Prostate Cancer Canada Network - NEWMARKET

Volume 19, Issue 6, **February 15, 2015**

A support group that provides understanding,
hope and information to prostate cancer patients and their families

Our speaker for the February 19th meeting is Dr. Yasmin Rahim. She is a Staff Hematologist and Oncologist at the Stronach Regional Cancer Centre. I think this is the first time we have had a hematologist to speak to us, which should create some interesting questions. Her subject deals with when your PSA no longer responds to your hormone treatments. What can you do? Dr. Rahim is involved with teaching and examination of undergrads and post grads in the department of Medicine at the University of Toronto.

Meeting Date: February 19th, 2014

Place: **Newmarket Seniors Meeting Place,**
474 Davis Drive, Newmarket (Side Entrance)

Time: **6:30 pm to 9:00 pm**

Speaker **Dr. Yasmin Rahim, Staff Hematologist & Oncologist**

Subject: **What to do When Your Cancer Returns**

Prostate Cancer Canada - Newmarket
Newmarket, Ontario. 905-895-2263
www.newmarketprostatecancer.com

a member of the Prostate Cancer Canada Network

Assisted by the Canadian Cancer Society
Holland River Unit
905-830-0447

Your Executive

Walt Klywak, *Chairman. Communications*,	905-895-1975
Phil Mahon, *Secretary,*	905-473-2688
Jane & Frank Kennedy, *Treasurer and Newsletter,*	905-895-2263
Dan Ho, *Photos & Membership*,	416-953-8889
Mike McMaster, *Member at large,*	905-235-7021
Ivan Martin, *Member at large,*	905-775-7576
Ulli Baumhard,*Greeter,*	905-806-8842
Tom Wray, *Photo & Member at large,*	905-939-8064
Tony Ziolkowski, *Website*, Facebook	905-836-0328
Anthony Grech, *Member at large,*	905-862-4053

The Newmarket Prostate Cancer Support Group does not recommend products, treatment modalities, medications, or physicians. All information is, however, freely shared.

January Notes . . . Speaker Dr. Morsillo
Subject: A Naturopathic Approach to dealing with Detoxification

We had Dr. Morsillo back as our guest speaker for our January meeting. His subject ths time was a "Naturopathic Approach to Detoxification" and how it can help us with our ongoing battle with prostate cancer prevention and/or cancer treatment. He covered a wide area of toxic problems we need to be aware of. Here is what he had to say.

Today I want to talk a bit about detoxification. I think it's a really important area just in total when it comes to health but especially when it comes to cancer, as it relates to cancer prevention and also to treatment. I think it should be a really important part of anyone's treatment plan whether you are preventing cancer or whether you are in treatment for cancer or recovering, as well.

Detox falls under the umbrella of environmental medicine, which is a pretty broad field. It covers environmental science and chemistry. Basically it studies the roll of the environment as a cause of disease and how it affects our bodies, anything basically around us and how it affects us, focusing on these complex interactions.

So what are toxins? They are any toxic material or product of plants, animals, microorganisms or infectious substances, or a recombinant or synthesized molecule. They can be exogenous, which means external or endogenous, which means internal. Under normal circumstances, the body's able to deal with these toxins, I would say 99.9% of the time, because we have built in mechanisms to do that.

Therer are also ways that our bodies can deal with external toxins. These can be any kind of toxins that we encounter from food, water, the air, things we put on our skin, anything of that nature. If we were to add together the internal and the external toxins all together we would call this the total Body Burden of toxins. There are two factors. There's total toxin exposure and there's our ability to eliminate toxins. If the total exposure is too high and if our ability is not working too well, if the function of our ability to eliminate toxins is too low, then this body burden starts to really become a problem. This can be an issue for a lot of different conditions, especially with effect to cancers and prostate cancer specifically.

Where are these toxins coming from? We are in constant contact with environmental toxins, leading to a wide variety of health concerns. A lot of these exposures can be all around us, even in North America. In terms of carcinogens, there's approximately 80,000 tons released into the air annually, 2100 chemicals in most water supplies and over 80% of foods have GMO ingredients. So, toxins are pretty much everywhere. I would say that it's unavoidable but we can definitely limit our exposure. I don't think it's possible at this point to completely eliminate it. That's another thing we have to work on, too. I think just overall start to recognize which toxins are out there, how they're affecting us and then try to eliminate that, from the market place or any way that we can have exposure.

