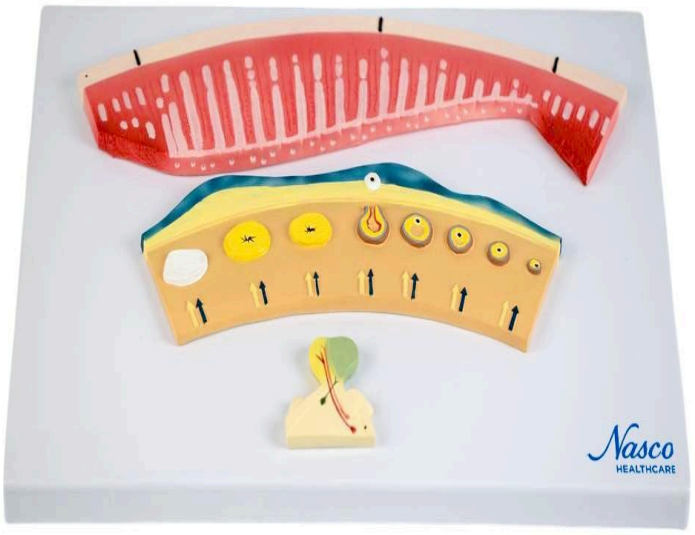
MG29845 | PERIODIC HORMONAL CHANGES IN WOMEN



This anatomical model details the periodic hormonal changes in women, showing the relationship between hormone levels and changes in the uterine lining throughout the menstrual cycle. It is an accurate and visually rich representation, ideal for educational and training purposes, presenting key structures of the female reproductive system. The model is mounted on a polymer base for easy viewing and handling.

Applications:

* Study of the reproductive system in schools and universities.
* Training for surgical dissection.
* Patient education.
* Demonstration of procedures.
* Medical and scientific information.

Technical Advantages:

* High-fidelity natural molding.
* Manufactured from stable and resistant synthetic material.
* Precise replicas.
* Hand-numbered and painted.
* Includes an information card with related structures.
* Resin approved in toxicological tests.

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 comparative analysis of anatomical structures and offering resources for continuing education in anatomy, physiology, and pathophysiology.

Technical Specifications:

* Material: Synthetic resin.
* Scale: Out of natural size scale.

Main Structures:

Ovum: Female reproductive cell, responsible for transmitting maternal genetic material. It is a large, immobile cell, containing the nucleus and cytoplasm with organelles essential for embryonic development.

Ovulation: Process of releasing the mature ovum from the ovarian follicle. It generally occurs in the middle of the menstrual cycle and is essential for conception.

Corpus Luteum: Glandular structure that forms in the ovary after ovulation. It secretes progesterone, a hormone crucial for preparing the endometrium for possible embryo implantation.

Ovarian Follicles: Structures in the ovary that contain developing ova. They go through different stages of maturation, culminating in the ovulation of a mature ovum.

Endometrium: Inner layer of the uterus, which thickens during the menstrual cycle in

preparation for possible pregnancy. In case of non-fertilization, the endometrium is shed, causing menstruation.

Day 1: Beginning of the menstrual cycle, marked by the onset of menstruation, i.e., the shedding of the endometrium.

Menstruation: Monthly bleeding that occurs due to the shedding of the endometrium when pregnancy does not occur. It is a normal physiological process.

Proliferative Phase: Period of the menstrual cycle after menstruation, in which the endometrium regenerates and thickens in preparation for possible embryonic implantation.

Day 14: Day on which ovulation generally occurs, i.e., the release of the mature ovum from the ovary.

Secretory Phase: Period after ovulation, in which the corpus luteum secretes progesterone, preparing the endometrium for embryo implantation. If fertilization does not occur, this phase ends with menstruation.

Day 28: End of the menstrual cycle, menstruation may occur again if there is no pregnancy.

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

About the Anatomical Models:

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

List of all visible structures:

- Ovarian Cycle Phases
- - Follicular Phase (Days 1-14, approximately)
- - Primary follicle development
- - Developing follicle growth
- - Mature (Graafian) follicle formation
- - Ovulation (Around Day 14)
- - Ruptured follicle (release of oocyte)
- - Luteal Phase (Days 14-28, approximately)
- - Early Corpus Luteum formation
- - Corpus Luteum (fully formed)

- - Corpus Albicans (if no pregnancy)
- Endometrial Changes
- - Menstrual Phase (Days 1-4, approximately)
- - Shedding of endometrium (menstruation)
- - Proliferative Phase (Days 4-14, approximately)
- - Endometrial thickening and regrowth
- - Spiral arteries development
- - Secretory Phase (Days 14-28, approximately)
- - Endometrial maturation and gland development
- - Preparation for implantation