

# Methods of contraception

## *Introduction and physiological methods*

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## No conflict of interest

- ❑ None (commercial)
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- ❑ Past research fellow in the 1<sup>st</sup> department of Obstetrics and Gynecology, AUTH, Thessaloniki, Greece.



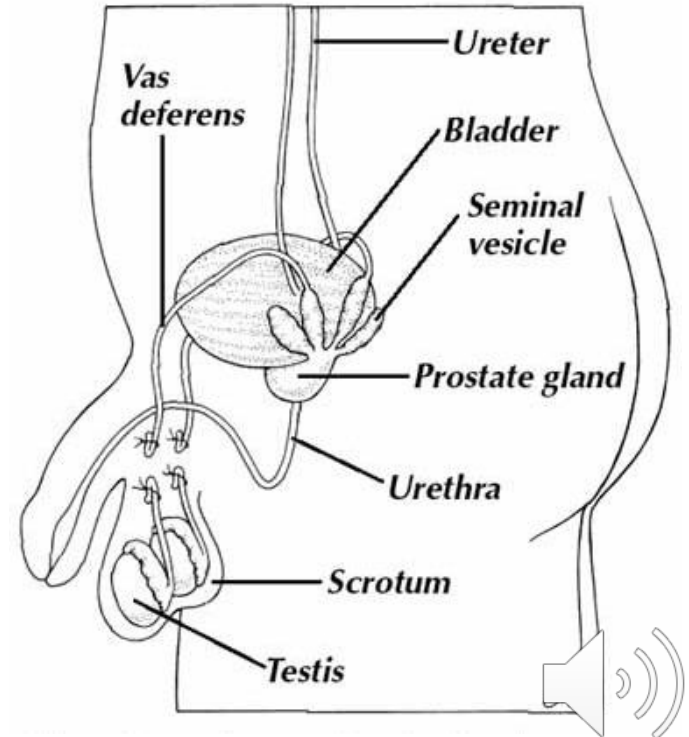
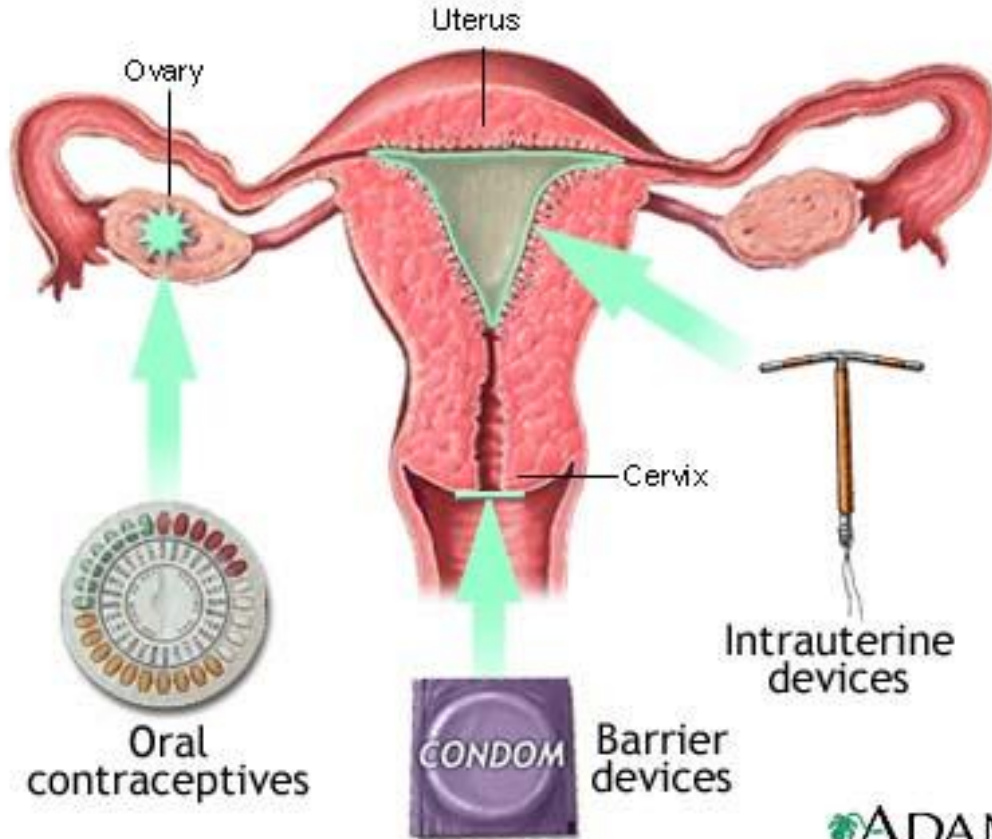
# Introduction

