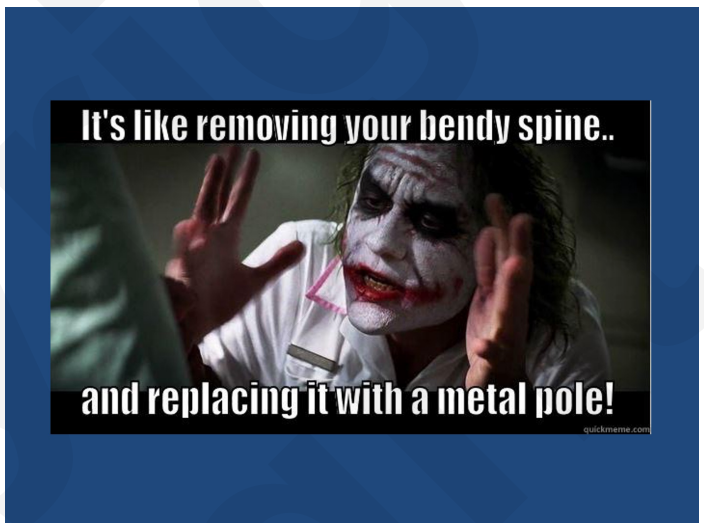
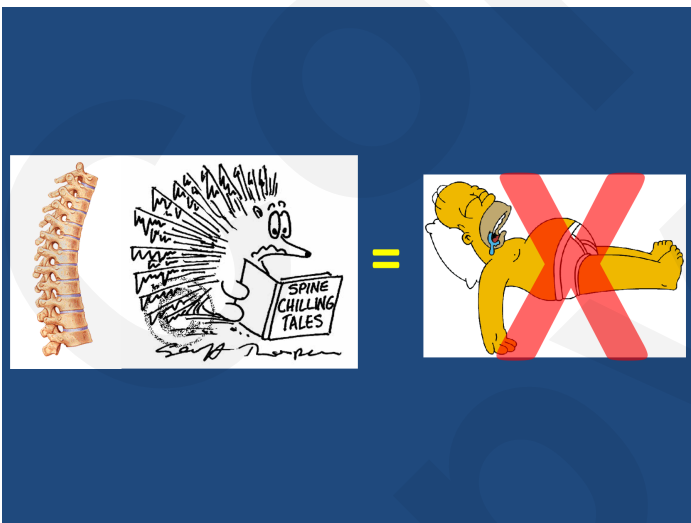
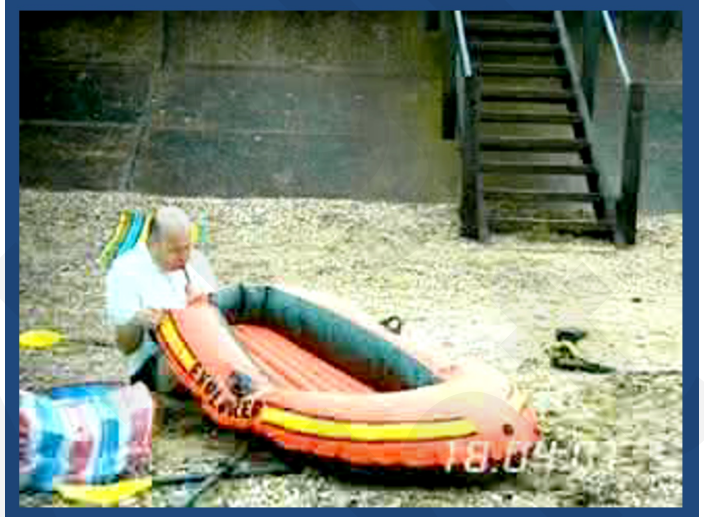


A NICE Bluespinner Story Of Spinal Needles Filled With Anxiety and Depression Along With A Twist, Expansion and Fusion Of The Spine

Mr M J H McCarthy
Consultant Spinal Surgeon



Cross Pollination

390CF Spine Board (Carbon Fibre)

Features...

