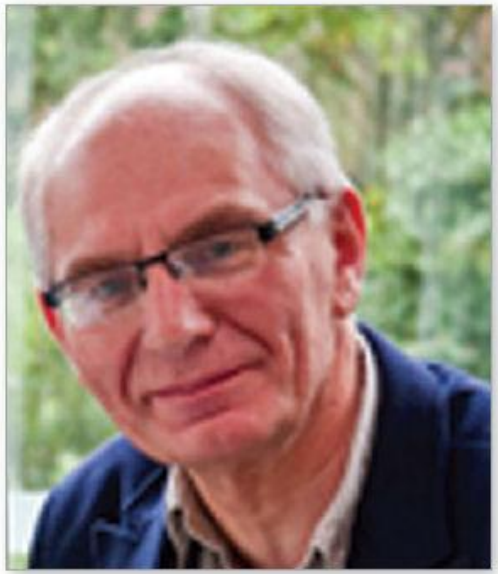


Professor Tony Dowell

Professor of Primary Health Care and General Practice

University of Otago

Wellington

Saturday, August 10, 2019 (Room 5)

11:00 - 11:55 WS #88: Back Pain Revisited: From Heartsink to 'Bring It On'

12:05 - 13:00 WS #98: Back Pain Revisited: From Heartsink to 'Bring It On' (Repeated)

Back Pain Revisited: From Heartsink to 'Bring It On'

Tony Dowell
Department of Primary Health Care and General Practice
University of Otago - Wellington - New Zealand

UNIVERSITY OF OTAGO
Te Whare Wānanga o Otāgo

Back pain

- What we know
- What we do
- What patients think
- What GPs think
- What we can do

Back pain

- Ben Darlow (physiotherapist)
- Tony Dowell (GP)

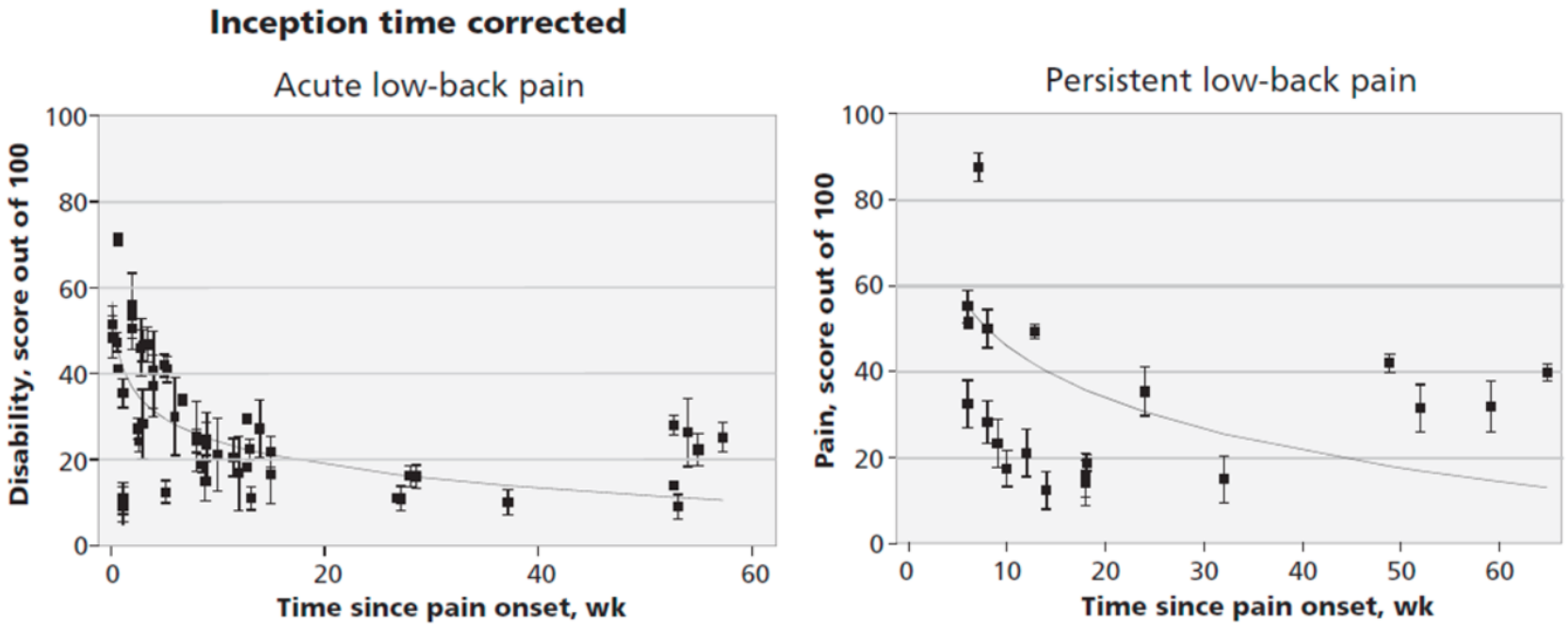
- Fiona Mathieson (Clinical Psychologist)
- Haxby Abott – Physiotherapist
- Sarah Dean – Health Systems researcher
- James Stanley – Statistician
- Sue Garrett – Researcher
- Ross Wilson – Economist

Back pain

- Back pain is common and important
- Lifetime prevalence in NZ – 87 %
- Point prevalence 27%
- The reason for 2.5% of GP visits
- 65% of ACC back pain claims are initiated in general practice
- Back pain cost ACC $400 million last year
- Negative views about the back and back pain are prevalent, in particular the need to protect the back to prevent injury.

