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## Survivorship: Sexual Dysfunction (Female), Version 1.2013:

### Clinical Practice Guidelines in Oncology

Crystal S. Denlinger, MD, Robert W. Carlson, MD, Madhuri Are, MD, K. Scott Baker, MD, MS, Elizabeth Davis, MD, Stephen B. Edge, MD, Debra L. Friedman, MD, MS, Mindy Goldman, MD, Lee Jones, PhD, Allison King, MD, Elizabeth Kvale, MD, Terry S. Langbaum, MAS, Jennifer A. Ligibel, MD, Mary S. McCabe, RN, BS, MS, Kevin T. McVary, MD, Michelle Melisko, MD, Jose G. Montoya, MD, Kathi Mooney, RN, PhD, Mary Ann Morgan, PhD, FNP-BC, Tracey O'Connor, MD, Electra D. Paskett, PhD, Muhammad Raza, MD, Karen L. Syrjala, PhD, Susan G. Urba, MD, Mark T. Wakabayashi, MD, MPH, Phyllis Zee, MD, Nicole McMillian, MS, and Deborah Freedman-Cass, PhD

### Abstract

Cancer treatment, especially hormonal therapy and therapy directed toward the pelvis, can contribute to sexual problems, as can depression and anxiety, which are common in cancer survivors. Thus, sexual dysfunction is common in survivors and can cause increased distress and have a significant negative impact on quality of life. This section of the NCCN Guidelines for Survivorship provides screening, evaluation, and treatment recommendations for female sexual problems, including those related to sexual desire, arousal, orgasm, and pain.

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#### NCCN Categories of Evidence and Consensus

**Category 1:** Based upon high-level evidence, there is uniform NCCN consensus that the intervention is appropriate.

**Category 2A:** Based upon lower-level evidence, there is uniform NCCN consensus that the intervention is appropriate.

**Category 2B:** Based upon lower-level evidence, there is NCCN consensus that the intervention is appropriate.

**Category 3:** Based upon any level of evidence, there is major NCCN disagreement that the intervention is appropriate.

All recommendations are category 2A unless otherwise noted.

Clinical trials: NCCN believes that the best management for any cancer patient is in a clinical trial. Participation in clinical trials is especially encouraged.

#### Please Note

The NCCN Clinical Practice Guidelines in Oncology (NCCN Guidelines<sup>®</sup>) are a statement of consensus of the authors regarding their views of currently accepted approaches to treatment. Any clinician seeking to apply or consult the NCCN Guidelines<sup>®</sup> is expected to use independent medical judgment in the context of individual clinical circumstances to determine any patient's care or treatment. The National Comprehensive Cancer Network<sup>®</sup> (NCCN<sup>®</sup>) makes no representation or warranties of any kind regarding their content, use, or application and disclaims any responsibility for their applications or use in any way. The full NCCN Guidelines for Survivorship are not printed in this issue of *JNCCN* but can be accessed online at [NCCN.org](http://NCCN.org).

#### Disclosures for the NCCN Survivorship Panel

At the beginning of each NCCN Guidelines panel meeting, panel members review all potential conflicts of interest. NCCN, in keeping with its commitment to public transparency, publishes these disclosures for panel members, staff, and NCCN itself.

Individual disclosures for the NCCN Survivorship Panel members can be found on page 192. (The most recent version of these guidelines and accompanying disclosures are available on the NCCN Web site at [NCCN.org](http://NCCN.org).)

These guidelines are also available on the Internet. For the latest update, visit [NCCN.org](http://NCCN.org).

## Overview

Cancer treatment, especially hormonal therapy and therapy directed toward the pelvis, can often impair sexual function. In addition, depression and anxiety, which are common in survivors, can contribute to sexual problems. Thus, sexual dysfunction is common in survivors and can cause increased distress and have a significant negative impact on quality of life.<sup>1-5</sup> Nonetheless, sexual function is often not discussed with survivors.<sup>6,7</sup> Reasons for this include a lack of training of health care professionals, discomfort of providers with the topic, and insufficient time during visits for discussion.<sup>1</sup> However, effective strategies for treating both female and male sexual dysfunction exist,<sup>8-11</sup> making these discussions a critical part of survivorship care.

