

Follow-up care of Breast Cancer Survivors



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Disclosure of Commercial Support

Relationship with commercial interests:

No affiliation (financial or otherwise) with a pharmaceutical, medical device or communications organization.

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Mitigating Potential Bias

- Not applicable
- Serve as: - Chair of the Cancer care Member Interest Group (MIG)
- Member, CFPC MIG Council Committee

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Presentation outline

- 01 Cancer Survivorship Definition
- 02 Overview of Breast Cancer Survivors
- 03 Shifting Role of Primary Care Providers
- 03 Follow-up of Breast Cancer Survivors:
4 Component Model

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Cancer Survivorship Definition

"An individual is considered a cancer survivor from the time of diagnosis, through the balance of his or her life. Family members, friends, and caregivers are also impacted, and thus are included in the definition."

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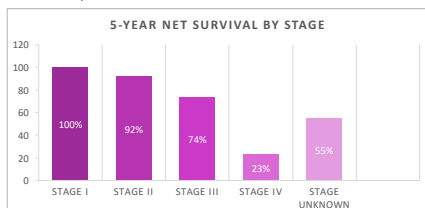
Overview of Breast Cancer Survivors

- About 1 in 8 women is expected to develop breast cancer in their lifetime
- About 93% are diagnosed with stage I to III cancer and are treated for cure, most commonly with the sequence of:
 - Surgery
 - Postoperative chemotherapy
 - Radiation therapy
 - Oral antiestrogen medications

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Overview of Breast Cancer Survivors

In Canada, the 5-year net survival for breast cancer in women is 89%



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Shifting Role of Primary Care Providers

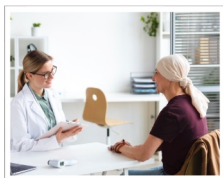
Increase in breast cancer survivors = shifting of survivorship care to primary care providers

- Level I evidence of effectiveness of primary care provider follow-up
- Primary care providers willing to take on follow-up care role
- Need for specialty/tertiary care resources to focus on complex/advanced care

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Current Practices for Breast Cancer Survivor Follow-up Care

- 2/3 of breast cancer survivors in early follow-up named a family physician or nurse practitioner as one of the main providers of their follow-up care
 - Most common arrangement was the family physician acting as the sole medical provider of follow-up



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Breast Cancer Survivor Follow-up Care is a Good Fit for Primary Care

- Management of survivorship phase viewed as similar to the management of chronic diseases
- Scope of survivorship care has broadened from cancer recurrence to also include:
 - Management of psychosocial and physical effects
 - Promotion of healthy lifestyles
 - Care coordination, particularly between specialists and primary providers

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Survivorship Care Recommendations

- Primary care providers face challenges in survivorship care and can routinely implement only about half of the key care recommendations
 - However, over testing and undertesting are concerns
- Primary care providers place a high value on guidelines to help guide their work in cancer survivorship.
- Hence, the need for relevant evidence-based survivorship care recommendations

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Follow-up of Breast Cancer Survivors: 4 Component Model

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Follow-up of Breast Cancer Survivors: 4 Component Model

4 components:

1. Surveillance and screening
2. Management of late and long-term effects
3. Health promotion
4. Care coordination

Provides a useful framework to approach this important cancer survivorship follow-up care

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Component 1: Surveillance and Screening

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Surveillance for breast cancer recurrence

Recommendation:

- History and physical examination every 3 to 6 months for the first 3 years post-treatments, then every 6 to 12 months for years 4 and 5, then annually
- Counsel breast cancer survivors about signs and symptoms of local or regional recurrence

However:

- No well-designed studies have evaluated the benefits of more vs less frequent clinic visits
- Approx. 60% of regional recurrences are symptomatic and present outside of scheduled follow-up visits

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Surveillance for breast cancer recurrence

Surveillance is straightforward: Mammography

Recommendation:

- Annually but at least 6 months after radiotherapy completion
 - Unilateral mammography on intact breast
 - If lumpectomies, bilateral mammography

However:

- This recommendation lacks level I evidence of benefit

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Surveillance for breast cancer recurrence

NOT recommended:

- Routine MRI
- Other tests:
 - Complete blood count
 - Liver function tests
 - Routine imaging of chest, abdomen, or bones
 - Tumor markers

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Surveillance for breast cancer recurrence

What About Breast Examinations?

Recommendations:

- Regular breast examinations
- Monthly self-examination in asymptomatic survivors
 - Recommendations lacks RTC evidence
 - Concerns re: increased distress and anxiety



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Follow-up of Metastatic Breast Cancer Patients

Recommendations:

- Aggressive pursuit of asymptomatic metastatic disease with blood tests and imaging does **NOT** result in any benefit to patient survival

Challenges in clinical practice:

- “Minimalist” approach difficult from patient’s perspective

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Screening for other cancers

Recommendations:

- Most breast cancer survivors should be screened for other malignancies in the same fashion as those at average risk in general population, unless family history suggests otherwise
 - colorectal
 - cervical cancers

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Component 2: Assessment and Management of Late Effects/Long-term Problems

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Late Effects and Long-Term Problems of Breast Cancer and its Treatments

Common Long-term Effects and Issues	
Cardiovascular health	Pain and CIPN
Cognitive dysfunction	Sexual health
Distress, depression, anxiety	Premature menopause, menopausal symptoms
Fatigue	Lymphedema
Referral for genetic counseling	Infertility
Bone Health	Body image concerns

