ESSENTIAL NEWS FOR CANADIANS AFFECTED BY BREAST CANCER

network news

Fall 2014, Vol. 18, No. 2
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Promoting the patient voice
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Healthy living:

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Network News is published by the Canadian Breast Cancer Network (CBCN) to provide the breast cancer community with up-to-date and understandable information on issues at the national level, to promote education and awareness, and to highlight the concerns of Canadians affected by breast cancer.

We would like to thank the individuals who wrote articles and the breast cancer support groups that provided information. We welcome your ideas, contributions, and letters, subject to editing and available space. The articles in this issue do not necessarily represent the views of CBCN but are the opinions of the authors. CBCN gives permission to copy with attribution.

"Production of this issue of *Network News* has been made possible through a financial contribution from the Public Health Agency of Canada. The views expressed herein do not necessarily represent the view of the Public Health Agency of Canada."

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ISSN: 1481-0999 Circulation: 5500
PUBLICATIONS MAIL AGREEMENT
NO. 40028655
Return undeliverable Canadian addresses to
CANADIAN BREAST CANCER NETWORK
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LETTER FROM THE CHAIR OF THE BOARD OF DIRECTORS

Dear readers:

This issue of Network News is all about about familial risk of breast cancer. You'll find articles on hereditary breast cancer syndrome, risk factors, genetic counselling, and treatment options. Also, Natalie Witkin of Willow Breast & Hereditary Cancer Support shares her story about how she dealt with her discovery that she is a carrier of the BRCA1 gene mutation.

If you don't have a familial risk of breast cancer, we still have information for you. Our Healthy Living section contains articles on exercise and nutrition, and includes a delicious recipe. CBCN in Action updates you on all of our work in promoting the patient voice. And Research Roundup brings you the latest news on breast cancer research.

We hope that this information will empower you to make the best possible choices about your health. Write to us and let us know how you are making out—we'd love to hear from you!

Warm regards,

Cathy Ammendolea, CBCN Board Chair

Inside this issue

Risk factors for breast cancer

A risk factor is anything that affects your chance of getting a disease, such as cancer. Some risk factors, like a person's age or gender, can't be changed. Others are related to personal behaviors, such as smoking, drinking, and diet.

Risk factors don't tell us everything. Having a risk factor, or even several, does not mean that you will get the disease. Most women who have one or more breast cancer risk factors never develop the disease, while many women with breast cancer have no apparent risk factors (other than being a woman and growing older). Even when a woman with risk factors develops breast cancer, it is hard to know just how much these factors might have contributed.

Here are some of the well-known risk factors for breast cancer.

RISK FACTORS THAT YOU CAN'T CHANGE

Gender

Simply being a woman is the main risk factor for developing breast cancer. Men can develop breast cancer, but this disease is about 100 times more common among women than men. This is probably because men have less of the female hormones estrogen and progesterone, which can promote breast cancer cell growth.

Age

Your risk of developing breast cancer increases as you get older. About one out of eight invasive breast cancers are found in women younger than 45, while about two of three invasive breast cancers are found in women age 55 or older.

Genetic risk factors

About 5 to 10 percent of breast cancer cases are thought to be hereditary, meaning that they result directly from gene defects (called mutations) inherited from a parent. The most common cause of hereditary breast cancer is an inherited mutation in the BRCA1 and BRCA2 genes. In normal cells, these genes help prevent cancer by making proteins that keep the cells from growing abnormally. If you have inherited a mutated copy of either gene from a parent, you have a high risk of developing breast cancer during your lifetime.

Although in some families with BRCA1 mutations the lifetime risk of breast cancer is as high as 80 percent, on average this risk seems to be in the range of 55 to 65 percent. For BRCA2 mutations the risk is lower, around 45 percent.

Family history of breast cancer

Breast cancer risk is higher among women whose close blood relatives have this disease.

Having one first-degree relative (mother, sister, or daughter) with breast cancer approximately doubles a woman's risk. Having two first-degree relatives increases her risk about three-fold.

The exact risk is not known, but women with a family history of breast cancer in a father or brother also have an increased risk of breast cancer. Altogether, less than 15 percent of women with breast cancer have a family member with this disease. This means that most (over 85 percent) women who get breast cancer do not have a family history of this disease.

Personal history of breast cancer

A woman with cancer in one breast has a three- to four-fold increased risk of developing a new cancer in the other breast or in another part of the same breast. This is different from a recurrence (return) of the first cancer.

Dense breast tissue

Breasts are made up of fatty tissue, fibrous tissue, and glandular tissue. Someone is said to have dense breast tissue (as seen on a mammogram) when they have more glandular and fibrous tissue and less fatty tissue. Women with dense breasts have a higher risk of breast cancer than women with less dense breasts. Unfortunately, dense breast tissue can also make mammograms less accurate.

A number of factors can affect breast density, such as age, menopausal status, the use of drugs (such as menopausal hormone therapy), pregnancy, and genetics.

Menstrual periods

Women who have had more menstrual cycles because they started menstruating early (before age 12) and/or went through menopause later (after age 55) have a slightly higher risk of breast cancer. The increase in risk may be due to a longer lifetime exposure to the hormones estrogen and progesterone.

LIFESTYLE-RELATED FACTORS AND BREAST CANCER RISK

Having children

Women who have had no children or who had their first child after age 30 have a slightly higher breast cancer risk. Having many pregnancies and becoming pregnant at a young age reduce breast cancer risk. Pregnancy reduces a woman's total number of lifetime menstrual cycles, which may be the reason for this effect.

Birth control

Studies have found that women using oral contraceptives (birth control pills) have a slightly greater risk of breast cancer than women who have never used them. This risk seems to go back to normal over time once the pills are stopped. Women who stopped using oral contraceptives more than 10 years ago do not appear to have any increased breast cancer risk. When thinking about using oral contraceptives, women should discuss their other risk factors for breast cancer with their health care team.

Hormone therapy after menopause

Using combined hormone therapy (estrogen and progesterone) after menopause increases the risk of getting breast cancer. It may also increase the chances of dying from breast cancer. This increase in risk can be seen with as little as two years of use. Combined hormone therapy also increases the likelihood that the cancer may be found at a more advanced stage. The increased risk from combined hormone therapy appears to apply only to current and recent users. A woman's breast cancer risk seems to return to that of the general population within five years of stopping combined treatment.

Breastfeeding

Some studies suggest that breastfeeding may slightly lower breast cancer risk, especially if it is continued for 1.5 to two years. But this has been a difficult area to study, especially in countries such as Canada, where breastfeeding for this long is uncommon. One explanation for this possible effect may be that breastfeeding reduces a woman's total number of lifetime menstrual cycles (similar to starting menstrual periods at a later age or going through early menopause).

Drinking alcohol

The use of alcohol is clearly linked to an increased risk of developing breast cancer. The risk increases with the amount of alcohol consumed. Compared with non-drinkers, women who consume one alcoholic drink a day have a very small increase in risk. Those who have two to five drinks daily have about 1.5 times the risk of women who don't drink alcohol. Excessive alcohol consumption is also known to increase the risk of developing several other types of cancer.

Being overweight or obese

Being overweight or obese after menopause increases breast cancer risk. Before menopause your ovaries produce most of your estrogen, and fat tissue produces a small amount of estrogen. After menopause (when the ovaries stop making estrogen), most of a woman's estrogen comes from fat tissue. Having more fat tissue after menopause can increase your chance of getting breast cancer by raising estrogen levels. Also, women who are overweight tend to have higher blood insulin levels. Higher insulin levels have also been linked to some cancers, including breast cancer.