Darlow B, Perry M, Stanley J, Mathieson F, Melloh M, Baxter GD, Dowell A (2014) Cross-sectional survey of attitudes and beliefs about back pain in New Zealand. ***BMJ Open*** 4(5).

Back pain gets better



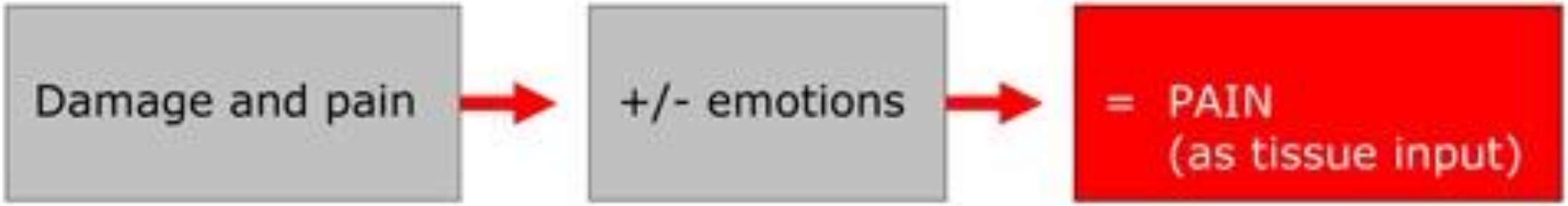
The prognosis of acute and persistent low-back pain: a meta-analysis

Luciola da C. Menezes Costa PhD, Christopher G. Maher PhD, Mark J. Hancock PhD, James H. McAuley PhD, Robert D. Herbert PhD, Leonardo O.P. Costa PhD

CMAJ, August 7, 2012, 184(11) **E613**

We have a problem with pain and injury

Old and out of date thinking:



New thinking:

Referred pain, radicular pain, rediculopathy

Referred pain

- Brain's interpretation of the site of the symptoms
- Brain is not good at this

Radicular pain

- Chemical irritation of a nerve root

Radiculopathy

- Compression of nerve root causing neurological change
- Depressed reflex
- Motor weakness
- Dermatome sensation loss.

Flags

- RED Our driving force
- ORANGE Psychological
- YELLOW Psychosocial – behavioural
- BLUE - Employee and the workplace
- BLACK - Work beyond control

Imaging

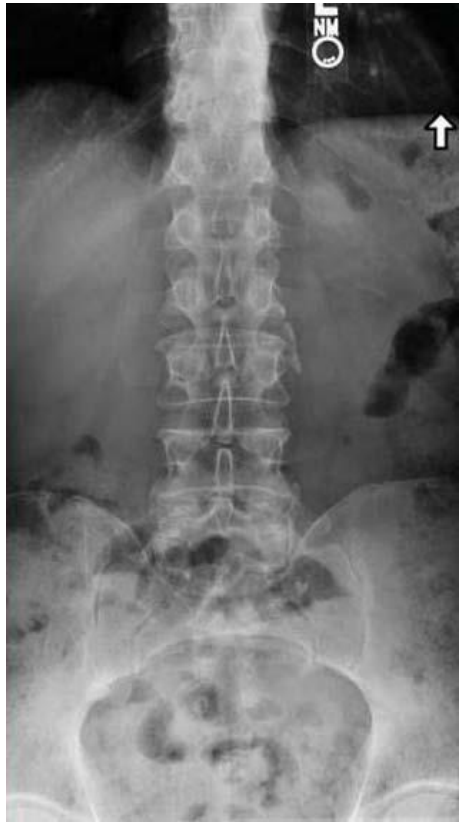


Table 2:

Age-specific prevalence estimates of degenerative spine imaging findings in asymptomatic patients[a]

Imaging Finding	Age (yr)						
	20	30	40	50	60	70	80
Disk degeneration	37%	52%	68%	80%	88%	93%	96%
Disk signal loss	17%	33%	54%	73%	86%	94%	97%
Disk height loss	24%	34%	45%	56%	67%	76%	84%
Disk bulge	30%	40%	50%	60%	69%	77%	84%
Disk protrusion	29%	31%	33%	36%	38%	40%	43%
Annular fissure	19%	20%	22%	23%	25%	27%	29%
Facet degeneration	4%	9%	18%	32%	50%	69%	83%
Spondylolisthesis	3%	5%	8%	14%	23%	35%	50%

[a] Prevalence rates estimated with a generalized linear mixed-effects model for the age-specific prevalence estimate (binomial outcome) clustering on study and adjusting for the midpoint of each reported age interval of the study.

Brinjikji et al. (2015) Systematic Literature Review of Imaging Features of Spinal Degeneration in Asymptomatic Populations

Do we miss pathology

- Sydney – Primary Care – GP, Physio, Chiropracter
- 1172 patients
- Trained in red flag algorithm
  - Simple backache , nerve root compromise, serious spinal pathology
- 11 cases serious pathology (0.9%)
  - 8 #, 2 inflammatory arthropathy, 1 cauda equina
  - 5 diagnosed at initial consultation
- Previously undiagnosed serious pathology rarely presents as ‘common‘ low back pain.