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Cardiovascular Health

Cardiotoxicity

- Radiation, chemotherapy, and hormonal/endocrine therapy with aromatase inhibitors have been associated with an increased risk of cardiovascular disease in patients with breast cancer
- Anthracycline-induced cardiac adverse effects have been recognized since the 1970s, and have been most studied to date

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Cardiovascular Health

Cardiotoxicity

- The chemotherapeutic agents epirubicin and doxorubicin are associated with a low but real risk of cardiomyopathy
- Trastuzumab is associated with an increased risk of cardiac dysfunction, most notably when given concomitantly or after an anthracycline
- Aromatase inhibitors can raise cholesterol levels and the risk of diabetes

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Cardiotoxicity Due to Anthracycline Agents

- AC induced cardiotoxicity presents in severity ranges:

Subclinical left Ventricular dysfunction ➡ Severe cardiomyopathy ➡ Heart failure

- Adult survivors of childhood cancers appear to be at particularly greater risk of AC-induced cardiotoxicity, but older breast cancer survivors as well

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Cardiovascular Health

Cardiotoxicity: Other potential cardiac effects

- Myocardial ischemia
- Hypertension
- Arrhythmias
- Thromboembolism

Established cardiac risk factors including hypertension, diabetes, dyslipidemia, obesity, and sedentary lifestyle are all more common in cancer survivors than in the general population

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Cardiovascular Health: Gaps in Knowledge

Multiple strategies have been proposed for the early detection of anthracycline cardiomyopathy:

- Endocardial biopsy
- Serial B-type natriuretic peptide (BNP)
- Troponin level testing
- Radionuclide MUGA or radionuclide angiography
- Exercise testing
- Echocardiogram

But MORE studies required to elucidate their use/value

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Cardiovascular Health

Most breast cancer survivors are at increased risk of dying of heart disease than of cancer. Therefore:

Recommendations:

- Screen for and manage cardiac risk factors
- Educate patient about healthy lifestyle modifications, potential cardiac risk factors, and when to report symptoms (fatigue, dyspnea) to provider (level I evidence)
- Monitor lipid levels and provide cardiovascular monitoring as indicated (level III evidence)

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Cognitive Dysfunction

- Most common with chemotherapy, but also due to radiation treatments, and other cancer therapies
- Nearly 75% of breast cancer patients in treatment and 35% after treatment report cognitive dysfunction
- Planning and organizing, learning and memory, attention, and thinking speed are commonly affected
- Most symptoms improve or stop after 1 year, and some have long-term symptoms

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Cognitive Function

COGNITIVE FUNCTION ASSESSMENT

- Focused History:**
- Focal neurologic deficits
 - High risk or known metastatic disease/brain primary
 - Onset, temporality
 - Age (a risk factor for developing cognitive deficiency)
 - Trajectory over time
 - Cancer treatment history
 - Prescription medications/OTC medications and supplements
 - Education attainment
 - Caregiver assessment of cognitive function
- Nature of impairments per patient; clarifying questions may include:**
- Do you have difficulty paying attention? Multitasking?
 - Do you frequently leave tasks incomplete?
 - Do you have difficulty finding words?
 - Do you have difficulty remembering things?
 - Do you need to use more prompts like notes or reminders than you used to?
 - Does it take you longer to think through problems; does your thinking seem slower?
 - Do you notice an impact on functional performance? Job performance?
 - Assessment of medical history that may impact cognitive function

SPECIALIZED EVALUATION

Neuroimaging

Cancer-Associated Cognitive Dysfunction Interventions (SCF-3)

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Cognitive Function

Assessment of Contributing Factors:

- Medications/side effects
- Emotional distress
 - Depression/anxiety (see [SANXDE-1](#) and [NCCN Guidelines for Distress Management](#))
- Symptom burden
 - Pain ([SPAIN-1](#))
 - Fatigue ([SFAT-1](#))
 - Sleep disturbance ([SSD-1](#))
- Comorbidities
- Use of alcohol and other agents that alter cognition
- New-onset vitamin deficiencies and endocrinopathies (eg, thyroid-stimulating hormone (TSH), B₁₂, B₉, D)

Note: RB recommendations are indicated by RB letters after each individual

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Cognitive Function



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Survivorship: Cognitive Function

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CANCER-ASSOCIATED COGNITIVE DYSFUNCTION-SPECIFIC INTERVENTIONS

FIRST-LINE INTERVENTIONS

- Neuropsychological evaluation/testing and recommendations^a
- Cognitive rehabilitation
 - Occupational therapy^d
 - Speech therapy
 - Neuropsychologist
- Psychotherapy
- Recommend routine physical activity ([HL-1](#))

SECOND-LINE INTERVENTIONS

- Consider referral to a clinician with expertise in memory or cognitive concerns for further evaluation and care for survivors who continue to have memory problems after rehabilitation
- Consider trial use of medications (methylphenidate, modafinil, or donepezil)^d

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Distress, Depression, Anxiety and Trauma

The NCCN Guidelines define distress as « multifactorial unpleasant emotional experience of a psychological, social, spiritual and/or physical nature that may interfere with the ability to cope effectively with cancer, its physical symptoms, and its treatment »

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Distress, Depression, Anxiety and Trauma

Fear of recurrence

- 70% report **high levels of fear of cancer recurrence**, which can cause distress
- May cause to avoid follow-up tests and appointments
- **Incidence of completed suicide** among patients with cancer and survivors is approximately **twice** that of the general population

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Distress, Depression, Anxiety

