

Cancer and Genetics

All cancer has a genetic basis since it is triggered by mutations (changes) in the genes of a cell. These changes cause cells to reproduce in an unstructured, abnormal way.

Genetic changes can have many causes. Most cancers occur by chance (or sporadically). For instance, gene changes may result from a random mistake when cells are dividing. Genes may also change in response to lifestyle habits (e.g., diet, exercise) and/or environment exposures or injuries.

A small portion—about five to 10 percent—of cancers have been identified as resulting from genetic changes that are inherited. Inherited cancers occur when the cancer-causing gene alterations are passed from parent to child.

Individuals with an inherited gene mutation tendency have an increased risk of developing cancer in their lifetime. However, not everyone who is born with a tendency for a gene mutation will develop cancer.

Researchers have identified some inherited gene mutations that are known to contribute to the development of certain types of cancer, such as breast, ovarian and colorectal cancers.

Understanding Your Inherited Risk for Cancer

With cancer comes many unanswered questions. You may wonder how you got cancer in the first place. You may worry about your risk for cancer

(Continued on page 2)

Medical Advisors

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John Milner
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Jeff Sisler M.D.
Family Practitioner

Thanks!

Next Meeting: March 19, 2015
Dr. Robert Wightman, Pathologist
Topic: Biopsy Report and its Role in
Determining Therapy
Location: Main Floor Auditorium
Seven Oaks General Hospital
Leila and McPhillips
Time: 7 to 9 p.m.



*The Manitoba Prostate Cancer Support Group
does not recommend treatment modalities,
medications, or physicians.*

MPCSG – active since 1992.

Thought of The Day

I've reached the age when "happy hour" is a nap!

(Continued from page 1)

recurrence or for developing another type of cancer. You may also wonder about a family member's risk for developing cancer.

The following are some risk factors for a hereditary cancer predisposition:

- => Cancer with known inherited gene mutations (e.g., breast, ovarian, or colorectal cancers)
- => Two or more close family members who have had the same type of cancer
- => The same type of cancer in several generations of the family

What is Genetic Testing?

Genetic testing is relatively new. It began with the discovery of the BRCA1 gene in 1994, followed by the BRCA2 gene discovery in 1995. Women with a specific mutation of these genes are more likely to develop breast cancer. Genetic testing is now available for some of types of hereditary cancers, including breast, ovarian, and colorectal.

Genetic testing consists of a laboratory blood test. The test will help determine if you inherited a gene mutation that contributed to cancer. Genetic testing also helps determine if you are at greater risk of developing the same cancer again or of developing another type of cancer, or if your family members may have an inherited risk for cancer.

Genetic testing for cancer is not appropriate for everyone. It is typically offered to individuals in high-risk families, with the following features in their family history:

- => Cancer that occurs at an early age
- => Having multiple family members with cancer in several

generations

- => A clustering of certain types of cancer in a family
- => A primary cancer occurring in paired organs (e.g., breast cancer occurring in both breasts)
- => Rare cancers

Who are Genetic Counselors?

Genetic counselors are specially-trained health professionals who counsel individuals about their genetic risk and the implications of genetic testing.

When you first meet with a genetic counselor, you may take a genetic risk assessment. Your genetic counselor will discuss your personal and/or family history of cancer and help you prepare a family tree (also known as a pedigree). Your family tree lists members of each generation of your biological family, including the type of cancer each relative had and their age at diagnosis. A genetic counselor will then analyze the pattern of cancer in your family.

If you undergo genetic testing, your genetic counselor will support you through the process. They will help simplify complex concepts into terms you can understand, and address your questions and concerns.

What Can Genetic Testing Do for You?

Genetic testing can help you make decisions about how to manage your risk for cancer. If it is determined that you are at greater risk for getting cancer again or for getting another cancer, your doctor can give you options to help reduce your risk. For example, if it is determined that you are at risk for breast cancer recurrence, your doctor may recommend adding breast MRIs to your

screenings. Genetic testing can also help determine if other, unaffected, family members should be counseled and tested.

