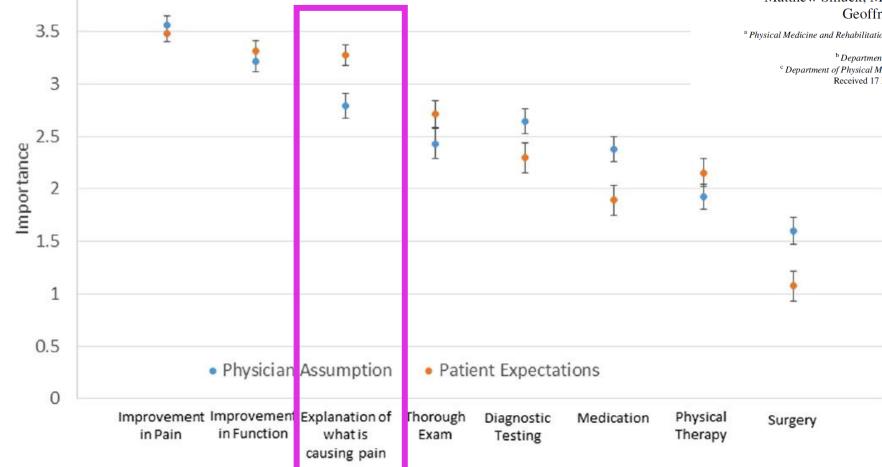




The Spine Journal 22 (2022) 207-213

Clinical Study





Smuck, M., Barrette, K., Martinez-Ith, A., Sultana, G., & Zheng, P. (2022). What does the patient with back pain want? A comparison of patient preferences and physician assumptions. The Spine Journal, 22(2), 207-213.

BMJ Open Do physical therapists follow evidencebased guidelines when managing musculoskeletal conditions? Systematic review

Joshua Zadro 0, Mary O'Keeffe, Christopher Maher

"Many physical therapists seem <u>not</u> to follow evidence-based guidelines when managing musculoskeletal conditions".

REFER INTO MERRI HEALTH'S PAIN SERVICE

- Info about the service including brochures and referral form: Merri Health

 Support to help you manage persistent pain
- Nicole Moore <u>nicole.moore@merrihealth.org.au</u>
- Referral via Healthpathways



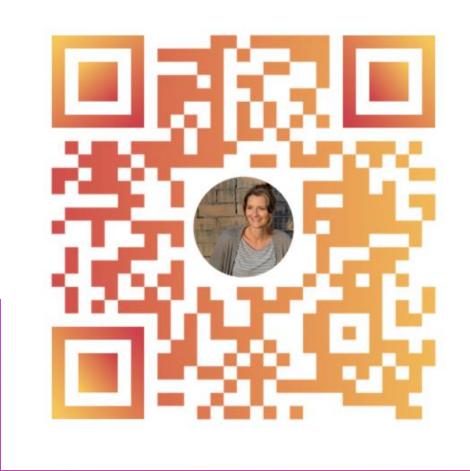
THANK YOU

Nicole Moore

Pain Physiotherapist (APA, MACP)