- Stronger yet lighter with multiple attachment points for easy patient immobilisation
- Higher sides for easy pick-up on all surfaces
- Molded grips for ease of carry
- 15kg, curved wing for patient comfort
- Designed for long term use in safety yellow
- Slip weight balanced for one and both
- Tested as offroad board on market

Specifications

- 220kg S.M.L.
- 1000mm x 1800mm x 100mm
- Weight 15kg
- 26 attachment points
- 14 handles
- Ergonomic design
- 12" wing

Optional Accessories

- 400mm x 100mm x 100mm
- 1000mm x 1800mm x 100mm
- 1000mm x 1800mm x 100mm
- 1000mm x 1800mm x 100mm

Low back pain and sciatica in over 16s: assessment and management

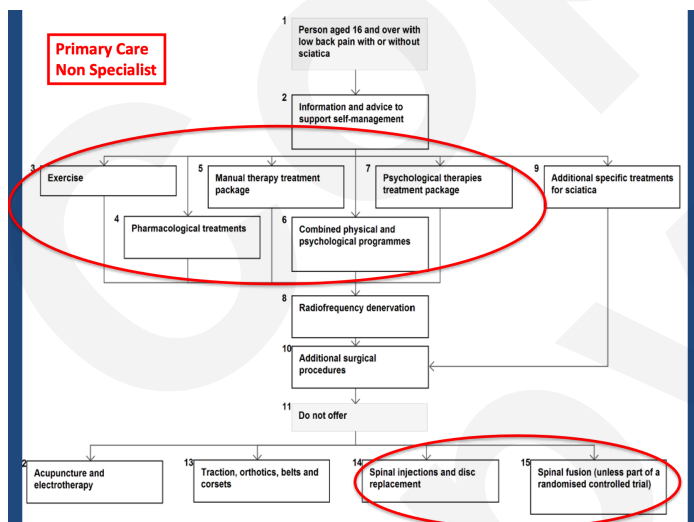
NICE guideline
Published: 30 November 2016
[nice.org.uk/guidance/ng59](https://www.nice.org.uk/guidance/ng59)

Conclusions

- Seem to be worth doing even if > 1 year Sx
- But best done early...
- Approx Rule of Thirds
- Now Investigating Central Stenosis (cf NICE)
- No correlation epidural spill and change in PROMs scores
- Other joints...



Facet Joint Injections for Back Pain



Neuropathic pain

For recommendations on pharmacological management of sciatica, see the NICE pathway on [neuropathic pain](#).

Epidurals

Seem to work in chronic too...

Consider epidural injections of local anaesthetic and steroid in people with acute and severe sciatica. ✓

Do not use epidural injections for neurogenic claudication in people who have central spinal canal stenosis. ?

Spinal injections

Do not offer spinal injections for managing low back pain.

Consider referral for assessment for radiofrequency denervation for people with chronic low back pain when:

- non-surgical treatment has not worked for them **and**
- the main source of pain is thought to come from structures supplied by the medial branch nerve **and**
- they have moderate or severe levels of localised back pain (rated as 5 or more on a visual analogue scale, or equivalent) at the time of referral.

Only perform radiofrequency denervation in people with chronic low back pain after a positive response to a diagnostic medial branch block.

Do not offer imaging for people with low back pain with specific facet joint pain as a prerequisite for radiofrequency denervation.



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"I'm here about the details."

22.2 Review question: What is the clinical and cost effectiveness of spinal injections in the management of non-specific low back pain?

Recommendations 32. Do not offer spinal injections for managing low back pain.

23.2 Review question: What is the clinical and cost effectiveness of radiofrequency denervation for facet joint pain in the management of non-specific low back pain?

Recommendations 33. Consider referral for assessment for radiofrequency denervation for people with chronic low back pain when:

- non-surgical treatment has not worked for them and
- the main source of pain is by the medial branch
- they have moderate or more on a visual analogue referral.