Fear of recurrence

- Common even many years after treatment
- Low intensity in most cases (80%)
- More common in younger survivors
- May be burdensome regardless of intensity
- May be associated with both positive & negative outcomes

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Distress Screening

Evidence for practice:

- Earlier identification of distress through standardized screening has been associated with improvement in distress outcomes
- Assess for distress, depression, and anxiety
- Seriated distress screening (ESAS-R, DT)

(level I evidence)

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Distress, Depression, Anxiety, and Trauma

Recommendations:

- Normalize + educate about fear of recurrence
- Keep in mind risk factors for increased distress:
 - Previous history of mood disorder (anxiety, depression)
 - Marital status
 - Younger age, female
 - Medical conditions
 - Acute stressors
- Offer counseling, pharmacotherapy or refer to mental health resources as indicated (level I evidence)



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Distress, Depression, Anxiety, and Trauma



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Survivorship: Anxiety, Depression, Trauma, and Distress

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ANXIETY, DEPRESSION, TRAUMA, AND DISTRESS: MANAGEMENT AND TREATMENT

- Consider referral to mental health professional[†]
- First-line treatment (See [SANKDE-1](#) and [SANKDE-2](#))
 - Selective serotonin reuptake inhibitors (SSRIs)
 - Consider for concomitant hot flashes
 - Benzodiazepines/serotonin reuptake inhibitors (SNRIs):
 - Consider for concomitant pain or neuropathic pain
 - Consider for concomitant hot flashes
 - Inform survivor of potential side effects
 - Counsel survivor that it may take up to 2 to 6 weeks at a therapeutic dose for SSRIs and SNRIs to take effect
 - Benzodiazepines (ie, clonazepam, lorazepam):
 - For acute anxiety relief or while waiting for antidepressant to take effect
 - Adjust dose once SSRIs or SNRIs are fully effective and symptoms are partially or completely abated
 - Counsel survivor that symptoms of withdrawal may occur should any of the above-mentioned medications be abruptly discontinued
 - Withdrawal symptoms may include restlessness, shakiness, GI upset, dizziness, tingling, sleep disruption
 - More common with valproic acid, paroxetine
 - Withdrawal effects can be avoided with slow taper
 - Withdrawal effects may be life-threatening and may require a mental health specialist
- Inquire about use of OTC medications
 - Consider drug-drug interactions
 - Medications not recommended as first-line treatments: tricyclics, tetracyclins, serotonin modulators, monoamine oxidase inhibitors
- Follow up with survivor by phone or visit about medication effects and mood in 2-4 weeks
 - Reevaluate distress and function at next visit, within 4-8 weeks
 - Monitor for increased suicidal thoughts or plans and other side effects
 - Increase dose if within therapeutic dosing range and distress remains elevated and side effects are manageable
 - Reinforce treatment adherence
 - Consider drug switch if there are adverse effects or side effects that impact adherence
 - Refer to a prescribing mental health professional for diagnostic evaluation if distress is persistent, increased, or other mood change, or medication management is not stable and effective in 8-12 weeks
 - Choose once daily dosing, if possible, to improve adherence

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Cancer-related Fatigue

- Definition: distressing, persistent, subjective sense of physical, emotional, and/or cognitive tiredness or exhaustion related to cancer or cancer treatment that is not proportional to recent activity and interferes with usual functioning
- Fatigue is experienced by more than **80%** of those who receive cancer treatment
- Normal: Mild to moderate levels of fatigue that persist for 6-12 months after therapy **without** other symptoms present

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Cancer-related Fatigue



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Survivorship: Fatigue

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PRIMARY EVALUATION SCORE: MODERATE OR SEVERE (4-10)	EVALUATION
HxP: <ul style="list-style-type: none"> • Focused fatigue history <ul style="list-style-type: none"> ◦ Onset, pattern, duration ◦ Associated or alleviating factors ◦ Interference with function • Change over time • Evaluate disease status • Evaluate risk of recurrence based on stage, pathologic factors, and treatment history • Perform review of systems to determine if other symptoms substantiate suspicion for recurrence Assessment of treatable contributing factors: <ul style="list-style-type: none"> • Constipation • Organ dysfunction[†] <ul style="list-style-type: none"> ◦ Infection ◦ Anemia ◦ Acute or chronic OTC medications (eg, sleep aids, pain medications, anticholinergics) • Emotional distress: screen for anxiety and depression (SANKDE-1, SANKDE-2) • Sleep disturbance (eg, insomnia, sleep apnea, restless leg syndrome, restless legs syndrome) (SLEP) (SLEP-1) • Pain (SPAIN-1) • Nutritional issues <ul style="list-style-type: none"> ◦ Weight/functional intake changes (SNWM-1) ◦ Inadequate intake of muscle mass • Physical inactivity or sedentary behavior 	Laboratory Evaluation: <ul style="list-style-type: none"> • Consider performing laboratory evaluation based on presence of other symptoms, onset, and severity of fatigue • Complete blood count (CBC) with differential <ul style="list-style-type: none"> ◦ Complete end-of-treatment hemoglobin/hematocrit with current values ◦ Assess other cell lines (WBC and platelets) • Comprehensive metabolic panel <ul style="list-style-type: none"> ◦ Assess electrolytes ◦ Assess hepatic and renal function • Endocrine evaluation <ul style="list-style-type: none"> ◦ TSH, especially in patients who have received prior head/neck, torso, or breast radiation ◦ Consider more comprehensive evaluation or referral to specialist if other symptoms present ◦ Cortisol stimulation test, if history of prolonged steroid use Other Diagnostic Testing: <ul style="list-style-type: none"> • Consider radiologic assessment only if high risk of disease recurrence OR if accompanying signs and symptoms suggest presence of metastatic disease • Consider cardiac testing (ECG) for patients treated with an antiarrhythmic (SCARDIO-1) • Consider echocardiogram, other VEGF- or HER2-targeted therapy, or other therapy known to cause cardiac dysfunction • Chest x-ray and oxygen saturation testing for pulmonary complaints[†]