## Definitions:

- **Fecundability**: ability of a couple to achieve pregnancy during one menstrual cycle. About (20:25) %
- **Fecundity**: ability of a couple to have a live birth during one menstrual cycle having value less than fecundability.
- **Primary infertility**
- **Secondary infertility**



# Types of Contraceptive methods



1- Natural ( physiological).

2- Mechanical.



Barrier

3- Chemical.

4- Hormonal.

5- Surgical (sterilization).



# 1-Natural methods

Include

Periodic abstinence

Lactational  
amenorrhea ( LAM )

Abstinence

Coitus interruptus



# 1-Coitus interruptus



High failure rate. About (5 : 20)% in 1<sup>st</sup> year (Why??)



The male may ejaculate before withdrawal (loss of control)



Pro-semen may contain some spermatozoa



# Coitus interruptus



## Advantages versus disadvantages



No cost

No chemicals

No devices



High failure rate

Needs highly motivated couple

Interrupts sexual relation

Not under the control of woman

No protection against STDs





## 2-Lactational amenorrhea ( LAM )



Old method  
Failure rate (0.5 : 2) per 100 women 1<sup>st</sup>  
6 months

## Bellagio consensus (1989)



- Exclusive or almost exclusive breast feeding

more than 85% of his or her feeding ,,,  
intervals do not exceed (4-6) hours



- Amenorrhea

- 1st 6months post partu



## Mechanism of action



- By inhibition of ovulation due to increased prolactin level which inhibits the release of gonadotrophins.
  - Anovulatory cycles even after resumption of menstruation.
  - LPD if ovulation occurred.