Henschke N, Maher CG, Refshauge KM, Herbert RD, Cumming RG, Bleasel J, York J, Das A, McAuley JH. Prevalence of and screening for serious spinal pathology in patients presenting to primary care settings with acute low back pain. Arthritis & Rheumatism: Official Journal of the American College of Rheumatology. 2009 Oct;60(10):3072-80.

Predicting back pain outcomes

Worse outcomes associated with:

- High baseline functional impairment
- Psychiatric co-morbidities
- Low general health status
- Low self efficacy beliefs
- Low recovery expectations
- Higher levels of fear avoidance beliefs
- Psychological distress (Anxiety, Depression)
- Catastrophisation
- Passive coping strategies

Lee et al. (2015) Ramond et al. (2011) Chou and Shekelle (2010), Iles et al. (2009)

Discussion - 5 minutes

- How much is back pain ‘anatomical’ ?
- How much is due to definite injury?
- How do you frame ‘non specific’ back pain to your patients?

Reframing the back pain consultation

Eur J Pain 16 (2012) 3–17 © 2011 European Federation of International Association for the Study of Pain Chapters

EJP
European Journal of Pain

REVIEW ARTICLE

The association between health care professional attitudes and beliefs and the attitudes and beliefs, clinical management, and outcomes of patients with low back pain: A systematic review

B. Darlow[1,2], B.M. Fullen[3], S. Dean[4], D.A. Hurley[3], G.D. Baxter[2], A. Dowell[1]

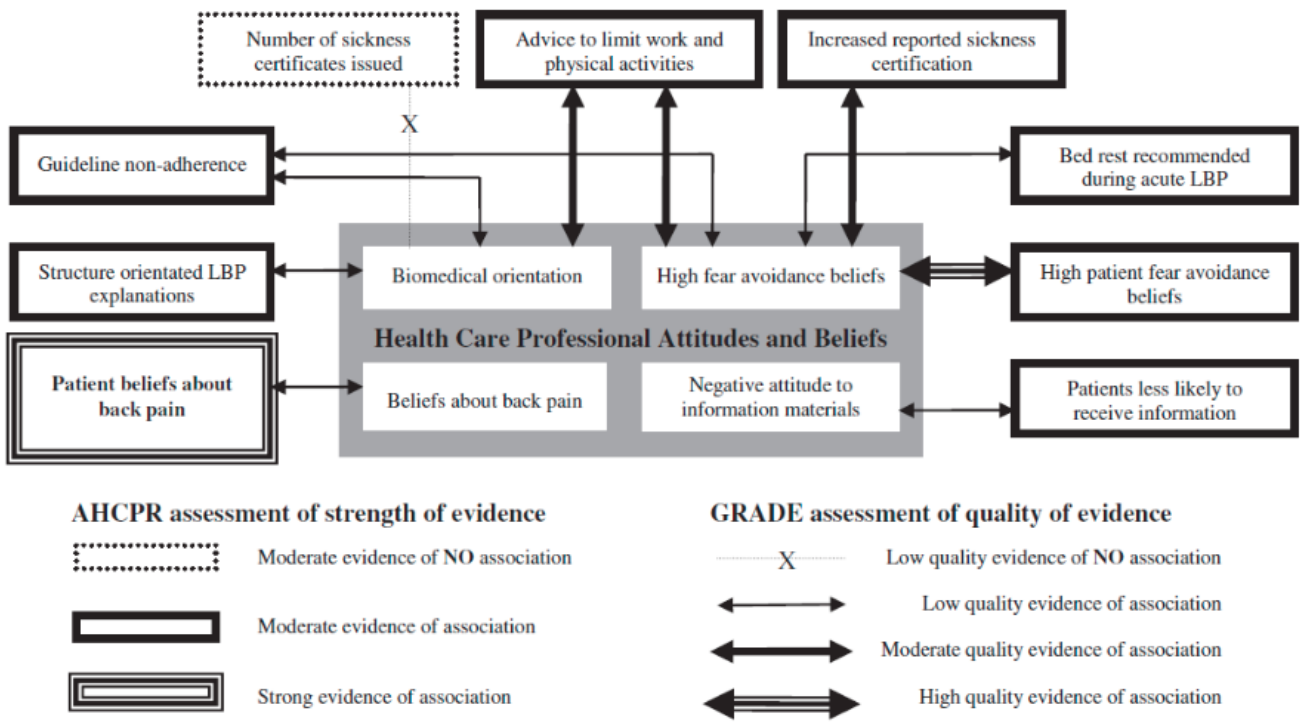


Fig. 2. Summary of strong and moderate evidence of the association between HCP attitudes and beliefs and patient-related factors for LBP.

What do we say?

“ I was worried I would do things that would further damage my back , at work, …. That’s why I went to the doctor

The GP basically said that I shouldn’t do any bending or lifting, which is a lot of the job. “

Early childhood teacher with acute pain

Darlow B, Dowell A, Baxter GD, Mathieson F, Perry M, Dean S. The enduring impact of what clinicians say to people with low back pain. The Annals of Family Medicine. 2013 Nov 1;11(6):527-34.

