



Reproductive Technologies

Bioethics & the Bible
College Park Church

April 19, 2008



Reproductive Ethics: Issues & Areas of Concern

Conception Control: under what conditions is conception control in harmony with a Christian ethic?

Genetic Screening & Counseling: under what conditions should this be done and still remain within the boundaries of Christian ethics



Reproductive Ethics: Issues & Areas of Concern

Reproductive Technology: which technologies (egg donation, AIH, AID, IVF, ZIFT, GIFT, embryo transfer, surrogacy, cloning of embryos) are within the bounds of Christian ethics and which are not? What criteria are appropriate to make the judgments?



General Information

Last 40 years...332% growth in infertility

- about 17% of couples in U.S. 3.1 million
- over 2.1 million infertile men

Centers or Clinics

- over 612 fertility clinics in America
- 36 billion dollar service industry in 2006
- 243,000 fertility attempts per year



General Information

Costs and Success Rates

- live births the rate is about 25%
- actual costs including neonatal care \$72,000-\$119,000 for young couples and up to \$800,000 for older couples



Reproductive Technologies

1. Artificial Insemination Husband (AIH) - the husband's sperm is harvested and treated and the wife is inseminated at her time of ovulation, both husband and wife contribute genetic material to the unborn child...



Reproductive Technologies

2. Artificial Insemination Donor (AID) - the husband's sperm is mixed with donor sperm to increase the sperm count and motility, the wife contributes genetic material to the offspring but in all probability the husband does not contribute genetic material...



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3. Egg Donation - eggs are harvested from a donor, given to an infertile couple and are fertilized *in vitro* with the husband's sperm and inserted into the wife's uterus. Normally the donor is a family member or close friend...



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4. Gamete Intrafallopian Transfer (GIFT) - husband's sperm count must be appropriate and able to penetrate the wife's eggs. Wife takes Pergonal or Metrodin in order to produce multiple eggs...eggs are harvested as well as the husbands sperm...The sperm and 4 or 5 eggs are inserted into the fallopian tubes (minor surgery)...when the divider is removed, fertilization would take place in the fallopian tubes... cost about \$12,000...



Reproductive Technologies

5. *In Vitro* Fertilization (IVF) - In this procedure eggs are harvested and either husband or mixed husband and donor sperm are used to fertilize the eggs in the lab. 4 or 5 fertilized eggs are inserted into the wife's uterus... extra zygotes are frozen and stored... cost about \$9,000



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6. Zygote Intrafallopian Transfer (ZIFT) - eggs and sperm are harvested and combined in the lab... 4 or 5 zygotes are then transferred to the wife's fallopian tubes...better success rate when done this way...extra zygotes are stored in frozen form in case they are needed in the future... involves minor surgery (laparoscopy) \$15,000-17,000



Reproductive Technologies

7. Surrogacy - **Genetic** surrogacy is when the surrogate provides both the egg and the uterus, inseminated with the husband's sperm...in **Gestational** surrogacy the surrogate only supplies the uterus... eggs are harvested from the wife and fertilized *in vitro* with the husband's sperm and implanted in the surrogate...



Reproductive Technologies

8. Prenatal Genetic Screening - can test zygotes prior to implantation and select which ones to implant...
9. Micromanipulation - a laser opening is made in the egg enabling the sperm to more easily penetrate and fertilize the egg... this method allows sperm to be injected directly into the egg...



A Biblical Theology of Marriage and Procreation

Genesis 1 & 2: The Foundation

1. Man the Image of God - 1:26, 27
2. Marriage a Creation Ordinance
 - A. Incomplete (2:18) Women built from man's bone & flesh (2:21ff)
 - B. God's command...therefore shall...leave...be glued...one flesh..."



A Biblical Theology of Marriage and Procreation

3. Marriage: its Constitutive Elements

A. Basic Elements: leave...be
glued...one flesh...covenant
(Gen..2:24; Prov. 2:17; Mal.2:14)

B. Purposive Elements: image God
(1:26, 27)...complete man (2:18);
...procreation (1:28)...



Impact of Sin on Marriage & Procreation

1. Guilt/Nakedness 3:7-8.
2. Increase pregnancies and pain 3:16
3. Woman will desire leadership 3:16

All Physical evil, including infertility and childlessness, is a consequence of moral evil.



Major Moral Questions # 1

1. What is the status of a fertilized egg?
Are they humans in the image of God?
2. What is to be said about embryos created for waste, selective abortion, destruction after genetic screening or stored for future use?
3. Is the connection between intercourse and procreation unitive?



Major Moral Questions # 2

4. Is third party genetic material acceptable in parenting?
5. Do all women have the right to have a baby? Lesbian couples, post-menopausal women, single women?
6. What about the methods of harvesting, eggs and collecting sperm? Screening? Are right sources used? What about \$\$\$\$\$?



Theological Reflection & Evaluation

1. Person-hood is an ontological reality. Person defines what a being is, not what a being can do...
2. Biblical narrative connects intercourse and procreation as a unitive act...



Theological Reflection & Evaluation

3. There is no moral right for every woman to have a baby if she desires to have one...
4. Sperm and egg donation seem to go far beyond the Biblical concept of parenting...



Guidelines for the Use of Reproductive Technologies

1. A human being (*imago Dei*) is formed at conception. Any technology that plans on the destruction or storage of zygotes is proscribed by the Bible.
2. AIH would seem to be acceptable technology as long as there is no selective termination of any zygote.
3. Use of third party genetic material is not morally acceptable.



Guidelines for the Use of Reproductive Technologies

4. Use of GIFT, with no storage or selective destruction of zygotes, is acceptable if it is good stewardship.
5. AID, IVF, ZIFT, Surrogacy, Cloning, Selective Implantation after Genetic Screening and Egg Donation cannot be Biblically justified.



Reproductive Technologies: A Christian Response



The End