34. Only perform radiofrequency denervation for back pain after a positive

35. Do not offer imaging for joint pain as a prerequisite



Do Lumbar Facet Joint Injections Provide Symptom Relief For Low Back Pain And Does This Relate To Patient Recorded Outcome Measures? – A Single Surgeon Cohort

Bethan Markall¹, Emily Bentley¹, Mr M J H McCarthy²

¹ Cardiff University Medical School

² Welsh Centre for Spinal Trauma and Surgery, University Hospital of Wales, Cardiff



PROMs Database n > 2000

Spinal Procedures By Single Consultant Spinal Surgeon
Sept 2012 - 2016
n = 533

Final Cohort
n = 79

Bluesprier

Results

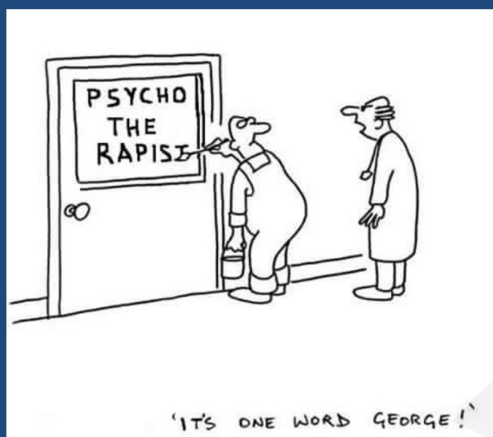
PROM (max. score)	Pre-FJI (±95% CI)	Post-FJI (±95% CI)	p-value	%CID (MCID)
VAS back (10)	7.1 ±0.5	5.9 ±0.6	<0.005	42% (2)
VAS leg (10)	6.1 ±0.7	5.0 ±0.7	<0.05	39% (2)
PHQ9 (27)	14.7 ±2.2	12.8 ±2.1	NS	35% (5)
GAD7 (21)	10.7 ±1.9	9.6 ±1.9	NS	N/A
ODI (%)	54.9 ±5.0	50.9 ±6.0	NS	35% (10)
EQ-5D VAS (%)	45.4 ±8.5	50.2 ±9.9	NS	27% (20)

Overall Outcome

Overall Outcome (Score)	%
5 - Helped a lot	28.6%
4 - Helped	21.4%
3 - Helped a little	31.0%
Sub-total	81%
2 - Didn't help	9.5%
1 - Made things worse	9.5%
Sub-total	19%
Total	100%

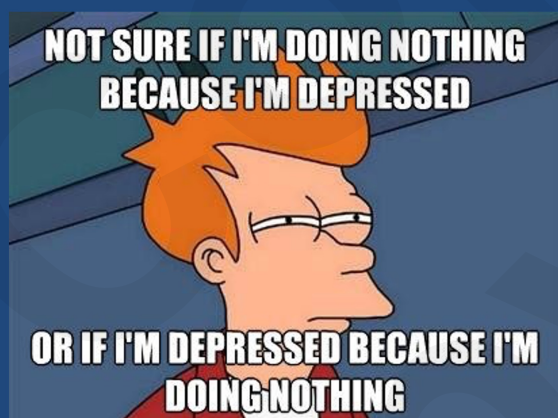
Conclusions

- In patients selected for FJI:
- 81% felt it helped them overall
 - 50% more than just a little
- 42% reported a MCID in VAS-back
- Approx Rule of thirds



Aims

- Identify the prevalence of depression, anxiety, pain and disability in patients undergoing Lumbar Spinal Surgery
- Study their impact on post-surgical outcomes



Methods

PATIENTS	PROMS database containing >2000 NHS patients Inclusion: Lumbar spine surgery 2012-2016, Min 6 month f/u Excluded: previous op, tumour, infection, trauma, CES
ANXIETY DEPRESSION	GAD-7 score PHQ-9 score Expectations and concerns
PAIN DISABILITY	VAS Back and VAS Leg ODI v2 Walking Distance (m)
OVERALL OUTCOME	Operation helpful? Would the patient have it again? Satisfaction?
STATISTICAL ANALYSIS	SPSS software

Results

- 85/356 met criteria
- Ave FU 11.5 months (r 6 – 24)
- Smokers / disability benefits had higher PHQ-9 and GAD-7 scores

Age / years (95%CI)	49.3 (46.3-52.3)
Sex (M:F) (% M)	35:50 (41 %)
Smoker (Y:N) (%Y)	23:62 (27 %)
Disability Benefits (Y:N) (% Y)	27:58 (32 %)
Previous injection (Y:N) (%Y)	39:46 (46 %)

Concerns Expectations

Concerns	N
Risks of Surgery	9
Losing walking ability	6
Paralysis/ CES risk	3
Impact on day to day life	22
None	45

Expectations	N
Pain relief	39
Improve Quality of Life	8
Stop need for analgesics	1
Cure	4
None	33

