

Muhle classification cervical canal stenosis

■ Grade 0

- Normal

■ Grade 1 (mild)

- Partial obliteration of the anterior or posterior Subarachnoid space

■ Grade 2 (moderate)

- Effacement of both ventral and dorsal CSF.
- Some CSF remains

■ Grade 3 (severe)

- Complete effacement of CSF
- Cervical cord compression or displacement

Muhle classification system

- Excellent interobserver agreement
- Has been correlated with SSEPs and outcome

Muhle et al. AJNR 1998; 19:1763–1771

Ko et al. Eur Spine J. 2017 Sep;26(9):2290-2296.

Joaquim et al. Neurospine. 2019 Sep; 16(3): 448–453.



MILD



ONE SIDE of the
bowl occupied
but still has space
on the other side

MODERATE



BOTH SIDES of
the bowl
occupied but still
some water in
the middle

SEVERE

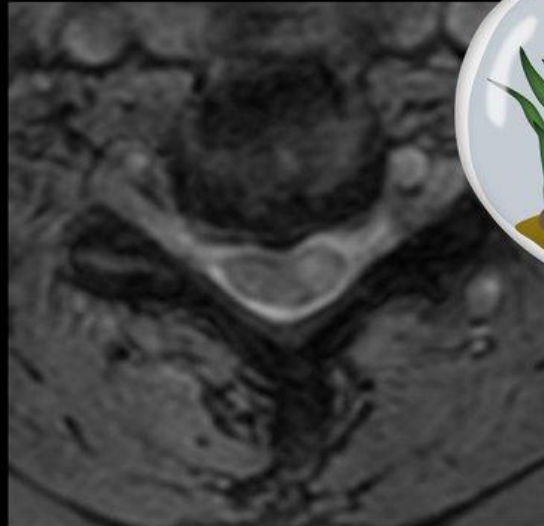
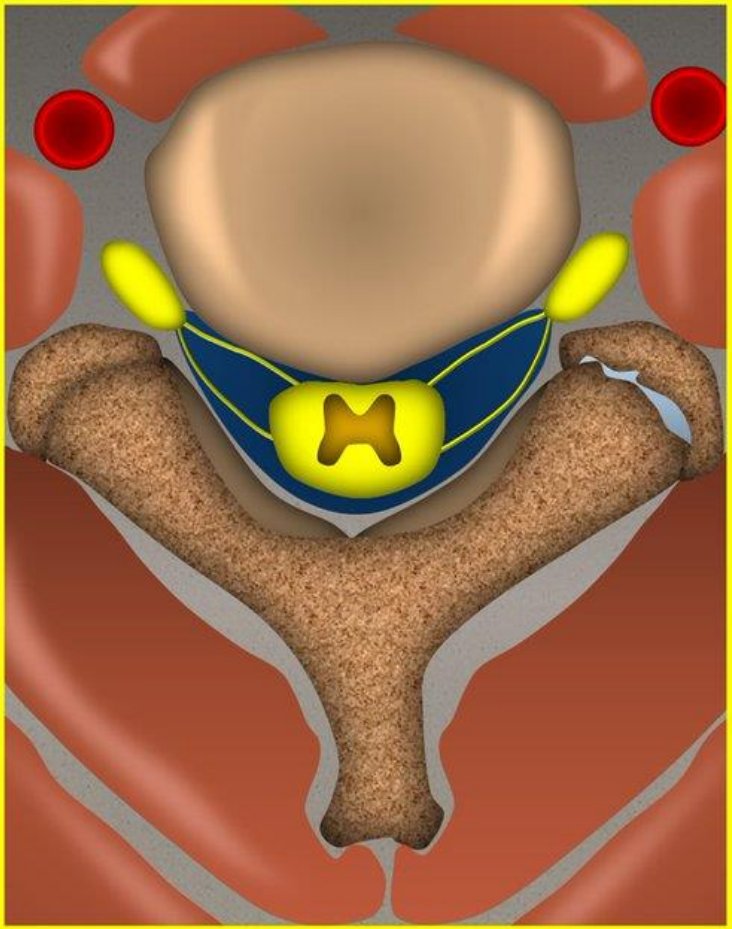