Physical activity

Evidence is growing that physical activity in the form of exercise reduces breast cancer risk. The main question is how much exercise is needed. In one study from the Women's Health Initiative, as little as 1.25 to 2.5 hours per week of brisk walking reduced a woman's risk by 18 percent. Walking 10 hours a week reduced the risk a little more.

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Willow is about helping everyone, from the individual diagnosed to their family and caregivers, cope with breast and hereditary cancer.

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Hereditary breast and ovarian cancer syndrome

WHAT IS HBOC SYNDROME?

Hereditary breast and ovarian cancer syndrome is an inherited tendency to develop breast, ovarian and other cancers due to a gene mutation that is passed down, most notably in the BRCA1 and BRCA2 genes. Female carriers of BRCA1 and BRCA2 mutations are predisposed to high lifetime risks of breast and ovarian cancer. Male carriers are at increased risk of prostate and breast cancer. Both are at a slightly increased risk of some other cancers. Individuals that do not have a confirmed genetic mutation may still be deemed high risk based on their family history and other factors.

About 5 to 10 percent of all cancer cases are thought to be due to an inherited gene mutation. That means that most cancer is not hereditary.

HOW DO YOU ASSESS IF YOU'RE AT RISK?

We might suspect hereditary breast or ovarian cancer in a family if we see at least one of the following:

- multiple individuals with breast and/or ovarian cancer on one side of the family (either the maternal OR paternal side of the family)
- multiple generations affected by cancer on one side of the family
- bilateral breast cancer at age 50 or younger
- breast cancer at age 40 or younger
- invasive serous ovarian cancer
- a family member who has had more than one type of cancer
- primary breast and ovarian cancer in the same individual
- breast cancer that is hormone receptor negative and HER2 negative (triple negative) at age 50 or younger
- male breast cancer at age 65 or younger, or at any age with close family history of breast cancer
- breast or ovarian cancer in a family with Ashkenazi Jewish heritage
- known BRCA1 or BRCA2 mutation in the family

If you are concerned about a possible genetic syndrome in your family, please talk to your family physician about a referral to the medical genetics clinic in your area.

Sources: Hereditary Breast and Ovarian Cancer Society, hbocsociety.org, and Sonia Nanda, genetic counsellor, Women's College Research Institute

Genetic counselling Q&A

By Sonia Nanda
Certified Genetic Counsellor,
Women's College Research Institute

WHO ARE GENETIC COUNSELLORS AND WHAT DO THEY DO?

A genetic counsellor is a health care professional with specialized education, training, and experience in medical genetics and counselling. Genetic counsellors work with both individuals and families that have a medical, family history, or potential risk for an inherited condition. The role of a genetic counsellor is to identify families at risk for genetic conditions, provide information and supportive counsellng, coordinate and review testing options, and connect patients/families with appropriate community resources.

WHAT DOES A GENETIC COUNSELLING APPOINTMENT FOR HEREDITARY BREAST AND/OR OVARIAN CANCER INVOLVE?

During a genetic counselling appointment, the following is discussed:

- Review of personal health history
- Review of family history
- Confirmation of types of cancer in individual and/or family members
- Assessment and explanation of your personal risk for hereditary cancer
- Provision of cancer screening recommendations
- Discussion of whether you or your family are eligible for genetic testing
- Discussion of the risks, benefits, and limitations of genetic testing
- Interpretation of results

WHAT SHOULD A PATIENT DO TO PREPARE FOR GENETIC COUNSELLING?

Come with a list of questions that you want the genetic counsellor to answer. Know your medical and family history of cancer (i.e. type of cancer each person had, age of diagnosis, where were they treated). Be prepared to try to get medical documentation to confirm the cancers in the family.

WHAT ARE THE PROS AND CONS OF GENETIC TESTING?

When an individual tests negative for the BRCA mutation in the family, the sense of relief can be overpowering. If the test comes back positive, individuals can look to preventive strategies and early treatment options. Carriers of BRCA1 and BRCA2 fall into this group. They can take a wait-and-see approach and commit to regular screening, such as mammograms and MRIs, or they can undergo a prophylactic mastectomy.

There are also ethical quagmires to discovering what lurks in your genes. Family relations can become strained if loved ones would rather not know this information. Alternatively, when an entire family is tested, anything less than across-the-board good news can sometimes be difficult and may cause some family dynamic issues.

Insurance coverage can also be jeopardized by genetic testing. Consequently, it might be difficult to get life insurance coverage.

WHEN PATIENTS LEARN THAT THEY HAVE A GENETIC PREDISPOSITION TO BREAST CANCER, THAT IS VERY EMOTIONAL. HOW DO YOU AS A GENETIC COUNSELLOR HELP PATIENTS PROCESS THEIR EMOTIONS?

Genetic counsellors help in three ways:

- By providing support and listening to patients and their concerns
- By providing resources (i.e. support groups) that patients may want to get connected with
- Sometimes by booking multiple genetic counselling sessions if needed to help patients go through their emotions and digest the news

WHY DO SOME PATIENTS WHO COME FOR GENETIC COUNSELLING DECIDE NOT TO BE TESTED FOR A GENETIC MUTATION?

It's a personal choice. Some patients do not want to know this information. The genetic counsellor is there to provide all the information and it is up to the patient to make an informed decision based on this information.

HOW MUCH DOES GENETIC COUNSELLING COST? IS IT COVERED BY PROVINCIAL HEALTH INSURANCE?

Currently genetic counselling in Canada is covered. If the patient is eligible, genetic testing is also covered. If a patient does not meet the criteria for genetic testing, he or she may wish to pay for the genetic testing out-of-pocket.

HOW CAN I BE REFERRED FOR CANCER GENETIC COUNSELLING?

Your health care provider can make a referral for you or your family to a cancer genetics clinic.

Cancer genetic counseling and testing services are available in Canada; refer to the Canadian Association of Genetic Counsellors' website for a genetics clinic in your area.

Preventative treatment for hereditary breast cancer

If you are at high risk for developing breast cancer because of family history or because you have the BRCA1 or BRCA2 gene mutation, you have several preventative treatments to consider. These options include close surveillance, chemoprevention, and prophylactic mastectomy, with or without breast reconstruction.

Close surveillance

Close surveillance or screening for cancer routinely uses tests to try to catch cancer in its early stages, when it is most treatable. Surveillance doesn't prevent cancer. However, early detection improves a person's chance of surviving their cancer.

The National Comprehensive Cancer Network, a consortium of cancer centres with experts in management of hereditary cancer, presents the following guidelines for surveillance of women who are at high risk for breast cancer:

- Breast self-exam training and regular monthly BSE starting at age 18
- Clinical breast exam, semiannually, starting at age 25
- Annual mammogram and/or MRI starting at age 25 or individualized based on earliest age of onset in family

Chemoprevention

Chemoprevention is the use of medication to lower the risk or prevent cancer in healthy people. Some chemoprevention medications reduce breast cancer risk. However, just how well these drugs perform in high-risk women depends on each woman's individual level of risk. Many past studies of these medications focused on women in the general population or women whose risk for breast cancer was based on the Gail Model, a risk assessment tool; therefore, the research may not apply to everyone with hereditary cancer risk. When choosing the best risk management option for yourself, you need a clear sense of your risk (a health care team with expertise in managing high-risk patients can help you identify this) and an understanding of the potential benefits and side effects of chemopreventive medications.

