

# Investigations et traitements de l'infécondité conjugale

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Stérilité et procréation assistée

# Définition et incidence

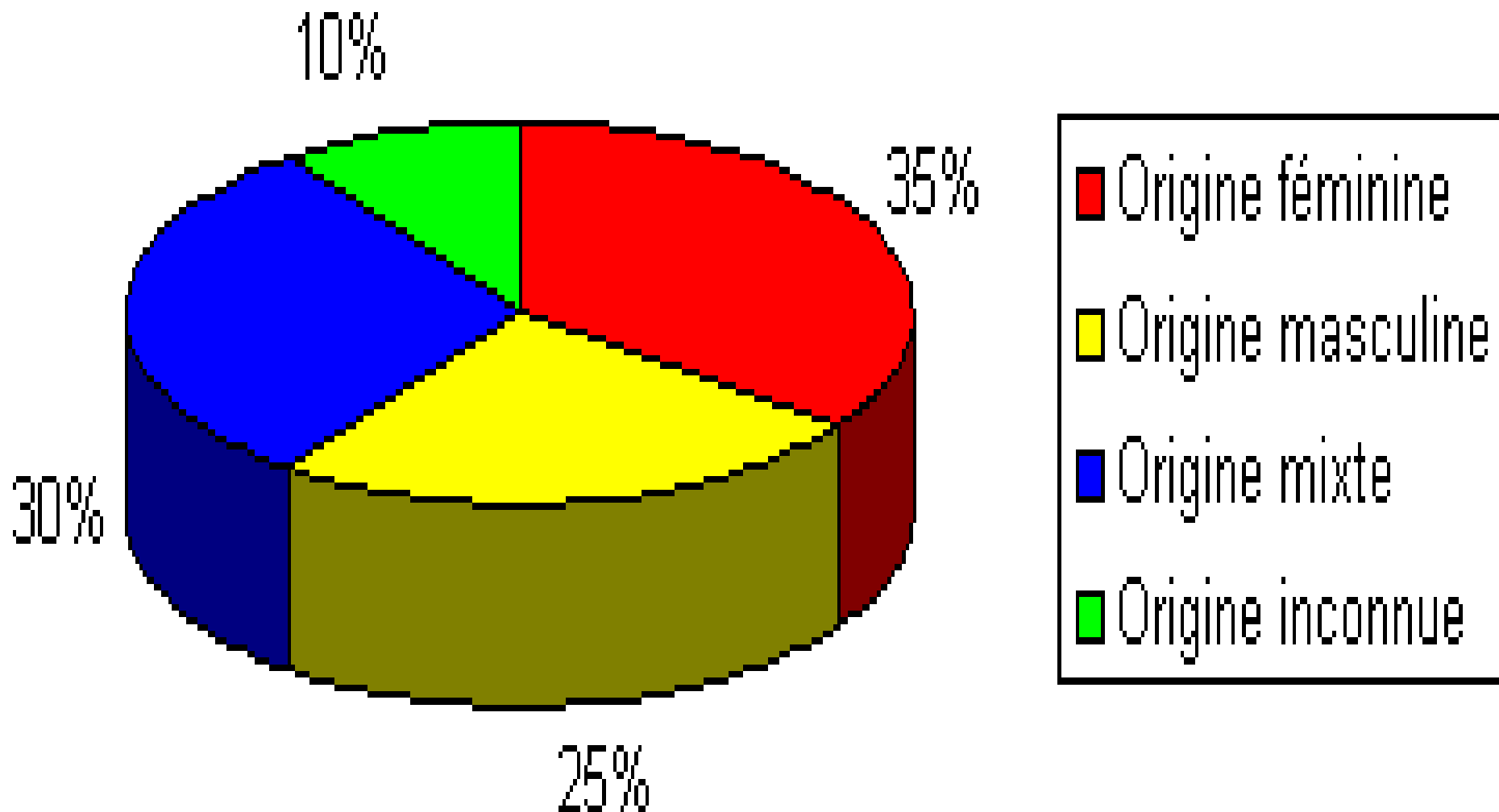
- Stérilité: « *a posteriori* »,
- Infécondité conjugale: 2ans, voire 1
- Infertilité, « *faux ami* », FC à répétition
  