Merri Community Health Centre

nicole.moore@merrihealth.org.au



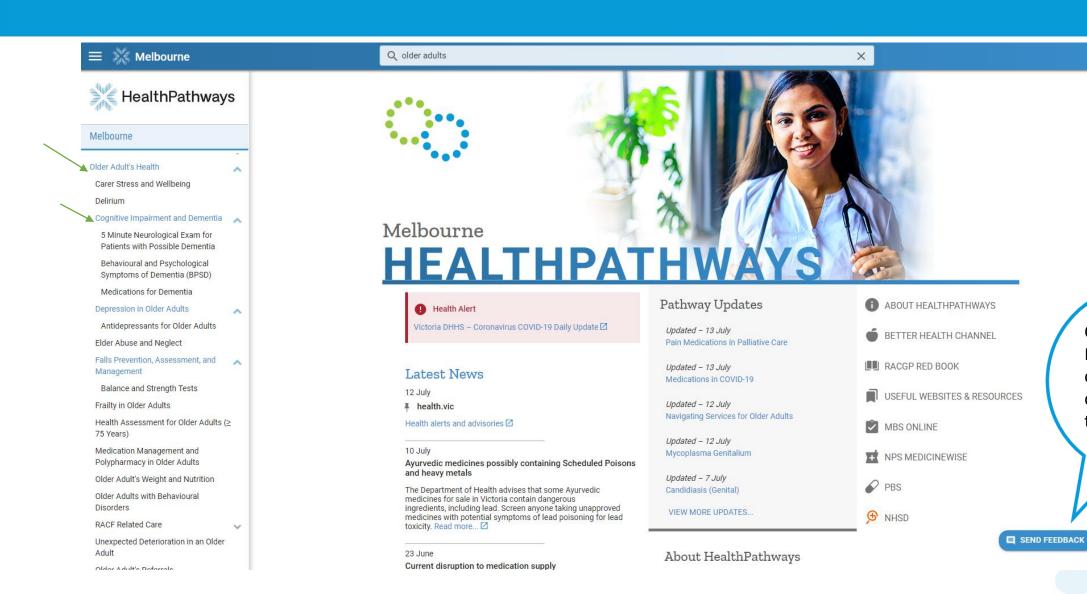


Pain management

31 August 2023



What is HealthPathways?



Click 'Send

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this pathway.

questions about

Pathways are written by GP clinical editors with support from local GPs, hospital-based specialists and other subject matter experts



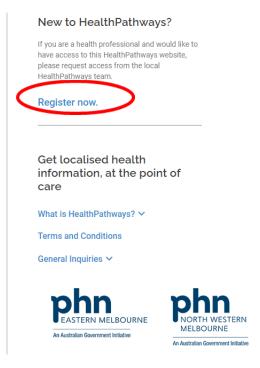
- clear and concise, evidencebased medical advice
- Reduce variation in care
- how to refer to the most appropriate hospital, community health service or allied health provider.
- what services are available to my patients

Accessing HealthPathways: Go to melbourne.healthpathways.org.au



Melbourne

Welcome Sign in to HealthPathways Username Password Forgot password? Remember me Sign In