One common chemoprevention drug is tamoxifen. A large study found women who took tamoxifen for five years lowered their breast cancer risk by one half[1]. This study identified women at high risk for breast cancer according to the Gail Model. The Gail Model does not take into account certain aspects of hereditary breast and ovarian cancer; therefore the high risk population from this study may be different than women who are at high risk for breast cancer because of a BRCA mutation. Smaller studies looking at tamoxifen for breast cancer prevention in women with BRCA mutations have been inconclusive.

Tamoxifen may have some side effects and risks. Women who take this medication are at a slightly higher risk for developing uterine cancer. Tamoxifen can also increase the risk of blood clots, including serious blood clots, particularly in women who smoke or have other risk factors. Experts do not all agree that tamoxifen is appropriate for preventing breast cancer in women with BRCA1 mutations. Women who consider tamoxifen to lower their risk for breast cancer should discuss the benefits, risks and limitations with their health care team, including experts in managing high-risk women.

Prophylactic mastectomy

"Prophylactic mastectomy" refers to the removal of healthy breasts to reduce a woman's risk of developing breast cancer. Bilateral prophylactic mastectomy is the most effective means of reducing a woman's risk; however, the benefits of such surgery depend on each woman's individual risk. Because even the most experienced breast surgeon cannot remove all breast tissue, a small risk of developing breast cancer remains after prophylactic mastectomy. Although effective, some consider prophylactic mastectomy to be a drastic way to lower cancer risk. A woman's decision to remove her healthy breasts is highly personal. Confronting your personal cancer risk can be confusing and frustrating. If you are a high-risk

woman trying to choose the best risk-management option, you need a clear sense of your personal risk as possible and an understanding of the potential benefits, risks, and side effects of prophylactic surgery. Therefore it is important to consult with a specialist in cancer genetics when determining your risk for breast cancer and making risk-management decisions that are best for you. Stay in contact with a genetics expert for updates on current knowledge.

Breast reconstruction

Breast reconstruction is surgery to recreate breasts after mastectomy. Reconstructive procedures have evolved tremendously in the last decade. In past years, reconstructive surgeons tried to restore a woman's profile in clothes. Now the goal of many surgeons is to make a woman look as natural as possible whether clothed or not. Reconstruction can replace the look of breasts, but even the best surgeons and the newest techniques can't replace all sensation lost when chest nerves are severed during mastectomy, completely eliminate breast scars, or restore the ability to breastfeed.

Today, although some women prefer not to have reconstruction, those who do have many options. Choosing a method of reconstruction is very personal. Each procedure has advantages and disadvantages. Not all surgeons perform all procedures, and often, surgeons recommend only the techniques they perform. The most important actions a woman considering reconstruction can take is to learn about her options, decide which is best for her, then consult with and choose a surgeon who is experienced and expert in the technique she prefers. For more information on breast reconstruction, visit www.breastreconstructioncanada.ca.

Source: FORCE (Facing Our Risk of Cancer Empowered), http://www.facingourrisk.org/info_research/risk-management/introduction/index.php

References

1 Fisher, B. et al. (1998). Tamoxifen for Prevention of Breast Cancer: Report of the National Surgical Adjuvant Breast and Bowel Project P-1 Study. *Journal of the National Cancer Institute*, Volume 90, Issue 18, pp. 1371-1388.

High-risk decisions from a BRCA mutation carrier

By Natalie Witkin

I've always had a tough time making decisions. Maybe it's because I'm a Libra, whose sign is the scales, that I get stuck weighing both sides of a decision. So when I chose to be tested for the BRCA gene mutation, I didn't realize how many difficult decisions I would ultimately have to make.

I tested positive for the BRCA1 gene mutation in 2000. I was 30 years old, had recently gotten married, and was planning to start a family. At the time, not much information was available about the risks and management options for carriers. I was told my lifetime risk of developing breast cancer was up to 87 percent and my risk for ovarian cancer was about 50 percent. These estimates have decreased over the last 15 years to 55 to 65 percent and 49 percent respectively.

There wasn't much cancer in my family, so I wasn't particularly worried for myself. I was young and naïve, felt invincible, hadn't witnessed cancer firsthand, and didn't have kids yet, so I didn't feel highly motivated to have aggressive, image-altering surgeries.

After about ten months of "why me" feelings, I decided I would continue with high-risk screening until I was done having kids. It felt good to have a plan of action after months of uncertainty about how to manage my risk. Once a year, I would have a breast exam, mammogram, and MRI. I couldn't change the fact that I had the gene mutation but I was lucky enough to be living in a country with access to the most advanced screening in the world. And hey, I only had a risk; I didn't have CANCER.

That all changed in 2007 when I found a lump in my armpit two days before my annual MRI. A biopsy confirmed Stage 1 Invasive Ductal Carcinoma. As is common in BRCA1 carriers, my cancer was aggressive and triple negative, which meant it wouldn't respond to tamoxifen or Herceptin.

I was 37 years old and had two daughters ages 2 and 4. My husband was incredibly supportive and my family and friends took good care of me, but at times I still felt scared, sad, different, and alone. With a young family to care for, I left nothing to chance and underwent an aggressive treatment that included a lumpectomy, chemotherapy, a mastectomy with immediate reconstruction, and a total hysterectomy with bi-lateral salpingo oophorectomy to remove my ovaries, fallopian tubes, uterus, and cervix. I called it my little cancer with my big treatment.

My surgeon suggested I have an immediate lumpectomy to give me time to plan for a mastectomy with immediately reconstruction. Right before my lumpectomy, I attended a class for women having breast surgery. At the class were two older women who had been treated for breast cancer about ten years earlier but had recently developed cancer in the other breast. I left the class with a massive headache but a resolve never to be back. I loved my breasts, but they weren't worth going through cancer treatment again and possibly not having as promising an outcome.

I've come to realize that being high risk is all about choices. When I was diagnosed with cancer, I was given a treatment plan. As a BRCA mutation carrier it was up to me to choose how to manage my risk. I faced choices about sticking with screening or having surgery? Should I have a skin-sparing or nipple-sparing mastectomy? Reconstruction with implants or using my own tissue? Should I remove my uterus or just my ovaries and fallopian tubes? Leave my cervix intact or take it out? Even the optimal age for breast and ovarian surgery wasn't clear-cut.

That all changed in 2007 when I found a lump in my armpit two days before my annual MRI.

Having the BRCA gene mutation was a double-edged sword. On the one hand, it explained why I got breast cancer at age 37, so I didn't have to question my diet or lifestyle and wonder what I could have done differently. On the other hand, it forced me to make the impossible decision to remove both my breasts and ovaries and be plunged into surgical menopause in my 30s.

With surgical menopause came more decisions: how do I manage the potential osteoporosis and cardiac issues that can result from early loss of estrogen? Hormone replacement therapy (HRT) could alleviate my hot flashes, but it could also increase my risk of developing a new breast cancer. There was little research about the long-term effects of early surgical menopause. I had to make the best choice possible with the information available. Since my cancer was hormone receptor negative and I'd had a mastectomy to reduce my breast cancer risk, after much consultation with my gynecologist, oncologist, and GP, I decided that the benefits outweighed the risks and started using a low-dose estrogen patch. My GP suggested an annual check-up where we reviewed any new research about HRT and revisited my decision. Knowing I would revisit my decision once a year allowed me to put it out of my mind between appointments. I also started running and working out with weights to help mitigate bone loss. Hopefully healthy eating would make up for those glasses of wine.