See Treatment of Contributing Factors ([SFAF-4](#))

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Cancer-related Fatigue



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Survivorship: Fatigue

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TREATMENT OF CONTRIBUTING FACTORS

- Treat contributing factors:
 - Medication/side effects
 - Pain ([SPAIN-1](#))
 - Emotional distress ([SANKDE-1](#)) and [NCCN Guidelines for Distress Management](#)
 - Anemia
 - Treat iron, B₁₂, folate deficiency, if present
 - Consider referral/further evaluation for anemia or cytopenias
 - Sleep disturbance ([SLEP-1](#))
 - Nutritional deficit/imbalance
 - Comorbidities

See Interventions for Cancer Survivors ([SFAF-5](#))

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Survivorship: Fatigue

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INTERVENTIONS FOR CANCER SURVIVORS

Patient/Family Education and Counseling	Physical Activity	Other Interventions [†]	Pharmacologic [†]
Provide information about patterns of fatigue during and after treatment <ul style="list-style-type: none"> • Self-monitoring of fatigue levels • Energy prioritization • Set priorities • Plan and pace activities • Schedule activities at times of peak energy 	<ul style="list-style-type: none"> • Maintain adequate levels of physical activity (category 1) (SPA-1 and SPA-4) • Survivors at higher risk of injury (eg, those living with neuropathy, cardiomyopathy, lymphedema, or other long-term effects of therapy or other comorbidities) should be referred to a physical therapist or exercise specialist • Make use of local resources to help patients increase exercise (eg, aerobics, strength training, yoga) • Community exercise programs or classes, preferably those focused on cancer survivors • Exercise professional certified by the ACSM • For patients with fatigue interfering with function, consider referral to a physical therapist or physician 	<ul style="list-style-type: none"> • Psychosocial interventions (category 1) <ul style="list-style-type: none"> ◦ CBT/Behavioral therapy (category 1) ◦ Mindfulness-based stress reduction (category 1) ◦ Psycho-educational therapies/Educational therapies (category 1) ◦ Supportive expressive therapies (category 1)[†] ◦ Nutrition consultation ◦ CBT for insomnia (CBT-I) (category 1) (SSD-1) ◦ Stimulus control ◦ Sleep restriction ◦ Sleep hygiene ◦ Acupuncture ◦ Bright white light therapy[†] ◦ Massage therapy (category 1) 	<ul style="list-style-type: none"> • Consider psychostimulants (methylphenidate[†]) after ruling out other causes of fatigue and if other interventions are unsuccessful

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Genetic Counselling

Referral for genetic counselling is considered if

- Diagnosis before age 50 y (especially <35 y)
- Ovarian cancer at any age (epithelial)
- Bilateral breast cancer in the same woman
- Both breast and ovarian cancers in the same woman or the same family
- Multiple breast cancers on the same side of the family (paternal or maternal)
- Male breast cancer
- Ashkenazi Jewish ethnicity

Recommendation: Refer patient to cancer treating team regarding any genetic-related questions

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Bone Health

Bone loss caused due to cancer treatments are higher than normal age-related bone loss

Nearly 80% of breast cancer patients experience bone loss

Cancer-specific osteoporosis risk factors:

- Chemotherapy-induced premature menopause, GnRH suppression of gonadal function, antiestrogen therapies, glucocorticoids
- These risk factors are cumulative with other known risk factors, including age, prior fracture history, and family history of fracture.

Lifestyle-related factors including smoking, excess alcohol, inadequate exercise, low calcium, and vitamin D deficiency = common in breast cancer survivors and increase osteoporosis risk

Providers should manage symptoms as they would in the general population. Key role = patient counseling

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Bone Health

Recommendations:

- Refer post menopausal breast cancer survivors for baseline DEXA scan
- Refer for repeat DEXA scans every 2 years
 - Women on aromatase inhibitor
 - Premenopausal women on Tamoxifen and/or the GnRH agonists
 - Women with chemotherapy induced premature menopause

(level III evidence)

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Pain and Chemotherapy-induced Peripheral Neuropathy (CIPN)

Pain

- Musculoskeletal/joint pain
- 25 to 60% of breast cancer survivors

CIPN

- Neuropathy, including numbness, tingling, burning pain can present after treatment with taxane-based or platinum-based chemotherapies
- 30 to 40% of breast cancer survivors

Pain can lead to:

- Decreased physical function, difficulties with activities of daily living, negative impact on quality of life

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Pain and Chemotherapy-induced Peripheral Neuropathy (CIPN)

Recommendations:

- Interventions such as acetaminophen, NSAIDs, physical activity, or acupuncture for **pain** (level I evidence)
- Suggest physical activity (level I evidence)
- Suggest duloxetine for **CIPN** (SNRI)
 - Initial dose: 30mg/day x1 week, then increase to 60mg/day (level I evidence)
- Doses up to 120mg/day studied in clinical trials = no additional benefit