## Female Aspects of Sexual Dysfunction

Female sexual problems relate to issues such as sexual desire, arousal, orgasm, and pain.<sup>12,13</sup> Sexual dysfunction after cancer treatment is common in female survivors.<sup>4,14-20</sup> A survey of 221 survivors of vaginal and cervical cancer found that the prevalence of sexual problems was significantly higher among survivors than among age- and race-matched controls from the National Health and Social Life Survey (mean number of problems 2.6 vs 1.1;  $P < .001$ ).<sup>18</sup> A survey of survivors of ovarian germ cell tumors and age-, race-, and education-matched controls found that survivors reported a significant decrease in sexual pleasure.<sup>21</sup>

Female sexual dysfunction varies with cancer site and treatment modalities.<sup>15,16</sup> For example, survivors of cervical cancer who were treated with radiotherapy had worse sexual functioning scores (for arousal, lubrication, orgasm, pain, and satisfaction) than those treated with surgery, whose sexual functioning was similar to that of age- and race-matched noncancer controls.<sup>15</sup> A recent systematic review of sexual functioning in cervical cancer survivors found similar results, except that no differences in orgasm/satisfaction were observed.<sup>22</sup> In contrast, chemotherapy seems to be linked to female sexual dysfunction in breast cancer survivors,<sup>16</sup> possibly related to the prevalence of chemotherapy-induced menopause in this population.<sup>13</sup> In addition, survivors with a history of hematopoietic stem cell transplantation (HSCT) may have multiple types of sexual dysfunction, even after 5 to 10 years.<sup>23-25</sup> Some of the sexual dysfunction associated with HSCT is related to graft-versus-host disease (GVHD), which can result in vaginal fibrosis, stenosis, mucosal changes, vaginal irritation, bleeding, and increased sensitivity of genital tissues.<sup>24,26</sup> In addition, high-dose corticosteroids use for chronic GVHD can increase emotional lability and depression, affecting feelings of attractiveness, sexual activity, and quality of sexual life.

## Evaluation and Assessment for Female Sexual Function

At regular intervals, female cancer survivors should be asked about their sexual function, including their sexual functioning before cancer treatment, their present activity, and how cancer treatment has impacted their sexual functioning and intimacy. The age and relationship status of the survivor may also affect sexual functioning (ie, some women may not be sexually active because of the physical health of their partner or quality of their

relationship). The Brief Sexual Symptom Checklist for Women can be used as a primary screening tool.<sup>27</sup> Inquiries into treatment-related infertility should be made if indicated, with referrals as appropriate.

Patients with concerns about their sexual function should undergo a more thorough evaluation, including screening for possible symptoms and psychosocial problems (ie, anxiety, depression, relationship issues, drug or alcohol use) that can contribute to sexual dysfunction. It is also important to identify prescription and over-the-counter medications (especially hormone therapy, narcotics, and serotonin reuptake receptor inhibitors) that could be a contributing factor. Traditional risk factors for sexual dysfunction, such as cardiovascular disease, diabetes, obesity, smoking, and alcohol abuse, should also be assessed, as should the oncologic and treatment history. If anticancer treatments have resulted in menopause, menopausal symptoms and effects on sexual function should be assessed. Risks and benefits of hormone therapy should be considered in women who have not had hormone-sensitive cancers and who are prematurely postmenopausal. In addition, a physical and gynecologic examination should be performed to note points of tenderness, vaginal atrophy, and anatomic changes associated with cancer and cancer treatment.