- 1 sur 8 consulte (1 tiers, 1 tiers, 1 tiers)
- 1 sur 4 d'entre eux : FIV

- **Infertility** : absence of conception after 12 months of regular, unprotected intercourse (commonly used medical definition of infertility). Inability to conceive within two years of exposure to pregnancy is the epidemiological definition recommended by the World Health Organization.
- **Primary infertility** means that the couple has never conceived, despite regular unprotected intercourse for a period of 12 months.
- **Secondary infertility** means that the couple has previously conceived, but is subsequently unable to conceive despite regular unprotected intercourse for a period of 12 months. If the woman has breastfed a previous infant, then exposure to pregnancy is calculated from the end of lactational amenorrhea

- **Childlessness** (demographic studies) : inability to bear any children, either due to the inability to conceive or the inability to carry a pregnancy to a live birth. Childlessness at the end of the reproductive years is most effectively studied by using women in the oldest age cohort: women 45 to 49 years.
- **Infertility** (demographic studies) : inability of a non-contracepting sexually active woman to have a livebirth. Demographers have shifted the endpoint from conceptions to live births because it is difficult to collect complete data about conceptions in population-based studies. In addition, demographic analyses of infertility are often based on secondary data from demographic surveys that contain complete birth histories, but no information about induced abortions, miscarriages and stillbirths. It is common in demographic studies to use a period of exposure of five years.

- **Fecundability** : the probability of conception per menstrual cycle or monthly probability of conception for a sexually active couple not using birth control.
- **Pregnancy wastage** is the term used when the couple is able to conceive, but unable to produce a live birth.
- **Recurrent miscarriage** (habitual abortion) is defined as the spontaneous termination of three or more pregnancies before the 20th week of gestation

# Origine de l'infécondité



Categories	Developed	Africa	Asia	Latin America	East Mediterranean
<b>Female diagnosis</b>					
No demonstrable cause	40	16	31	35	26
Bilateral tubal occlusion	11	49	14	15	20
Pelvic adhesions	13	24	13	17	13
Acquired tubal abnormality	12	12	12	12	9
Anovulatory regular cycles	10	14	9	9	15
Anovulatory oligomenorrhea	9	3	7	9	11
Ovulatory oligomenorrhea	7	4	11	5	8
Hyperprolactinemia	7	5	7	8	6
Endometriosis	6	1	10	3	1
<b>Male diagnosis</b>					
No demonstrable cause	49	46	58	41	28

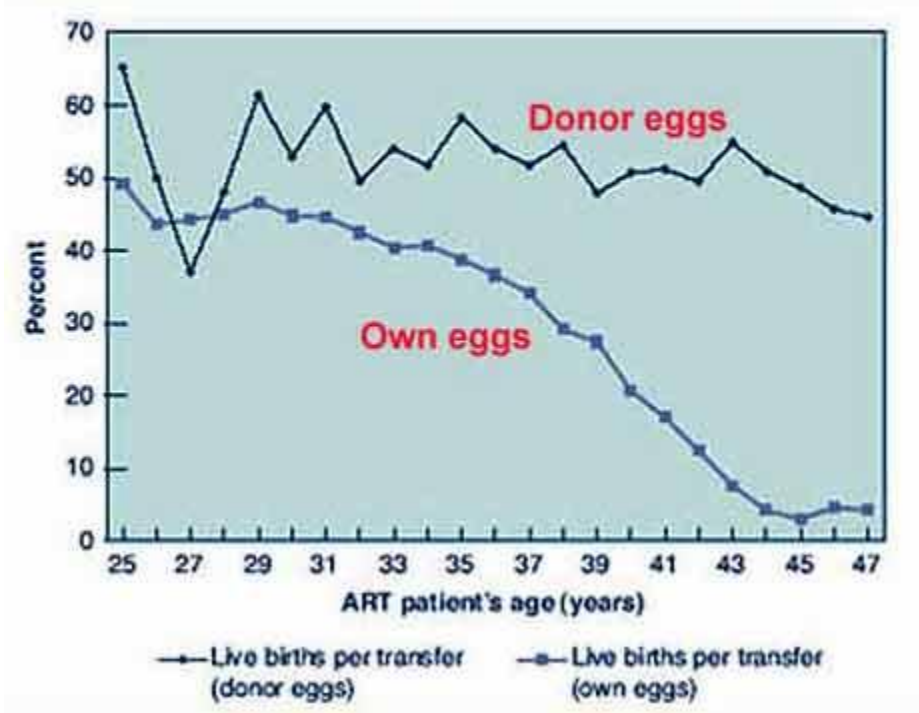
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# Declining female fertility with age

- Reduced quality of oocytes
- Ovulatory disorders
- Longer exposure to the risk of genital infections and iatrogenic infertility causes
- Increased uterine pathology
- Decreased frequency of intercourse
- Decreased partner's fertility