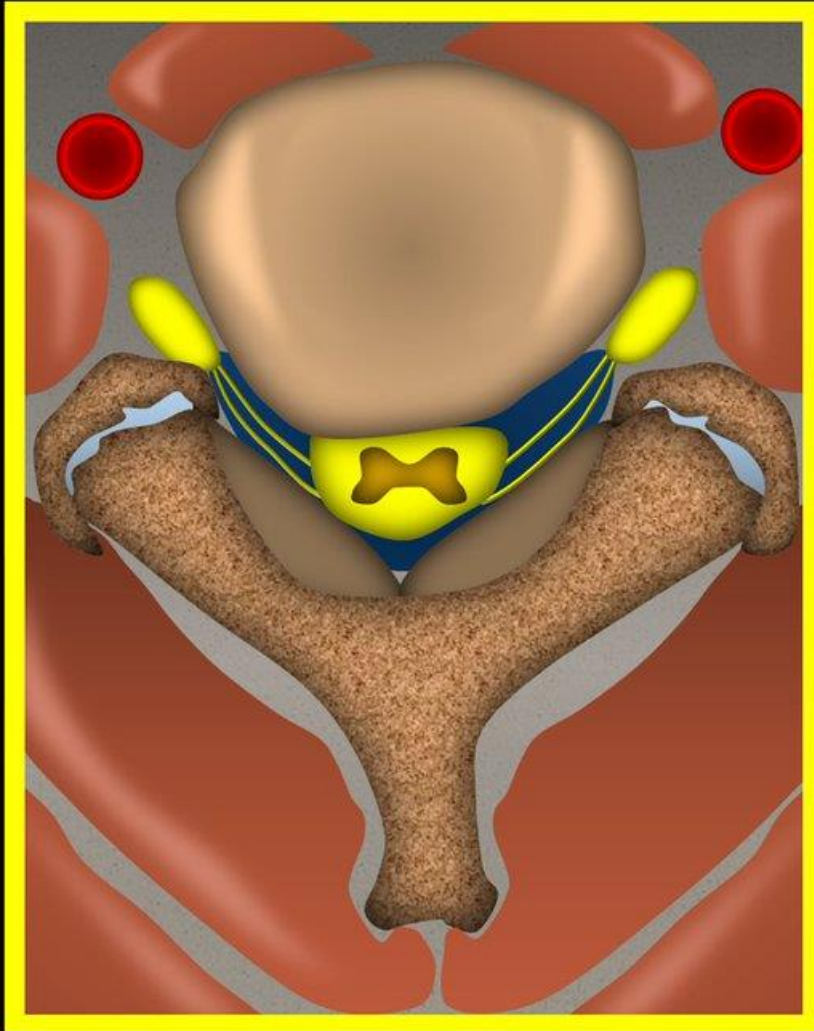
Bowl **TOTALLY
FILLED**, fish is
toast



Mild stenosis

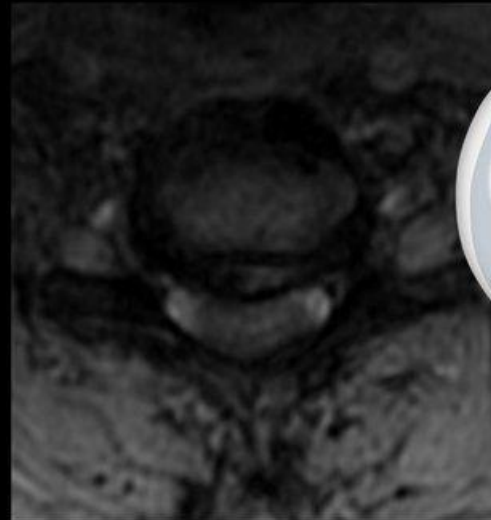
Effacement of
CSF on one side
(usually ventral)

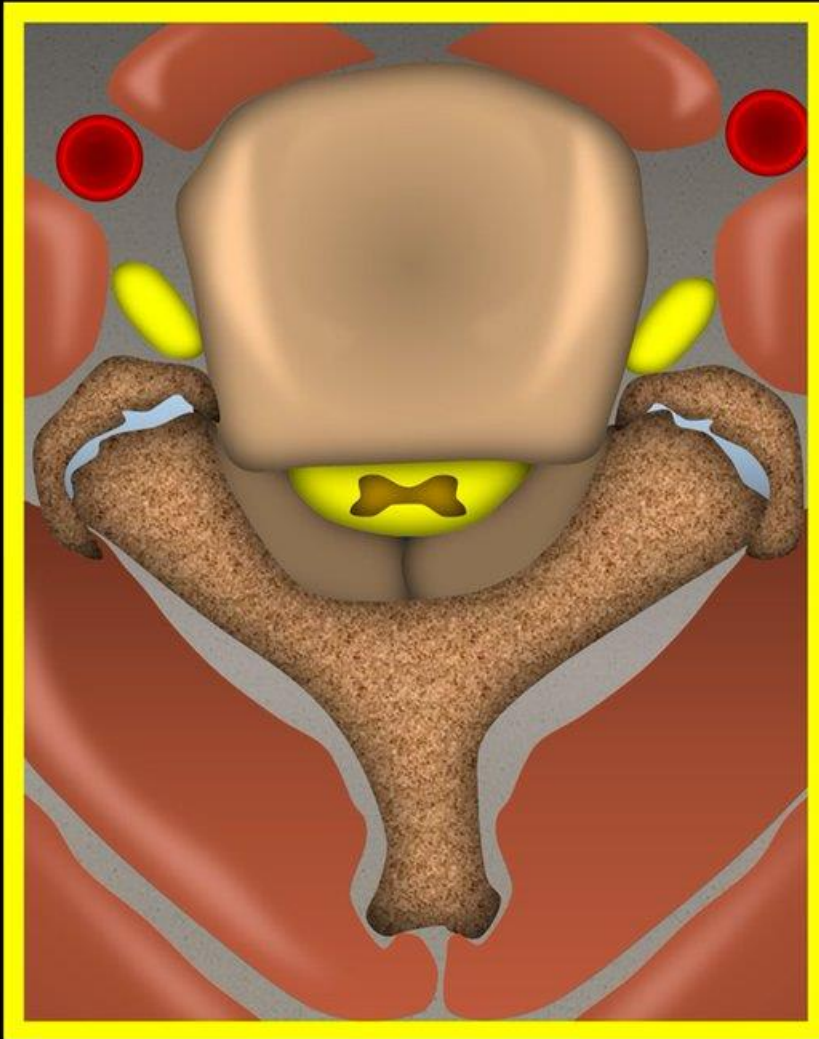




Moderate stenosis

Effacement of both dorsal and ventral CSF, but some CSF remaining





Severe stenosis
Effacement of
all CSF, cord
compression