For a more in-depth evaluation of sexual dysfunction, the Female Sexual Function Index can be considered.<sup>28</sup> This instrument has been validated in patients with cancer and cancer survivors.<sup>29,30</sup>

## Interventions for Female Sexual Dysfunction

Overall, the evidence base for interventions to treat female sexual dysfunction in survivors is weak, and high-quality studies are needed.<sup>31,32</sup> Based on evidence from other populations, evidence from survivors when available, recommendations from the American College of Obstetricians and Gynecologists,<sup>12</sup> and consensus among NCCN Survivorship Panel members, the panel made recommendations for treatment of female sexual dysfunction in survivors. The panel recommends that treatment be guided to the specific type of problem. The evidence base for each recommendation is described herein.

Water-, oil-, or silicone-based lubricants and moisturizers can help alleviate symptoms such as vaginal dryness and sexual pain.<sup>33</sup> In one study of breast cancer survivors, the control group used a nonhormonal moisturizer and saw a transient improvement in vaginal symptoms.<sup>34</sup>

Pelvic floor muscle training may improve sexual pain, arousal, lubrication, orgasm, and satisfaction. A small study of 34 survivors of gynecologic cancers found that pelvic floor training significantly improved sexual function.<sup>35</sup>

Vaginal dilators are recommended for vaginismus, sexual aversion disorder, vaginal scarring, or vaginal stenosis from pelvic surgery or radiation and associated with GVHD. However, evidence for the effectiveness of dilators is limited.<sup>36</sup>

Vaginal estrogen (pills, rings, or creams) has been shown to be effective in treating vaginal dryness, itching, discomfort, and painful intercourse in postmenopausal women.<sup>37-42</sup> Small

studies have looked at different formulations of local estrogen, but data assessing the safety of vaginal estrogen in survivors are limited.

Psychotherapy may be helpful for women experiencing sexual dysfunction, although evidence on efficacy is limited.<sup>43</sup> Options include cognitive behavior therapy, for which some evidence of efficacy exists in survivors of breast, endometrial, and cervical cancer.<sup>44,45</sup> Referrals for psychotherapy, sexual/couples counseling, or gynecologic care should be given as appropriate, and ongoing partner communication should be encouraged.<sup>46</sup>

Currently, the panel does not recommend the use of oral phosphodiesterase type 5 inhibitors (PDE5i) for female sexual dysfunction because of the lack of data regarding their effectiveness in women. Although thought to increase pelvic blood flow to the clitoris and vagina,<sup>47,48</sup> PDE5i showed contradictory results in randomized clinical trials of various noncancer populations of women being treated for sexual arousal disorder.<sup>49-54</sup> More research is needed before a recommendation can be made regarding the use of sildenafil for the treatment of female sexual dysfunction.

### NCCN Survivorship Panel Members

\*,<sup>a,c</sup>Crystal S. Denlinger, MD/Chair†

Fox Chase Cancer Center

Robert W. Carlson, MD/Immediate Past Chair†

Stanford Cancer Institute

<sup>f</sup>Madhuri Are, MDE

Fred & Pamela Buffett Cancer Center at The Nebraska Medical Center

<sup>b,e</sup>K. Scott Baker, MD, MS€

Fred Hutchinson Cancer Research Center/Seattle Cancer Care Alliance

\*,<sup>a,g</sup>Elizabeth Davis, MDPθ

Tewksbury Hospital

Stephen B. Edge, MD¶

Roswell Park Cancer Institute

<sup>b,d</sup>Debra L. Friedman, MD, MS€‡

Vanderbilt-Ingram Cancer Center

\*,<sup>g</sup>Mindy Goldman, MDΩ

UCSF Helen Diller Family Comprehensive Cancer Center

<sup>\*,c,d</sup>Lee Jones, PhD<sup>¶</sup>

Duke Cancer Institute

<sup>b</sup>Allison King, MD<sup>¶</sup>

Siteman Cancer Center at Barnes-Jewish Hospital and Washington University School of Medicine