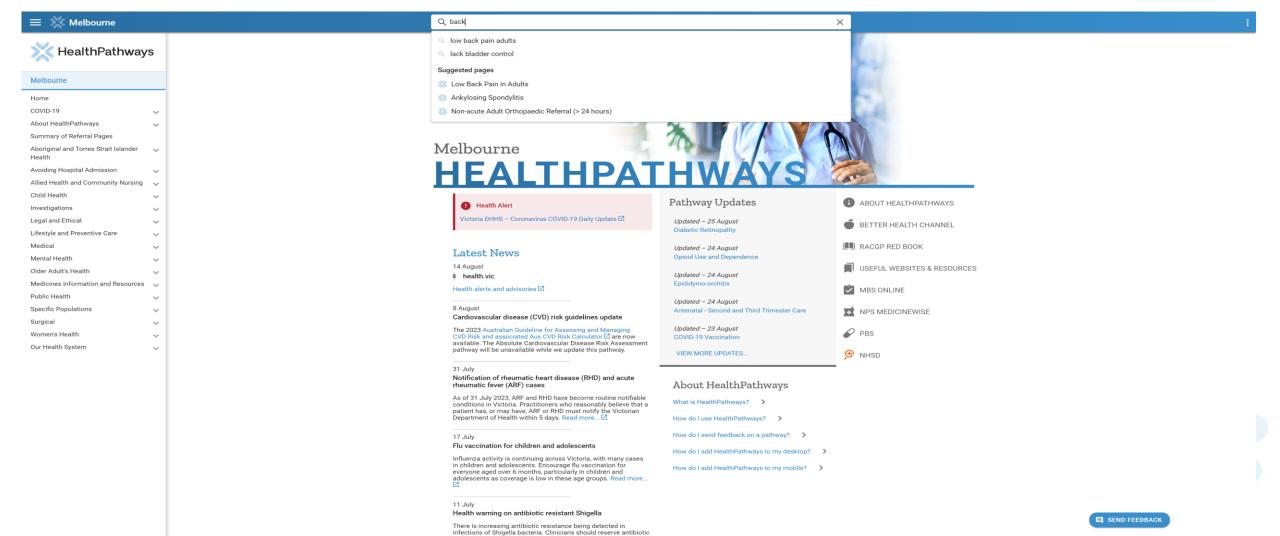


Register via QR code



info@healthpathwaysmelbourne.org.au

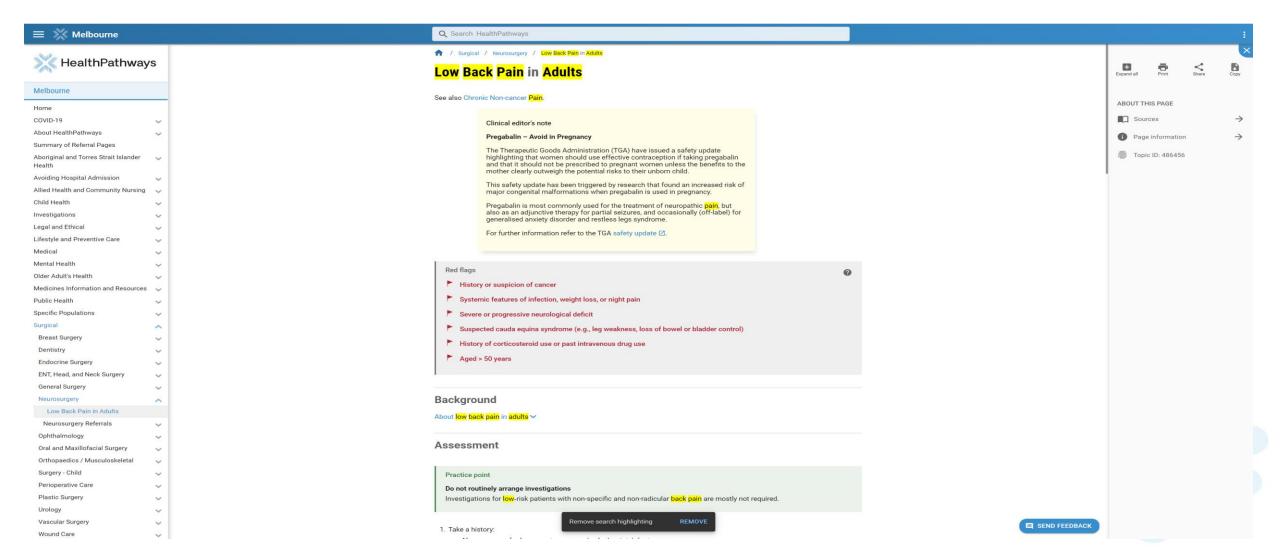
Searching for a pathway



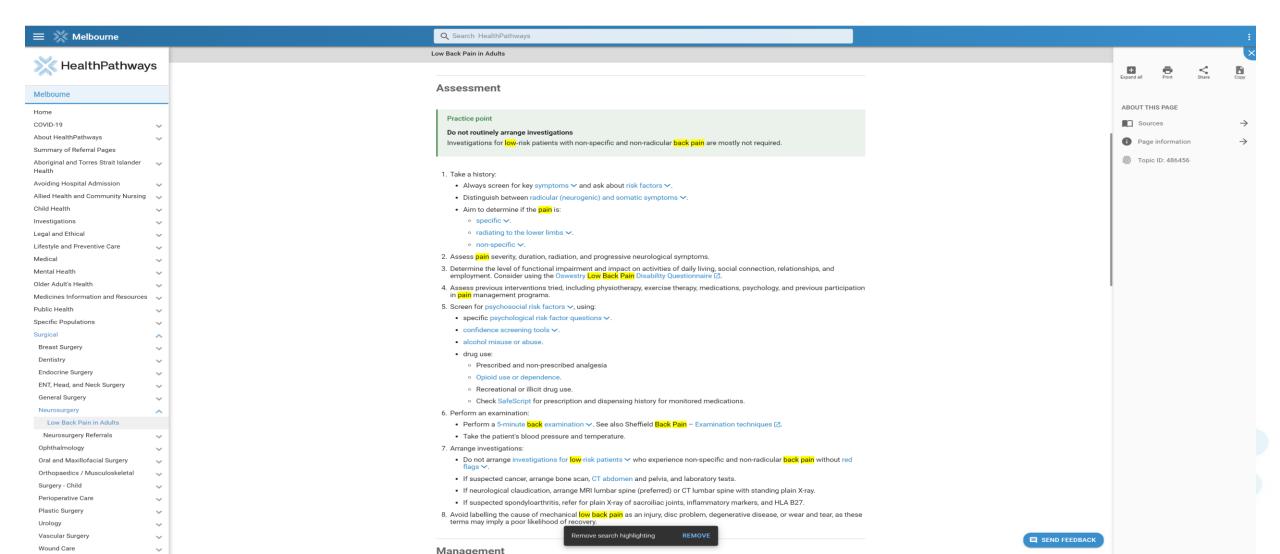
Relevant pathways

- Low Back Pain in Adults
- Neurosurgery Referrals
 - Acute Neurosurgery Referral or Admission (Same-day)
 - Non-acute Neurosurgery Referral (> 24 hours)
- Pain Management
 - Analgesia
