

## Starting the Conversation... FERTILITY PRESERVATION



FOR MEN DIAGNOSED WITH CANCER



SaveMyFertility.org

## Introduction

Many men who have been diagnosed with cancer think preserving their fertility is important and want information about their options. However,

- ▶ Patients may not feel comfortable bringing up fertility issues.
- ▶ Patients may not be aware of their options for preserving fertility.
- ▶ Patients may be focused on their cancer diagnosis and unable to think about fertility or the possibility of having a future family.
- ▶ Even men with a poor prognosis may want to consider fertility preservation.
- ▶ Men may later regret not considering fertility issues prior to starting cancer treatment.

Understanding that there are fertility preservation options available and referring at-risk patients in a timely manner to reproductive specialists can improve patients' emotional outlook and future quality of life.

## Fertility Preservation— Where Does It Fit?

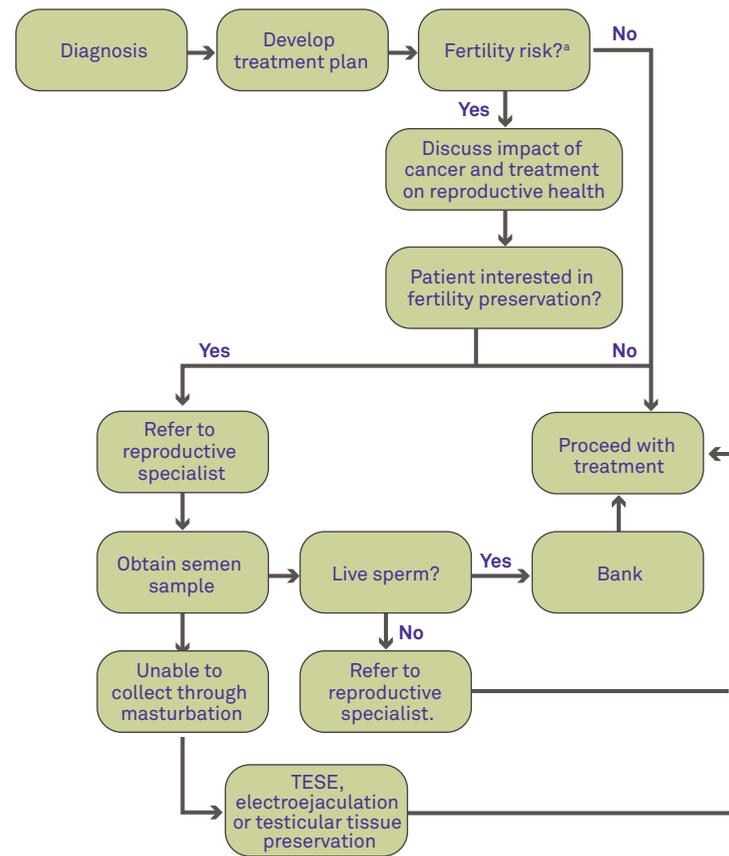


Figure adapted from Brannigan RE. *Cancer Treat Res.* 2007;138:28-49.

<sup>a</sup> See table on reverse.

<sup>b</sup> See figure to right.

## Starting the Conversation

Discussing fertility preservation is important. These key points can help start the conversation:



- ▶ Cancer and cancer treatment may affect your fertility.
- ▶ Based on your treatment plan, your risk of infertility is [high, moderate, low] (see table on reverse).
- ▶ Although it may not be on your mind now, it is important to discuss fertility before you begin treatment. You may have options for fertility preservation before you begin cancer treatment (see figure to right).
- ▶ I can refer you to a fertility preservation specialist if you would like to discuss your options further.
- ▶ Remember there are other ways to build a family after cancer if we are unable to preserve your fertility now. Talking with a specialist can help you explore other options that might be right for you.

## Options for Fertility Preservation

- The American Society of Clinical Oncology and the American Society for Reproductive Medicine recommend, when possible, at-risk patients be referred to a fertility preservation specialist prior to starting cancer treatment.
- There are standard options for men diagnosed with cancer who wish to preserve their fertility. These options are illustrated in the figure below.

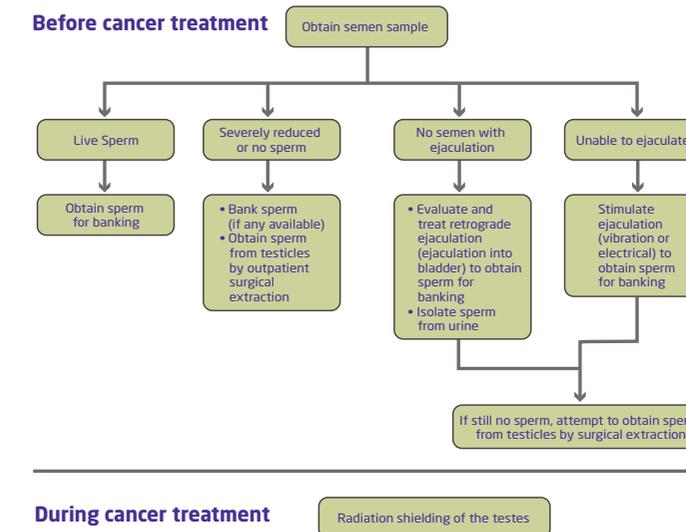


Figure adapted from Brannigan RE. *Cancer Treat Res.* 2007;138:28-49.