**Live Births per Transfer for ART Cycles Using Fresh Embryos from Own and Donor Eggs, by ART Patient's Age, 2003**



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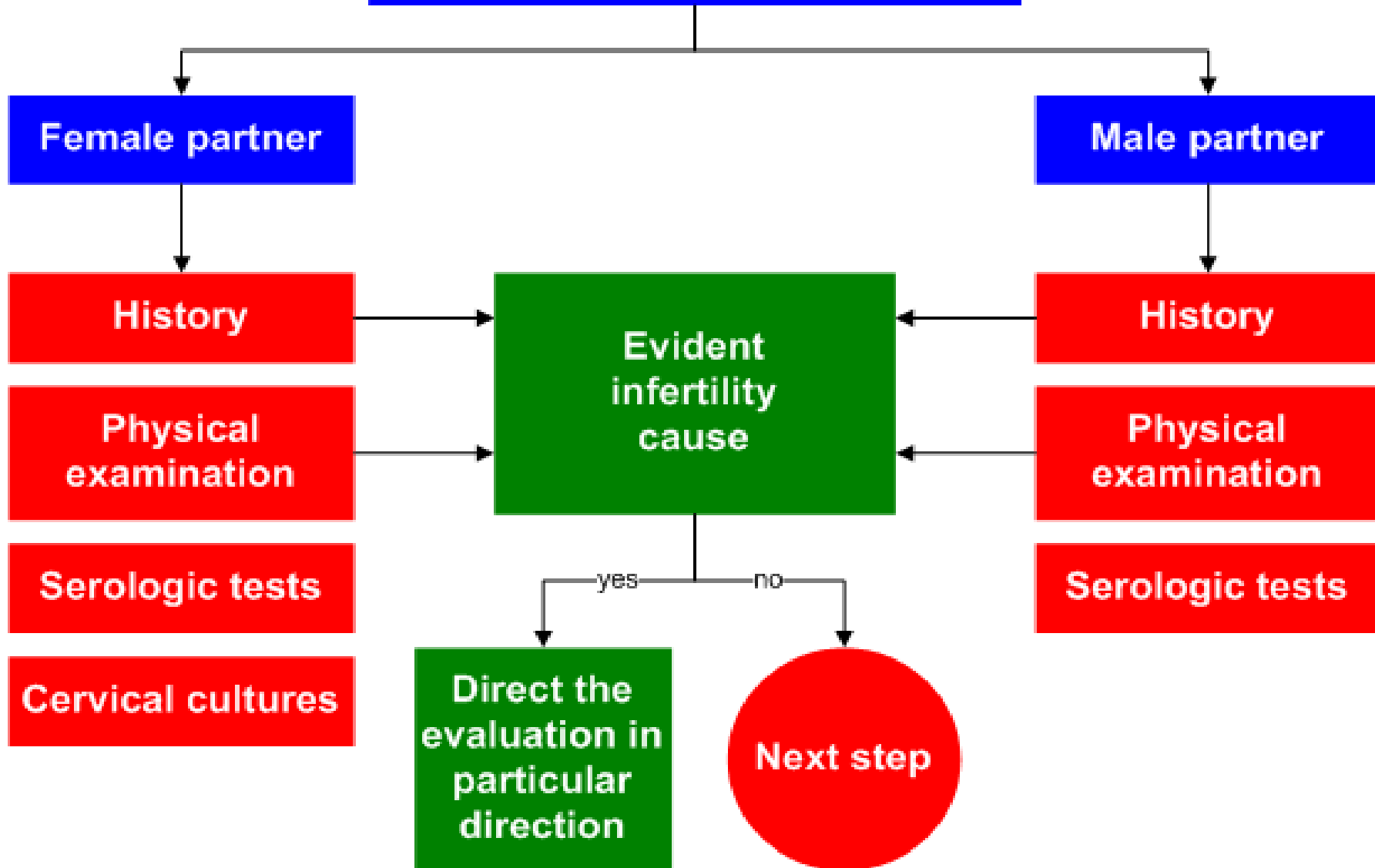
# Initial advice to people concerned about delays in conception

- Women who smoke should be offered referral to a smoking cessation programme to support their efforts in stopping smoking.
- Women should be informed that participating in a group programme involving exercise and dietary advice leads to more pregnancies than weight loss advice alone.
- Women intending to become pregnant should be informed that dietary supplementation with folic acid before conception and up to 12 weeks' gestation reduces the risk of having a baby with neural tube defects. The recommended dose is 0.4 mg per day. For women who have previously had an infant with a neural tube defect or who are receiving antiepileptic medication, a higher dose of 5 mg per day is recommended.