What do we think

- Acute back pain was seen as normally being directly related to acute injury of a musculoskeletal structure in the back
- Ruling out alternative pathological explanations for the person's pain was the key consultation priority

I guess I just have a lot of anxiety- like as soon as they give me a clear history of a definite injury, and there's no red flags, I feel so much happier about the whole situation (GP06)

- The importance of patient attitudes and beliefs

I'm not so sure as it's um relevant to the true acute back pain ... where it's relevant is the transition from acute back pain, self-limiting ... the transition between that and chronic pain (GP04)

if they've come in with their back pain ... then you'll address the back pain, I mean you haven't got time to go through all that other stuff (GP02)

What do we think

Diagnostic uncertainty

- Diagnose muscle strain – *give them a very clear answer that this is a muscle strain of the back (GP06)*
- But when there is leg pain – due to a pinched nerve
- ‘a disc bulges out the side cause you’ve injured your back, it’s pushing on a nerve’ (GP09)

Activity – positive towards activity – BUT

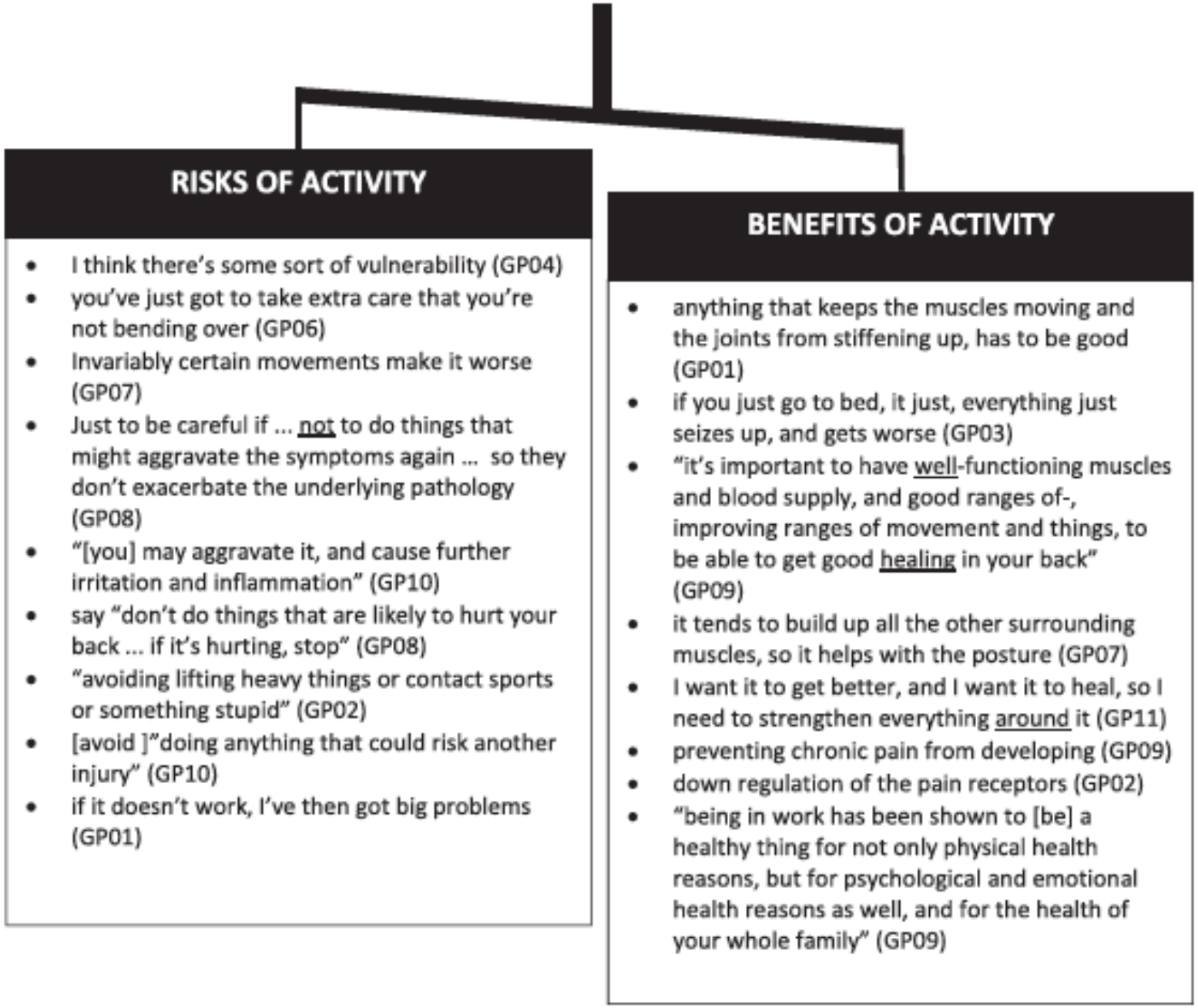
avoiding lifting heavy things or contact sports or something stupid (GP02)

Darlow B, Dean S, Perry M, Mathieson F, Baxter GD, Dowell A. Acute low back pain management in general practice: uncertainty and conflicting certainties. Family practice. 2014 Sep 5;31(6):723-32.

