

Placentation in Mammals: →

Introduction: →

The placenta is that organism in which, the blood-vessels of the embryo are brought into intimate anatomical and physiological relation with the spaces - which may be blood-vessels or lacunae of quite a different character, in which maternal blood is circulating. This area of attachment between maternal and embryonic tissues is called the placenta and the word placentation denotes the general process effecting this attachment. The word placenta is derived from the Greek and it means a flat-cake. It received this name because the human placenta is a flat, rounded mass shaped more or less like a pancake.

Definition: → vascular organ of attachment of the developing young to the mother, and
The placenta may be defined as the association between embryonic and uterine tissues for the purpose of physiological exchange of materials. It is evident that this is a restricted definition applicable only to uterine types of implantation.

Jordan. "Types of Placenta"

There are two main types of placenta found in mammals →

I omphaloidean placenta or yolk sac placenta

II Allantoic placenta or true placenta.

↳ divided in three types

① Contra deciduate

② Non deciduate

 a) diffuse non deciduate

 b) Cotyledonary non deciduate

Technique

(3) Deciduate placenta

- (a) Zonary deciduate placenta
- (b) Discoidal deciduate placenta
- (c) Metadiscoidal deciduate placenta

I Omphaloidean or yolk sac Placenta :-

is formed by the wall of the yolk sac being attached to the wall of the uterus. An allantois may be absent or very small. The yolk sac placenta brings about nourishment of the embryo developing within the uterus eg. most marsupials

II Allantoic placenta :- \rightarrow or true

placenta is formed by the union of the allanto-chorion with the wall of the uterus, generally the allanto-chorion forms vascular finger-like villi which fit into or are embedded into depressions or crypts of the uterine wall, eg. eutherian mammals. It has different varieties, but their structure has no phylogenetic significance.

(1) Contra deciduate — placenta is a primitive type of allantoic placenta in which the allanto-chorion is flat and folded with no villi and is applied to the uterine wall. At birth no part of the maternal tissue is lost, and even the foetal part of the placenta is thrown out but is absorbed into uterus eg. perameles, a marsupial.

(2) Non-deciduate placenta :- \rightarrow

The union between the villi and the uterine wall is not very close, so that at birth the placenta separates from the uterine mucous membrane without