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Chemotherapy-induced Peripheral Neuropathy (CIPN)

Not recommended/less evidence:

- Studies of tricyclic antidepressants and anticonvulsants have not demonstrated consistent significant improvements in CIPN symptoms



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Chemotherapy-induced Peripheral Neuropathy (CIPN)

Emerging evidence:

Impact of acupuncture and integrative therapies on chemotherapy-induced peripheral neuropathy: A multicentered, randomized controlled trial

Etan Ben-Arye, MD^{1,2}, David Hausner, MD^{1,3}, Noah Samuels, MD⁴, Dorit Garmus, MD^{1,5}, Ofer Lavid, MD^{1,6}, Tamara Tadmor, MD^{1,7}, Orit Givon, MD^{1,8}, Alon Ashkenazi, MD^{1,9}, Samuel Atlas, MD^{1,10}, Adi David¹, and Elad Schuch¹, MD^{1,11}

BACKGROUND: To explore the impact of acupuncture with other complementary and integrative medicine (CIM) modalities on chemotherapy-induced peripheral neuropathy (CIPN) and quality of life (QoL) in oncology patients. **METHODS:** In this prospective, pragmatic, and patient-centered study, patients with CIPN were treated with acupuncture and CIM therapies (intervention group) or sham acupuncture and CIM therapies (control group) for 6 weeks. Patients in the intervention arm were randomized to twice-weekly acupuncture-only (group A) or acupuncture with additional manual movement or mind-body CIM therapies (group B). Severity of CIPN was assessed at baseline and at 6 weeks using the Functional Assessment of Cancer Therapy-Toxicity (FACT-Tx) tool. Other QoL-related outcomes were assessed with the European Organization for Research and Treatment of Cancer Quality of Life Questionnaire (EORTC) and the Memorial Symptom Assessment Scale (MSAS). **RESULTS:** Of 168 participants, 156 underwent the study intervention (group A, 66; group B, 90), with 22 controls. Baseline-to-6-week assessment scores improved significantly in the intervention arm (vs controls) on FACT-Tx ($p = .038$) and emotional well-being ($p = .045$) scores. FACT-Tx scores for hand numbness/tingling ($p = .007$) and discomfort ($p = .0003$), and EORTC physical functioning ($p = .045$). Intervention groups A and B showed improved FACT-Tx physical well-being ($p = .003$), FACT-Tx total score ($p = .003$), FACT-Tx total discomfort ($p = .003$), and EORTC pain ($p = .017$) scores. **CONCLUSIONS:** Acupuncture, with or without CIM modalities, can relieve CIPN-related symptoms during oncology treatment. This is most pronounced for hand numbness, tingling, pain, discomfort, and for physical functioning. **Cancer 2022;128:1641-1652.** © 2022 American Cancer Society

KEYWORDS: acupuncture, chemotherapy-induced peripheral neuropathy, integrative medicine, integrative oncology, pain.

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Sexual Health

Sexual concerns are common in breast cancer survivors, and include

- Decreased libido (23 to 64%)
- Arousal or lubrication concerns (20 to 48%)
- Orgasmic concerns (16 to 36%)
- Dyspareunia (approximately 35%)

Patients treated with chemotherapy tend to have more sexual concerns than patients treated solely with surgery and/or radiation.

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Sexual Health

- Aromatase inhibitors can cause dyspareunia, vaginal dryness, decreased sexual desire, and menopausal symptoms
- Radiation treatments can cause skin fibrosis, and decreased sexual sensitivity of the skin

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Sexual Health

Recommendations:

- Non-hormonal, water-based lubricants and moisturizers are the mainstay treatment (level I evidence)
- Refer to psychoeducational therapy and sexual or marital counseling when appropriate (level I evidence)

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Sexual Health

Not Recommended/less evidence:

- Low dose estrogen vaginal tablets and estradiol vaginal ring = safety currently not well established for BCs
- Use of hormonal therapies for women on aromatase inhibitors = not recommended
- Vaginal dilators and pelvic floor exercises = may be helpful for vaginal atrophy and stenosis

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Premature Menopause and Menopausal Symptoms

Hormonal Therapy

- Antiestrogen treatments indicated for the 80% of breast cancer survivors whose tumors express estrogen receptors. These treatments improve disease-free survival and reduce the risk of recurrence
- Nearly 50% = vasomotor symptoms such as hot flashes and musculoskeletal symptoms such as joint pain due to antiestrogen treatments, which can result in suboptimal adherence
- Endocrine therapy (tamoxifen, aromatase inhibitors, or ovarian suppression therapy) used as adjuvant systemic therapy reduces risk of recurrence/second primary breast cancer

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JOURNAL OF CLINICAL ONCOLOGY **ASCO SPECIAL ARTICLE**

American Cancer Society/American Society of Clinical Oncology Breast Cancer Survivorship Care Guideline

Carolyn D. Barlow, Corinne B. Leach, N. Lynn Henry, Karen S. Henry, Heather T. Mackey, Rebecca L. Cusumano-Alvarado, Rachel S. Connolly, Mandi L. Pratt-Chapman, Stephen B. Edge, Linda A. Jacobs, Ann Harris, Lawrence B. Marks, Samuel J. Lubman, Ellen Warner, Gary H. Lyman, and Patricia A. Ganz

