

Introduction to Obstetrics and Gynaecology

Introduction to Obstetrics & Gynecology

(A concise, organized overview for students and health?care learners)

1. Scope of the Specialty

Aspect	Definition	Core Focus
Obstetrics (OB)	Medical discipline that deals with pregnancy, childbirth, and the postpartum period.	Antenatal care, labor & delivery, maternal?fetal health, complications of pregnancy.
Gynecology (GYN)	Medical and surgical discipline that concerns the health of the female reproductive system (uterus, ovaries, fallopian tubes, cervix, vagina, vulva).	Preventive care, diagnosis & treatment of benign and malignant conditions, reproductive endocrinology, infertility, menopause.
Combined OB?GYN	Many practitioners are trained in both fields, allowing comprehensive care from adolescence through menopause and beyond.	Continuity of care, integrated management of reproductive health and pregnancy.

2. Historical Milestones

Era	Key Development	Impact
Ancient Egypt & Greece	Early obstetric texts, Hippocratic writings on women's health.	First recorded observations of pregnancy & delivery.
19th?Century	Introduction of antisepsis (Lister), forceps refinement, first anesthesia in childbirth.	Safer deliveries, reduced maternal mortality.
Early 20th?Century	Development of prenatal care concepts, rubella vaccine, first blood transfusion protocols.	Systematic antenatal screening, prevention of congenital infections.
Mid?20th?Century	Ultrasound imaging (1970s), fetal monitoring, development of the Pap smear (1960s).	Early detection of fetal anomalies, cervical cancer screening.

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Era	Key Development	Impact
Late 20th–21st Century	IVF (1978), laparoscopic surgery, robotic assisted hysterectomy, maternal-fetal medicine subspecialty.	Expanded fertility options, minimally invasive surgery, advanced high-risk pregnancy care.

3. Core Concepts in Obstetrics

3.1. Pregnancy Physiology

System	Adaptation	Clinical Relevance
Cardiovascular	↑ Blood volume (40–50%), ↑ cardiac output, ↑ systemic vascular resistance.	Risk of gestational hypertension, physiologic anemia.
Respiratory	↑ tidal volume, ↑ minute ventilation ↑ mild respiratory alkalosis.	Alters interpretation of arterial blood gases.
Renal	↑ glomerular filtration rate, ↑ serum creatinine.	Adjust drug dosing, monitor for pre-eclampsia.
Endocrine	↑ progesterone, estrogen, hCG, prolactin.	Maintains uterine quiescence, prepares breast for lactation.
Hematologic	↑ clotting factors, ↑ anticoagulant proteins.	Hypercoagulable state ↑ VTE prophylaxis.

3.2. Antenatal Care (ANC)

Visit	Timing (weeks)	Key Assessments
First visit	~12	Confirmation of pregnancy, dating ultrasound, baseline labs (CBC, blood type, RPR, HIV, hepatitis B, urine culture).
Subsequent visits	16, 20, 24, 28, 32, 36, 38, 40	Blood pressure, weight, fundal height, fetal heart rate, urine dipstick, anemia screen, glucose tolerance test (24–28w), anatomy scan (18–22w).

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