Intervertebral foramen

When the spinal vertebrae are articulated with each other the bodies form a strong pillar for the support of the head and trunk, and the vertebral foramen constitute a canal for the protection of the medulla spinalis (spinal cord). Between every pair of vertebrae are two apertures (openings), the intervertebral foramina (singular: foramen; also called neural foramina and often abbreviated as IV foramina or IVF). The foramina allows for the passage of the spinal nerve root, dorsal root ganglion, the spinal artery of the segmental artery, communicating veins between the internal and external plexuses, recurrent meningeal (sinu-vertebral) nerves, and transforaminal ligaments.

Their size is variable due to placement, pathology, spinal loading, and posture. They can be occluded by arthritic degenerative changes and space-occupying lesions like tumors, metastases and spinal disc herniations.

Cervical, thoracic, and lumbar vertebrae all have intervertebral foramina.

see Cervical intervertebral foramen.

see Lumbar intervertebral foramen.

Because the intracranial compartment is in contiguity with the spinal canal, which contains epidural fat and openings via neural foramen between segmental vertebra, the assumption of a rigid system is not completely accurate, but provides a useful framework for understanding ICP. The principal intracranial components (blood, CSF, and brain tissue) are in a state of volume equilibrium, and any increase in volume of one of these intracranial components must be compensated for by a decrease in volume of another; otherwise, ICP will increase [1].

1)
Mokri B. The Monro-Kellie hypothesis: applications in CSF volume depletion. Neurology. 2001 Jun 26;56(12):1746-8. PubMed PMID: 11425944.