# Advantages versus disadvantages

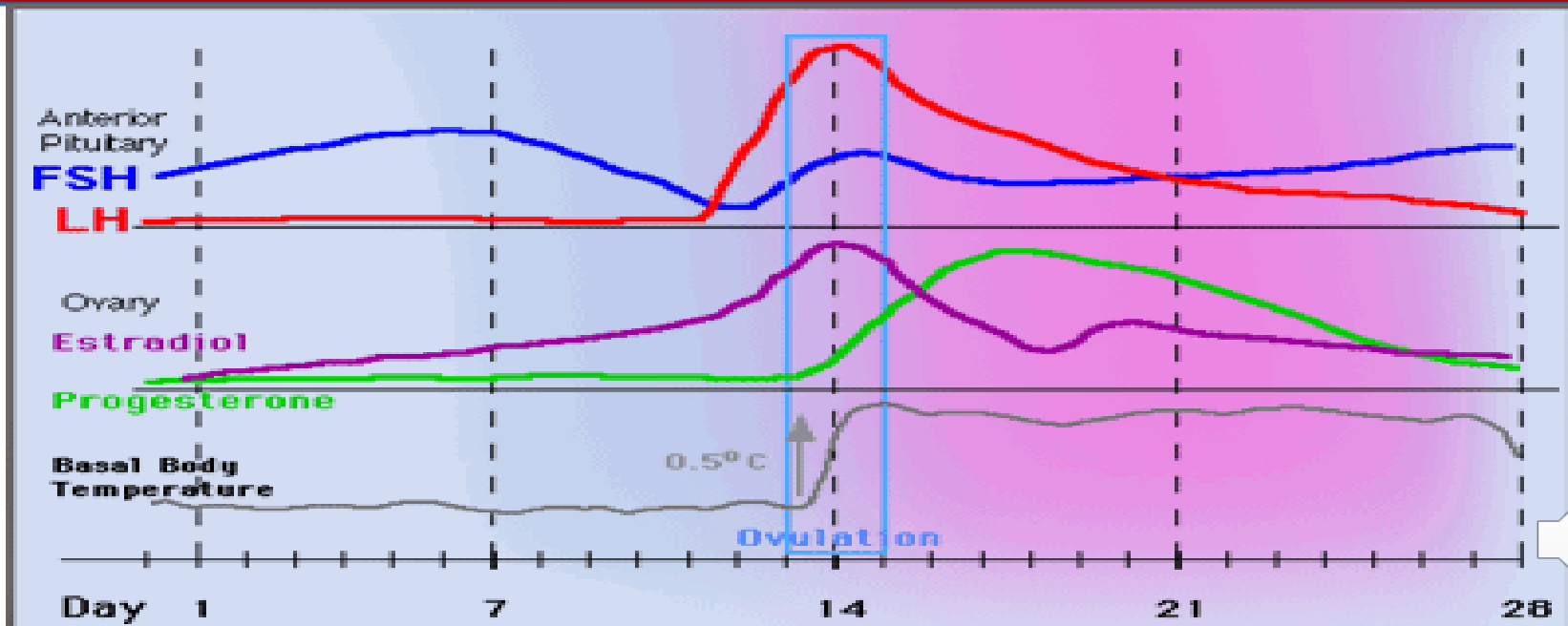


- Natural
- No cost
- Readily available
- High success rate (>98%)
- No devices needed
- No side effects
- Breast feeding benefits

- Frequent feeds maybe inconvenient to some women who are working.
- Mother neglecting one of the prerequisites
- Not certain after 6 months
- HIV mother
- No protection against STDs



### 3-Periodic abstinence (Fertility Awareness-based methods)



# Periodic abstinence



End of fertile  
period

1-Temperature chart. (BBT)

2-Calendar method.

3-Cervical mucus changes.

4-Feeling the cervix

Beginning of  
fertile period



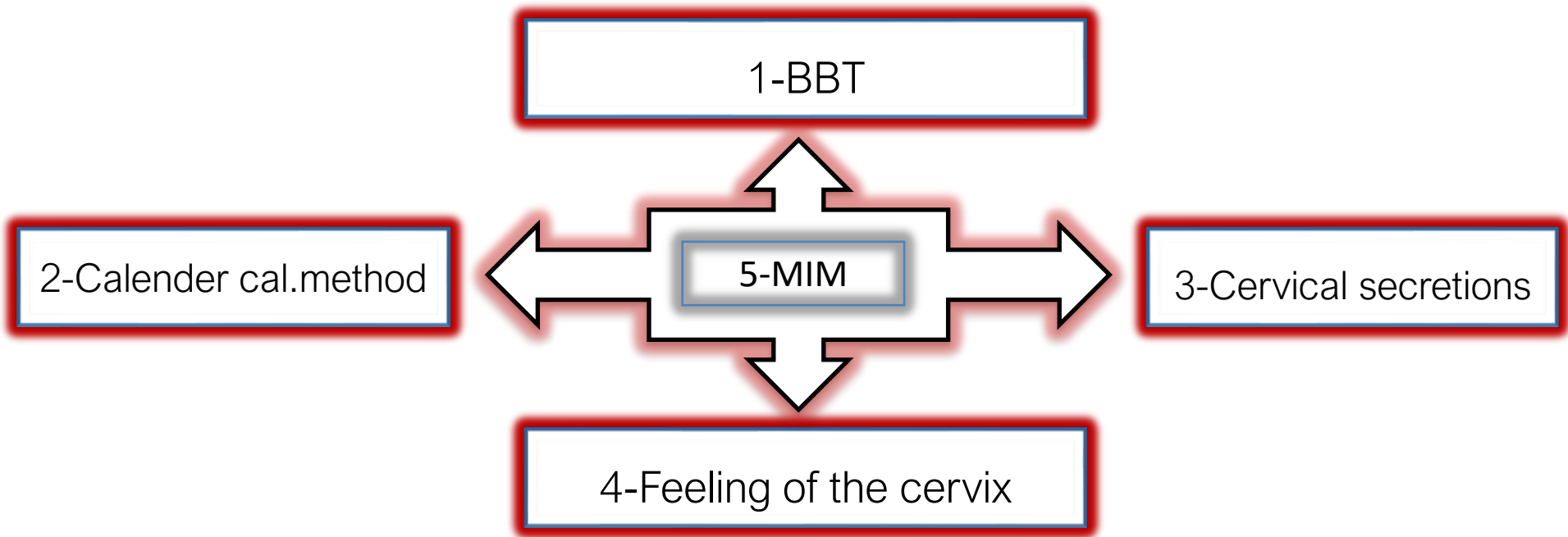
(Multiple Index / Symptothermal)