# Investigation of fertility problems and management strategies

- Where appropriate expertise is available, screening for tubal occlusion using hysterosalpingo-contrast-ultrasonography should be considered because it is an effective alternative to hysterosalpingography for women who are not known to have co-morbidities.
- The routine use of post-coital testing of cervical mucus in the investigation of fertility problems is not recommended because it has no predictive value on pregnancy rate.

# Evaluation of the infertile couple



# Interrogatoire de Madame

- Age: Mariés/vie commune depuis: Désir d'enfants depuis:
- Grossesses conçues dans ce mariage; mariages et/ou grossesses antérieures.
- Antécédents familiaux: stérilité, avortements spontanés, maladies héréditaires.
- Antécédents médicaux: maladies chroniques, tuberculose, endocrinopathies, médicaments.
- Antécédents chirurgicaux: appendicectomie, péritonite.
- Antécédents gynécologiques:
  - Contraception antérieure; MST, MIP, vulvovaginites, cervicites; opérations gynécologiques abdominales; curetages, opérations cervicales et vulvovaginales.
  - Puberté; modifications du cycle, cycle actuel, signes d'accompagnement.
- Habitudes de vie: profession, exercices physiques; tabac, alcool; fréquence et qualité des rapports; troubles sexuels.

# Interrogatoire de Monsieur

- Age: Mariages et/ou grossesses antérieures:
- Antécédents familiaux: stérilité, avortements spontanés.
- Antécédents médicaux et chirurgicaux: maladies chroniques; infections récidivantes, états fébriles, allergies; médicaments, radiothérapie.
- Troubles urogénitaux: cryptorchidie; orchite (oreillons); torsion du cordon spermatique; épididymite, prostatite, urétrite, cystite; traumatisme testiculaire.
- Opérations urogénitales: orchidopexie; hernie inguinale; orchidectomie; varicocèle; opérations prostatiques, vésicales, urétrales.
- Habitudes de vie: profession; exercices physiques; tabac, alcool; troubles sexuels; bains chauds.