Exposure also occurs very early. We're exposed all through our lifetime and even before birth. With the environmental working group in 2005, they looked at umbilical cord blood of newborns and they found that there were 287 chemicals detected in the UC blood of newborns. There were different types of pesticides, consumer product ingredients, waste materials from burning coal, gasoline and garbage. 180 of them are known carcinogens and 217 are toxic to the brain and nervous system.

We talked about different exposure and I mentioned that one is the air that we breathe. These could be vehicle emissions; industrial processes (e.g. sulphur dioxide); combustion processes (e.g. Nitrogen dioxide); Volatile Organic Compounds {VOC} (e.g. methane, toluene, benzene, xylene) these are from different products and could even be found in things like carpeting; toxic metals, these are things that we can test for. The difficulty here, and you'll see through the presentation, it's actually pretty difficult to test for all these things, there are so many different types of chemicals that we're

exposed to.

Toxic metals are very problematic for the body and for how cells function. These are mercury, lead and cadmium and others like that. They can be really damaging and cause a lot of stress and strain on different cells and the DNA and all those different functions. They can actually change them into precancerous cells which can go on and eventually become cancer.

You know with dry cleaning they use something called perchlorethylene, that's toxic, as are Chlorofluorocarbons and ammonia and something called "Sick building syndrome", which is a new sort of ailment where people are getting illnesses just from their workplace. They estimate that about 1/3 of people are ailing just from their place of work or wherever they spend a good part of the day outside of the home, they're actually considered sick buildings. They can cause a lot of mucous membrane symptoms and obviously immune issues that can result from that, which improve upon leaving the work environment. A common thread throughout this is that there are a lot of toxins that can alter the way our cells function which, to sum it up, can really be an issue, causing precancerous cells.There are a lot of issues to these toxins, causing problems our immune system as well. Another really important area that these toxins get in the way of is how you develop a cancer and how are you going to fight this cancerous cell once it's formed, if your immune system is depleted?

Now, the air we breathe: the average home contains about 100 lbs. of hazardous material: paints, air fresheners, carpet deodorizers, mothballs, oven cleaners, drain openers, pesticides and the carpeting itself. Then there's the water we drink. It's essential for our health, yet our water is one of our main sources of toxins now. Very few places have clean water. Lots of pesticides, herbicides, PCBs and drugs find their way into our water systems. When a study was done downstream from a water treatment plant, they found traces of the active components of different medications: birth control pills, antibiotics, recreational drugs and even Prozac and Zoloft were detectable.

The foods we eat: a lot of nervous system toxins are injested with the foods that we eat, especially pesticides, herbicides, fertilizers and then also preservatives, flavouring agents, colouring chemicals. All these can be toxins. Some might argue that the exposure is really, really small. The only thing is, we don't really know what happens when you have all these toxins that you're ingesting or are exposed to on a day to day basis and they're coming at you from all directions: from what we eat, from what we drink, the air, the workplace, home, all these different things, that's never been studied. I don't think it really can be studied because there are so many different things, there are too many variables in play. Yes, they are really small doses that we take in but what happens when they accumulate? What happens when you have these types of things day after day after day? Let's say food colouring. What happens if that's something that you eat routinely? The same with fruits and vegetables, what happens if you're not having organic vegetables and you're exposed to pesticides on a daily basis for your whole, entire life? It would be great if we had the answers to that but unfortunately there are too many variables in play and I think it's impossible to study that and find out exactly how it's affecting us. Other things, too, like hormones and growth factors; again, toxic heavy metals, mostly in fish; and then unhealthy fats and sugars, as well.