- 53 % no concern
- 26 % impact on daily life

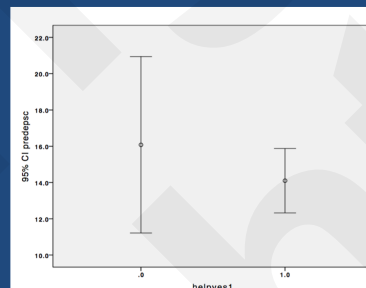
- 46 % pain relief

Results

- 84% op helpful
- 93% satisfied with care
- 91% have op again

Depression Anxiety General Outcomes

		N	Mean diff	t	p value
Pre PHQ-9	Helped	83	1.98	0.87	0.39
	Op. again	64	-1.12	-0.36	0.72
	Satisfied	56	-1.25	-0.35	0.77
Pre GAD-7	Helped	83	-0.45	-0.22	0.83
	Op. again	64	-3.25	-1.11	0.27
	Satisfied	56	-2.77	-1.60	0.16



Severe Depression Anxiety

- 24 / 85 severe depression – 83% op helped
- 29 /85 severe anxiety – 83% op helped
- No difference in outcomes

PROMS and Operations

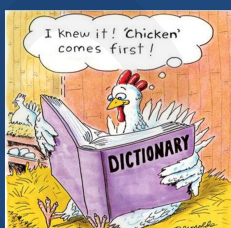
Mean follow up time 1 year				
	Overall %	TLIF %	Post LDF %	Dec/Disc %
MCID VAS back	73	71	63	75
MCID VAS leg	73	79	56	72
MCID ODI	61	58	63	63
Helped	84	92	75	83
Satisfied	93	100	90	95
Op. again	91	100	92	88

