# Fertility Preservation Prior to Cancer Treatment (Women)



Disclaimer: *This algorithm has been developed for MD Anderson using a multidisciplinary approach considering circumstances particular to MD Anderson's specific patient population, services and structure, and clinical information. This is not intended to replace the independent medical or professional judgment of physicians or other health care providers in the context of individual clinical circumstances to determine a patient's care. This algorithm should not be used to treat pregnant women.*

## INITIAL PRESENTATION

Female patients at risk for treatment-induced infertility
(See Page 2 for male patients)

Care Team informs patient of:
- Risk of infertility from treatment(s)
- Options to preserve fertility
- Availability of fertility counseling
- Confirmation that infertility risk has been explained
- Refer to fertility preservation informational resources

All patients should be asked if fertility is important[1], preferably in private

## EVALUATION

Patient interested in or uncertain about fertility preservation options[1]?

Yes

Consult oncofertility specialist and determine if eligible for fertility preservation[2] (see Appendix A for fertility consults/referrals)

Eligible for fertility preservation?

Yes

Fertility preservation completed[3]?

Yes

Begin cancer treatment recommendations

No

Individualized care based on clinical indications

No

Consider alternative options for fertility and family building[4]

No

Consider patient educational material on fertility and family building after cancer treatment (see Appendix C for patient education and websites)

## FOLLOW-UP

[1] **Fertility consideration (if clinically appropriate)**
- Fertility decisions should be based on an patient's goals, values, beliefs, morals, culture, and religious practices
- Assessment and informative discussion of fertility desires should be conducted as part of treatment planning options that may impact fertility options
- Fertility consult criteria:
  - Fertility concerns
  - Fertility risks
- For patients with gynecologic malignancies and pre-malignancies see Fertility-Sparing Treatment algorithm

[2] **Assess need for:**
- Referral to psychiatry or reproductive medicine psychologist for decision and emotional support
- Financial counseling regarding fertility preservation by fertility specialist
- For patients ≤ 39 years of age, consider additional referral to the Adolescent and Young Adult program

[3] **Fertility preservation options and length of time needed prior to starting cancer treatment that can impact fertility:**
- Cryopreservation of embryos: 2-3 weeks needed
- Cryopreservation of oocyte: 2-3 weeks needed
- Cryopreservation of ovarian tissue: variable

**Investigational fertility preservation options**
- Ovarian suppression: up to 10 days needed

[4] **Other options for fertility and parenthood**
- Donor eggs and embryos
- Adoption
- Gestational surrogacy
- Spontaneous conception
- Assisted reproduction



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# Fertility Preservation Prior to Cancer Treatment (Men)



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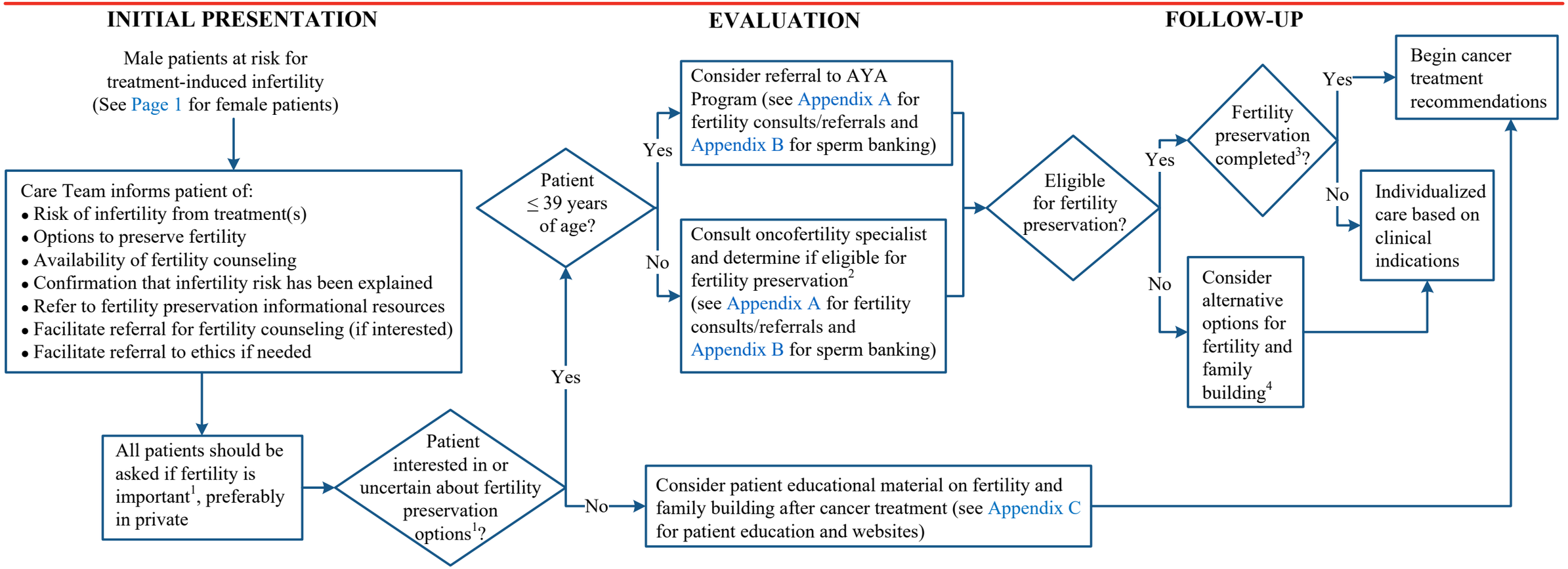


