

Spinal Dura Repair

A [Cerebrospinal fluid fistula](#) is a common complication in [spine surgery](#).

[Cerebrospinal fluid fistula treatment](#) is usually closed effectively by [suture](#) and/or [epidural patches](#). There is currently no [algorithm](#) to treat a recurrent Cerebrospinal fluid fistula that fails to be closed initially.

[Fat](#) is an ideal [sealant](#) because it is impermeable to water. Black reports his experience with using fat grafts for the prevention or repair of Cerebrospinal fluid fistulas and proposes a technique in which a large sheet of fat, harvested from the patient's subcutaneous layer, is used to cover not only the dural tear(s) but all of the exposed dura and is tucked into the lateral recess. This procedure prevents CSF from seeping around the fat, which may be tacked to the dura with a few sutures. Fibrin glue is spread on the surface of the fat and is further covered with Surgicel or Gelfoam. For ventral dural tears (associated with procedures in which disc material is excised), fat is packed into the disc space to seal off the ventral dural leak. Leaks in the posterior fossa are managed similarly to those in the spine. Dural suture lines, following suboccipital or spinal intradural exploration, are prophylactically protected from Cerebrospinal fluid fistula in the same manner. With one exception, 27 dural tears noted during 1650 spinal procedures were successfully repaired using this technique. There was one case of postoperative Cerebrospinal fluid fistula in 150 cases in which intradural exploration for tumor or other lesions was undertaken. Both postoperative Cerebrospinal fluid fistulas were controlled by applying additional skin sutures. The use of a fat graft is recommended as a rapid, effective means of prevention and repair of Cerebrospinal fluid fistulas following posterior fossa and spinal surgery ¹⁾.

Inlay-onlay dural repair technique

[Inlay-onlay dural repair technique](#)

¹⁾

Black P. Cerebrospinal fluid fistulas following spinal or posterior fossa surgery: use of fat grafts for prevention and repair. Neurosurg Focus. 2000;9(1):e4. PubMed PMID: 16865811.

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