<sup>\*,b,h</sup>Elizabeth Kvale, MD<sup>£</sup>

University of Alabama at Birmingham

Comprehensive Cancer Center

<sup>\*,a</sup>Terry S. Langbaum, MAS<sup>¥</sup>

The Sidney Kimmel Comprehensive Cancer Center at Johns Hopkins

<sup>\*,c,d</sup>Jennifer A. Ligibel, MD<sup>†</sup>

Dana-Farber/Brigham and Women's Cancer Center

<sup>\*,b</sup>Mary S. McCabe, RN, BS, MS<sup>#</sup>

Memorial Sloan-Kettering Cancer Center

<sup>\*,g</sup>Kevin T. McVary, MD<sup>ω</sup>

Robert H. Lurie Comprehensive Cancer Center of Northwestern University

<sup>b,c,d,g</sup>Michelle Melisko, MD<sup>†</sup>

UCSF Helen Diller Family Comprehensive Cancer Center

<sup>\*,e</sup>Jose G. Montoya, MD<sup>Φ</sup>

Stanford Cancer Institute

<sup>a,d</sup>Kathi Mooney, RN, PhD<sup>#</sup>

Huntsman Cancer Institute at the University of Utah

<sup>\*,c,e</sup>Mary Ann Morgan, PhD, FNP-BC<sup>#</sup>

Moffitt Cancer Center

<sup>d,h</sup>Tracey O'Connor, MD<sup>†</sup>

Roswell Park Cancer Institute

\*,<sup>c</sup>Electra D. Paskett, PhD<sup>e</sup>

The Ohio State University Comprehensive Cancer Center - James Cancer Hospital and Solove Research Institute

<sup>f,h</sup>Muhammad Raza, MD<sup>‡</sup>

St. Jude Children's Research Hospital/The University of Tennessee Health Science Center

\*,<sup>f</sup>Karen L. Syrjala, PhD<sup>θ</sup>

Fred Hutchinson Cancer Research Center/Seattle Cancer Care Alliance

\*,<sup>f</sup>Susan G. Urba, MD<sup>‡</sup>£

University of Michigan Comprehensive Cancer Center

§Mark T. Wakabayashi, MD, MPH<sup>Ω</sup>

City of Hope Comprehensive Cancer Center

\*,<sup>h</sup>Phyllis Zee, MD<sup>Ψ</sup>Π

Robert H. Lurie Comprehensive Cancer Center of Northwestern University

NCCN Staff: Nicole McMillian, MS, and Deborah Freedman-Cass, PhD

KEY:

\*Writing Committee Member

Subcommittees: <sup>a</sup>Anxiety and Depression; <sup>b</sup>Cognitive Function; <sup>c</sup>Exercise; <sup>d</sup>Fatigue; <sup>e</sup>Immunizations and Infections; <sup>f</sup>Pain; <sup>g</sup>Sexual Function; <sup>h</sup>Sleep Disorders

Specialties: <sup>ξ</sup>Bone Marrow Transplantation; <sup>ε</sup>Epidemiology; <sup>Π</sup>Exercise/Physiology; <sup>Ω</sup>Gynecology/Gynecologic Oncology; <sup>‡</sup>Hematology/Hematology Oncology; <sup>Φ</sup>Infectious Diseases; <sup>Π</sup>Internal Medicine; <sup>‡</sup>Medical Oncology; <sup>Ψ</sup>Neurology/Neuro-Oncology; <sup>#</sup>Nursing; <sup>¥</sup>Patient Advocacy; <sup>€</sup>Pediatric Oncology; <sup>θ</sup>Psychiatry, Psychology, Including Health Behavior; <sup>£</sup>Supportive Care Including Palliative, Pain Management, Pastoral Care, and Oncology Social Work; <sup>¶</sup>Surgery/Surgical Oncology; <sup>ω</sup>Urology

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DIAGNOSTIC EVALUATION

- Ask about sexual function at regular intervals
- Use the Brief Sexual Symptom Checklist as a primary screening tool<sup>a</sup>
- Review present and past level of sexual activity and discuss the potential impact of therapy. Discuss any sexual concerns and how cancer treatment has affected sexual functioning and intimacy
- Discuss treatment-associated infertility if indicated, with appropriate referrals