Deciding whether or not to undergo genetic testing is a personal choice. It is important to consider the benefits and drawbacks of genetic testing before making a decision.

Benefits & Drawbacks of Genetic Testing

Genetic testing can both relieve uncertainty and help you make informed decisions about managing your health

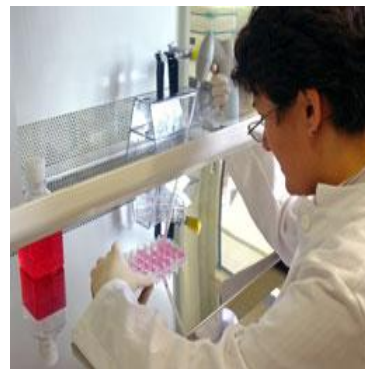
in the future. A negative result can provide a sense of relief and, in some cases, reduce the need for frequent checkups and screening tests. A positive result can help you take steps to reduce the risk of recurrence or of developing another cancer. For example, you may decide to explore available prevention and treatment options.

However, genetic testing can also pose psychological, social or financial consequences. A positive result can cause anxiety, depression or guilt. Genetic testing may provide only limited information about an inherited condition, and some genetic mutations detected by a positive test may never lead to disease.

Also, since results of genetic testing can reveal information about other family members, genetic testing can sometimes create tension with a family. Confidentiality is another concern.

Source: Cancer Treatment Centers of America

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Reviewing Post-Prostatectomy Radiation

An area of active investigation in prostate cancer management is the role of post-prostatectomy radiation, including radiation to the prostate bed without evidence of PSA elevation, adjuvant radiation, and treatment only after evidence that the PSA is rising (“salvage” radiation). There are now 10-year results from 3 randomized trials investigating the role of adjuvant radiation in men at high risk for recurrence after radical prostatectomy. The inclusion criteria were similar for all 3 trials: men harboring 1 or more high-risk features of disease recurrence after prostatectomy such as:

- 1) extra-capsular extension,
- 2) seminal vesicle invasion, or
- 3) a positive margin.

All 3 trials were randomized to either adjuvant radiation to the prostate bed or observation and all 3 showed a halving of the risk of biochemical failure with the addition of adjuvant radiation.

In light of the observation of the potential benefit to initiating salvage radiation at a PSA <0.5 ng/mL from numerous retrospective studies, there are now several randomized trials investigating the role of adjuvant radiation versus early salvage, including the Radiation Therapy and Androgen Deprivation Therapy in Treating Patients Who Have Undergone Surgery for Prostate Cancer (RADICALS) trial and the Radiotherapy Adjuvant Versus Early Salvage (RAVES) trial.

In these studies, early salvage radiation is defined as the initiation of treatment within 2 to 4 months of PSA

failure. While we await the results from these studies, the American Society for Radiation Therapy and the American Urologic Association have issued a joint recommendation that adjuvant radiation should be offered to men with high-risk features after prostatectomy. Before the issuance of these guidelines, the use of adjuvant radiation for men with higher risk features was very low. Although it would need to be validated, a risk-adjusted approach could be considered in which radiation would be reserved for those at highest risk for a PSA recurrence.

The role of ADT in the salvage setting is also under evaluation. The RTOG 96-01 study has reported preliminary results showing lower rates of metastatic disease among men with a rising PSA post-prostatectomy who were randomized to receive 2 years of bicalutamide (150 mg) daily plus radiation relative to those who received radiation alone. The morbidity of

bicalutamide was significant, with 89% of men developing grade 1 or 2 gynecomastia. Several of the adjuvant versus early salvage

studies, including RADICALS, are investigating the role of ADT in the post-prostatectomy setting. Despite these advances, there is currently uncertainty regarding who to treat and whether to include ADT in both the salvage and adjuvant setting. The results of randomized studies, both now underway and completed, should provide additional guidance for this common situation.