# Physical examination of the female partner

## General examination

Height

Weight

Blood pressure

General physical examination

Congenital abnormalities

Hair distribution

Breast development

Galactorrhea

## Pelvic examination

Clitoris

Urethral location

Hymen

Labia majora and minora

Vagina

Cervix

Uterus

Adnexa

Pouch of Douglas

# Physical examination of the male partner

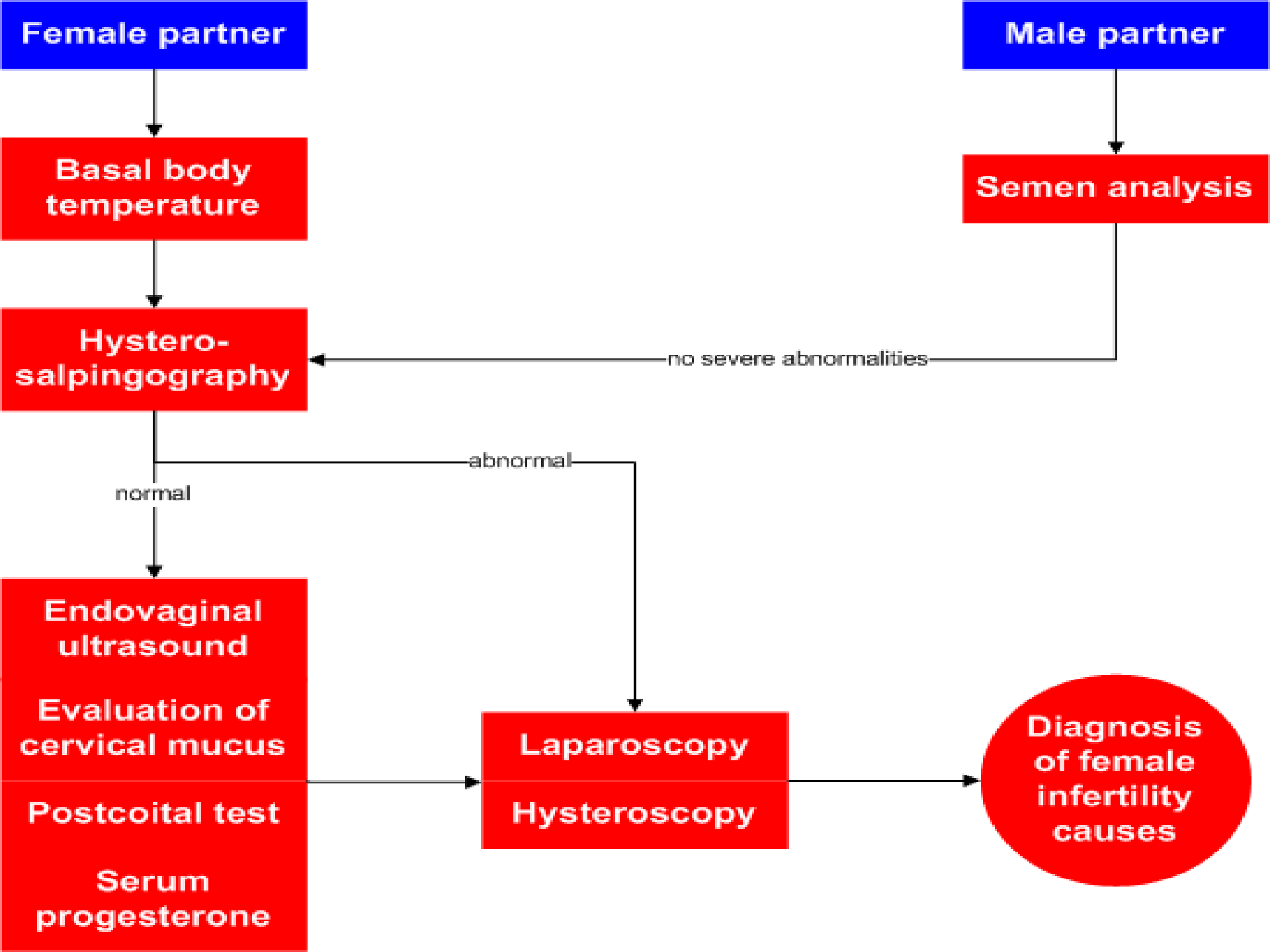
