

Treatment	Nature of Serious Risk	Risk Classification	Estimated Risk	Notes & Evidence Quality
Chiropractic Care	Cervical Artery Dissection (a tear in the wall of a neck artery, which can lead to a stroke)	Extremely rare	Extremely Low. A causal link has not been proven.	High-quality evidence. Major scientific reviews suggest the link is an association, not causation. This is because people may visit a chiropractor for neck pain that is an early symptom of a stroke already in progress. The risk of having this type of stroke after visiting a GP is similar. (Church 2016, Cassidy 2008, Whedon 2015, Chu 2023).
	Cervical disc herniation, myelopathy, spinal epidural haematoma, vertebral ligament injury leading to instability, injury to a nerve root causing new or worsened arm symptoms (radiculopathy), or spinal column fracture	Not applicable	Incidence is unknown. Considered extremely rare and documented only in individual case reports.	Low-quality evidence. The association between neck manipulation and these specific events is documented only in individual case reports. These reports cannot prove causation or establish a reliable risk frequency, but the events are considered extremely rare.
	Cauda Equina Syndrome (CES) in patients with low back pain.	Not applicable	No increased risk found.	High-quality evidence. A large study looked back at patient records and found that chiropractic care does not increase the risk of developing Cauda Equina Syndrome compared to visiting a physiotherapist. The study concluded that the few cases that happened were not caused by the treatment, but represent the normal underlying risk for people with serious back pain who were likely already developing the condition when they sought help. (Chu 2023, Trager 2024)
	Rib fracture (in older female patients with osteoporosis)	Very rare	0.21 per 100,000 (approx. 1 in 476,000)	Good to High-quality evidence. A large study looked back at the records of nearly one million chiropractic treatments and found only two cases of serious side effects. Both were rib fractures that happened in older women with pre-existing bone weakness (osteoporosis).

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Spinal Surgery (Low Back)	Deep infection requiring more surgery	Common	~ 1 in 100 (lumbar decompression surgery and lumbar discectomy/microdiscectomy) (Royal Wolverhampton NHS Trust 2022, The Robert Jones and Agnes Hunt Orthopaedic Hospital NHS Foundation Trust 2023, Royal Berkshire NHS Foundation Trust 2024)	Good evidence. Based on typical figures provided to patients in NHS information leaflets. Risks can vary between individuals and hospitals.
	Spinal fluid leak (Dural Tear)	Common	~ 5 in 100 (lumbar decompression surgery and lumbar discectomy/microdiscectomy) (Royal Wolverhampton NHS Trust 2022, The Robert Jones and Agnes Hunt Orthopaedic Hospital NHS Foundation Trust 2023, Royal Berkshire NHS Foundation Trust 2024)	Good evidence. Based on typical figures provided to patients in NHS information leaflets.
	Lasting nerve damage	Uncommon	< 1 in 100 (lumbar decompression surgery and lumbar discectomy/microdiscectomy) (Royal Wolverhampton NHS Trust 2022, The Robert Jones and Agnes Hunt Orthopaedic Hospital NHS Foundation Trust 2023, Royal Berkshire NHS Foundation Trust 2024)	Good evidence. Based on typical figures provided to patients in NHS information leaflets.
	Paralysis	Uncommon	~ 1 in 500 (lumbar decompression surgery and lumbar discectomy/microdiscectomy) (Royal Wolverhampton NHS Trust 2022, The Robert Jones and Agnes Hunt Orthopaedic Hospital NHS Foundation Trust 2023, Royal Berkshire NHS Foundation Trust 2024)	Good evidence. Based on typical figures provided to patients in NHS information leaflets.

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Spinal Surgery (Neck)	Lasting nerve root problems	Common	~ 1 in 100 (cervical spine surgery) (The Robert Jones and Agnes Hunt Orthopaedic Hospital NHS Foundation Trust 2023, Lancashire Teaching Hospitals NHS Foundation Trust 2021)	Good evidence. Based on typical figures provided to patients in NHS information leaflets.
	Infection	Common	~ 1 in 100 (cervical spine surgery) (The Robert Jones and Agnes Hunt Orthopaedic Hospital NHS Foundation Trust 2023, Lancashire Teaching Hospitals NHS Foundation Trust 2021)	Good evidence. Based on typical figures provided to patients in NHS information leaflets.
	Spinal fluid leak	Common	~ 3 in 100 (cervical spine surgery) (The Robert Jones and Agnes Hunt Orthopaedic Hospital NHS Foundation Trust 2023, Lancashire Teaching Hospitals NHS Foundation Trust 2021)	Good evidence. Based on typical figures provided to patients in NHS information leaflets.
	Spinal cord injury	Uncommon	~ 1 in 500 (cervical spine surgery) (The Robert Jones and Agnes Hunt Orthopaedic Hospital NHS Foundation Trust 2023, Lancashire Teaching Hospitals NHS Foundation Trust 2021)	Good evidence. Based on typical figures provided to patients in NHS information leaflets.

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Epidural Steroid Injection	Severe headache (from a dural puncture)	Rare	Between 1 in 1,000 and 1 in 10,000 (Rare) (FPM 2023)	Good evidence. Based on the latest national UK patient guidance, which describes this risk as "Rare." This figure represents the official definition of that term.
	Serious infection, bleeding, and nerve damage injury	Rare	Between 1 in 1,000 and 1 in 10,000 (Rare). (FPM 2023)	Good evidence. Based on the latest national UK patient guidance, which describes this risk as "Rare." This figure represents the official definition of that term.
Prescription Opioids	Developing addiction from long-term use	Common to Very common	~ 1 in 4 to 1 in 12 (Public Health England 2019, Vowles 2015, Boscarino 2010)	High-quality evidence. This risk range is supported by major systematic reviews and multiple large-scale studies that consistently find a substantial risk of patients developing an addiction (Opioid Use Disorder) from long-term therapy.

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NSAIDs (e.g., Ibuprofen, Naproxen)	Serious stomach bleeding or ulcer (risk is highest with higher doses and long-term use).	Ibuprofen: Rare Naproxen: Uncommon	Based on an average person's baseline risk of ~1 in 2,000 per year: Ibuprofen: Increases this risk to approximately 1 in 1,100. Naproxen: Increases this risk to approximately 1 in 475. (Bhala 2013, Lau 2011)	High-quality evidence. The risk increases significantly with higher doses and long-term use. The baseline risk is higher for older adults or those with a history of stomach issues.
	Increased risk of heart attack or stroke (risk is highest with higher doses and long-term use)	Ibuprofen: Uncommon Naproxen: not applicable.	Ibuprofen: This more than doubles a person's underlying risk of a heart attack. For example: A person with a low underlying annual risk of 2 in 1,000 would see their risk increase to over 4 in 1,000. A person with a high underlying annual risk of 20 in 1,000 would see their risk increase to over 40 in 1,000. Naproxen: No significant increase in risk found. (Bhala 2013)	High-quality evidence. The risk is primarily associated with long-term use of high, prescription-level doses. The cardiovascular risk profile differs significantly between drugs. The risk examples given are based on typical low and high-risk profiles from the QRISK3 assessment tool used by the NHS.
Paracetamol	Risk of liver harm.	Common	Increases the number of people who show signs of liver stress from approximately 1 in 100 (on a placebo) to about 4 in 100 (on paracetamol). (Machado 2015)	High-quality evidence. Based on systematic reviews of randomised controlled trials (RCTs) and official UK guidance. Due to evidence of harm (particularly to the liver) and a lack of proven benefit, NICE now advises against offering paracetamol for chronic primary pain (NICE 2021)