No concerns for sexual dysfunction

Reevaluate at subsequent visits/posttherapy

Concerns for sexual dysfunction

- H&P
  - ▶ Sexual history (including prior problems)
  - ▶ Past medical, surgical, and obstetric histories (nononcologic)
    - ◊ Identify traditional risk factors (eg, cardiovascular disease, diabetes mellitus, smoking, alcoholism, obesity, menopause)
  - ▶ Psychosocial history
    - ◊ Including relationship status/issues, drug and alcohol use
    - ◊ Screen for psychosocial concerns (See SANXDE-1\* and NCCN Clinical Practice Guidelines in Oncology [NCCN Guidelines] for Distress Management<sup>†</sup>)
      - Depression
      - Anxiety
      - Relationship issues
  - ▶ Review oncologic history
    - ◊ Diagnosis/stage
    - ◊ Surgeries
    - ◊ Systemic treatment
    - ◊ Local RT
  - ▶ Use of prescription and over-the-counter medications (especially hormone therapy or opioids)

See Additional Evaluation and Treatment (SSFF-2) Appropriate referrals for psychotherapy, sexual/couples counseling, or gynecologic care

\*Available online, in the full version of these guidelines, at NCCN.org.  
<sup>†</sup>To view the most recent version of these guidelines, visit NCCN.org.

<sup>a</sup>See Brief Sexual Symptom Checklist for Women (SSFF-A).

SSFF-1

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ADDITIONAL EVALUATION

TREATMENT

POSTTREATMENT EVALUATION

- Evaluate for the following categories of female sexual dysfunctions:
  - Sexual desire disorder
  - Sexual arousal disorder
  - Female orgasm disorder
  - Sexual pain disorder
- Discuss concerns related to specific cancer therapies
- If treatment-related menopause, assess symptoms and effects on sexual functioning
- Perform physical and gynecologic exam to note points of tenderness, vaginal atrophy, and anatomic changes associated with cancer surgeries and treatments
- For more in-depth evaluation of sexual dysfunction, consider the Female Sexual Function Index (FSFI)<sup>b</sup>



- Guide treatment to specific type of female sexual dysfunction:
  - Use of water-, oil-, or silicone-based lubricants and moisturizers
  - Vaginal dilators/vibrators
  - Relaxation techniques or exercises
    - ◊ Pelvic physical therapy helpful for anatomical changes and dyspareunia
  - Topical estrogen therapy if not contraindicated by tumor type (with education regarding risks)
    - ◊ Base the type of local estrogen on exam findings and patient preference (pills, vaginal rings, creams)
- Encourage ongoing partner communication
- Identify sources for psychosocial dysfunction with appropriate referrals for psychotherapy or sexual/couples counseling



Use the Brief Sexual Symptom Checklist<sup>a</sup>

Concerns for sexual dysfunction improved or resolved

→ Reevaluate at subsequent visits/post therapy

Ongoing concerns for sexual dysfunction

→ Repeat evaluation and treatment options, with appropriate referrals for psychotherapy, sexual counseling as indicated

<sup>a</sup>See Brief Sexual Symptom Checklist for Women (SSFF-A).  
<sup>b</sup>If Brief Sexual Symptom Checklist score is positive, consider using the Female Sexual Function Index (FSFI), which has been validated in cancer patients. Rosen R, Brown C, Heiman J, et al. The female sexual function index (FSFI): a multidimensional self-report instrument for the assessment of female sexual function. *J Sex Mar Therapy* 2000;26:191-208.

SSFF-2

**BRIEF SEXUAL SYMPTOM CHECKLIST FOR WOMEN<sup>1</sup>**

Please answer the following questions about your overall sexual function:

1. Are you satisfied with your sexual function?

Yes  No

If no, please continue.