For me, choosing how to manage my risk meant finding the solution that allowed me to get on with my life and stop worrying. I felt that if I did everything possible to reduce my risk of breast and ovarian cancer, then whatever might happen was beyond my control. Having a mastectomy and hysterectomy meant that I didn't have to second-guess my decisions. If my breast cancer returned, I wouldn't have to face myself, or explain to my daughters, why I didn't do more when I had the chance.

It's been seven years since my mastectomy and hysterectomy and I feel good. My daughters are growing up quickly and I savour every milestone and birthday—my own included! Menopause sucks and I wish my breast implants weren't as firm but I've never regretted my decisions. Before each surgery I had a lot of fear and anxiety but once it was over I felt a huge sense of relief knowing I had significantly lowered my risk of breast and ovarian cancer.

It was easier to make difficult decisions when I talked to other women going through the same thing. I've experienced the positive effects that happen when women connect and share their experiences, and I feel passionately that high-risk women should have timely access to unbiased and practical information. I got involved with Willow Breast & Hereditary Cancer Support because I wanted to help other high-risk women. Today, as Willow's Director of Partnerships and Programs, I'm fortunate to work with dedicated health care professionals, breast cancer organizations, and high-risk women to develop resources and support for women and men affected by hereditary breast or ovarian cancer.

NATALIE'S FAMILY, FROM LEFT TO RIGHT: MAYA STORM, AGE 9; NATALIE WITKIN; ERIN STORM, AGE 12; AND STUART STORM

Getting and staying active after being treated for breast cancer

By Jennifer Brunet, PhD

Health professionals, researchers, and policy makers acknowledge the fundamental role physical activity can play after breast cancer diagnosis in improving prognosis and promoting health and wellbeing. However, the majority of women treated for breast cancer are insufficiently active. This highlights the need to consider physical activity promotion as a major public health priority. Consequently, the purpose of this article is to help people fully understand the importance of adopting a physically active lifestyle after breast cancer diagnosis by providing information on the health benefits of physical activity. In addition, it will also provide information on the recommended levels of physical activity for women, and strategies on how to start a physical activity program safely.

1. Rationale for engaging in physical activity – It can increase years and quality of healthy life!

The benefits of physical activity after the diagnosis of breast cancer are well established. It can reduce the risk of treatment side effects, disease recurrence, second primary cancers, and morbidity (e.g., cardiovascular diseases, diabetes mellitus, hypertension, osteoporosis, obesity), and subsequently increase survival. In addition, physical activity can improve physical, mental, social, and emotional quality of life. For example, it can reduce physical (e.g., fatigue, pain) and mental (e.g., depression, anxiety, stress, loneliness) health symptoms, and promote physical (e.g., vigour, vitality), mental (e.g., cognitive functions), emotional (e.g., mood, life satisfaction), and social wellbeing.

2. What is physical activity? Knowing the basics

There is often confusion about what "physical activity" means because most people use the terms physical activity and exercise interchangeably. Physical activity encompasses any form of physical movement that burns calories (e.g., sport, exercise, walking, household chores or gardening), whether it is engaged in at work, home, or for transportation purposes. There are three main types that are important for women's health because they each offer different health benefits.

- *Aerobic* or *endurance* activity serves to improve the cardiovascular system (i.e., heart, blood vessels, lungs). It is any activity that uses large muscle groups that can be maintained continuously, and is rhythmical in nature. Examples are walking, hiking, jogging, swimming, stair climbing, elliptical exercise, cycling, cross-country skiing, and aerobic dance/exercise.
- *Strength* or *resistance* activity serves to improve muscle strength and endurance, as well as maintain fat-free mass. It involves intermittent activity such as lifting weights or using resistance bands.
- *Balance*, *flexibility*, and *stretching* activity serves to develop or maintain mobility. It includes static techniques (i.e., stretch-and-hold types) such as those found in most yoga practices, and dynamic techniques which involve more movement such as in Tai Chi and Pilates.

A well-rounded physical activity program includes a combination of each of these three types of physical activity.

3. Developing a program

The Canadian Cancer Society has articulated recommended levels of physical activity for health for women treated for breast cancer. They advise women to follow the guidelines published by the Public Health Agency of Canada (PHAC), which specify that women aged 18 to 65 years should accumulate at least 150 minutes of moderate-to-vigorous intensity aerobic activity per week, in bouts of 10 minutes or more. They also specify that strengthening activities should be performed at least two times per week on non-consecutive days. While these particular guidelines do not specify a minimum number of times per week on which balance and flexibility activities should be performed,

the guidelines formulated by the PHAC for women either (1) aged 65 years and older or (2) aged 50 to 65 years living with a chronic medical condition, low fitness level or functional limitations that affect their physical activity ability specify that balance and flexibility activities should be performed at least two times per week.

> ...Take the stairs, walk or bike to the corner store, stand up while talking on the telephone, park further away at the mall...

It is important to note that this is the minimal level of physical activity needed to obtain health benefits, and that it has been shown that engaging in a greater amount, intensity, and/or duration of physical activity can lead to greater improvements in many heath parameters. However, even though these are accepted and employed throughout Canada, the recommended level may be unattainable for some women after breast cancer treatment. In this respect, it is recommended that women engage in physical activity according to their abilities and conditions, and gradually increase their physical activity level over time. After all, *some* activity is better than *no* activity!

4. Safety first.

Although physical activity has been shown to be safe, women can follow these strategies:

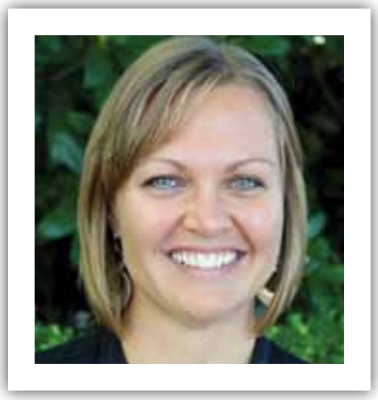
- Get clearance from a physician that it is safe to begin a physical activity program and ask him/her if there are any restrictions for certain activities.
- Work with an exercise professional (i.e., kinesiologist) to develop a personalized program and learn safe execution of activities.
- Consider *current* physical condition, rather than pre-diagnosis condition, when planning the duration, frequency, and intensity of activities.
- Stop if dizziness, excessive sweating, feeling faint, (generalized) weakness, and/or shortness of breath occur.
- If lymphedema has developed, talk with a certified lymphedema therapist, wear a well-fitting pressure garment on the affected arm, and start with light upper-body activities.
- Warm-up and cool down by doing the planned activity (e.g., jogging) at a slower pace (e.g., walking) for 5 to 10 minutes. This will help reduce muscle soreness and risk of injury.

