Fertility and Reproductive Issues for Male Survivors

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• Children’s Hospital of Philadelphia – Adolescent Male Fertility Preservation Program [video link]

Fertility Preservation...
What to Survivors Need to Know?

Understand the potential risks from their treatment.

Understand the options for family building.

Understand available community resources.
Treatments That May Affect Fertility

- Potential for prolonged damage to sperm production:
  - Alkylating agents:
    - Cyclophosphamide (Cytoxan)
    - Ifosfamide
    - Procarbazine
    - Busulfan
  - Platinum agents: Cisplatin
  - Etoposide doxorubicin
  - Steroids: Prednisone
  - Interferon
- Pelvic, testicular, or total body irradiation + chemotherapy
- Potentially any dose of radiation to the testes
- Pelvic surgery
“Low Risk”?

Considerations for children and AYAs

Treatment before puberty in boys does not "protect" the testes.

Most relapse therapies increase the risk of infertility.
Considerations for children and AYAs

However…

There may be natural restoration of the individual’s fertility over time in males.

Recovery of sperm count can occur several years after completion of therapy.
Patient Counseling

- Accurate prediction of outcome is difficult
- Potential affects of disease on baseline fertility
- Unknown genetic risks of using sperm banked after the initiation of chemotherapy
- Males may have recovery over a long period of time
- Testicular Sperm Extraction may be a post-treatment option for azoospermic males
- History of chemotherapy ≠ birth control
Options Before and After Treatment

**Before Treatment**
- Sperm Banking
- TESE
  - Testicular sperm extraction
- Testicular Tissue Freezing

**During Treatment**
- Gonadal Shielding

**After Treatment**
- Natural Conception
  - Using Banked Sperm
  - TESE with ART
    - Assisted Reproductive Technology
- Donor Sperm
- Adoption
Conceiving a Child After Cancer

Using banked sperm with IVF

Intracytoplasmic Sperm Injection - ICSI

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Will my children be OK?

Most cancer survivors who are fertile have healthy children:

- Hereditary genetic syndromes and *in utero* exposure to chemotherapy DO increase cancer risk in offspring.

- Cancer, cancer therapy, and fertility interventions DO NOT increase the risk of cancer or congenital abnormalities in offspring.
What happens to unused sperm that have been banked?

- Generally, stored sperm can only be used for procreative purposes by the patient and their intimate partner.
- Unused sperm can be donated to a sperm bank, if the donor has undergone testing for certain infectious diseases.
- Donate to another individual or couple in order to attempt pregnancy – also requires infectious disease testing.
- Unused sperm can be disposed of.

Review the consent that you signed when you banked. There are Federal and State rules that apply. Call your sperm bank if you have questions or need to change your preferences.
Community & National Resources

Seattle Reproductive Medicine – Seattle, Bellevue, Tacoma, Spokane
   www.seattlefertility.com
Sound Fertility Care – Seattle
   www.soundfertility.com
University of Washington Male Fertility Laboratory – Seattle
   www.uwmedicine.org
Poma Fertility – Kirkland
   www.pomafertility.com
Pacific NW Fertility – Seattle
   www.pnwfertility.com

MyOncofertility.org

LIVESTRONG.org/we-can-help/fertility-services/
Questions?