Medical Studies on Safety of Chiropractic Treatments

Ephraim W. Church Study, 2016 Large Meta-Analysis, Penn State Neurosurgery Dept.

"Systematic Review and Meta-analysis of Chiropractic Care and Cervical Artery Dissection: No Evidence for Causation"

(Meta-analysis involing: 253 medical journal articles, 6 observational studies, and 5 non-overlapping studies, with G,124 patient cases)

"our analysis shows a small association between chiropractic neck manipulation and cervical artery dissection. This relationship may be explained by the high risk of bias..., and in particular by the known association of neck pain with CAD and with chiropractic manipulation. There is no convincing evidence to support a causal link."

A person may already have an evolving dissection that produces neck pain or headache, prompting the person to seek care from a chiropractor or primary care physician.

Cassidy Study, 2008 (818 VBA strokes hospitalized cases)

"We found no evidence of excess risk of VBA stroke associated with chiropractic care compared to primary care"

Kosloff/Elton Study, 2015 (1,82G VBA stroke cases)

"We found no significant association between chiropractic care and the risk of VBA stroke. We conclude that manipulation (Chiropractic Adjustment) *is an unlikely cause of VBA stroke."*

JOSPT Study, 2015 (24 stroke cases)

"Recent minor mechanical trauma or strain to the head or neck appears to be associated with cervical arterial dissection. In rare cases it has been associated with cervical manipulative therapy."

Medical malpractice insurance companies

Officially known as Medical Professional Liability insurers, calculate premium costs based on the statistical risk of a negligence claim and the expected financial cost to defend it.

Low Risk Healthcare Providers = Low Cost Insurance Premium High

Risk Healthcare Providers = High Cost Insurance Premium

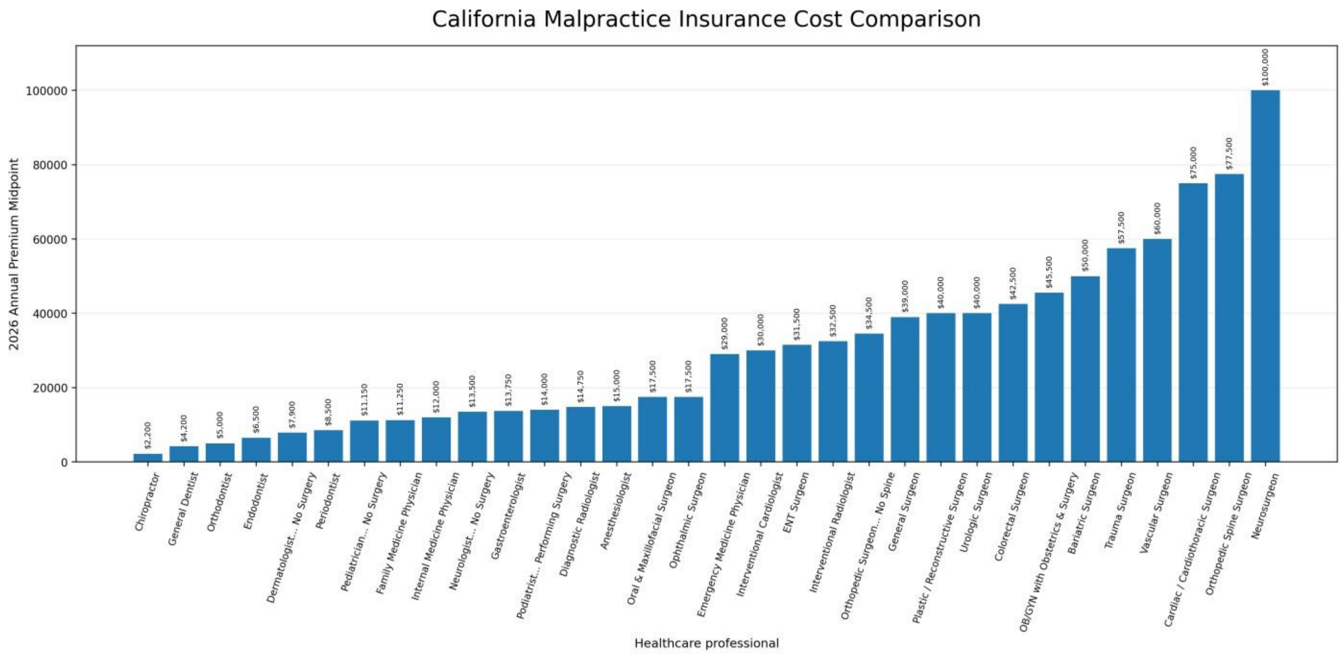
California Malpractice Insurance / Cost Comparison (2026)

Healthcare professional	2026 annual premium midpoint	Relative to Chiropractic
Neurosurgeon	$100,000	45.5x
Orthopedic Spine Surgeon	$77,500	35.2x
Cardiac / Cardiothoracic Surgeon	$75,000	34.1x
Vascular Surgeon	$60,000	27.3x
Trauma Surgeon	$57,500	26.1x
Bariatric Surgeon	$50,000	22.7x
OB/GYN with Obstetrics C Surgery	$45,500	20.7x
Colorectal Surgeon	$42,500	19.3x
Plastic / Reconstructive Surgeon	$40,000	18.2x
Urologic Surgeon	$40,000	18.2x
General Surgeon	$39,000	17.7x
Orthopedic Surgeon... No Spine	$34,500	15.7x
Interventional Radiologist	$32,500	14.8x
ENT Surgeon	$31,500	14.3x
Interventional Cardiologist	$30,000	13.6x
Emergency Medicine Physician	$29,000	13.2x
Oral C Maxillofacial Surgeon	$17,500	8.0x
Ophthalmic Surgeon	$17,500	8.0x
Anesthesiologist	$15,000	6.8x
Diagnostic Radiologist	$14,750	6.7x
Podiatrist... Performing Surgery	$14,000	6.4x
Gastroenterologist	$13,750	6.2x
Neurologist... No Surgery	$13,500	6.1x
Internal Medicine Physician	$12,000	5.5x
Family Medicine Physician	$11,250	5.1x
Pediatrician... No Surgery	$11,150	5.1x
Periodontist	$8,500	3.9x
Dermatologist... No Surgery	$7,900	3.6x
Endodontist	$6,500	3.0x
Orthodontist	$5,000	2.3x
General Dentist	$4,200	1.9x
Chiropractor	$2,200	1.0x

Relative cost comparison uses Chiropractic = 1.0x.

California Malpractice Insurance / Relative Cost Comparison (2026)

2026 annual premium midpoint average... ranked lowest to highest



Relative cost comparison uses Chiropractic = 1.0x.