On the superior surface of the pedicles, between the vertebral body and the superior articular processes, lie the shallow superior vertebral notches. Together with the inferior vertebral notches of L4, the superior vertebral notches of L5 form the intervertebral foramina.

The boundaries of the intervertebral foramina in the lumbar spine are:

- -Inferior and superior aspects of the vertebral bodies above and below respectively
- -Intervertebral disc
- -Superior vertebral notch of the vertebra below
- -Anterior surface of the zygapophyseal joint and adjacent lamina of the vertebra above
- -Inferior vertebral notch of the vertebra above

Each foramen transmits the fourth lumbar spinal nerve and its coverings, spinal arteries, venous plexuses and the recurrent meningeal (sinu-vertebral) nerves. Further, the dorsal root ganglia lie partly in the foramina.