Hormonal therapy	<ul style="list-style-type: none"> Hot flashes Changes in menstruation Mood changes Increased triglycerides Vaginal dryness Decreased libido Musculoskeletal symptoms/pain Cholesterol elevation 	<ul style="list-style-type: none"> Increased risk of stroke Increased risk of endometrial cancer Increased risk of blood clots Osteopenia in premenopausal women Increased risk of osteoporosis Increased risk of fractures
Tamoxifen		
Aromatase inhibitors		

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Premature Menopause and Menopausal Symptoms

Recommendations:

- Regularly assess adherence
- Inquire about side effects
 - Frequency, severity, effect on quality of life
- Discuss self-care options

Offer SNRIs, SSRIs, or gabapentin and lifestyle modifications to help vasomotor symptoms of premature menopause

(level I evidence)

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Premature Menopause and Menopausal Symptoms

Practical tips:

- SNRI = Venlafaxine
 - Start SR 37.5mg/day x1 week, then increase to 75mg/day
- Gabapentin (anticonvulsant)
 - Start 100mg TID, titrate up to 300mg TID

(level I evidence)

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Premature Menopause and Menopausal Symptoms

Medication Side Effect Profile	
Venlafaxine	Gabapentin
Loss of appetite	Increased dizziness
Nausea	Increased appetite
Constipation	Less well tolerated than Venlafaxine
Less mood changes than Gabapentin	

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Premature Menopause and Menopausal Symptoms

Other Recommendations/less evidence:

- Clonidine = effectiveness less well established
- SSRI = Citalopram
 - RTC = Hot flashes scores ↓ from baseline vs placebo 10mg/day dose. No ↑ effect with 20 and 30mg/day doses
- Concern: SSRIs inhibit CYP2D6 pathway = may ↓ conversion of tamoxifen to active metabolites

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Joint Pain and Stiffness from Hormonal Treatments

Other Recommendations:

- Acetaminophen/NSAIDs (level I evidence)
- Acupuncture (level I evidence)

Emerging evidence:

- Behavioral interventions (CBT, exercise)
- Placebo effect

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Lymphedema

- Breast cancer patients who undergo breast surgery and/or radiation are at risk for lymphedema
 - Arm, breast, or chest wall sensation of fullness or swelling
 - Due to blockage of the lymphatic fluid from the arm and/or breast, leading to retention of fluid and swelling



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Lymphedema

- Breast cancer-related lymphedema incidence varies widely, but estimates suggest that over 40% will experience some degree of lymphedema
- Those who undergo complete axillary node dissection are at greater risk of developing lymphedema than those who undergo sentinel lymph node dissections
- Lymphedema can occur immediately following treatment or develop many years thereafter
- Radiation therapy may cause or aggravate lymphedema, particularly if radiation was given to the supraclavicular lymph nodes or axilla

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Lymphedema



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Lymphedema

Recommendations:

- Educate about early signs + potential risk reduction
 - Include weight loss counseling for survivors who are overweight or obese
- Primary care providers should refer breast cancer survivors with symptoms or swelling suggestive of lymphedema to a knowledgeable therapist (lymphedema specialist, occupational therapist, physical therapist)

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Lymphedema: Practical Tips

Compression Therapy

CONTRAINDICATIONS

- Arterial insufficiency
- Severe peripheral arterial occlusive disease (PAOD)
- Acute cellulitis
- Uncontrolled cardiac failure
- Acute dermatitis
- Severe diabetic neuropathy with sensory loss or microangiopathy with risk of skin necrosis
- True allergy to compression material

PRECAUTIONS

- Signs of possible infection (cellulitis)
- Neuropathy
- Non-ambulatory patients

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Lymphedema: Practical Tips

LYMPHEDEMA ASSOCIATIONS

- Newfoundland & Labrador: <https://lymphnl.com>
- Quebec: <http://en.info.lympho.ca>
- Manitoba: <https://www.lymphmanitoba.ca>
- Alberta Lymphedema association: <http://www.albertalymphedema.com>
- Nova Scotia: <https://lymphedemanovalscotia.com>
- Ontario: <https://www.lymphontario.ca>
- Saskatchewan: <https://www.sasklymph.ca>
- British Columbia Association: <https://bclymph.org>

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Component 3: Health Promotion

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Health Promotion

- Involvement of primary care providers is crucial to optimal survivorship care delivery
- Studies have shown that survivors who visit their primary care providers in addition to specialists are more likely to receive:
 - Recommended preventative care
 - Higher-quality care for their other medical conditions

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Health Promotion

Practical Tip:

Approach a breast cancer survivor like a patient recently diagnosed with an acute coronary syndrome: as someone who will strongly benefit from and likely be receptive to counseling about lifestyle modification to optimize their health.

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Health Promotion

4 main categories:

1. Weight management
2. Physical activity
3. Nutrition
4. Smoking cessation



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Health Promotion: Weight Management

Increasing evidence suggests that obesity status is contributor of:

- Cancer recurrence
- Second cancer
- Cancer-related mortality
- Other metabolic complications



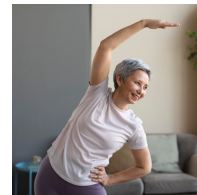
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Health Promotion: Weight Management

Recommendation:

- Counsel patients who are overweight or obese to change dietary habits and increase physical activity to promote and maintain weight loss

(level I evidence)



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Health Promotion: Weight Management

Practical Clinical Interventions for Diet, Physical Activity, and Weight Control in Cancer Survivors