Source: CA: A Cancer Journal for Clinicians 2014

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Minimum 15-Year Follow-Up After PCa Treatment Suggested

ORLANDO—A planned follow-up of at least 15 years after prostate cancer (PCa) treatment in disease-free men is a reasonable approach to monitor for late recurrence, researchers reported at the American Urological Association 2014 meeting in Orlando.

“Defined as recurrence more than 10 years after treatment, late recurrence of PCa is not a rare event,” the researchers, led by Frank Critz, MD, of Radiotherapy Clinics of Georgia in Decatur, wrote in a study abstract. “A study of this issue is key to answering this pertinent question: how long should disease-free men be followed after treatment of PCa?”

The study included 2,808 PCa patients treated with radiotherapy from 1984–2002. All men were disease free by the surgical definition of recurrence at 10-year follow-up. Forty-eight men had late recurrence. The median time to late recurrence was 12 years and the median follow-up from the time of recurrence was 3 years.

Four patients who had a PSA of less than 0.2 ng/mL at 15-year follow-up had recurred from 15–20 years, with one who died of metastatic PCa after 25 years.

The late recurrence rate at 10, 15 and 20 years was 0%, 3%, and 5%, respectively, with no recurrence after 20 years.

Based upon relatively short follow-up, most late recurrent cases have a subsequent indolent course, “although at least 1 in 10 will have an aggressive, even lethal outcome,” the authors concluded.

Source: renalandurologynews.com

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12 Exercises for Health

The Canadian Physical Activity Guidelines recommend that adults be moderately to vigorously active at least 150 minutes per week, 10 minutes or more at a time. The guidelines suggest that adults do muscle and bone strengthening activities using major muscle groups at least two days a week; and that being active every day provides greater health benefits.

Here are 12 activities to keep you healthy for life.

1. Walk your way

Walk yourself to good health. Walk the dog, walk with friends, walk in a mall, hike in nature or walk to work.

“Exercise, fresh air, sunshine and being close to nature are relaxing for the brain,” Genesh explains. “Stress plays a negative role in terms of brain health, so walking is a great activity for body and mind.” Walking in groups is also a good way to be socially active.

“Walking is a great activity,” enthuses Graham Matsalla, health promotion facilitator with Alberta Health Services, Healthy Living, Chronic Disease Prevention, Provincial Physical Activity Promotion Team. “Almost everyone can do it any time. And we can incorporate walking into all aspects of our lives, getting the benefits of physical activity without having to add an extra task into our day.” Many groups offer walks and hikes for different age groups and skill levels.

2. Dance to a different tune

Take a community class and learn a new dance to waltz yourself to brain health with physical well-being. Ask your community centre or gym about classes that are (or can be) modified for aging joints, injuries or mobility issues.

3. (Ad)venture outside

Outdoor adventure—cycling, canoeing, kayaking, cross-country skiing or snowshoeing, for example—are good

for brain and physical health.

Geocache uses GPS to find hidden treasures placed in public spaces by networks of people in every neighbourhood and around the world. Like orienteering, which involves following maps and clues to arrive somewhere, these are mentally stimulating, family-inclusive activities.

An outdoor gym or park in your community can be part of your outdoor adventure. Walk or cycle (always wearing a helmet) there to participate, and enjoy being outside. Activities such as walking or cycling are gentle on aging joints, and you can enjoy them throughout life. There are options for people with limited mobility or who are in wheelchairs.

4. Put down roots

Keep fit mentally and physically by gardening. Gardening is an enjoyable, moderate activity that helps keep muscles toned, while being outdoors and nurturing flowers, shrubs and vegetables can help you feel calm and connected with nature. Veggies are healthy too.

5. Be a sport

Engage in play. Volleyball, badminton, Frisbee, bowling, curling, bocce and hide-and-seek are physical games that you can play with the whole family. “Games can be adapted to various skill and mobility levels, so everyone is included and having fun together,” Matsalla explains. “Think about your favourite sport or activity and about how you can adapt it to include a child or someone with low mobility.”

