Fertility Preservation: Stop the Clock

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Female facts
Fertility facts
Social dimensions
What is egg freezing?
What does the process involve?
What are the success rates?
Is egg freezing safe?
The decision
Female Facts: Physiologic oocyte loss with age

- Peak oocytes at 24 weeks gestation: 6 to 7 million
- At birth: 2 million oocytes
- At puberty: 300 to 400,000 oocytes
- One oocyte ovulated per month (over about 400 lifetime ovulations)
- At menopause only about 500-1000 oocytes remain
Fertile Fact: Pregnancy rate decreases with age

Your chance of pregnancy each month declines with age

A healthy 30-year old woman has about a 20% chance of getting pregnant each month.

A healthy 40-year old woman has about a 5% chance of getting pregnant each month.

For more information, visit www.reproductivefacts.org
Fertile Fact: IVF success rates decrease with age

Percentages of ART Cycles Using Fresh Nondonor Eggs or Embryos That Resulted in Pregnancies, Live Births, and Singleton Live Births, by Age of Woman, * 2010

CDC, ASRM, Society for Assisted Reproductive Technology. 2010 Assisted Reproductive Technology
Social Dimension

CAREER

BIOLOGY

Education
Financial Stability

Motherhood
Family
What is egg freezing?

- Egg freezing dates back to 1986
- Allows women to preserve their eggs in a frozen state until they are ready to become parents
- Slow freezing method
- Vitrification method
What does the process involve?

**Egg Freezing Cycle**

- **Sono**
- **Baseline Sono**
- **Monitoring Sono**
- **HCG**
- **Retrieval Egg Freeze**

- **Birth Control Pill**
- **Stimulation Meds**
- **Pretreatment Cycle**
- **Stimulation Cycle**

- **Menses**
- **10-12 days**
- **36 h**
What does the process involve?

• Women take medication to stimulate egg growth for 10-14 days

• Egg harvest done under anesthesia with ultrasound guidance

• Mature eggs are frozen for future use

• Eggs can then later be thawed and fertilized for embryo creation and transfer
What are the success rates?

- Pregnancy rates similar to fresh per cycle IVF rates by age:
  - <35: 40-50%
  - 35-37: 30-40%
  - 38-40: 20-30%
  - 41-42: 10-15%
  - >42: <10%

- Preferable to freeze when younger than 35

Society of Assisted Reproductive Technologies clinic summary report 2012
Is egg freezing safe?

- Risks for women:
  - Hyperstimulation syndrome
  - Bleeding
  - Infection
  - Risk of anesthesia

- Risks for babies:
  - ~1500 Babies born from cryopreserved eggs
  - No difference in incidence of congenital anomalies or birth weight

The Practice Committee of the American Society for Reproductive Medicine, 2008
Noyes et al. Reprod Biomed Online, 2009
The decision making process

- Choose the right lab
- Become fully and accurately informed of risks/benefits
- Understand success rates
- Understand personal goals of family building
- Understand cost and coverage
Conclusion

Stop the Clock...

Preserve your fertility