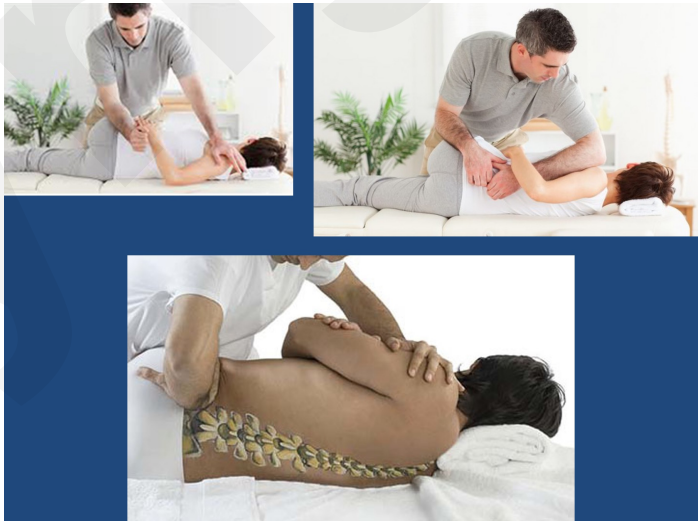
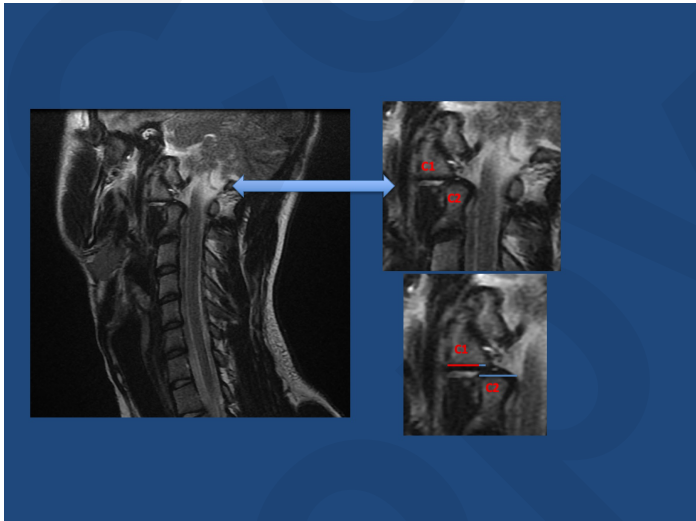
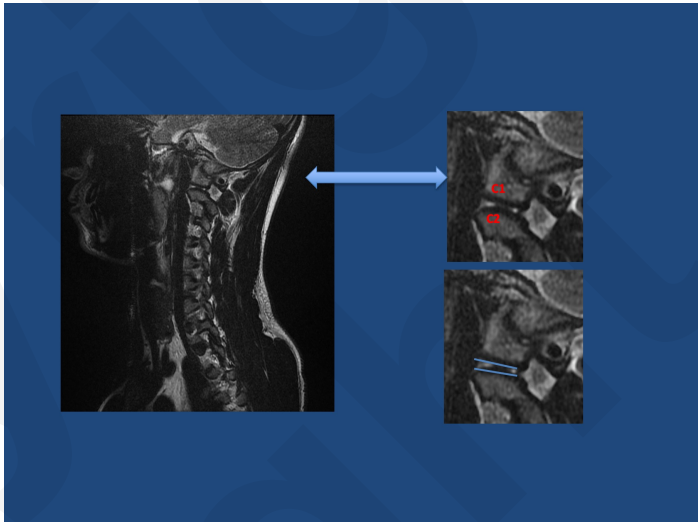
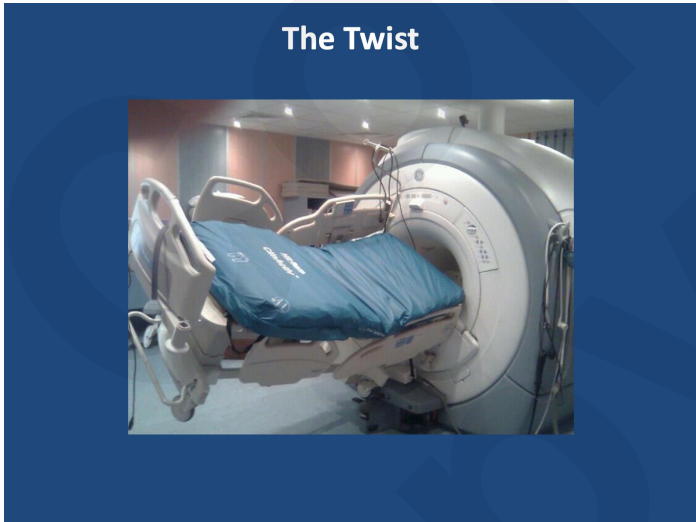
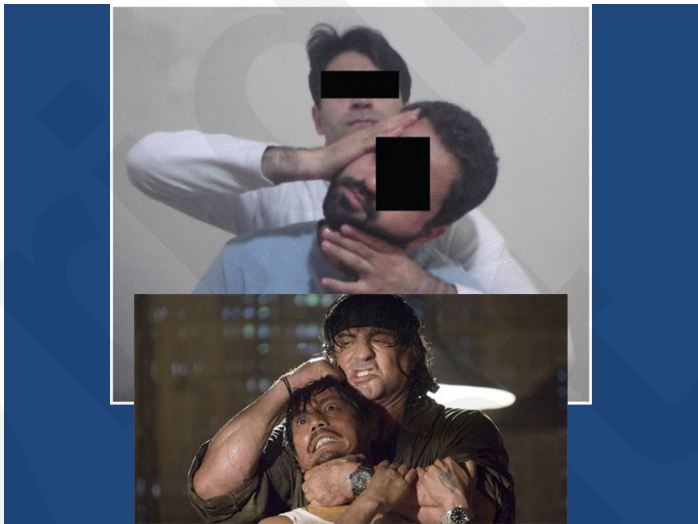
- 2/3 achieve an MCID

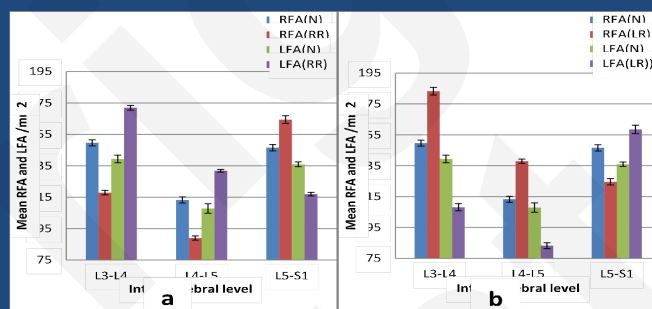
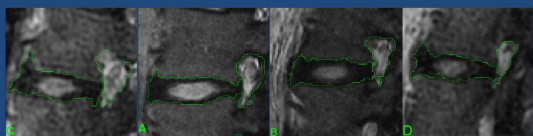
Conclusions