We are 'risk' averse

Overly protective advice

Safety net in order to prevent increased pain (considered to represent increased tissue damage).



What do patients think?

- The GP said it was most likely just a lumbar sprain

When I get that sharp pain , I guess I've moved in a way that's continually putting strain on an area of the muscle I've damaged … my assumption would be that I was making it worse.

- Rest is appropriate

"When I get that pain, I need to stop what I'm doing and lie down." (ALBP02)

"Not physically demanding work. Not something that's gonna aggravate pain, or potentially hurt more, or cause worse damage. (ALBP03)

"It really depresses me if I can't do [physical activity]." (CLBP09)

"As I start walking, you know, it hurts, and then the more I walk, it gets a little easier." (ALBP12)

Darlow B, Perry M, Dean S, Mathieson F, Baxter GD, Dowell A. Putting physical activity while experiencing low back pain in context: balancing the risks and benefits. Archives of physical medicine and rehabilitation. 2016 Feb 1;97(2):245-51.

And our words are powerful

- *I had just no frame of reference to figure out like what it was...with a back. I don't know, and I don't know what I need to do to heal it, so I'm just completely in the dark (acute low back pain participant [ALBP]08).*
- Patients have high trust in GP advice – didn't look elsewhere
- Nearly all patients connected clinician advice with future behaviour.
- *[The doctor] said most likely it was just a lumbar sprain... when I get that sharp pain, I guess that I've moved in a way that's continually putting strain on an area of the muscle that I've damaged...my assumption would be that I was making it worse.*

- Darlow B, Dowell A, Baxter D, Mathieson F, Perry F, Dean S (2013) The enduring impact of what clinicians say to people with low back pain. ***Annals of Family Medicine*** 11 (6):527-534.

Enhancing the back pain consultation

https://www.healthnavigator.org.nz/videos/b/back-pain/back-pain-clinicians/

Different sorts of questions in the consultation

Exploring worries , threats and fears

- What do you think happened to your back?
- What is the worst thing that could be happening to your back now?
- What do you most fear about your back pain ?
- Do you think you could make things worse ?
- Do you have any other worries or concerns in relation to your back?

Begin explanations from natural history

- Natural history - Better in first few weeks
- Analogy of a cold or URTI
- Doesn’t necessarily imply that we are going to be plagued
- Don’t assume that episodes are linked

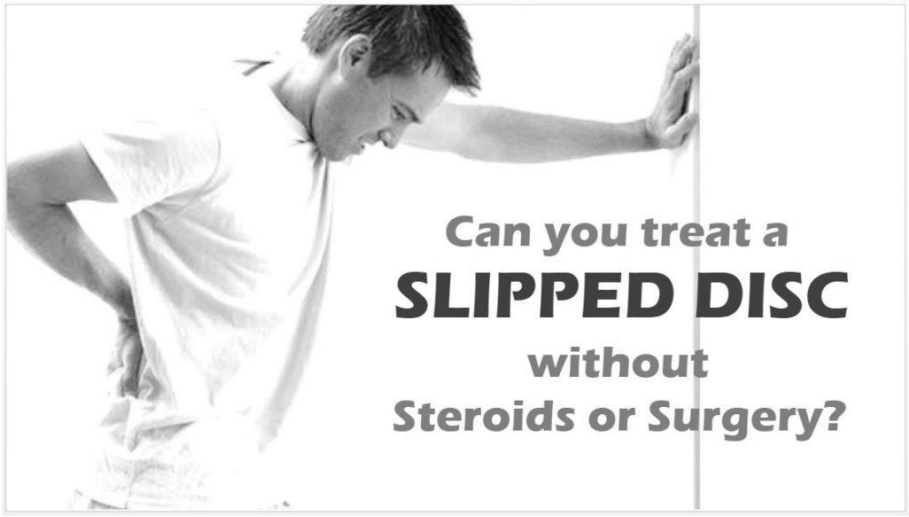
Diagnosis

- Specific diagnosis not necessary – often unhelpful
  - Useful if changes management
- Diagnostic label associated with poorer outcomes

- Abenhaim L, Rossignol M, Gobeille D, Bonvalot Y, Fines P, Scott S. The prognostic consequences in the making of the initial medical diagnosis of work-related back injuries. Spine. 1995 Apr;20(7):791-5.

- Difficulty in using any of the current ‘buzz words’
  - Disc, Degeneration

Slipped disc



"the only thing that was going through my mind, is the seriousness of my, ah, dis-alignment, of my back ... you get scared in the sense that you could damage your spinal cord, or anything, to such an extent that you might become paralysed"

Logic

Look rationally at the risk of significant injury associated with the activity the person was doing when their pain started:

> *"it wasn't like I was causing any strain, and it's a motion that I do all the time and yet, somehow it just suddenly like caused this pain to happen"*
>
> 36 year old female with acute LBP

What we know about backs

- They are strong
- They do not break or injure easily
- You cannot do serious injury by:
  - Bending over in the shower
  - Lifting a bag of shopping from the car
  - Suddenly twisting
- Back pain can occur after these
  - And on any other occasion