method

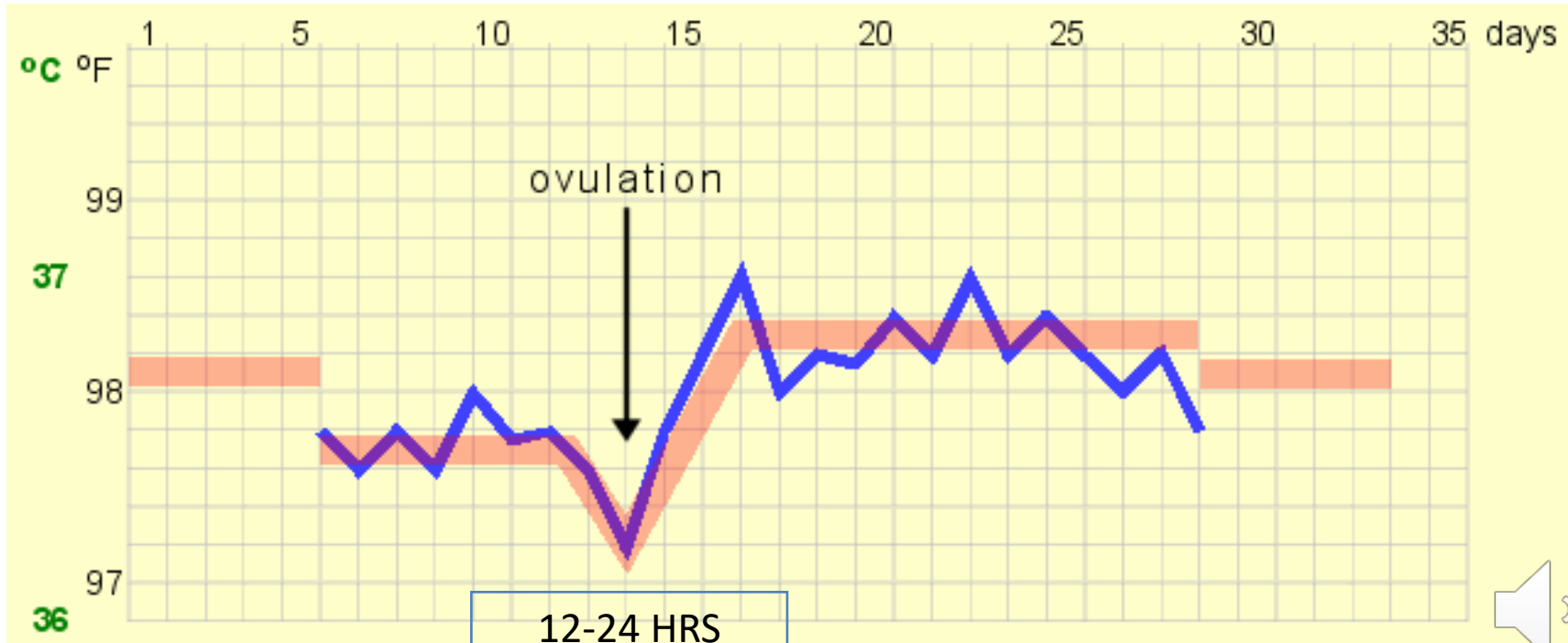


How to know the fertile days?





# 1-Basal body temperature chart



12-24 HRS  
Before ovulation





## 1-Basal body temperature chart



- ❑ Based on the rise that occur in the second half of the cycle due to the thermogenic effect of progesterone.
- ❑ For the change to be valid it has to be of (0.2-0.5) degree Celsius change and lasting for at least 10 days.



# HOW TO USE IT ??



SUCCESS ( 99%)

- 1st step: detect that the rise in BBT does occur for this specific lady by measuring the body temperature every morning before getting out of bed at the same time using the same route i.e. orally, axillary or rectally.
- 2nd step : if the change does exist for the case then she will use this method to read the BBT every day avoiding sexual intercourse or using barriers or withdrawal method **from the 1st day of the cycle till 3 days from the rise** in BBT.