[1] **Fertility consideration (if clinically appropriate)**
- Fertility decisions should be based on an patient's goals, values, beliefs, morals, culture, and religious practices
- Assessment and informative discussion of fertility desires should be conducted as part of treatment planning options that may impact fertility options
- Fertility consult criteria:
  - Fertility concerns
  - Fertility risks

[2] **Assess need for:**
- Referral to psychiatry or reproductive medicine psychologist for decision and emotional support
- Financial counseling regarding fertility preservation by fertility specialist

[3] **Fertility preservation options and length of time needed prior to starting cancer treatment that can impact fertility:**
- Cryopreservation of sperm: 1-3 days needed

**Investigational fertility preservation options**
- Cryopreservation of testicular tissue: variable

[4] **Other options for fertility and parenthood**
- Donor sperm and embryos
- Adoption
- Spontaneous conception
- Assisted reproduction



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# Fertility Preservation Prior to Cancer Treatment





## APPENDIX A: Fertility Consults & Referrals

### Oncofertility Program at MD Anderson

Established in 2012, the MD Anderson Oncofertility Service offers comprehensive fertility counseling and services to MD Anderson patients before and after treatment. Housed in the Department of Gynecologic Oncology and Reproductive Medicine, it is staffed by two board-certified Reproductive Endocrinology and Infertility specialists and an Advanced Practice Provider with expertise in oncofertility. The service offers:

- Comprehensive, patient-centered fertility counseling before and after cancer treatment
- Assessment of fertility status
- Discussion of options for parenthood after cancer
- Streamlined access to fertility preservation methods including ovarian and testicular tissue freezing, egg freezing, sperm banking, and embryo freezing through our partnership with Baylor College of Medicine
- Streamlined access to post-treatment fertility options including ovulation induction, intrauterine insemination, in vitro fertilization (IVF) and third-party reproduction (donor eggs, donor sperm, donor embryos, and gestational carriers)
- Discussion of preimplantation genetic testing, including PGT-A and PGT-M for patients who carry inherited mutations that can cause cancer
- Ovarian suppression with medicines such as GnRH analogs
- Collaborative care with the oncologist

#### To order consult or referral

- **Ambulatory referral:** Place order for Ambulatory Referral to Gynecologic Oncology and choose Oncofertility button. For other gynecological concerns, consider referral to "General Gynecology"
- **Inpatient consult:** Place order for Consult to Fertility Specialist and e-mail: fertility@mdanderson.org
- **For any urgent consults and referrals:** e-mail: fertility@mdanderson.org

### Adolescent and Young Adults (AYA) at MD Anderson

The MD Anderson AYA program serves patients whether in active treatment or post-therapy survivorship. The AYA team includes both pediatric and adult oncologists, two Advanced Practice Providers with expertise in survivorship and late effects, a psychologist with training in vocational counseling, and a dedicated social work counselor. Through our comprehensive services, the program can help AYAs with coping, relationships, school, career goals, long-term health, quality of life issues, and fertility concerns. In regard to fertility, the service offers:

- AYA patient navigator to assist in coordination of inpatient sperm banking
- Fertility risk counseling
- Education regarding fertility preservation options
- Referral to male and female reproductive specialists including the MD Anderson Oncofertility Service for fertility preservation and family building options
- Assistance identifying financial and support resources

#### To order consult or referral

- **Ambulatory referral:** place order for Ambulatory referral to AYA and select Fertility counseling as reason for referral
- **Inpatient consult:** Page Janae Harris, BSN, RN, CPHON at 713-606-1423 or e-mail: aya@mdanderson.org
- **For general questions**: Call the Child and Adolescent Center Clinic at 713-792-6610 or e-mail: aya@mdanderson.org

### Ethics Consult at MD Anderson

- **Inpatients consult:** place consult request using the Inpatient Consult to Clinical Ethics order
- **Patients in clinic:** request a consult using the Clinical Ethics Request order. If an urgent consultation is needed, page the on-call ethicist at 713-404-2863.

# Fertility Preservation Prior to Cancer Treatment





## APPENDIX B: Sperm Banking

| Baylor Special Procedures Lab | Fairfax Cryobank |
|---|---|
| • Contact information:<br>Scott Department of Urology<br>Baylor College of Medicine, Special Procedures Laboratory<br>Baylor St. Luke's Medical Center<br>7200 Cambridge, Suite 10C<br>Houston, TX 77030<br>Phone: 713-798-4027 Fax: 713-798-6679<br>• Lab hours: Monday through Friday 9 AM to 4 PM<br>• Cost: out-of-pocket $550. It covers preparation and one year of banking. Additional payment cost if infectious disease testing is not covered by patient's insurance. Costs are subject to change. For more information about procedures and costs, patient may ask at time of making appointment or schedule a personal consultation with a fertility specialist by calling 713-798-4001.<br>• Special Procedures Lab<br>◦ Treating team can directly refer to Baylor Special Procedures Lab<br>◦ Patients need to have a cryopreservation referral form completed by their physician. To request a referral, call 713-798-4027.<br>◦ The form should be completed and faxed to Baylor requesting cryopreservation: fax number: 713-798-6679<br>◦ Appointment is required. Call facility and state "urgent" if sperm banking needs to be done on the same day<br>◦ Baylor will draw their own FDA required infectious disease testing at patient appointment and bill the insurance for ID testing.<br>• Sperm banking from inpatient consult<br>◦ Must notify lab that sample will be arriving shortly. The lab requires special equipment set up for sperm banking.<br>◦ Blood and testing to be drawn by inpatient staff and urine sample provided by patient for transport to lab<br>◦ Baylor lab will coordinate payment with patient over the phone | • Contact information:<br>1213 Hermann Dr., Suite 580<br>Houston, TX 77004<br>Phone: 713-936-9600, ext 2 or ext 203<br>Fax: 713-583-8583<br>• Lab hours: Monday through Friday 9 AM to 5 PM. Accept samples until 1 PM.<br>• Cost: out-of-pocket $350. It covers banking, initial processing of sample and one year of banking. Cost are subject to change, contact lab to confirm. Grants for sperm banking are available for AYA patients.<br>• Special Procedures Lab<br>◦ Require HIV, Hepatitis B & C.<br>◦ Facility can draw required infectious disease testing or accept outside lab results. |

## APPENDIX C: Patient Education and Websites

**MDACC Patient Education (available through Patient Education Online)**

- Fertility Preservation Options for Men and Women
- Fertility Options for Men Diagnosed with Cancer: Sperm Banking
- Fertility Options for Women Diagnosed with Cancer
- Emotional and Psychological Aspects of Fertility Preservation
- Pregnancy Test
- Fertility and Cancer Recommended Resources (The Learning Center): Provides a list of pamphlets, books and websites that are available to patients

**Websites**

www.ReproductiveFacts.org: The patient education website of the American Society for Reproductive Medicine. Under the publications tab, it includes printable informational booklets and fact sheets about a variety of issues including "Age and Fertility," "Assisted Reproductive Technologies," "Cancer and Fertility Preservation," "Adoption," and "Third Party Reproduction."

www.livestrong.org: The national LIVE**STRONG** initiative dedicated to providing reproductive information, support and hope to cancer patients and survivors whose medical treatments present the risk of infertility. In addition to providing patient education and support, it also offers financial assistance for fertility and family building services.

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