Volume II, Chapter 11

THE EMBRYO AND IT’S ENVIRONMENT – *IN UTERO* TOXICITY AND PHYSIOLOGICAL OUTCOMES

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Until today the role of oxygen in the development of the fetus remains controversially discussed. It is still believed that lack of oxygen in utero might be responsible for some of the known congenital cardiovascular malformations. Over the last two decades detailed research has given us new insights and a better understanding of embryogenesis and fetal growth. Most importantly it has repeatedly demonstrated that oxygen only plays a minor role in the early intrauterine development. After organogenesis has taken place hypoxia becomes more important during the second and third trimester of pregnancy when fetal growth occurs. This chapter will address causes and mechanisms leading to intrauterine hypoxia and their impact on the fetal cardiovascular system.