Reframe the examination

- The examination can be an opportunity to
- Show you understand
- Dispel myths
- Reframe the pain
- Check for red flags

Management

- Examination to show you care
- Repeated movement
- Discuss avoidance

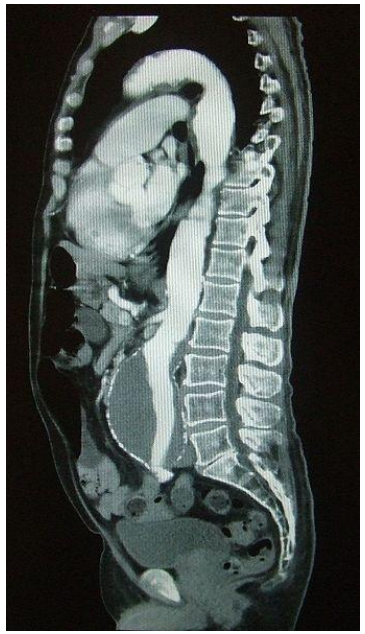
https://vimeo.com/161592765

Red flag review

Immediate

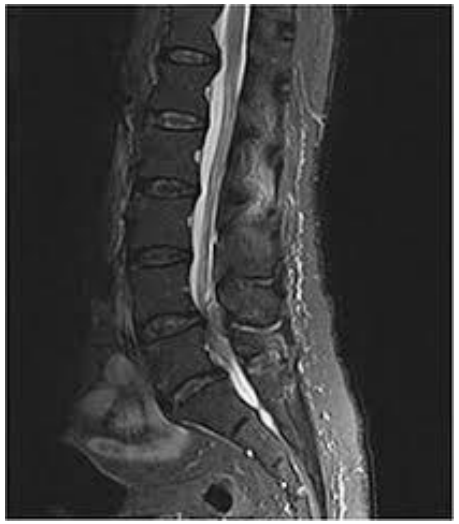
Cauda Equina

- Bowel, bladder change
- Numbness in the saddle
- Weakness in legs, difficulty walking



Infection

- PUO, recent infection , IV drug use, immunosuppressed



AAA

- Male older smokers

Consider carefully

- Fractures
- Neurologic
- Cancer
- Ankylosing Spondylitis

Work on expectation

Expectation of pain

- Increase anxiety
- Increased anticipation of pain
- Pain worse
- Increased neural activity
- Decreased descending neural inhibition

- Expectation of Getting Better can be just as powerful

Activity and Exercise

Activity

- Maintain / return to active life roles
- Progressively commence intense physical activity

- Medication
- Paracetamol
- NSAIDs
- Low dose Tricyclics for radicular pain
- Let’s talk about opiates

Reframing pain and activity expectations

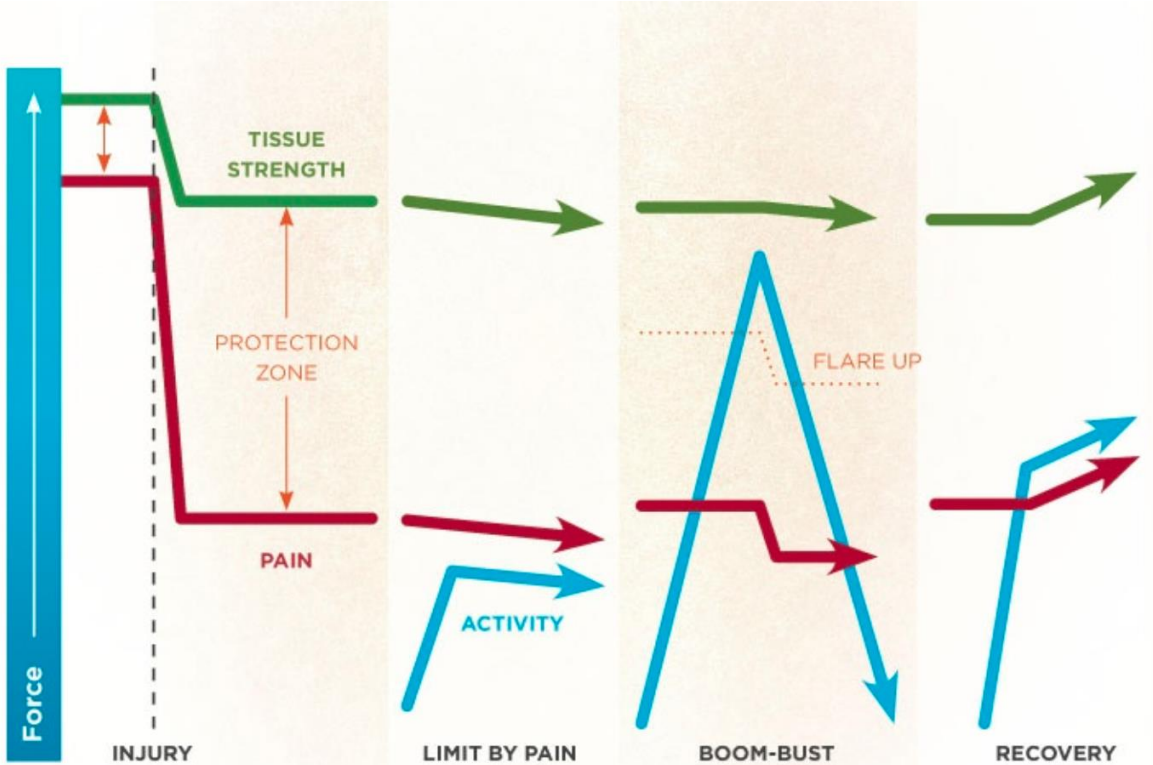


Figure adapted from Butler D, Moseley L (2003) Explain Pain, Noigroup Publications