5. Take action and start today!

Here are some tips to help women increase or maintain their current level of activity:

- Plan for success. Set short- and long-term goals that are meaningful and S.M.A.R.T. (Specific, Measurable, Attainable, Realistic, Timely). A short-term goal could be "I will go walking for 30 minutes today" and a long-term goal could be "In six months, I will jog for 30 minutes."
- Pick enjoyable activities. Try something new.
- Take it outdoors. Go walking or cycling in a park.
- Make it easy and cheap. Walking is the simplest way to start and costs nothing.
- Find ways to include it throughout the day. Take the stairs, walk or bike to the corner store, stand up while talking on the telephone, park further away at the mall, mow the grass, vacuum the house, get off the bus a few stops early and walk the rest of the way, etc.
- Make it a priority. Think of it as an important part of getting and staying healthy and well.
- Drink plenty of fluids and eat a balanced diet to fuel the body. If unsure how to get a balanced diet of proteins, carbohydrates, and healthy fats, consult a nutritionist.
- Plan it for the entire week or month, and mark it in your calendar.
- Partner up. Involve friends, family members or fellow survivors so it becomes a social activity.
- Start smart. Start slow to gain endurance, strength, and confidence with every session. It may be best to pick activities that require a low level of effort and intensity, and gradually build up to the recommended level of physical activity.
- Break up activities into two or three short sessions, and rest when needed.
- Keep a log to monitor progress and celebrate accomplishments, even if they are small!

Author information: Jennifer Brunet is an Assistant Professor at the School of Human Kinetics at the University of Ottawa. She works collaboratively with many Canadian health professionals and researchers on different research projects that are focused on encouraging physical activity to optimize health and promote wellbeing in people with cancer. She has received funding from the Canadian Cancer Society and the Canadian Institutes of Health Research to pursue this line of research.



Nutrition and recovery – the fine balance between research, traditional wisdom, and your body

By Angela Wright,
BSC, CNP, RNCP
Lead Nutritionist,
InspireHealth Integrative
Cancer Care

As a nutritionist, I can be a little biased on the wonders of food and nutrition. In looking for a way to take charge of their lives, many people living with cancer look at food choices as a way to feel empowered. Since eating is something that we do three to six times a day, that's a lot of choice and opportunity to use your diet for healing.

We may intrinsically know that nutrition can play an integral role in our heath and also our healing and recovery, but where should we start when there is an abundance of information available? How do we intelligently decipher new science and nutrition trends to determine what's best for us, in this particular time in our lives? The answer is using a combination of scientific research, traditional wisdom, and our body's reactions to hone our diet in to what works best for our individual selves.

According to a newly published review in *the Journal of the American College of Nutrition* entitled "Applying the Precautionary Principle to Nutrition and Cancer"[1], there is a different way to look at nutrition research. Instead of waiting for absolute proof that a food or diet change is of significant benefit, if there's something positive being shown and no harm caused by making that change, then putting those recommendations into practice can only be a good thing.

Sometimes it can be a challenge to take these studies, determine if it's of benefit for you at this particular time in your health, and figure out how to put it into practice. And this is where traditional wisdom and your own reactions come in.

Traditional wisdom is a great way to ask questions based on what "makes sense" and takes into consideration geography, culture, season, and human history. Does it make sense that if I live in Canada that I need goji berries for optimal health, or will blueberries or elderberries in season fit the bill? If I'm from a culture where my ancestors didn't eat dairy, does it make sense that I need it for survival now? What about leafy green salads with mangoes in the winter? Does the human body even know how to process artificial sweeteners? Asking the question, "Would my great-grandmother have eaten it?" is a tremendous filter through which to pass all your food decisions.

Then there's the wisdom your own body is trying to communicate to you. Symptoms can help determine if a specific food is right for you. If a food is touted at being fabulous but it gives you gas, indigestion, affects your sleep, makes you hyper or fatigued, or causes you to break out in hives, these are all important signals to listen to. They might be saying, "Maybe that food is not the best for me." Listen to your body.

Using these three filters, here's an example from the review on the benefits of fruits and vegetables.

Scientific Research: A diet higher in fruits and vegetables reduces the risk of developing several forms of cancer, including breast cancer. Specific food families that show increased benefits include cruciferous (broccoli, cauliflower, Brussels sprouts, cabbage, etc.), alliums (onions, garlic, etc.), and carotenoids (carrots, squash, peppers, etc.).

Traditional Wisdom: Almost every culture around the world (except perhaps the high Arctic) has a large quantity and variety of vegetables and fruits in their natural diets. As many types of produce have a high nutrient to low calorie ratio, it makes sense for an abundance of plants to be included in our diet. Variety in our choices, including garlic, onions, cabbage, and carrots, will give our whole body what it needs to travel towards health. Traditionally, there is also a variety of raw and cooked ways to eat just about every fruit and vegetable out there, so eating some of each makes sense.

Body Response: Do you have an intolerance to garlic or don't like mushrooms? That's okay! There are so many choices available, that as long as you are eating a variety of fruits and vegetables, you don't have to eat every one of them to reap the benefits. There are no downsides to adding a couple of extra servings of veggies or fruit to your day, as long as there is still room left for other sources of good fat and protein that are required by the body.

When you hear about the latest study, book, or Dr. Oz-induced craze, think it through with the great-grandma hat on. Does it make sense that it's good for humans because we've eaten it in the past? Can I include it in the varied whole food diet I'm aiming for? And how does it make me feel when I eat or don't eat it? Asking these questions will empower you to tailor your diet to your own health, goals, and overall well-being. And of course, make sure you are enjoying your food – the best way to get the maximum benefit

North African Carrot Dip

Since carrots are one of those carotenoid-rich vegetables that are specifically beneficial for reducing risk of breast cancer (according to the study, consuming a diet higher in carotenoids lowered the risk by 19 percent), here's a way of increasing your carrot intake. Here the carrot becomes the dip instead of the dipper!

- ☐ 1 pound carrots
- ☐ 3 tbsp. extra virgin olive oil
- ☐ 2 tbsp. lemon juice
- ☐ 2 cloves garlic
- ☐ 1 tsp. paprika
- ☐ 2 tsp. cumin seeds, ground
- ☐ 2 tsp. tahini

Peel or scrub and steam carrots for 10-15 minutes, or until very soft. In a food processor, puree all ingredients together until smooth. Garnish with sesame seeds and freshly ground pepper. Serve at room temperature with veggie crudités or rye crisps, or use as a spread on bread or sandwiches.

References

1 Gonzales, J. et al. (2014). Applying the Precautionary Principle to Nutrition and Cancer. *Journal of the American College of Nutrition*, DOI: 10.1080/07315724.2013.866527. http://dx.doi.org/10.1080/07315724.2013.866527.

The High Risk Breast Cancer Project

The Canadian Breast Cancer Network is pleased to partner with three of Canada's leading breast cancer organizations, the Canadian Breast Cancer Foundation, Rethink Breast Cancer, and Willow Breast & Hereditary Cancer Support, in a collaborative effort to respond to the needs of Canadians who are at high risk of developing breast cancer. This project, funded by the Public Health Agency of Canada, seeks to increase awareness, provide support tools, and build community for high risk women and their families.

Project components include:

- Expanded web and print resources, including additional information about high risk factors (CBCF)
- A resource for women to guide discussion with their health care providers around high risk (CBCF)
- Issues of Network News and Outreach specifically addressing high risk factors, resources, and information (CBCN)
- Online webinars identifying modifiable risk factors that can help reduce your risk (CBCN)
- A documentary on the challenges and issues high risk BRCA1/2 patients across Canada face (Rethink)
- A guide for women who are newly diagnosed with BRCA1/2 mutation (Willow)
- An enhanced online community, helping high risk women to connect (Willow)
- Expanded peer support service to better address the needs of the BRCA/Hereditary Breast and Ovarian Cancer community (Willow)

These tools and resources will be developed and released in 2014 and 2015. CBCN will be sharing the final resources and tools in our March 2015 issue of Network News as well as through our website www.cbcn.ca and through our monthly e-newsletter, Outreach. To subscribe to Outreach, email jgordon@cbcn.ca.