- No association depression anxiety and overall patient reported outcome
- Strong correlation between pre and post op scores

- Those with higher depression and anxiety experience more pain, disability and psychological problems pre and post surgery







New Technology in the Spine

Experimental surgery

SURGICAL INNOVATION

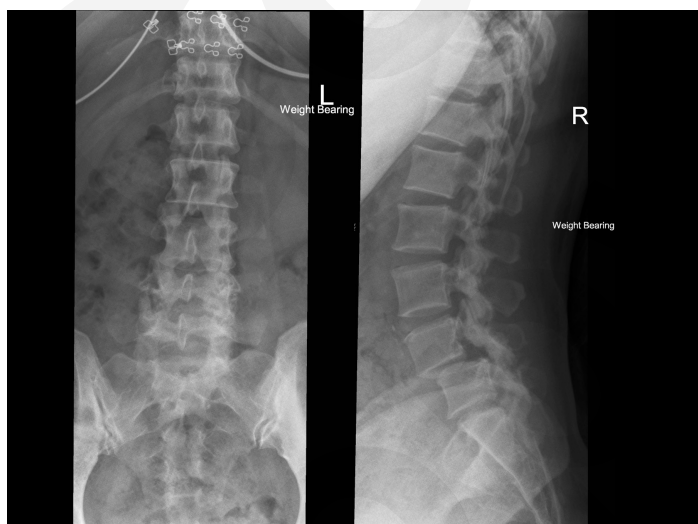
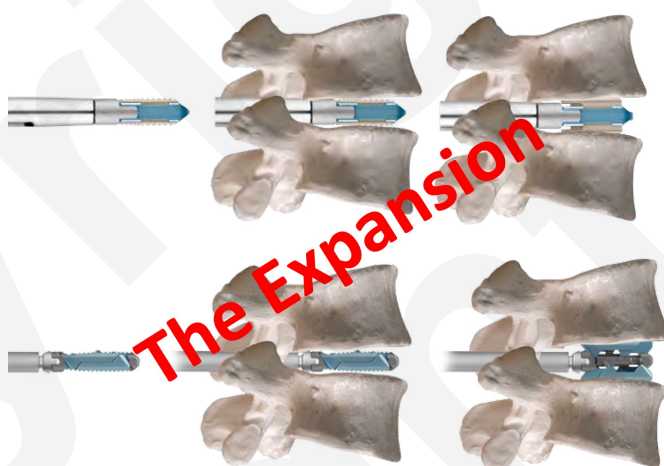


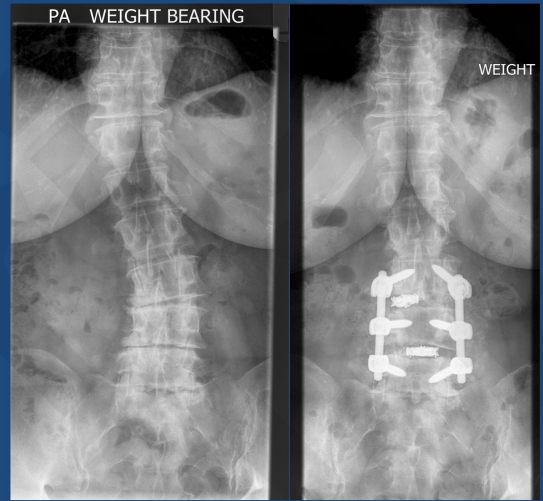
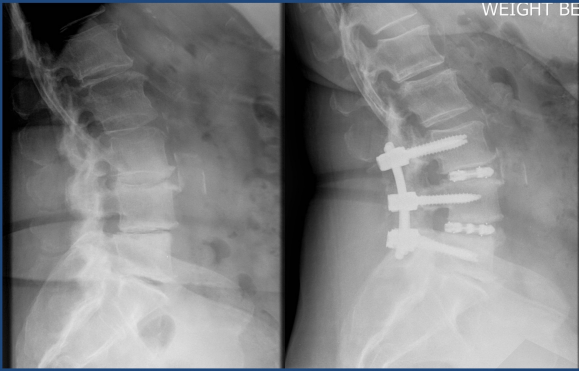
OR

CFESS



Václav Liška et al.