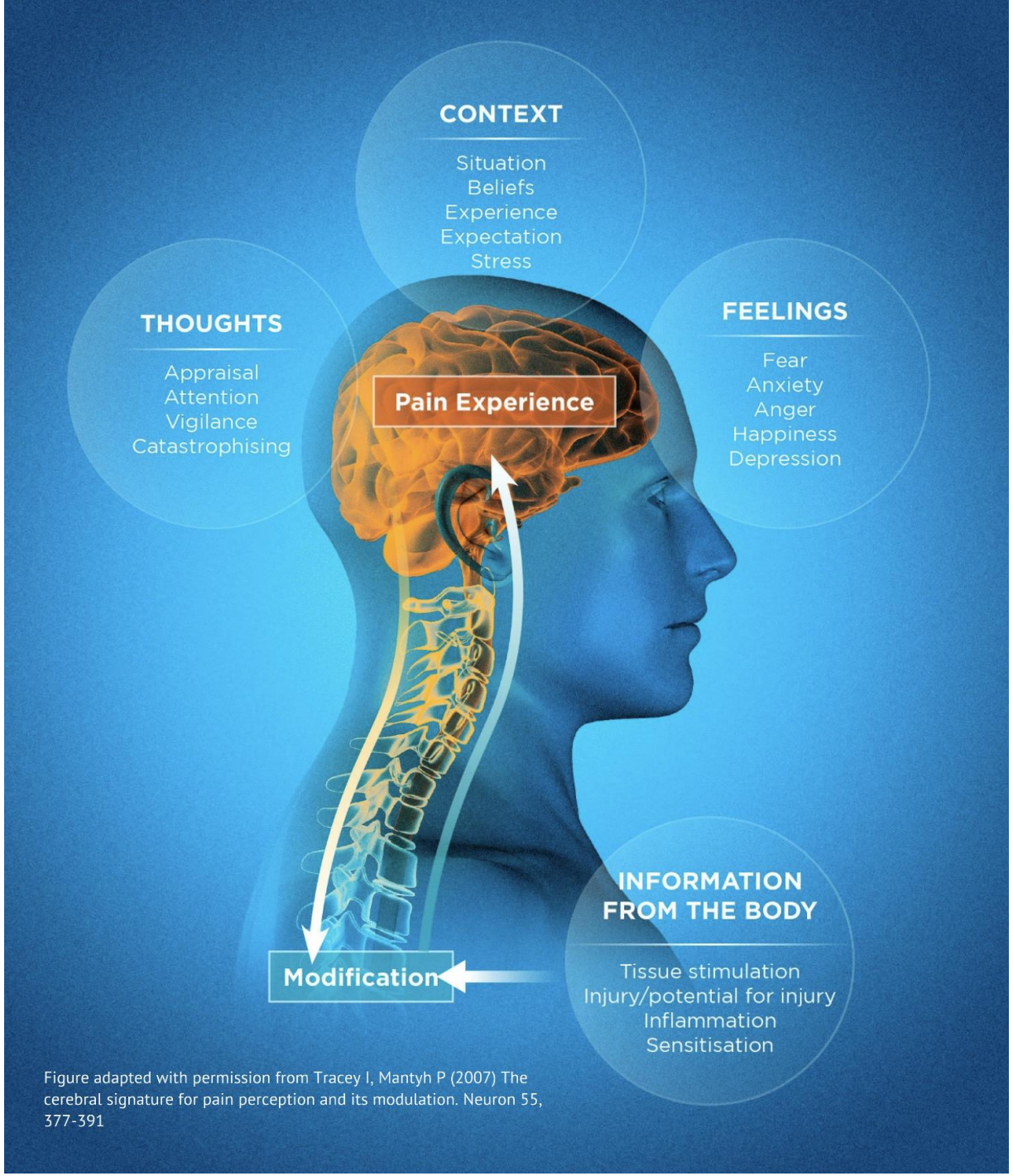


Figure adapted with permission from Tracey I, Mantyh P (2007) The cerebral signature for pain perception and its modulation. Neuron 55, 377-391

Encouraging activity

- GPs often only discuss physical benefits of exercise
- Patients over estimate risks , underestimate benefits
- Emphasise other benefits
  - Pain modulation
  - Psychological
  - Emotional
- Working with the pain is prodictive
- Not more damage

What people can do

- Be confident that activity will not cause further injury
- Don’t buy into a biomedical analysis

"saying that it wasn’t going to damage it any more, I guess … if I knew that I just wasn’t going to do myself any harm, then I wouldn’t care"

19 year old female with acute pain

Current advice

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Home > Your health > Conditions & treatments > Diseases and illnesses > Back pain

Back pain

Many people suffer from back pain and it can have a variety of causes. If you or a family member has back pain, there are many things you can do to help recover and prevent the pain from returning.

