

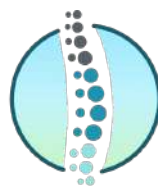
WASCHER

CERVICAL SPINE INSTITUTE

ANTERIOR CERVICAL DECOMPRESSION + FUSION, +- INSTRUMENTATION 09/1992 – 12/2025

1 level, no instrumentation	142
1 level, ACD anterior plate	756
2 level, ACD anterior plate	581
3 level, ACD anterior plate	240
4 level, ACD anterior plate	15
2 separate levels and anterior plate	1
Revision ACD and anterior plate	128
	<u>1863</u>
1 level corpectomy	283
2 level corpectomy	85
3 level corpectomy	7
4 level corpectomy	2
Hybrid (corpectomy + 1 or 2 level ACD)	127
Hybrid (2 level corpectomy +level ACD)	9
Anterior-Posterior (includes ACDs and corpectomies)	300
Noncontiguous 2 level	1
	<u>814</u>
Total anterior patients:	1863 + 814 = 2677

	Literature Summary	NeuroSpine Center (Dr. Wascher 1863 cases)	
seroma requiring drainage		<0.1%	1
hematoma	0.2 - 0.9%	0.32%	6
superficial infection, reaction to Steri-Strips	0.1 - 2%	0.1%	2
deep infection	<1%	<0.1%	1
CSF leak		<0.1%	1
incidental durotomy		<0.1%	1
transient UE weakness		0%	0
permanent UE/LE weakness		<0.1%	1
graft extrusion	0.4 _4.6 %	0%	0
transient dysphagia (>6 weeks)		0.4%	7
permanent dysphagia (>12 weeks)		0.3%	5(mild)
transient hoarseness	11%	2.4%	45
permanent hoarseness (>12 weeks)	4%	0.5%	9
vascular injury		0%	0
esophageal or tracheal injury		0%	0
stroke within 30 days	<1%	<0.1%	1
symptomatic pseudoarthrosis (mild)		0.3%	5
symptomatic pseudoarthrosis req. revision	2-20%	0.3%	5
asymptomatic hardware failure (broken screw)		0.4%	8
improvement		99.9%	1861
permanent complication rate requiring repeat surgery	atleast7.7%	0.69%	13



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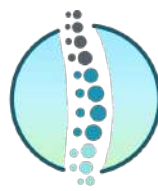
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ANTERIOR CERVICAL CORPECTOMIES 09/1992 – 12/2025

	Mayr et al' (5surgeons)		NeuroSpineCenter (Dr.Wascher)	
Single level (one body +2 discs)	133		283	
Two level	96		85	
Three level	31		7	
Four level	1		2	
Hybrid (corpectomy +disc)			127	
Hybrid (2-level corpectomy + discectomy)			9	
Anterior-posterior			147	
Noncontiguous 2-level corpectomy			1	
	<u>261</u>		<u>661</u>	
Hematoma	0	0%	3	0.5%
Superficial infection (no drainage)	0	0%	1	0.1%
Deep infection requiring surgery	0	0%	0	0%
CSF leak	0	0%	0	0%
Incidental durotomy	0	0%	2	0.3%
Transient upper extremity weakness	2	0.8%	3	0.5%
Permanent upper extremity/lower extremity weakness	0	0%	0	0%
Transient dysphagia (> 6 weeks)	35	13.4%	6	0.9%
Respiratory failure requiring tracheostomy	?	?	1	0.1%
Permanent dysphagia (> 12 weeks)	7	2.7%	1	0.1%
Transient hoarseness	35	13.4%	8	1.2%
Permanent hoarseness	2	0.8%	0	0%
Vascular injury	0	0	0	0%
Esophageal or tracheal injury	0	0	0	0%
Asymptomatic pseudoarthrosis	33	12.6%	12	1.8%
Symptomatic pseudarthrosis	?	?	2	0.3%
Asymptomatic hardware failure	14	5.4%	12	1.8%
Symptomatic hardware failure requiring revision	2	0.8%	3	0.5%
Permanent complication rate	11	4.2%	5	0.8%
Improvement	259	99.2%	659	99.7%

Number of patients with previous anterior cervical surgery: 17 (2.6%)

'Mays, Mathew T.; Subach, Brian R.; Corey, Christopher H.; Rodts, Gerald E.: and Hald, Regis W.: "Cervical spine stenosis: outcomes after anterior corpectomy, allograft reconstruction and instrumentation." J Neurosurg(Spine) 96: 10-16, 2002



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CERVICAL LAMINECTOMIES WITH OR WITHOUT POSTERIOR FUSION/INSTRUMENTATION 09/1992 – 12/2025

TOTAL 1070

Cervical Foraminotomy	27
Cervical Laminectomies +Foraminotomies	109

1 LEVEL	2
2 LEVEL	12
3 LEVEL	43
4 LEVEL	35
5 LEVEL	15
6 LEVEL	2
	<u>109</u>

Cervical Laminectomies, Fusion, Instrumentation	934
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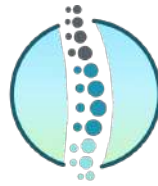
1 LEVEL	88
2 LEVEL	205
3 LEVEL	293
4 LEVEL	285
5 LEVEL	47
6 LEVEL	12
	<u>934</u>

Total: 1070

Complications 887 Cases

Neurospine Center

1. Infocion requiring revision	6	0.6%
2. Hematoma	0	0%
3. CSF Leak/Pseudomeningocele	1	0.1%
4. Glacial instability	0	0%
5. Death	0	0%
6. Temporary weakness or numbness	13	1.2%
7. Permanent nerve root iniury	0	0%
8. Seroma	9	0.8%
9. Wound dehiscence	4	0.4%
10. Pain > 3 months	1	0.1%
11. Perioderative ischemic stroke	1	0.1%
12. Pulmonary embolism	2	0.2%
13. Pneumonia	3	0.3%
14. Asymptomatlc broken hardware	7	0.7%
15. Hardware failure requiring revision	2	0.2%
Complication rate requiriag repeat surgery	20	1.9%



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ANTERIOR CERVICAL DECOMPRESSION + FUSION, +/- INSTRUMENTATION 09/1992 – 12/2025

(CPT Codes 22551, 22552, 22845, 22846, 22853)

WASCHER (NEUROSPINE)

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	<u>1863</u>

Nayak et al.' (N=507 Patients)(%) Wascher(N=1863 Consecutive Patients)(%)

Wound complications	2.56	0.21	(4)
Surgical site infections	1.38	0.05	(1)
Spinal cord complications	0.99	0.00	(0)
Nerve root complications	0.00	0.00	(0)
Dural tears	0.00	0.05	(1)
Dysphagia (transient and permanent)	2.56	0.54	(10)
Dysphonia (transient and permanent)	2.86	0.75	(14)
Cervicalgia	0.39	0.05	(1)
Kyphosis	0.39	0.00	(0)
Limb paralysis or weakness (transient and permanent)	7.50	0.05	(1)
Bleeding complications	1.78	0.00	(0)
Blood transfusions	0.39	0.00	(0)
Hematoma	6.31	0.32	(6)
Cellulitis	2.17	0.11	(2)