

# Fertility & Fecundity

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# Fertility vs Fecundity

- \* Fecundity is a measure of the physical ability to have children
- \* Fertility is the actual number of children a woman actually has

presented by **ovuline**

# FERTILITY BY THE NUMBERS

## ! INFERTILITY IS:

**< 35** Y/O = UNABLE TO CONCEIVE IN 1 YR OF TRYING

**> 35** Y/O = UNABLE TO CONCEIVE IN 6MO OF TRYING

**3 IN 10 WOMEN**



have irregular cycles, making conception more difficult



**WORLD: 50-80 MILLION** PEOPLE AFFECTED BY INFERTILITY



**US: 7.3 MILLION** AFFECTED BY INFERTILITY

## ? INFERTILITY CAUSES



Men



Women

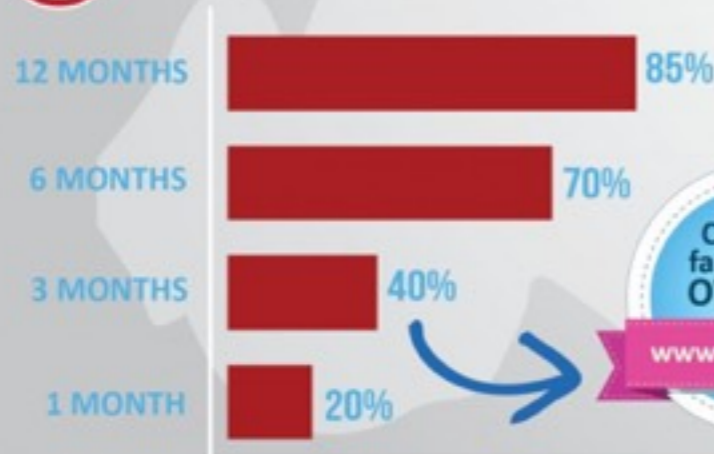


PCOS



Endometriosis

## 🕒 TIME TO CONCEIVE



Conceive faster with **OVULINE**  
[www.ovuline.com](http://www.ovuline.com)

■ = Average Conception Rate

PREGNANCY RATE

## FERTILITY BY AGE



**FERTILITY DECREASES WITH AGE**

[www.ovuline.com](http://www.ovuline.com)



## CELEBRITIES WHO STRUGGLED WITH INFERTILITY



Mariah Carey



Halle Berry



Celine Dion



Khloe Kardashian

# MISCARRIAGE

**15-25%**  
OF ALL PREGNANCIES END  
IN MISCARRIAGE.

ONLY OF WOMEN WILL  
**5%** HAVE 2 OR MORE  
MISCARRIAGES.

## CHANCES OF MISCARRIAGE



WOMAN AGE 35-39

25%

WOMAN AGE 40-44

51%

WOMAN AGE 45+

93%

UP TO **80%** OF THE TIME, A MISCARRIAGE IN THE FIRST TRIMESTER IS A CHROMOSOMAL PROBLEM WITH THE EMBRYO; THUS A WOMAN'S BODY IS WORKING CORRECTLY WHEN THEY MISCARRY.

AFTER AGE 40, THE CHANCE OF HAVING A BABY AFTER A POSITIVE PREGNANCY TEST IS 50%.

**62%**

A 35 YEAR OLD WOMAN WITH A HISTORY OF 5 MISCARRIAGES, STILL HAS A 62% CHANCE OF HAVING A BABY WITH HER NEXT PREGNANCY.

# Infertility/Infecundity

- \* Couples who have tried for 12 months to get pregnant and do not are infecund (AKA- infertile)
- \* 1995 this rate was 7% of American couples
- \* 1965 this rate was 11% of American couples

# Fecundity and Age

- \* Female fecundity generally increases to their mid-20's and drops at menopause
- \* Male fecundity goes from 0 to non-zero at puberty and generally peaks in mid 20's also
- \* Male fecundity generally drops from mid 20's as they age but does not have a definite end point like menopause.
- \* Male fecundity tends to last longer than female fecundity

# Is there a maximum fertility?

- \* 1) Assume female fecundity from age 15-49
- \* 2) Assume 9 months of pregnancy
- \* 3) Assume 18 months of breast feeding
- \* Result: 1 child every 2.2 years
- \* Fertility Rate is 16 children per woman



# Why do we not produce this many children?

- \* Pregnancy is dangerous.
- \* Not all women are fecund
  - \* If women don't eat enough fat they may experience amenorrhea (absence of menstruation)



# Natural Fertility

- \* **Natural Fertility:** The level of reproduction that exists in the absence of fertility control
- \* Natural fertility is much lower than maximum fertility

# Social Components of Fertility

- \* **Hunter-Gatherers:** Space children in time, fertility much lower than natural fertility
- \* **Agricultural Societies:** High fertility perhaps from demand for people to harvest crops
- \* **Industrial Society:** Very low fertility perhaps from the expenses associated with raising kids

# Canadian Fertility Rate

- \* Canada is considered a low-fertility society by comparison
- \* In 1971 Canadian fertility was 2.1 children per woman
- \* In 2011 Canadian fertility rate is 1.61 children per woman

# Case Study: The Hutterites

- \* Live in Agrarian communities in NE plains of U.S. and Western provinces of Canada
- \* 400 came from Russia in late 1800's
- \* Doubled Population 6 times in 100 years
- \* In 1936 the TFR for Hutterite women was 11



# Case Study: The Hutterites

- \* Early age of marriage
- \* A good diet
- \* Good medical care
- \* Frequent sex with no contraception



# Other 'High Fertility' Societies

- \* Shipibo Indians from Eastern Amazon of Peru
- \* Avg Age at Marriage 14
- \* Avg Age at 1st Child 15.6
- \* Total Fertility Rate ~ 11