Visit our partners' websites to learn more about the resources that they have and will be developing for Canadians at a high risk for breast cancer.

Canadian Breast Cancer Foundation | Fondation canadienne du cancer du sein

www.cbcf.org

rethink breast cancer

www.rethinkbreastcancer.com

WILLOW BREAST & HEREDITARY CANCER SUPPORT

www.willow.org

Promoting the patient voice

This year, the Canadian Breast Cancer Network has been actively working to engage decision-makers and inform health professionals of key breast cancer issues. Through strategic actions and concentrated efforts to promote the patient voice, CBCN is ensuring that the concerns and needs of breast cancer patients and survivors are being addressed in Canada.

Engaging decision-makers

CBCN has worked closely with key decision-makers to raise awareness and promote action around key breast cancer issues. On May 1, CBCN joined the Honourable Dr. Hedy Fry, Member of Parliament for Vancouver Centre, and Laurie Kingston, a representative of the metastatic breast cancer community, to promote the introduction of a new Private Member's Bill C-594, An Act Respecting a National Metastatic Breast Cancer Day. The launch of the bill was successful, and CBCN will continue to work closely with Dr. Fry and other parliamentarians towards establishing all-party support for actions to raise national awareness and understanding of metastatic breast cancer.

On May 16, CBCN met with the Conservative Member of Parliament for Mississauga South, Stella Ambler, to discuss the need for increased research funding to improve treatment outcomes for patients and survivors.

CBCN will continue working in collaboration with federal decision-makers to build momentum towards ensuring that the issues affecting Canadians living with breast cancer are addressed.

Amplifying the patient voice

CBCN is committed to expanding opportunities to increase the knowledge and capacity of Canadians living with metastatic breast cancer.

From April 25 to 27, CBCN hosted an interactive advocacy training workshop in Calgary and included participants from across Canada. The training workshop provided participants with the knowledge and information to navigate the political landscape in Canada and the tools and resources to engage decision-makers, the public, and the media.

CBCN also champions the voices and perspectives of breast cancer patients and survivors by ensuring that patient input informs the decision-making processes of key health bodies. This year, CBCN has provided patient input submissions to Institut national d'excellence en santé et en services sociaux (INESS) in Quebec regarding two new metastatic treatments. Through these submissions, CBCN seeks to raise awareness about the challenges associated with treating metastatic breast cancer and ensure that patient experiences are being leveraged towards more informed decision-making.

Informing the health care agenda

Working in partnership with health care providers, health officials and non-governmental organizations, CBCN aims to inform and influence the national health care agenda.

In April, CBCN successfully presented an informative session intended to raise awareness of the distinct challenges affecting Canadians living with metastatic breast cancer at the Canadian Association of Psychosocial Oncology conference in Winnipeg, Manitoba. CBCN will also be presenting at the Canadian Association of Nurses in Oncology Conference in Quebec City in October 2014.

CBCN also works to leverage the concerns of patients and survivors to educate health officials and the public. In January, CBCN was invited to participate in a roundtable discussion on subsequent entry biologics hosted by the Cancer Advocacy Coalition of Canada (CACC). As more and more subsequent entry biologics enter the Canadian market, CBCN will continue engaging in critical discussions around this issue to ensure that patients, health professionals, and payers have access to accurate information to understand the differences between these new drugs and the innovator products.

In June, CBCN participated in critical stakeholder consultations with the Canadian Agency for Drugs and Technologies in Health (CADTH) to highlight concerns regarding the recent decision to transfer the pan-Canadian Oncology Drug Review (pCODR) under the administration of CADTH. CBCN highlighted the potential for delays in listing decisions, backlogs for evaluation of drugs, as well as the need to maintain transparency and accountability and to ensure that decisions are informed by patient input. CBCN will continue to participate in consultations and ensure that the concerns of patients and patient-serving organizations are communicated to health officials.

Promoting access to new treatments

CBCN helms active campaigns to promote equitable and timely access to new treatments for metastatic breast cancer. Working closely with patient advocates, and health professionals in Ontario and Quebec, CBCN has emphasized the need to expand and expedite access to new treatments for metastatic patients. As part of these efforts, CBCN has reached out to the Ministries of Health in both Ontario and Quebec to share patient concerns around restricted access to new treatments for metastatic patients.

CBCN also engaged provincial leaders in Ontario, prior to the June 12 provincial election, with a questionnaire targeted to the major Ontario parties to gauge their commitment towards improving access to new metastatic treatments for Ontarians.

CBCN will continue to engage health care decision-makers to ensure that Canadians living with metastatic breast cancer have equitable access to the treatments they need.

CBCN HOSTED AN ADVOCACY TRAINING WORKSHOP IN CALGARY IN APRIL

YOUR UPDATE ON THE LATEST BREAST CANCER RESEARCH

Double mastectomy can double survival rate in BRCA-related breast cancer

Research funded by the Canadian Breast Cancer Foundation

Dr. Kelly Metcalfe, professor at the University of Toronto and researcher at Women's College Research Institute in Toronto, is performing research to determine whether women with BRCA-related breast cancer who choose to have a double mastectomy (removal of both breasts) lived longer than women who had only the affected breast removed (single mastectomy).

Her findings, published in the British Medical Journal, show that women who had a double mastectomy reduced their risk of dying from breast cancer within 20 years by almost 50 percent, largely because they reduced their risk of developing a second breast cancer by having both breasts removed. The greatest survival benefit was seen from 10 to 20 years of follow-up, when a second breast cancer would be most likely to affect survival. In this period, the survival benefit from having a double mastectomy was 80 percent.

While more research is necessary, this study suggests that a double mastectomy may be a more effective treatment for women with a BRCA mutation to prolong their lives, and that women who are diagnosed with breast cancer may be able to make better treatment decisions if they know about their BRCA mutation.

For more information about Dr. Kelly's research, visit www.cbcf.org or www.bmj.com.

Goserelin helps preserve fertility among women receiving chemotherapy for hormone-receptor-negative breast cancer

Research supported by the National Institute of Health

Research is showing that adding goserelin (Zoladex) to standard chemotherapy may be an effective method of preserving fertility among women with early-stage hormone receptor-negative breast cancer. A federally funded (USA) phase III clinical trial reported that women who received goserelin along with chemotherapy were less likely to develop premature ovarian failure compared to women who received chemotherapy alone. Women who received goserelin were also more likely to have successful pregnancies, as well as higher four-year survival. For more information about this study, visit www.ascopost.com.

Adjuvant tamoxifen reduces risk of contraleteral breast cancer in BRCA1/2 mutation carriers

In a study reported in the Journal of Clinical Oncology, Dr. Kelly-Anne Phillips, of the University of Melbourne, and colleagues analyzed the association of adjuvant tamoxifen use and risk of contralateral breast cancer among women carrying BRCA1 and BRCA2 mutations. Use of tamoxifen was associated with reduced risk of contralateral disease with the benefit appearing to be independent of estrogen receptor status of first breast cancer. For more information about this study, visit www.jco.ascopubs.org.