Wendy Demark-Watson, PhD, RD¹; Leah O. Rogers, MD, MPH²; Catherine M. Alfano, PhD³; Cynthia A. Thomson, PhD, RD⁴; Kary S. Courneya, PhD⁵; Jeffrey A. Matthews, MD, MPH⁶; Nicole L. Bragg, PhD⁷; Elizabeth Krask, MD⁸; Heidi Garber, MD, RD⁹; Jennifer A. Ligibel, MD¹⁰

STUDY REFERENCE	STUDY REFERENCE	STUDY REFERENCE
PREV 15400: Diet and physical activity in cancer survivors (2012) ¹¹	Wendy Demark-Watson, PhD, RD ¹	Wendy Demark-Watson, PhD, RD ¹
Obesity 2011 ¹²	Leah O. Rogers, MD, MPH ²	Leah O. Rogers, MD, MPH ²
Obesity 2012 ¹³	Catherine M. Alfano, PhD ³	Catherine M. Alfano, PhD ³
NC STRIDES Campbell 2009 ¹⁴	Cynthia A. Thomson, PhD, RD ⁴	Cynthia A. Thomson, PhD, RD ⁴
Project LISA (2003-2008): Diet and physical activity in cancer survivors (2011) ¹⁵	Kary S. Courneya, PhD ⁵	Kary S. Courneya, PhD ⁵
	Jeffrey A. Matthews, MD, MPH ⁶	Jeffrey A. Matthews, MD, MPH ⁶
	Nicole L. Bragg, PhD ⁷	Nicole L. Bragg, PhD ⁷
	Elizabeth Krask, MD ⁸	Elizabeth Krask, MD ⁸
	Heidi Garber, MD, RD ⁹	Heidi Garber, MD, RD ⁹
	Jennifer A. Ligibel, MD ¹⁰	Jennifer A. Ligibel, MD ¹⁰

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Health Promotion: Weight Management

Practical tips:

- Engage patient in plan
- Education on benefits
- Customize/adapt weight management plan to each patient
- Refer to appropriate resources when deemed necessary

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Health Promotion: Physical Activity

- Numerous observational studies suggest an inverse association between physical activity after a cancer diagnosis and mortality
- Also, strong evidence of benefits of physical activity in improving:
 - Fatigue
 - Depression
 - Pain
 - Overall QOL



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Health Promotion: Physical Activity

Recommendations:

- Counsel patients to avoid inactivity and return to daily activities as soon as possible
- Aim for at least 150 min of moderate or 75 min of vigorous intensity physical activity/ week (level I evidence)
- Include strength training at least 2 days/week (level I evidence)



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Health Promotion: Physical Activity



NCCN Guidelines Version 1.2023
Survivorship: Physical Activity

NCCN Guidelines Index
Table of Contents
Discussion

EXAMPLES OF PHYSICAL ACTIVITY		
Light Exercise^a (No noticeable change in breathing pattern)	Moderate Exercise^a (Can talk, but not sing)	Vigorous Exercise^b (Can say a few words without stopping to catch a breath)
• Leisurely biking at 5 miles/hour or less	• Bathroom/life dancing	• Aerobic/interval dancing
• Activity-promoting video game	• Biking on level ground or with few hills	• Biking faster than 10 miles/hour
• Light housework (light sweeping, dusting)	• General gardening	• Heavy gardening
• Bowling	• Baseball, softball, volleyball	• Hiking uphill
• Playing catch	• Double tennis	• Jumping rope
• Slow walking	• Using a manual wheelchair	• Martial arts
• Child care	• Brisk walking	• Boxing
• Restorative yoga	• Water aerobics	• Race walking, jogging, running
• Tai chi	• Moderate-intensity yoga (ie, Vinyasa)	• Running sports (basketball, hockey, soccer)
	• Pilates	• Swimming (fast pace or laps)
	• Pickleball	• Singles tennis
		• Stair climbing
		• High-intensity yoga
		• Pickleball

<https://www.nccn.org>
Under Guidelines - Survivorship

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Health Promotion: Physical Activity

Practical tips for the office:

- Help define / clearly outline physical activity goals
- Promote supervised exercise into unsupervised settings
- Regular prompting to self-monitor and practice

**The simple recommendation by a provider to increase/exercise can motivate survivors as well as provision of printed materials*



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Health Promotion: Nutrition

Study findings have shown:

- Eating a diet high in vegetables, fruits, whole grains, and legumes, compared to Western diet, has been associated with reduced risk in all-cause mortality



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Health Promotion: Nutrition

- 2 large RTC
- WINS: Women's Intervention Nutrition Study
 - 2437 post-menopausal breast cancer survivors
 - Low-fat diet = < 15% energy intake
 - WHEL: Women's Healthy Eating and Living Study
 - 3088 pre and post menopausal breast cancer survivors
 - Low-fat diet = 20% energy intake

Suggests that diet changes resulting in weight loss may be necessary to positively impact breast cancer recurrence and prognosis

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Health Promotion: Nutrition

Recommendations:

- Counsel patients to have a dietary pattern high in vegetables, fruits, whole grains, and legumes; low in saturated fats; and limited in processed and red meats (level I evidence)



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Health Promotion: Vitamins and Diet Supplements

Current evidence from observational and clinical trials suggest that dietary supplements are unlikely to improve prognosis or overall survival:

- Meta-analysis Vitamin A or antioxidants
- 10-year study assessing multivitamins,
- Vitamin E, Vitamin C
- Use of Vitamin D: insufficient data in both breast and colorectal cancer survivors



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Health Promotion: Vitamins and Diet Supplements