## General examination

Height  
Weight  
Blood pressure  
General physical examination  
Secondary sex characteristics  
Gynecomastia

## Urogenital examination

Penis  
Testes  
Epididymides  
Vas deferentia  
Scrotal swelling  
Varicocele  
Inguinal examination  
Rectal examination





# Investigations

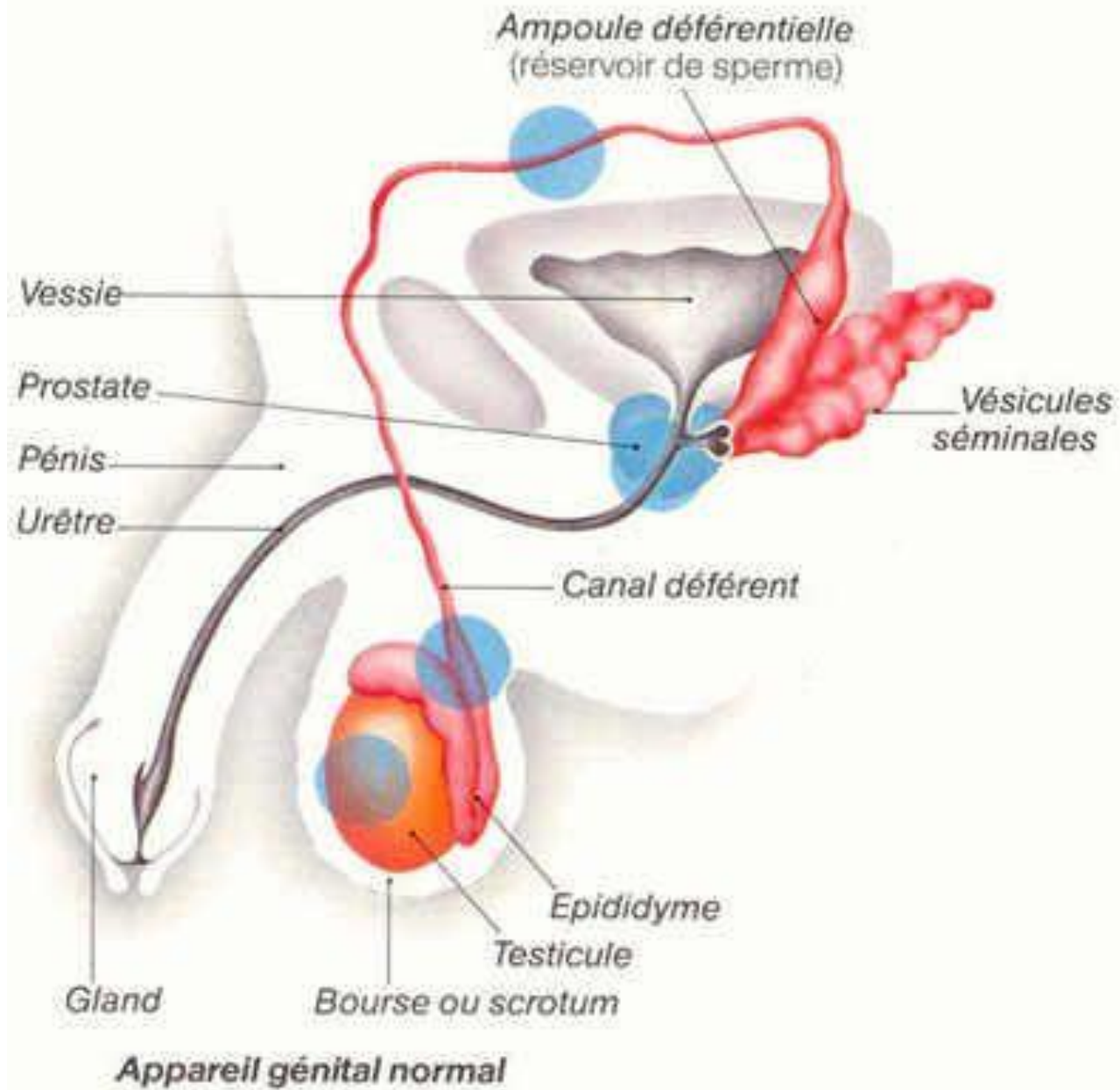
- Spermogramme
- Cycle et ovulation
- Facteurs mécaniques
- Facteurs d'interaction