WILLOW

BREAST & HEREDITARY CANCER SUPPORT

Whether you're concerned about your hereditary cancer risk or coping with a BRCA gene mutation, you need information to make the right choices for you. Willow Breast & Hereditary Cancer Support provides free support, insight, and information to high-risk individuals and those affected by breast and hereditary cancer. All of the staff and volunteers at Willow are high-risk or have been personally affected by cancer, so they recognize that by comprehending it, you enable and empower yourself to live with and through the journey. Because every person's experience is unique, Willow's services are tailored to each individual. Willow's Support Team, which includes a Health Librarian, works with clients to address their unique concerns, from understanding your personal risk factors for breast cancer to risk management strategies, communicating with family members, and navigating the healthcare system. Willow strives to create a safe place so people can be themselves, ask the tough questions, and get support, information, insight, and resources from people who've been there. For more information about your specific concerns, call Willow's helpline at 1-888-778-3100 or visit www.willow.org.

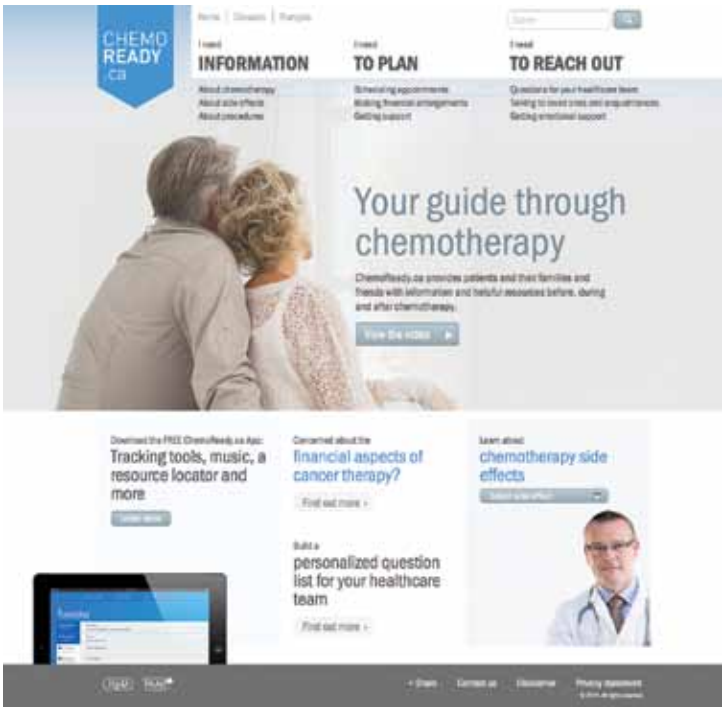
Hereditary Breast and Ovarian Cancer Society

The HBOC Society has produced a booklet entitled *Understanding Hereditary Breast and Ovarian Cancer Syndrome*. This booklet explains the genetics, risk factors, screening recommendations, risk reduction strategies, and genetic testing for hereditary breast and ovarian cancer syndrome. Read the booklet online at www.hbocsociety.org or go online to order a copy.

The HBOC Society also produces a monthly email newsletter, which gives the latest developments in the field of hereditary breast and ovarian cancer. To sign up, visit www.hbocsociety.org or for more information call 866-786-HBOC (4262).

Facing Our Risk of Cancer Empowered (FORCE)

FORCE is an organization dedicated to dealing with the risks of hereditary breast and ovarian cancer. It offers a comprehensive website, www.facingourrisk.org, an annual conference, a newsletter, peer support, webinars, brochures, and a helpline 1-866-288-7475.



New website introduces facts on chemotherapy

You may feel very scared when you hear the word chemotherapy. Most people fear the side effects of chemotherapy and worry about receiving treatment. You may find it helpful to remember that this type of treatment can be a powerful weapon in your fight against cancer. Learning all you can about chemotherapy and what side-effects you can expect are the best ways to overcome your concerns and help you help yourself get well. Knowledge can help you gain a sense of control and to become an active partner in your own care. A new website helps you do that: www.chemoready.ca.

Sunshine Room

At the Queen Elizabeth II Health Sciences Centre in Halifax, the Sunshine Room is a comfortable, supportive area where people undergoing cancer treatments can be introduced to massage therapy, Reiki, Therapeutic Touch, and Reflexology. Head wraps are also available. These services are provided free of charge by trained volunteers. The Sunshine Room is located on the 11th floor, Victoria Building, West Wing, Room 11-017. For more information, call Program Manager Gail Ellsworth at 902-473-3811.

RESOURCE DIRECTORY

Cathy's Place Cancer Resource Room

Cathy's Place, located on the fourth floor at St. Martha's Regional Hospital in Antigonish, Nova Scotia, offers print materials, a wig bank, and Reiki sessions for cancer patients. In addition, Cathy's Place collects donations in support of cancer patients who cannot afford such items as breast prostheses, wigs, and compression garments. For more information, contact Heather Brander, cancer patient navigator, at 902-867-4500, ext. 4707.

Oncofertility Referral Network

Oncofertility has emerged as a new interdisciplinary approach to address the reproductive future of young men, women, and children facing a life-preserving but fertility-threatening cancer diagnosis. The CKN Oncofertility Referral Network is a nationwide platform that links patients, physicians and fertility clinics to ensure time-sensitive needs are met in providing fertility options for young cancer patients as they embark on treatment. Visit www.cancerkn.com to learn more.

Canadian Breast Cancer Support Fund

The Canadian Breast Cancer Support Fund (CBCSF) provides short-term financial assistance to breast cancer patients who are facing financial difficulties while they are undergoing surgery, chemotherapy, and radiation. For those who qualify, CBCSF will reimburse patients for costs associated with food and shelter, hospital parking, wigs, turbans, breast prosthetics, specialty bras, garments for lymphedema, medications (related to treatment), child care, restorative therapies, and other living expenses. For more information or to obtain an application form, visit www.cbcsf.ca or call 416-233-7410.

The Silver Lining

The Silver Lining is a book written by breast cancer survivor Hollye Jacobs, who was 39 when she was diagnosed. Hollye—a palliative care nurse and social worker—went from nurse to patient as she underwent a double mastectomy, radiation, and chemo. Part personal memoir, part professional guide, *The Silver Lining* covers what every patient can expect as they experience their specific treatment and tackle big issues. Brimming with actions steps to help negotiate each phase, every chapter concludes with "Silver Linings"—the sources of inspiration and perspective that buoyed Jacobs through her own journey and that, taken together, comprise the heartbeat of the book. This is an invaluable guide, beautiful and helpful, realistic and uplifting, and an excellent manual for breast cancer patients and their loved ones. This book can be purchased online at www.chapters.indigo.ca.

CancerChatCanada provides online cancer support groups

CancerChatCanada provides online support to people affected by cancer and is funded primarily through the Canadian Partnership against Cancer. CancerChatCanada offers professionally facilitated online groups that meet once per week for up to 90 minutes in a live "chat" room on the Internet. Most of the groups meet for 10 to 12 weeks. All that is required is a computer and access to the Internet. There are groups for family members or friends caring for someone with cancer, groups for young women survivors of breast cancer, and groups for cancer patients in treatment or dealing with advanced disease. For more information or to register, visit www.cancerchatcanada.ca

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Yes! **I want to support the Canadian Breast Cancer Network! The voice and advocate for survivors!**

I want to help CBCN continue to provide education, information and advocate for Canadians affected by breast cancer as a: SUPPORTER add my donation for $ _____ or MONTHLY DONOR of $ _____ per month

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CBCN is a registered charity and receipts will be issued for all donations.