- Scientific evidence supports the use of St John's wort to help relieve mild to moderate depression.
- BUT: also known to reduce the effectiveness of some chemotherapies and the hormone therapy tamoxifen



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Health Promotion: Vitamins and Diet Supplements

Current body of evidence regarding supplement use suggest some general guidance should be considered:

- All attempts should be made to obtain needed nutrients through dietary sources
- Supplements should be considered only if a nutrient deficiency is either biochemically or clinically demonstrated



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Health Promotion: Vitamins and Diet Supplements

Useful references:

- Memorial Sloan-Kettering Cancer Center website: www.mskcc.org
 - Section about Herbs, Botanicals and other products provides scientific evidence and warnings for a range of dietary supplements.
- Health Link BC website: www.healthlinkbc.ca
 - Section about Dietary Supplements
- NCCN website: www.nccn.org
 - Section Survivorship – Dietary Supplements

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Health Promotion: Smoking Cessation

Recommendations:

- Counsel breast cancer survivors to avoid smoking
- Identify and manage/refer breast cancer survivors who smoke to cessation counseling and resources

STOP

(level I evidence)

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Health Promotion: Smoking Cessation

Practical tips:

As a general rule, any pharmacological agent can be used but caution in certain cases:

- Champix may worsen nausea associated with chemotherapy
- NRT can irritate oral mucosa in patients undergoing radiotherapy
- Bupropion may increase efficacy of tamoxifen

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Component 4: Care Coordination

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Care Coordination

- Primary care providers are increasingly leading the follow-up care of breast cancer survivors
- Issues that some breast cancer survivors' face are best addressed with multidisciplinary approach
- Ensure communication with oncologists/primary care providers for optimal care coordination



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Care Coordination

Recommendations:

- No clear guidelines on survivorship shared-care or specific time to transition

Level III evidence:

- Obtain treatment summary and survivorship care plan
- Engage breast cancer survivors in management of their survivorship care
- Encourage inclusion of caregivers in follow-up care

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Conclusions

- Survivorship care goes beyond surveillance for recurrence: the assessment and management of late and long-term effects is key to providing optimal follow-up care to breast cancer survivors
- Never underestimate the value of patient counseling and educational interventions!

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Thank You!

Do you have any questions?
genevieve.chaput@mcgill.ca



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MEMBER INTEREST GROUPS SECTION (MIGS)
SECTION DES GROUPES D'INTÉRÊT DES MEMBRES (SGIM)

Member Interest Groups Section

Introducing the Member Interest Groups Section (MIGS) formerly Communities of Family Practice in Family Medicine
The Member Interest Groups Section links CFPC members across Canada with similar practice interests. It fosters professional peer connections to explore and address issues impacting family medicine.
The Member Interest Groups Section is designed to support the College of Family Physicians of Canada's (CFPC's) dedication to providing a professional home for family physicians across a diversity of clinical and non-clinical interests and practice types. Currently the Section is comprised of 19 different member interest groups.
To join, simply indicate your interest(s) in your CFPC member profile or see the MIGS team at the Mainpage and Practice Support booth and they will make sure you're kept up to date on any future developments!

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MiGroups Powered by Members, Connected by TimedRight

MIGS members are invited to join MiGroups, a private, secure online community for family physicians

MiGroups is used by members to share their experiences with peers, ask clinical questions, promote new practice tools, learn about upcoming events, and more!

- To join, visit <https://cfpc-timedright.com> or scan the QR code. Then, sign up with the email you use to receive CFPC emails



Questions? Contact us at migs@cfpc.ca



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THE BENEFITS OF MEMBERSHIP IN CAGPO-ACMOO
CAGPO-ACMOO is the only organization of its kind in Canada.

CAGPO-ACMOO offers members:

- Reduced registration to the largest educational event in Canada for GPOs-the CAGPO Annual Conference;
- Access to the CAGPO Training Scholarships-\$4500.00 per week to support your training needs in cancer care;
- Free online subscription to Current Oncology;
- Access to our national database of GPO contracts and benefits;
- Access to the GPO Training Program-an online problem-based self-directed learning program;
- Representation at the level of the College of Family Physicians of Canada, on the Cancer Care Committee;
- The camaraderie and advocacy of a growing professional group of physicians in the delivery of cancer care in Canada.

<http://www.cagpo.ca/membership>

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Infertility

- Younger BCS can experience infertility as a potential long-term effect of cancer treatments (younger than age 45 years)
 - Can have a significant impact on quality of life
- Approximately 10% of breast cancer patients are between 20 to 45 years of age
- Chemotherapy can be toxic to gonads, which may lead to reduced fertility or early menopause secondary to premature ovarian failure
- Chemotherapy agents used in the treatment of breast cancer (eg, alkylating agents, platinum agents, and taxanes) also often lead to premature ovarian failure

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Infertility

Recommendations:

- It is recommended that primary care clinicians should refer survivors of childbearing age who experience infertility to a specialist in reproductive endocrinology and infertility as soon as possible

(level III evidence)

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Body Image Concerns

Body image and appearance concerns affects 31 to 67% of BCS



Loss of a breast, scars following surgery, lymphedema, hair loss, sexual issues and/or treatment-induced early menopause, skin changes due to radiation treatment and weight gain =

- Can impact both short and long-term quality of life

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Body Image Concerns

Recommendations:

- PCPs should assess for body image/appearance concerns (level III evidence)
- PCPs should discuss potential options such as breast prostheses, wigs (level III evidence)
- Refer to psychosocial services as needed (level I evidence)

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