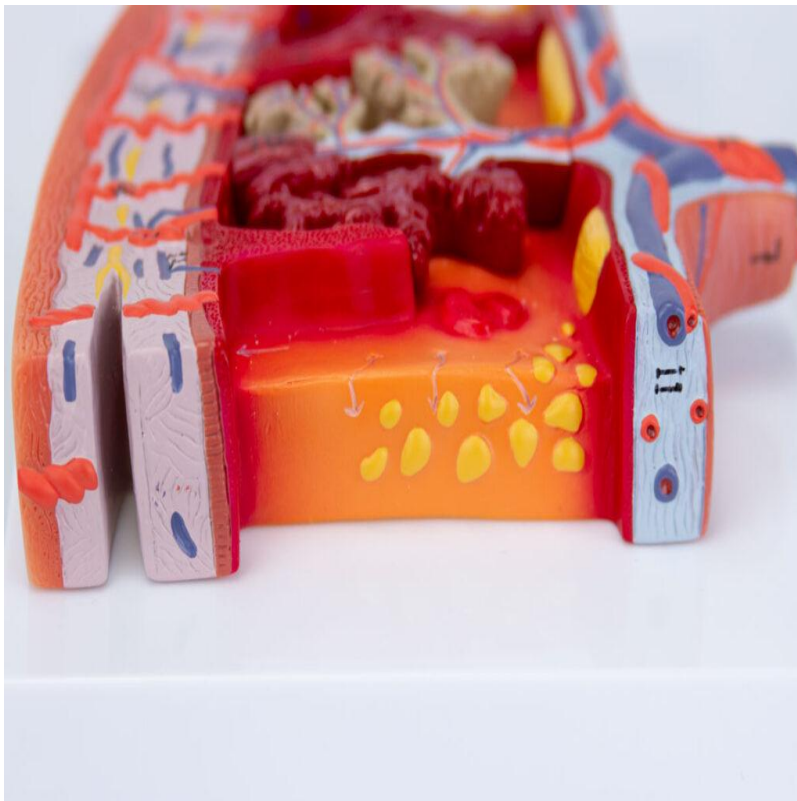




MG17230 | HUMAN PLACENTA CROSS SECTION, 2 TIMES ENLARGED







This model represents an enlarged cross-section of the human placenta, exhibiting in detail the anatomical structures involved in gas exchange, nutrition, and waste elimination between the fetus and the mother. The model is mounted on a stable base and features hand-numbered and painted structures for easy identification.

Applications:

This model is ideal for the study of placental anatomy in schools, universities, and higher education institutions. It is also suitable for medical and scientific training, assisting in the understanding of gestational physiology and medical information.

Technical Advantages:

- * High-fidelity natural molding;
- * Manufactured from stable synthetic material and resin with toxicological test approval;
- * Hand-numbered and painted;
- * Includes an information card with related structures;
- * Model attached to a stable resin base;
- * Presents precise references and markings.

3D Technology and Augmented Reality:

Our anatomical models offer a visual complement through information cards that activate 3D models viewable in augmented reality (AR). This interactive platform assists learning, allowing for comparative analysis of anatomical structures and offering resources for continuing education in anatomy, physiology, and pathophysiology.

Technical Specifications:

- * Scale: 2x Enlarged;
- * Material: Synthetic resin.

Main Structures:

Umbilical Vein: The umbilical vein is a blood vessel present in the umbilical cord that transports oxygenated and nutrient-rich blood from the placenta to the fetus. It is a unique structure because it carries oxygenated blood, unlike most veins in the body.

Umbilical Arteries: The umbilical arteries are two blood vessels present in the umbilical cord that transport deoxygenated blood rich in metabolic waste products from the fetus to the placenta. Their role is crucial in the removal of fetal metabolic products.

Umbilical Cord: The umbilical cord is a tubular structure that connects the fetus to the placenta, transporting blood between them. It contains the umbilical vein and the two umbilical arteries, immersed in Wharton's jelly.



Chorionic Villi: The chorionic villi are the outer layer of the chorion, the outermost membrane surrounding the embryo. It is composed of chorionic villi, which project into the intervillous space and are essential for maternal-fetal exchanges.

Amniotic Membrane: The amniotic membrane is the innermost membrane surrounding the fetus, forming the amniotic sac filled with amniotic fluid. It protects the fetus from mechanical shocks and infections.

Trunk Villi: The trunk villi are projections of the chorionic villi that branch and interdigitate with the maternal basal decidua, increasing the surface area for maternal-fetal exchanges.

Intervillous Space: The intervillous space is the space between the chorionic villi, filled with maternal blood. It is in this space that the exchange of oxygen, nutrients, and waste products between maternal and fetal blood occurs.

Fetal Capillaries: Fetal capillaries are small blood vessels present in the chorionic villi, where gas and nutrient exchange occurs between fetal blood and maternal blood in the intervillous space.

Anchoring Villi: Anchoring villi are larger chorionic villi that attach the chorionic villi to the basal decidua. They provide structural support to the placenta.

Basal Decidua: The basal decidua is the part of the endometrium that is adjacent to the placenta. It provides maternal blood to the intervillous space and participates in the process of nutrition and support of the placenta.

Other structures can be verified directly on the physical piece or on the interactive 3D model.

About Anatomical Models:

They are developed with resin replication technology, meeting the demand for anatomical pieces for teaching and research. They present the essential morphological characteristics with a competitive cost-benefit ratio, good resistance, hand painting, and numbering for precise identification of structures.

List of all visible structures:

- Umbilical vein
- Umbilical arteries
- Umbilical cord
- Chorionic villi
- Amniotic membrane



- Stem villi
- Intervillous space
- Fetal capillaries
- Anchoring villi
- Decidua basalis
- Endometrial arteries
- Endometrial arteries
- Endometrial vein
- Myometrium
- Uterine artery
- Uterine vein