2. How long have you been dissatisfied with your sexual function?

3a. The problem(s) with your sexual function is:

(mark one or more)

- 1 Problem with little or no interest in sex
- 2 Problem with decreased genital sensation (feeling)
- 3 Problem with decreased vaginal lubrication (dryness)
- 4 Problem reaching orgasm
- 5 Problem with pain during sex
- 6 Other:

3b. Which problem is most bothersome? (circle)

1 2 3 4 5 6

4. Would you like to talk about it with your doctor?

Yes  No

<sup>1</sup>Reprinted with permission from Hatzichristou D, Rosen RC, Derogatis LR, et al. Recommendations for the clinical evaluation of men and women with sexual dysfunction. J Sex Med 2010;7:337-348. Review.

SSFF-A

Clinical trials: NCCN believes that the best management of any cancer patient is in a clinical trial. Participation in clinical trials is especially encouraged. All recommendations are category 2A unless otherwise indicated.

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### Individual Disclosures for the NCCN Survivorship Panel

Panel Member	Clinical Research Support	Advisory Boards, Speakers Bureau, Expert Witness, or Consultant	Patent, Equity, or Royalty	Other	Date Completed
Madhuri Are, MD	None	None	None	None	5/15/13
K. Scott Baker, MD, MS	None	None	None	None	11/22/13
Robert W. Carlson, MD	None	None	None	None	12/9/13
Elizabeth Davis, MD	None	None	None	None	3/13/12
Crystal S. Denlinger, MD	ImClone Systems Incorporated; MedImmune Inc.; and Merrimack Pharmaceuticals	None	None	None	6/21/13
Stephen B. Edge, MD	None	None	None	None	6/5/12
Debra L. Friedman, MD, MS	None	None	None	None	5/26/13
Mindy Goldman, MD					<b>Pending</b>
Lee Jones, PhD	None	None	None	None	2/2/12
Allison King, MD	None	None	None	None	8/12/13
Elizabeth Kvale, MD	None	None	None	None	10/7/13
Terry S. Langbaum, MAS	None	None	None	None	8/13/13
Jennifer A. Ligibel, MD	None	None	None	None	10/3/13
Mary S. McCabe, RN, BS, MA	None	None	None	None	8/12/13
Kevin T. McVary, MD	Allergan, Inc.; Eli Lilly and Company; NeoTract, Inc.; and National Institute for Diabetes and Digestive and Kidney Diseases	Allergan, Inc.; GlaxoSmithKline; Eli Lilly and Company; and Watson Pharmaceuticals Inc.	None	None	6/7/13
Michelle Melisko, MD	Celldex Therapeutics; and Galena Biopharma	Agendia BV; Genentech, Inc.; and Novartis Pharmaceuticals Corporation	None	None	10/11/13
Jose G. Montoya, MD	None	None	None	None	12/6/13
Kathi Mooney, RN, PhD	University of Utah	None	None	None	9/30/13
Mary Ann Morgan, PhD, FNP-BC	None	None	None	None	8/19/13
Tracey O'Connor, MD	None	None	None	None	6/13/13
Electra D. Paskett, PhD	Merck & Co., Inc.	None	None	None	6/13/13
Muhammad Raza, MD	None	None	None	None	8/23/12
Karen L. Syrjala, PhD	None	None	None	None	10/3/13
Susan G. Urba, MD	None	Eisai Inc.; and Helsinn Therapeutics (U.S.), Inc.	None	None	10/9/13

<b>Panel Member</b>	<b>Clinical Research Support</b>	<b>Advisory Boards, Speakers Bureau, Expert Witness, or Consultant</b>	<b>Patent, Equity, or Royalty</b>	<b>Other</b>	<b>Date Completed</b>
Mark T. Wakabayashi, MD, MPH	None	None	None	None	6/19/13
Phyllis Zee, MD	Philips/Respironics	Merck & Co., Inc.; Sanofi-Aventis Japan; UCB, Inc.; and Purdue Pharma L.P.	None	None	4/5/12

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