Anaesthetic and surgical interventions alter cerebrovascular physiology profoundly; hence, a good understanding of these changes is crucial to limit the damage following [â€¦]. Applied anatomy of the cerebral circulation. Arterial supply. The blood supply to the brain originates from dorsal aorta, provided by the common carotid arteries, which branch into internal carotid arteries; and the basilar artery, formed by the union of the two vertebral arteries, which are branches of the subclavian artery. The anastomoses between these two sets of vessels give rise to the circle of Willis. Anatomical variations and significance. Anatomical considerations in neuroanaesthesia (Applied clinical physiology and pharmacology) Part 1. In book: Pharmacology and Physiology for Anaesthesia, pp.732-751. Cite this publication. Shannon M. Page. The anesthetic management should focus on maintaining uteroplacental circulation, achieving profound uterine relaxation, optimizing surgical conditions, monitoring fetal hemodynamics, and minimizing maternal and fetal risk. View. Show abstract. Anaesthesia In General Practice. Notes on the physiology and pharmacology of anaesthesia. Br Med J 1937; 2 doi: https://doi.org/10.1136/bmj.2.3995.224 (Published 31 July 1937) Cite this as: Br Med J 1937;2:224. Article.