

There are four paired lumbar arteries, all of which arise postero-laterally from the abdominal aorta; a smaller fifth pair may arise from the median sacral artery. They pass postero-laterally on the four upper lumbar vertebral bodies, posterior to the sympathetic trunk; the right lumbar arteries also pass posterior to the inferior vena cava. They pass under the tendinous arches that serve as attachment points for the psoas major muscle and continue behind psoas major and the lumbar plexus. The upper three arteries subsequently cross quadratus lumborum posteriorly (the fourth artery passes anteriorly), to pierce the posterior aponeurosis of transversus abdominis at its lateral border. The arteries then continue between the transversus abdominis and internal oblique muscles.

The lumbar arteries anastomose extensively with each other, the lower posterior intercostal, subcostal and iliolumbar arteries. Each of the lumbar arteries gives off a dorsal branch, which passes posteriorly between adjacent transverse processes. Moreover, each dorsal branch has a spinal branch that enters the vertebral foramen (canal) through the intervertebral foramina to supply the vertebrae and contents of the vertebral foramen (canal).