6. Yoga is for life

You don’t have to bend into a pretzel to achieve the lifelong benefits of mild yoga. It stimulates all of the organs and helps maintain balance, alignment and strength. And it’s a great stress reliever—good for brain health.

7. Dive in

Swimming and aquacize (a water aerobics workout) are gentle aerobics for any age. Most swimming pools offer times for lane swimming and aquacize classes for adults, which are low-impact, gentle on joints and great for people with limited mobility.

8. Make friends

“People who are isolated have double the risk of dementia and depression,” Genesh says.

9. Switch it up

If you are right-handed, do simple activities with your left hand and vice versa—start with brushing your teeth with your weaker hand. You will improve with practice because you are creating new connections in the brain.

10. Focusing on the brain

“Learning anything new, and learning for the sake of learning is crucial for brain health,” says Genesh. And it’s never too late to start learning. Continuous learning helps stimulate our brain. “Ideally, activities that include variety, novelty and challenge are the best.” She recommends brain games. Do a variety of puzzles and brain-stimulating games such as chess or Scrabble. “If you are good at word games, do numbers and vice versa to keep it challenging.”

11. Learn

Learn a language or play a musical instrument; if that is too much, learn the lyrics of a new song. “In all of these activities you are developing new connections in your brain,” Genesh says.

12. Read. Talk. Repeat

Join Toastmasters or a book club.

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Reading and discussing, or preparing speeches and delivering talks helps stimulate the brain and prevent vocabulary loss.

What's more?

The speed of our mental processes begins slowing during our 30s, but we can do things to maintain brain health throughout our lives, says Dr. Duncan Robertson, senior medical director, Seniors Health Strategic Clinical Network with Alberta Health Services in Edmonton.

"We have reasonably good evidence that the Mediterranean diet helps," he says. The

Mediterranean diet is built around generous servings of fruits, vegetables, whole grains, olive oil, beans and legumes and more modest servings of fish, seafood, poultry, dairy, meats and sweets. The diet includes moderate and optional servings of red wine.

"There is some evidence that those who drink relatively small amounts of alcohol show preservation of memory relative to those who don't drink." The Canadian Centre on Substance Abuse recommends men have fewer than 15



drinks a week and women have fewer than 10.

Looking more broadly at what people can do throughout their lives to maintain healthy mental function, he suggests avoiding head injuries and managing stress, which can limit our ability to learn and adapt. Regular physical activity and social engagement are also important when it comes to keeping your memory fit.

"When we talk to people with memory complaints, we discover that many of their problems are due to poor sleep, depression, or the effects of alcohol or drugs, both prescribed and over-the-counter,"

Robertson says. "There is

no magic here. My top recommendation to anyone worried about memory loss is to look at making lifestyle changes."

Preventing falls

Physically strong seniors have better balance, and they are less likely to fall. They also have a better chance of avoiding or recovering from a fall-related injury. Falls put older adults at risk of injury, disability and death. Canada's Public Health Agency says

falls account for 40 per cent of all nursing home admissions among Canadian seniors.

Most falls are a result of standing up too quickly, rushing to get somewhere or changing direction quickly to avoid something. Other culprits include stepping out of a wet bathtub, walking on icy or uneven roads or reaching when standing on an unstable surface. "Being active helps us maintain mobility and balance, increase confidence and reduce dependence on others," says Graham Matsalla, "It's also critical to help us maintain our quality of life as we age." To help prevent falls and live an independent and active life, choose simple activities that:

- Include balance, coordination, muscle and core strengthening;
- Can be modified for sitting, standing, or using a cane or other mobility aid;
- Relate to daily activities, so you can see how they apply to daily routines you enjoy.

Note: *It's important to consult your physician before beginning any new physical activity.*

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Urinary Incontinence: The Other Complication

Many men focus on erectile dysfunction as the major complication of radical prostatectomy for prostate cancer.

They're wrong. Recovery of urinary control is far more important, and if that happens slowly, or never happens at all, urinary incontinence will cast a far greater shadow on their lives than impotence would. Hence, many men are surprised and embarrassed by the urinary incontinence they typically encounter following prostate surgery.