## Cancer Therapy and the Risk of Infertility

Individual chemotherapeutic agents and multi-agent regimens are associated with varying degrees of infertility risk.

While this table provides general guidelines, each patient is different and treatment may impair their fertility differently.

High Risk	Intermediate Risk	Low Risk	Very low/ no risk	Unknown Risk
<ul style="list-style-type: none"> <li>Total body irradiation (TBI)</li> <li>Testicular radiation dose &gt;2.5 Gy in men</li> <li>Testicular radiation dose &gt;6 Gy in boys</li> <li>Cranial radiation &gt;40 Gy</li> <li>Protocols containing procarbazine: COPP, MOPP, MVPP, ChIVPP, ChIVPP/EVA, MOPP/ABVD, COPP/ABVD</li> <li>Alkylating chemotherapy for transplant conditioning (cyclophosphamide, busulfan, melphalan)</li> <li>Any alkylating agent (e.g., procarbazine, nitrogen mustard, cyclophosphamide) + TBI, pelvic radiation, or testicular radiation</li> <li>Total cyclophosphamide &gt;5g/m<sup>2</sup></li> <li>Surgical removal of one or both testicles or the pituitary gland</li> </ul>	<ul style="list-style-type: none"> <li>Testicular radiation dose 1-6 Gy (due to scatter from abdominal/pelvic radiation)</li> <li>BEP x 2-4 cycles</li> <li>Cumulative cisplatin dose &gt;400 mg/m<sup>2</sup></li> <li>Cumulative carboplatin dose ≥ 2g/m<sup>2</sup></li> <li>Hormone treatments (prostate cancer)</li> <li>Surgical procedures within in the pelvis (prostate, bladder, lower large intestine, rectum)</li> <li>CHOP/COP</li> </ul>	<ul style="list-style-type: none"> <li>Testicular radiation dose 0.2-0.7 Gy</li> <li>Nonalkylating agents: ABVD, multiagent therapies for leukemia</li> <li>Anthracycline + cytarabine</li> <li>Bevacizumab (Avastin)</li> </ul>	<ul style="list-style-type: none"> <li>Testicular radiation dose &lt;0.2 Gy</li> <li>Radioactive iodine</li> <li>Multi-agent therapies using vincristine</li> </ul>	<ul style="list-style-type: none"> <li>Monoclonal antibodies, e.g., cetuximab (Erbix)</li> <li>Tyrosine kinase inhibitors, e.g., erlotinib (Tarceva), imatinib (Gleevec)</li> </ul>

Table adapted from LIVESTRONG; and Brannigan RE. *Cancer Treat Res.* 2007;138:28-49.

MOPP=mechlorethamine/ovcovin (vincristine)/procarbazine/prednisone • MVPP=mechlorethamine/vinblastine/procarbazine/prednisolone • COPP=cyclophosphamide/ovcovin/procarbazine/prednisone • ChIVPP=chlorambucil/vinblastine/procarbazine/prednisolone • EVA=etoposide/vinblastine/adriamycin (doxorubicin) • ABVD=adriamycin/bleomycin/vinblastine/dacarbazine • BEP= bleomycin/etoposide/cisplatin • OEPA=ovcovin/etoposide/prednisone/adriamycin (doxorubicin) • NOV= novantrone (mitoxantrone)/ovcovin/vinblastine/prednisone • CHOP=cyclophosphamide/hydroxydaunomycin/ovcovin/prednisone • COP=cyclophosphamide/ovcovin/prednisone

## Resources

For more information about infertility risk and fertility preservation options for men diagnosed with cancer:

- ▶ Visit [SaveMyFertility.org](http://SaveMyFertility.org)
- ▶ Call the FERTLINE: **866-708-FERT (3378)**
- ▶ Visit the Oncofertility Consortium Web site: [oncofertility.northwestern.edu](http://oncofertility.northwestern.edu)
- ▶ Use the online Clinic/Center Finder to find the fertility preservation center closest to you: <http://oncofertility.northwestern.edu/find-a-clinic-or-center>



## References

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- Tschudin S, Bitzer J. Psychological aspects of fertility preservation in men and women affected by cancer and other life-threatening diseases. *Hum Reprod Update.* 2009;15:587- 597.



The Oncofertility Consortium® is an international, interdisciplinary initiative designed to explore the reproductive future of cancer survivors.

To learn more about fertility preservation, please visit [SaveMyFertility.org](http://SaveMyFertility.org) for additional resources.

To learn more about the Oncofertility Consortium, visit [oncofertility.northwestern.edu](http://oncofertility.northwestern.edu).

