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**Lumbar discectomy: a national survey of neurosurgeons over 10 years**

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**Statement of the Problem:** The purpose of our study was to ascertain neurosurgeons practices in the surgical management of one-level lumbar discectomies in the Canadian adult population and to determine any changes over a ten year period.

**Method:** One-page questionnaire faxed to each Neurosurgeon in Canada in 2007 and the same questionnaire faxed and/or emailed to each Neurosurgeon in Canada in 2017.

**Findings:** In 2007 112 completed surveys were returned – response rate 64% and 109 completed surveys were returned in 2017 – response rate 42%. Of the 13 questions asked regarding practice patterns 8 were statistically significantly different in 2017 vs. 2007 (p ≤ 0.05) and 5 were not statistically different. (See Table 1 and Figure 1)

**Conclusion:** Our surveys have identified variations in practice patterns amongst Canadian neurosurgeons with respect to performing one-level lumbar discectomies. There have been changes over a 10 year period. In particular, patients are going home sooner and returning to their activities more quickly.

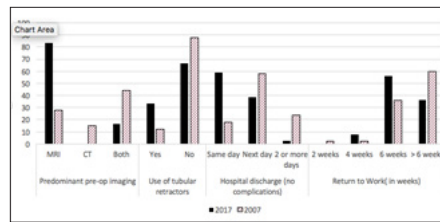


Table 1: Comparison of change in practice between responses to survey 2017 and survey 2009

	2017 Surveys n (%)	2009 Surveys n (%)	P-value
1- Do you use pre-incision localizing plain film x-ray?			
Yes	51 (86)	56 (57)	0.281
No	25 (34)	42 (43)	
2- Is your predominant pre-operative imaging			<.0001
MRI	65 (83.3)	27 (28)	
CT	0 (0)	15 (15)	
Both	12 (16.7)	43 (44)	
Either	N/A	13 (13)	
3- Do you use preoperative antibiotics?			0.045
Yes	77 (99)	90 (92)	
No	1 (1)	8 (8)	
4- Do you use preoperative local anesthetic?			0.345
Yes	24 (32)	39 (40)	
No	53 (69)	59 (60)	
5- Do you use intramuscular local anesthetic injection?			<.001
Yes	57 (74)	44 (44)	
No	20 (26)	55 (56)	
6- Your magnification preference is:			<.001
Loupe	8 (10.4)	39 (39)	
Microscope	49 (63.4)	68 (70)	
Both	26 (33.0)	3 (3)	
Neither	N/A	8 (8)	
7- Do you use tubular retractors?			0.001
Yes	26 (33.3)	12 (12)	
No	52 (66.7)	88 (88)	
8- For dorsal trays, do you use fibrin glue?			0.007
Yes	72 (82.3)	75 (77)	
No	4 (7.7)	23 (23)	
9- Prior to closure do you use fat graft?			0.207
Yes	14 (18.0)	26 (27.0)	
No	62 (82.0)	71 (73.0)	
N/A	N/A	1 (1.0)	
10- Do you use epidural steroids prior to closure?			0.127
Yes	38 (51.3)	60 (61)	
No	40 (48.0)	36 (37)	
N/A	N/A	2 (2)	
11- If there are no complications, when do you discharge from hospital.			<.001
Same day	46 (59.0)	18 (18.0)	
Next day	30 (38.0)	57 (58.0)	
2 days or more days	2 (2.5)	23 (24.0)	
7 weeks	0 (0)	2 (2.0)	
4 weeks	6 (7.8)	2 (2.0)	
6 weeks	43 (55.0)	35 (36.0)	
More than 6 weeks	28 (36.4)	59 (60.0)	
12- Would you operate on a patient whose MR/CT complain is back pain?			0.589
Yes	8 (10.7)	7 (7.0)	
No	70 (89.3)	92 (93.0)	

**Biography**

Edward Kachur received his Bachelor of Science (B.Sc.) degree from the University of Toronto, followed by his Doctor of Medicine (M.D.) degree from the University of Western Ontario in 1996. He completed a neurosurgery residency in London, Ontario, Canada – University of Western Ontario, in 2002, receiving his Neurosurgery Fellowship (FRCSC) designation from the Royal College of Physicians and Surgeons of Canada in 2002. He completed a spine fellowship from Virginia Commonwealth University in 2003. He has been a neurosurgeon / spine surgeon at Hamilton Health Sciences, General Site (Hamilton, Ontario, Canada) from 2003 to the present. He is an Associate Professor at McMaster University (Hamilton, Ontario, Canada). His research interests focus on spinal disorders.

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