Although the urinary incontinence itself isn't life threatening, the stigma attached to wet clothing and offensive odor can have profound consequences that may lead to humiliation and social withdrawal.

How common is incontinence following a radical prostatectomy? At medical centers of excellence, incidence of serious urinary incontinence appears to be low, in the 3 percent range. However, if you look at

overall national patient survey data, the urinary incontinence numbers are dramatically higher, in the range of 50 to 60 percent.

The reason urinary incontinence develops is because the healthy tissue responsible for urinary control is at high risk during a prostate procedure due to its nearness to the prostate itself. Surgically removing the prostate entails separating the part of

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the urethra that passes through the prostate at the point where it joins the remaining sphincter located just downstream. It also may mean removal of part of the sphincter muscles when the tumor is extensive and possible damage to the nerves that control sphincter action if the operation is difficult to perform because of prostatic size or variations in anatomy.

Experienced surgeons are certainly

aware of these technical aspects of the surgery and generally keep this in mind when counseling patients about the relative safety of radical prostatectomy as opposed to other forms of treatment for the disease.

The good news. Most urinary incontinence, fortunately, is temporary. As the pelvic floor that supports the bladder heals and the external sphincter muscle that controls urine flow becomes more efficient,

continence typically returns within a few weeks or months after catheter removal. The time frame varies, depending on the extent of the surgery, your age and the surgeon's experience in rebuilding the urinary tract and preserving the urinary sphincter.

*Source: Johns Hopkins Health Alerts.
October 2014*

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Spreading the Word

Information about prostate cancer is being spread around by Manitoba Prostate Cancer Support Group Board members.....



Kirby and Darlene Hay were asked to set up a table with prostate cancer information at the Health Fair held in their trailer park in Arizona. Their work with our MPCSG Board made it easy for them to “rise to the occasion”. They reported many people came by their display table to ask questions and pick up info booklets. Their commitment to this annual event is highly commendable. The picture shows Kirby (center) with “snowbird friends” Alan Lowe (R.) and Bob Weiss (L.).



Jim Leddy is very active in the health community surrounding his winter residence in Texas. The photo shows him assisting the “Us Too” prostate cancer organization with their health fair. Jim has shared “best practices” from MPCSG with the medical community and the “Us Too” organization. His knowledge and upbeat personality make him a sought after presenter at their Fair.

Not to be “out done” by others who travel to warmer climates, four Board members motored to Steinbach in January to participate in their “Together on the Cancer Journey” Health Fair. To that end, **Liz and Pat Feschuk** and **Brian and June Sprott** contributed a display of prostate cancer booklets and talked to those attending our table. As well, Brian participated in the panel discussion that centered on the social and emotional aspects of a cancer diagnosis.



In addition to many other activities, our committed and supportive Board members are in high demand to “spread the word” – no matter where they travel.

Source: The Newsletter Editor

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"Surveillance" May Be Safest for Low-Risk Prostate Cancer

By Kathryn Doyle (Reuters Health) - Among men whose low-risk prostate cancer was managed with so-called active surveillance for up to 15 years, just 1.5 percent died of the cancer, according to new data from a Canadian study.

That result is similar to outcomes in men whose cancers are treated immediately, the authors write. Prostate cancer often grows very slowly. In some men, such as the elderly or those with serious health problems, it may never need to be treated, says the American Cancer Society.

In the Canadian trial, 993 men with low or intermediate risk cancers were enrolled in active surveillance between 1995 and 2013. By now, more than 200 of them have been observed for more than 10 years and 50 for more than 15 years.

"This is the third time we've published the key results of our long term surveillance cohort," said lead author Dr. Laurence Klotz of Sunnybrook Health Sciences Center in Toronto. The men were monitored with regular testing. Treatment was started if the cancer progressed.