CARD NUMBER: _____ EXPIRY DATE _____ SIGNATURE _____

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(Receive Outreach alerts and news by email)

CALENDAR

SEPTEMBER AND OCTOBER, QUEBEC: LA VIRÉE ROSE (THE PINK TOUR). A pink recreational vehicle is visiting 120 cities across Quebec with a mission to educate women about mammography, clinical breast examinations, and breast observation. Inside the RV are interactive tablets to test your knowledge of breast health, educational videos, pamphlets and other documents, a "practice wall" that shows signs and symptoms of breast cancer, and a photo booth for women who would like to join the Web campaign #Jelefais. Health professionals and specially trained ambassadors will staff the RV and answer questions. The campaign is a Quebec Breast Cancer Foundation initiative presented by Pharmaprix, in collaboration with CIBC. To find out where the RV is now located, visit **www.pinktourqc.org.**

SEPTEMBER 19 TO 21, CHAPEL HILL, NORTH CAROLINA: METASTATIC BREAST CANCER CONFERENCE. The Metastatic Breast Cancer Network will hold its eighth Annual National Conference in conjunction with the University of North Carolina Lineberger Comprehensive Cancer Center. The conference is open to people living with metastatic breast cancer, spouses, partners, friends, and caregivers. For more information, visit **www.mbcn.org** or call 1-888-500-0370.

SEPTEMBER 21, OTTAWA: LIVING WELL CANCER CARE AND PREVENTION SHOW. This event takes place at the RA Centre from 10 a.m. to 4 p.m., and is produced in partnership by the Ottawa Integrative Cancer Centre and Ottawa Woman. The Living Well show will present innovative topics, products and services available in our community, from local businesses, associations, clinics, and educators, who provide a wide range of resources for fighting cancer, through healthier lifestyles. All proceeds will go to subsidize care for those dealing with cancer who cannot afford care at the Ottawa Integrative Cancer Centre. Come visit CBCN's booth at this show! For more information, visit **www.oicc.ca/livingwell** or call 613-792-1222.

SEPTEMBER 27, EDMONTON: HBOC SOCIETY ANNUAL CONFERENCE. The conference runs from 9:30 a.m. to 4:30 p.m. at the Edmonton Hotel and Conference Centre, 4520 76 Avenue NW. For more information or to register, visit **www.hbocsociety.org** or call 780-488-4262.

OCTOBER 13: METASTATIC BREAST CANCER DAY. In honour of this important date, CBCN will be leading numerous activities and efforts to raise awareness of the distinct needs and challenges affecting Canadians living with metastatic breast cancer. Please visit **www.cbcn.ca** for more information.

OCTOBER 15: BREAST RECONSTRUCTION AWARENESS DAY. BRA Day promotes education, awareness, and access for women who may wish to consider post-mastectomy breast reconstruction through informative, community-based events across Canada. It is a collaborative effort brought to you by Willow Breast & Hereditary Cancer Support. Attend a BRA Day event in your community to:

- Learn about your breast reconstruction options
- Hear patient stories
- Get answers to your reconstruction questions
- Attend a Show & Tell and see first-hand the results of reconstruction (only available in certain locations)

Can't attend an event? Go to the BRA Day website on October 15 to participate in a live presentation and interactive discussion. For more information and to find an event near you, visit **www.bra-day.com** or call Willow at 1-888-778-3100.

OCTOBER 24 TO 26, WINNIPEG: SKILLS FOR HEALING CANCER WEEKEND RETREAT. Presented by the Healing and Cancer Foundation, this free retreat is open to anyone who has been given a cancer diagnosis of any type or stage. Learn about how to get complete cancer care, empower the body, reduce stress through mind-body techniques, and work with difficult thoughts and emotions. For more information or to register, email carol.giesbrecht@cancercare.mb.ca or call 204-787-4119. A similar event will take place in London, Ontario, on November 7 to 9. For more details, visit **www.healingandcancer.org.**

National Partners
Aboriginal Nurses Association of Canada
Best Medicines Coalition
Canadian Breast Cancer Foundation
Breast Cancer Society of Canada
Canadian Association of Psychosocial Oncology
Canadian Association of Radiologists
Canadian Cancer Action Network
Canadian Cancer Society
Canadian Health Coalition
Canadian Hospice and Palliative Care Association
Canadian Institutes of Health Research
Canadian Lymphedema Framework
Canadian Medical Association
Canadian Nurses Association
Canadian Partnership Against Cancer
Canadian Patient Coalition
Canadian Psychosocial Oncology Partnership
Canadian Working Group on HIV and Rehabilitation
Cancer Advocacy Coalition of Canada
Cancer Fight Club
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DisAbled Women's Network of Canada
Episodic Disabilities Network
Fertile Future
HPV and Cervical Health Society
Look Good Feel Better
Ovarian Cancer Canada
Pauktuutit Inuit Women of Canada
Public Health Agency of Canada
Quality End of Life Care Coalition of Canada
Rethink Breast Cancer
Team Shan
Willow Breast & Hereditary Cancer Support
Young Adult Cancer Canada

Provincial Partners
British Columbia Cancer Agency
Breast Cancer Action Manitoba
Breast Cancer Action Nova Scotia
Breast Cancer Action Saskatchewan
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Breast Cancer Network Nova Scotia
Cancer Care Manitoba
Cancer Care Ontario
Coalition priorité cancer au Quebec
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Hereditary Breast and Ovarian Cancer Society of Montreal
Lymphedema Association of Manitoba
Lymphedema Association of Ontario
Manitoba Breast & Women's Cancers Network
New Brunswick Breast and Women's Cancers Partnership
New Brunswick Breast Cancer Network, Inc.
Newfoundland and Labrador Purple Lupin Partnership
NWT Breast Health/Breast Cancer Action Group
PEI Breast Cancer Information Partnership
Quebec Breast Cancer Foundation
Saskatchewan Breast Cancer Connect

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Breast Cancer Action Montreal
Breast Cancer Action Ottawa
Breast Cancer Support Services Inc.
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Gilda's Club
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Manitoba Breast Cancer Survivors Chemo Savvy Dragon Boat Team
Maplesoft Centre
Nanny Angel Network
Olive Branch of Hope
Ottawa Hospital Cancer Centre – Psychosocial Oncology Program
Ottawa Integrative Cancer Centre
PYNK Breast cancer Program for Young Women at Sunnybrook
Wellspring

Hundreds of support groups across Canada
Dozens of Dragon Boat teams across Canada
Dozens of mastectomy boutiques across Canada

CBCN is a member of:
Best Medicines Coalition
Canadian Cancer Action Network
Canadian Breast Cancer Screening Initiative
Coalition priorité cancer au Québec
Episodic Disabilities Network
Quality End-of-Life Care Coalition of Canada

CBCN 20 years | ans RCCS

CANADIAN BREAST CANCER NETWORK | 331 COOPER STREET, SUITE 602 OTTAWA ON K2P 0G5
Toll-Free: 1-800-685-8820 **cbcn.ca**

There are many individuals and organizations that make it possible for CBCN to continue to be the voice of Canadians affected by breast cancer. CBCN gratefully acknowledges the hundreds of individuals and groups across the country who choose to support CBCN with your financial contributions throughout the year and your in-memoriam donations to honour the memory of a loved one. We truly appreciate that you see value in the work that CBCN continues to do and are thankful for your ongoing support.

CBCN gratefully acknowledges the support of the following key funders:

AMGEN
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gsk GlaxoSmithKline
Roche