# Spermogramme

- Volume
- Nombre
- Mobilité
- Morphologie



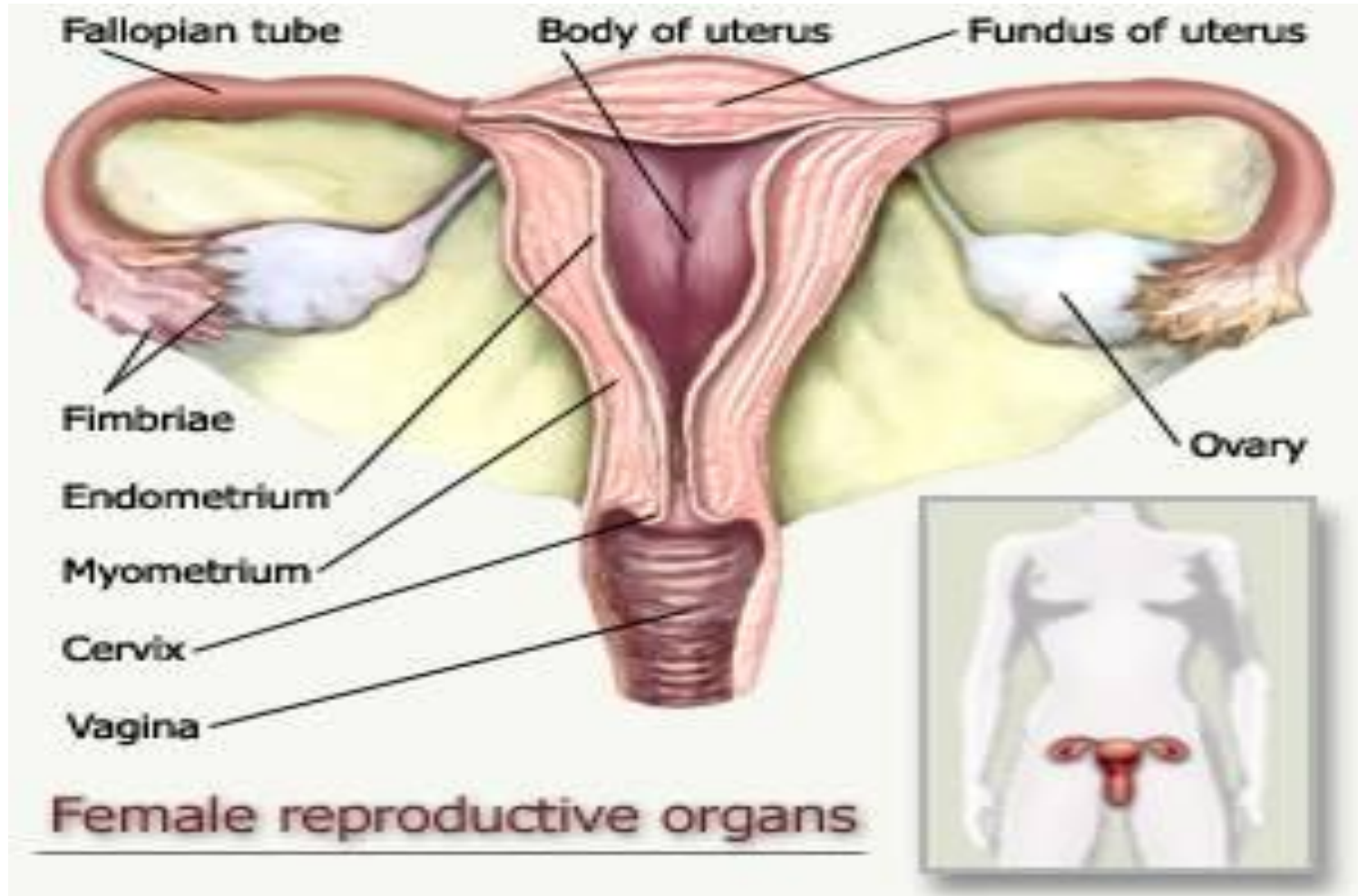


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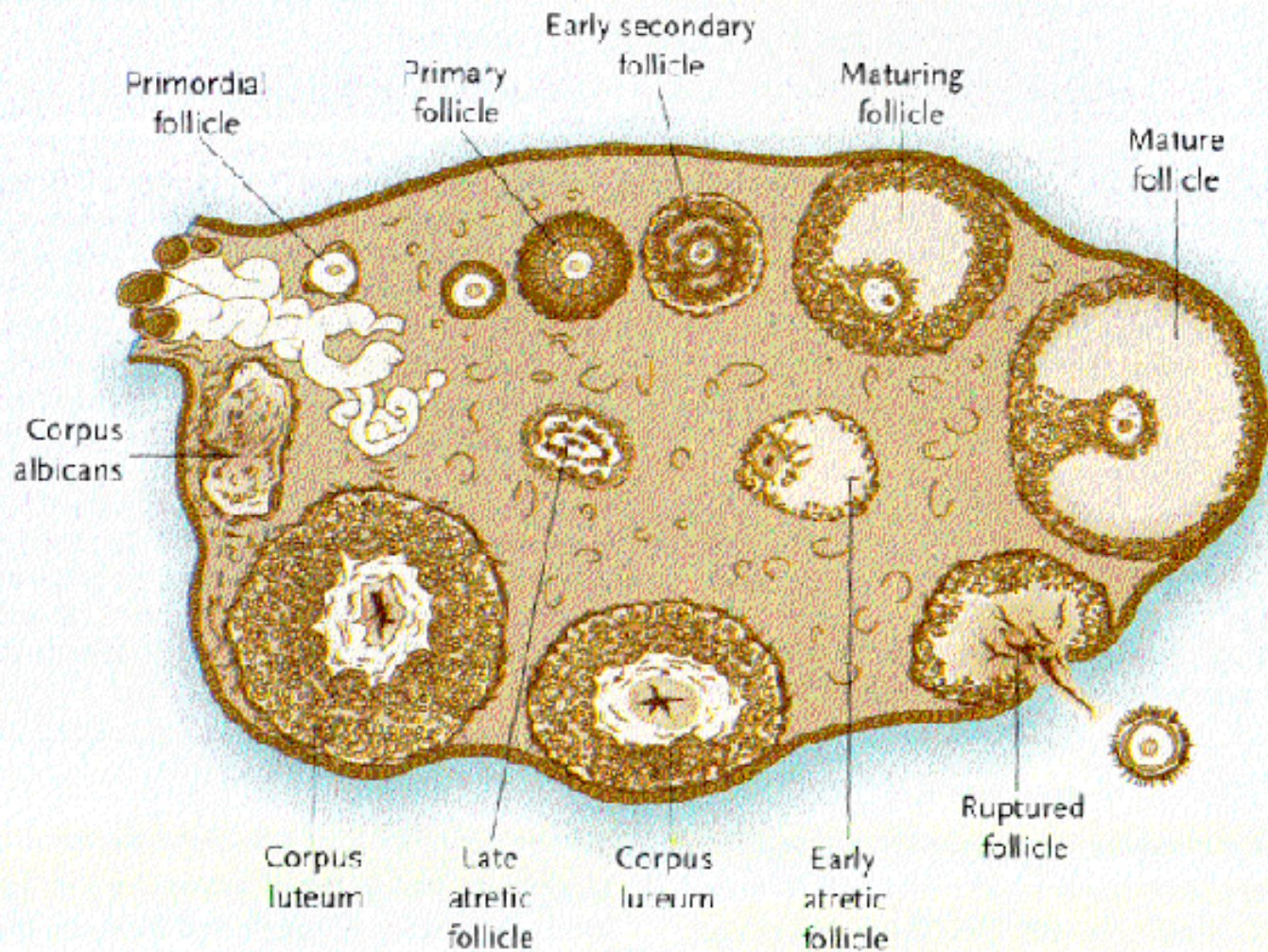
# Autres examens masculins courants