# Advantages versus disadvantages



- ✓ No side effects
- ✓ No cost
- ✓ Natural

- ✓ Long period of abstinence
- ✓ Requires well educated and committed couple
- ✓ Can't be used reliably from the first cycle.
- ✓ Relatively lower effectiveness
- ✓ Not suitable for women with irregular cycles.



## 2-Calender calculation method



Failure rate : 9 pregnancies/ HWY

## 2-Calender method

Based on the fact that the luteal phase of the menstrual cycle is normally fixed in regularly menstruating females and is of 14 days  $\pm$  2 duration

1st step: woman should record the 1st day of her cycle for at least 6 consecutive cycles.

2nd step: if menses are regular

Shortest cycle duration - 18 = 1st day of fertile (abstinence) period.

Longest cycle duration - 11 = last day of fertile (abstinence) period.

Advantages & disadvantages : same as BBT chart method

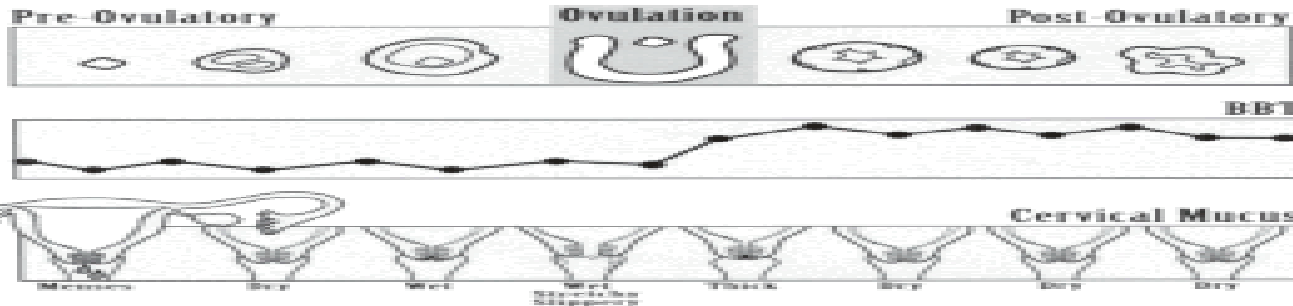


## 3-Cervical mucus changes

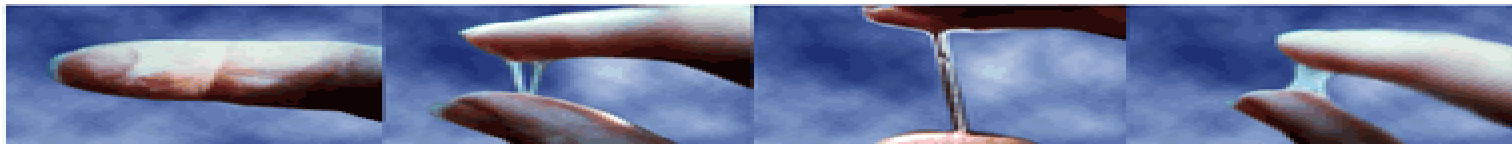


Failure: 3 pregnancies/HWY

## Billings' method



**Fertility Level:**



Low

High

Peak

High

Advantages  
and  
disadvantages  
Same as  
above



## How is it used?



Woman is taught to check for any cervical secretions. she may feel wetness at the introitus or see secretions on her finger, underpants or tissue paper.

As long as she is dry she may have sex safely

**As soon as she notices any secretions sex is avoided**

Secretions will increase in fluidity and stretching till reaching a **peak** day after which sex is **avoided for additional 4 days**



# feeling the cervix (rarely used alone)

*Cervical opening feels softer, opens slightly and moist===(ovulation)*

*Firm and closed opening means safe sex*



## 5-Multiple index method/symptothermal

The couple should avoid unprotected sex until both the fourth day after peak cervical secretions and the the third day after the rise in BBT.





# Failure rate



Periodic abstinence-----20/100 women in first year

BBT-----1/100 women in first year

Cervical secretions-----3/100 women in first year

Calender method-----9/100 women in first year





*Thank*  
**YOU**

