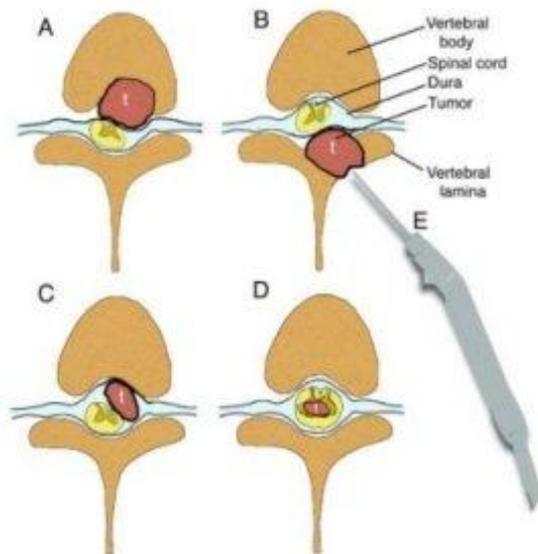


Spinal Tumour Treatment

The indications for neurosurgical intervention of spinal tumours are:

- To obtain a tissue diagnosis of the tumour.
- To debulk the tumour allowing adjuvant treatment (eg radiotherapy) to have a greater effect.
- To decompress the spinal cord and nerve roots from invading tumour.
- To stabilise and fuse potentially unstable spinal segments.



- A. Anteriorly extradural based tumour
 B. Posteriorly extradural based tumour
 C. Intradural extramedullary tumour
 D. Intramedullary tumour

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OPERATION

The approaches to the spinal tumour is dependent on the position of the tumour and includes:

- Posterior laminectomy and decompression, with or without fusion if the tumour arises from behind the neural structures.
- Posterior laminectomy, and transpedicular decompression of the vertebral body with or without fusion if the tumour arises from in front of the vertebral body spreads back along the pedicles.
- Thoracotomy/laparotomy and excision of tumour with spinal fusion if the tumour arises from the vertebral body in front of the neural structures.

If the surgery is performed from the front a cage or bony strut graft (taken from the hip) may be used to replace the vertebral body.

Pedicle screws and rods may be used for spinal fusion if surgery is performed from behind.



Picture demonstrating antero-lateral vertebrectomy, strut graft and lateral stabilization rods in the thoracic spine © Oxford University Press, *Do you really need back surgery?* www.backpain-guide.com

ADJUVANT THERAPY

Radiotherapy

Spinal tumours are frequently responsive to localized radiotherapy. Radiotherapy is also good in relieving bony pain. Many cases of spinal tumour will have radiotherapy as a first line treatment if there is a known radiotherapy responsive primary tumour. Those cases that require surgery as a first line treatment will usually be followed with radiotherapy

Chemotherapy

Depending on the pathology of the spinal tumour, chemotherapy may be used in either oral or intravenous form after surgery.

Risks of the procedures:

The risks of this operation includes the following. A detailed discussion with your surgeon is recommended prior to surgery.

- Infection: to the wound or deeper down in the bone (uncommon)
- Bleeding: superficial bruising, or deep which may require a second operation because it has resulted impairment of function from spinal cord compression.
- Permanent neurological injury: weakness, numbness, paralysis due to injury of the neural structures (rare)
- CSF leak: leakage of the spinal fluid bathing the spinal cord which may require a second operation to close off
- Blindness: believed to be due to hypotension from the prone position (extremely rare)
- Instrument failure/malposition: this is very rare but may require a second operation to reposition hardware and promote stabilisation.