- Status
- Culture de sperme
- Fragmentation de l'ADN
- Doppler

# Physiologie féminine



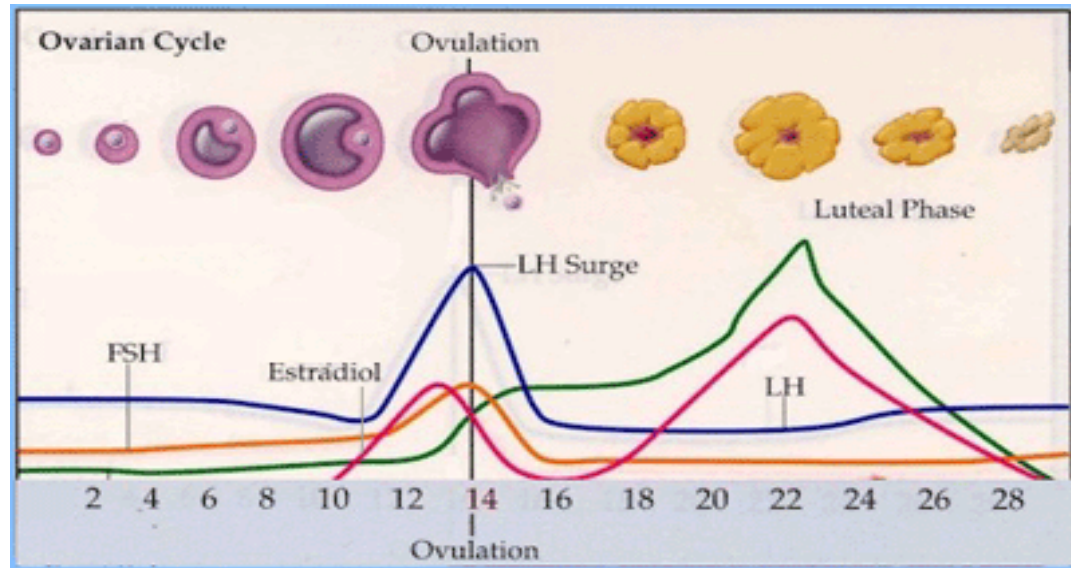
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**Figure 1-8** The sequence of maturation of follicles within the ovary, starting with the primordial follicle and ending with the formation of a corpus albicans

# Cycle et ovulation

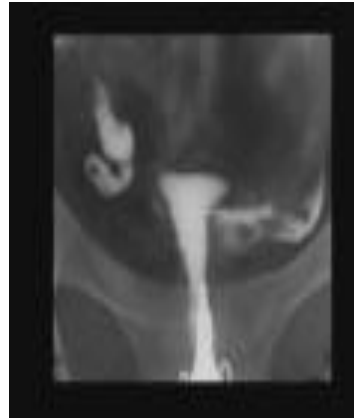
- 28 jours
- Monitoring échographique
- LH
- E2 P





# Facteurs mécaniques

- Hystérosalpingographie
- Laparoscopie



# Facteurs d'interaction

- Test post-coïtal



# Traitements masculins

- Antibiotique et anti-inflammatoires
- Froid
- Anti-oxydants
- Hormones
- ICSI

# Traitements féminins

- Stimulation hormonale
- Inséminations
- Chirurgie endoscopique
- FIV (et ICSI)

# FIV

- Hyperstimulation
- Prélèvement transvaginal des ovules
- Incubation 48 –72 heures
- Eventuelle congélation
- Remplacement des pré-embryons
- Soutien hormonal facultatif



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# ICSI



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# ICSI

- OAT extrême
- Morphologie très pathologique
- Echech de fécondation
- OAT ou morpho modérément pathologique associé à âge limite

# Taux de succès

- Qualité de la stimulation
- Qualité du labo
- Age du couple
- Pathologie associée
- Sélection
- Statistiques

# Complications

- Syndrome d'hyperstimulation
- Grossesses multiples





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