

Mechanisms Regulating the Ductus Arteriosus

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A patent ductus arteriosus results in increased pulmonary blood flow and redistribution of flow to other organs. Several co-morbidities (i.e., necrotizing enterocolitis, intracranial hemorrhage, pulmonary edema/hemorrhage, bronchopulmonary dysplasia, and retinopathy) are associated with the presence of a patent ductus arteriosus, but whether or not a patent ductus arteriosus is responsible for their development is still unclear. In this review comparative physiology between the full term and preterm newborn and the barriers preventing the necessary cascade of events leading to permanent constriction of the patent ductus arteriosus are reviewed.

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