Expandable Cage Results 2013-2015

- 101 cases (114 cages):
- 12 oblique PEEK
- 21 oblique titanium
- 15 banana titanium
- 28 exp Caliber PEEK
- 25 exp Rise titanium
- Ave age 49yrs
- 56M:45F
- 85 Primary 16 Revision
- 31 SPL



Expandable Cage Results 2013-2015

- | | | | |
|---------------------|----|---------------------|----|
| • Static: | | • Expandable: | |
| • Pre Lordosis | 54 | • Pre Lordosis | 49 |
| • Post Lordosis | 50 | • Post Lordosis | 49 |
| • Pre Disc Ht | 7 | • Pre Disc Ht | 6 |
| • Post Disc Ht | 8 | • Post Disc Ht | 8 |
| • 4 backout | | • 1 backout | |
| • 4 screw loosening | | • 1 screw loosening | |
| • 6 RTT | | • 2 RTT | |
| • 2 cage revision | | • 0 cage revision | |

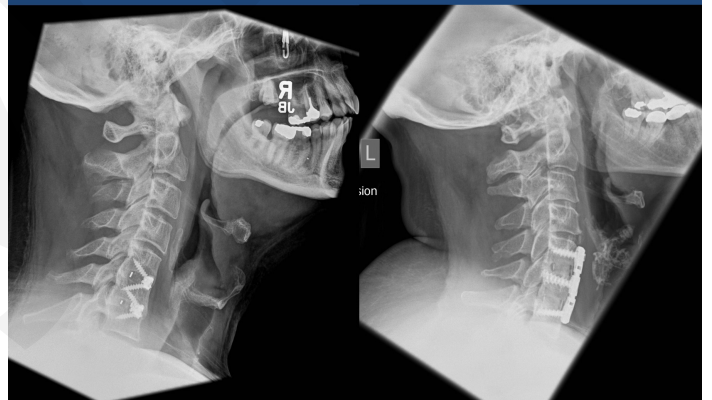
Analysis ongoing...

...and finally **the Fusion**

Otherwise known as
the gold standard



of spinal surgery...

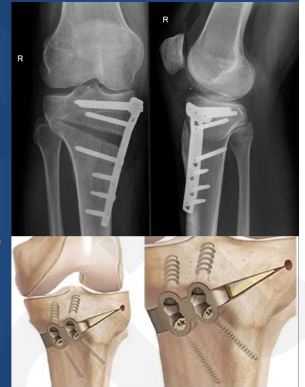


Quicker, Less Swelling, Less Swallowing Problems



ACDF Results 2013-2017

- 116 patients 214 levels
- 45 patients fixable cage
– 66 cages / levels
- 71 patients cage and plate
– 148 cages / levels



ACDF Initial Results - Patients

All Cases	cage alone	cage plate	total
3 levels	1	15	16
2 levels	19	47	66
1 levels	25	9	34
total	45	71	116

Non Union	cage alone	cage plate	total	%
3 levels	0	7	7	15%
2 levels	5	4	9	7%
1 levels	3	0	3	9%
total	8	11	19	
%	17%	16%		

Analysis ongoing...looking at swelling...swallowing...

Cognitive Dissonance

Sometimes people hold a core belief that is very strong. When they are presented with evidence that works against that belief, the new evidence cannot be accepted. It would create a feeling that is extremely uncomfortable, called cognitive dissonance. And because it is so important to protect the core belief, they will rationalize, ignore and even deny anything that doesn't fit in with the core belief.

Thank you



The Premium for New Technology

- Standalone
– 976
– 1952
– 2928
- Cage and Plate
– 740
– 1183
– 1658
- Exp TLIF
– 3000 to 3200
- Fixed TLIF
– 2600 to 3080

A Comparison of Magnetic Resonance Imaging Muscle Fat Content in the Lumbar Paraspinal Muscles with Patient-Reported Outcome Measures in Patients with Lumbar Degenerative Disk Disease and Focal Disk Prolapse

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Global Spine J 2016;6:401–410.