Summary | Treatment | Prevention

If you have back pain, see your doctor. They may suggest treatment or refer you to another professional who can help.

Self-care for back pain

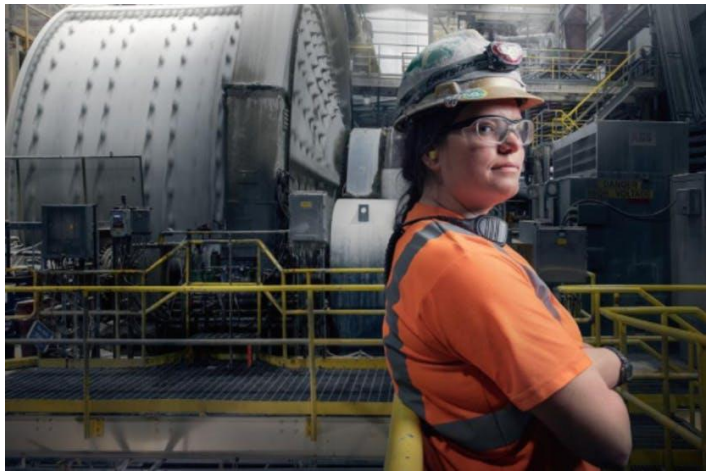
- Try to get back to your usual daily activities and work as soon as possible. Only change your normal activities if they cause severe pain.
- Avoid demanding or heavy contact sports, and activities that may worsen back discomfort such as repeated stooping, bending or twisting.
- Keep yourself comfortable:
  - wear comfy shoes with low heels
  - use an upright chair with low back support
  - ensure your work surface is at a comfortable height
  - sleep on a firm mattress (place boards under it if necessary). If you sleep on your back try a pillow under your knees, and if you sleep on your side put one between your knees.

ETIQUETTE: HOW TO BEND DOWN AND PICK ITEMS OFF THE FLOOR

In ETIQUETTE

Work

- Work is good for people
- Maximise psychological , emotional , social , physical benefits



Exercise 15 minutes

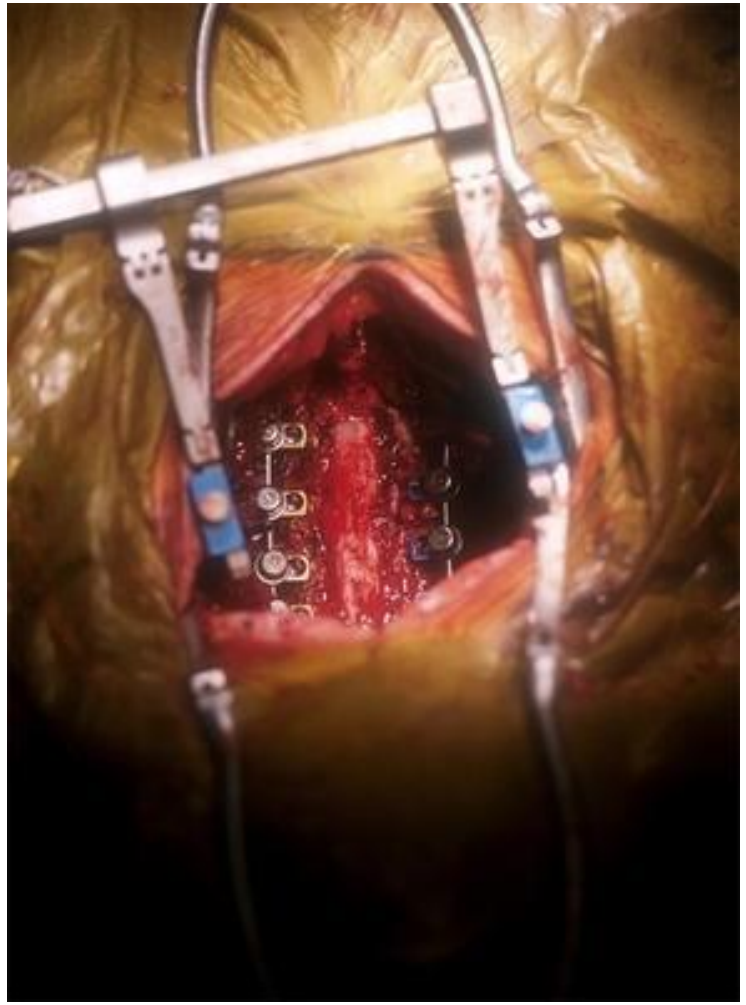
Pairs – Doctor and patient

Patient presents with acute back pain

- Explain the pain
- Explore the threat
- Reassurance related to orange / yellow flags
- Explain relationship between pain , activity and injury
- Examination – repeated movement helps
- Positive aspects to work and activity

Surgery

- Not indicated – unless
  - Cauda Equina
  - Infection
  - AAA
- Long term results for back pain no better than conservative
- Unresolving radiculopathy – consider

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WSM 2012

Summary

- Health Professionals have an important impact on patient beliefs about back pain.
- And patients remember what we say
- Patient attitudes and beliefs play an important part in back pain presentations and outcomes
- The consultation provides an opportunity to explore and reshape attitudes and beliefs about back pain, back injury and activity


Thankyou