As of now, only 27 percent of the men have been treated for their cancers with radiation therapy, radical prostatectomy or androgen-deprivation therapy. Of the 933 patients, 149 have died, but only 15 died from prostate cancer, the researchers reported in the *Journal of Clinical Oncology*.

All the men who died from the cancer had metastases by the end. Another 13 patients had metastases but died from causes other than prostate cancer. In all, less than three percent of the men developed metastatic cancer. That's similar to the rate of metastases in another study of men with low-risk disease who were treated immediately,

according to Dr. Matthew R. Cooperberg of the University of California, San Francisco.

"In recent years, active surveillance has evolved from an experimental protocol to a broadly accepted - in fact, preferred - management strategy for men diagnosed with low-risk prostate cancer," he wrote in an editorial in the journal. Twenty years ago, treating every prostate cancer patient was the norm, Klotz told Reuters Health by phone.

"Over the years this has evolved," he said. "This whole approach is one of evolution and we can do better with that one or 1.5 percent," who end up dying from the disease, Klotz said.

In this group of low-risk cancers, about 25 percent turned out to be "wolves in sheep's clothing," he said. Those that metastasized weren't low-grade disease that spread, rather they were hidden higher-grade disease that doctors missed, he said.

But doctors are getting better at identifying those cases. Now, magnetic resonance imaging can detect many of the more dangerous cancers that may have missed with a biopsy 20 years ago, Klotz said.

Men in the study who died from prostate cancer succumbed about 15 years after diagnosis, usually in their 80s, he noted. "It really looks like (active

surveillance) is a safe strategy for the management of probably 40 to 50 percent of newly diagnosed prostate cancer patients," he said.

Over treating prostate cancers that would not ultimately be fatal can lead to incontinence, erectile dysfunction and other problems, he said. "That's why I think this approach is so important, if you can significantly reduce overtreatment but you still have the benefit of screening," Klotz said.

Active surveillance has been widely embraced in Canada and has been somewhat slower to catch on in the U.S., but is becoming more common, he said.

"The bottom line is, it's catching on and I also think the role of MRI will provide further reassurance," for doctors and patients, Klotz said.

SOURCE: *Journal of Clinical Oncology*, December, 2014.

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The Manitoba Prostate Cancer Support Group has been providing services for 20 years:

Newsletter – Website - Monthly Meetings - Hospital visits - Presentations

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Credit card donations can be made by going to our website at www.manpros.org and clicking on the donate tab. Canada Helps will issue a tax receipt.

Special Thanks to the Winnipeg Foundation



The Manitoba Prostate Cancer Support Group Board would like to acknowledge a recent and generous donation from the Winnipeg Foundation.

The Foundation, Canada's first community foundation (established in 1921), has supported many local charities over the decades. We sincerely appreciate their continued support and commitment to us in our efforts to promote prostate cancer awareness.

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Email - manpros@mts.net

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Receive this newsletter by email ~ Please notify us and we'll make the changes. Thank-you

2015 MEETINGS

Jan. 15 Dr. Rashmi Koul, Head of Radiation Oncology, CCMB

Topic: Prostate Cancer and Bone Health

Feb. 19 Bill Martin, Gimli Author

Topic: Ripped Out: One Man's Journey Surviving PCa

Mar. 19 Dr. Robert Wightman, Pathologist

Topic: Biopsy Report and its Role in Determining Therapy

Apr. 16 Dr. Sabeer Rehsia, Urologist

Topic: TBA

May 21 Dr. Paul Daeninck, Medical Oncologist

Topic: TBA

June 18 TBA

Topic: TBA

July No Meeting

Aug. 20 TBA

Topic: TBA

Sept. Prostate Cancer Awareness Evening at

Caboto Centre - 1055 Wilkes Ave. Date: TBA

Oct. 15 Dr. Kelli Berzuk, Incontinence Physiotherapist

Nov. 19 Christmas Pot Luck Party

Dec. No Meeting

All meetings at
 Seven Oaks General Hospital Auditorium
 (except September)

7 – 9 p.m.

Everyone Welcome

MPCSG BOARD

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