 - Analgesia in Adults with Acute Pain
 - Analgesia in Children with Acute Pain
 - Chronic Non-cancer Pain
 - Medications in Chronic Pain
 - Neuropathic Pain
 - Chronic or Persistent Pain Referrals
 - Opioid Use and Dependence
 - Medicinal Cannabis

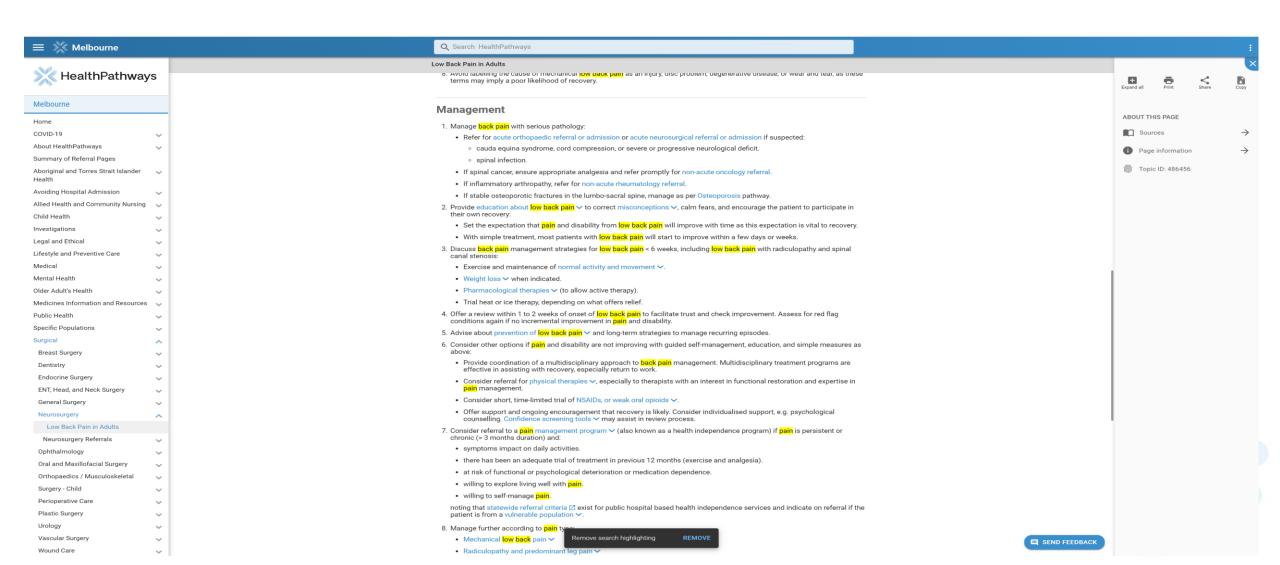
Lower back pain in Adults



Lower back pain in Adults - assessment



Lower back pain in Adults - management



Lower back pain in Adults - referral