Things we put on our skin: This is interesting, they looked at all these different things (not just women) that everyone puts on their skin. All the way from shampoo to perfume or cologne, deodorants, body lotion, sun tan lotion, all of these things are packed full of chemicals, too. Some of them are neutral and don't have an affect on us and some of them do have an affect on us. Some of them are carcinogenic and you really have to pay close attention. Who here reads labels for their foods? That's really important. The same should be true with anything you put on your skin that you use topically. That could be shampoo, any type of thing like that, including deodorants. There's a lot of chemicals in there too and just because you're putting it on top of you and not ingesting it, it doesn't mean that you don't have exposure. Let's say I were to put on a lotion, and I rub it in and it disappears. Well, where exactly does it go. Is it just gone, is it not there any more? It's been absorbed and then what happens? There's a whole network of blood vessels right underneath that skin. That takes in any chemicals from anything you put on your skin, on your scalp. You have to be really cautious of anything that you put on your skin because that's going to affect you in a different way. It doesn't seem like it would. It's not something that you're ingesting but it does get in and it does circulate. So it's really important. Something like deodorant that sometimes has chemicals that are similar or somehow contain aluminum, well that's a big concern. That's actually heavy metal. It could be a big reason why people have a big build up of this toxic heavy metal. It can be a burden for the body and get in the way of how cells function and if you do that then cells don't work properly, then there can be changes to the DNA and it can become precancerous or a cancer cell.

The Centre for Disease Control carried out a national forum on human exposure to the environment for chemicals, as well. They tested 212 chemicals. They wanted to see how many of these chemicals we would find if we tested the blood and the urine samples of these subjects. They actually found that when they tested the blood and urine samples, all of these chemicals were found, five of which were identified as severe health hazards. These were found in virtually every single person.

PDE or Polybrominated Diphenyl Ethers. was Number 1, These are used as a flame retardant, that's one example. An artificial Christmas tree would have a lot of fire retardants.

I was borrowing a Christmas tree and we wanted the full Christmas experience, so we brought this to our apartment. As soon as I looked at the box, I saw that lots of flame retardants were used on this so I didn't even unpack it. This is something I definitely wouldn't want in my house. I don't want exposure to things like this. PDEs are more than just flame retardant, they're found elsewhere as well. These get into your fat cells, {adipose tissue.} Once they are there, it's very hard to get rid of, they're there to stay for a long time. That can cause damage to the liver, kidneys, nervous system, which are really prime organs of detoxification. If you do any damage to those, that can cause a lot of damage to other parts of the body, too, in cancers, brain disorders, sexual and endocrine dysfunction and hormonal and thyroid conditions.

Bysphenyl A (BPA) is really important for prostate cancer. It's found in plastic products, the lining of cans, sports equipment. It's primary source is in plastic used for food packaging, so a lot of people are exposed to this because plastic is very ubiquitous. Many of you have probably drunk out of a plastic water bottle in the last month. This is something to be very careful about because the BPA gets into the water. Even on something like a receipt, the lining of that receipt has BPA as well. Again, you're not ingesting it but you're definitely exposed to it. It gets on your skin, it gets absorbed. BPA is weakly estrogenic, it can have both reproductive and developmental health implications. There is a pretty big link between estrogens and what they call xenoestrogens, which are external estrogens which should not be in the body. We produce our own, our natural estrogens (even men produce their own, not nearly as much as women, though) and then there are the xenoestrogens, for example the Bysphenyl A that should be outside of the body. We should not have these inside our body and so they are basically bad estrogens we don't want to have around. Even our normal estrogens, if they get a little bit out of balance, they can be problematic. That's actually a big player to how prostate cancer might develop in some people. Not everyone but for some people with prostate cancer, estrogen could be a really big issue. A lot of times we'll do hormone tests for prostate cancer patients for estrogen, as well as for testosterone, even to look at things like progesterone and estrogen, different types of hormones like that.

Perfluorooctanoic acid (PFOA): found in not-stick cookware, stain-resistant clothing, food packaging and heat-resistant products. Again there are a lot of hormonal issues, such as infertility and reproductive issues, with abnormal liver function and immune function. You can see the type of damage this can do.

Acrylamide: is a carcinogen which is formed when carbohydrate foods are cooked at high temperatures, such as French fries, breads, toast, fried chicken, coffee – anything that's been cooked that's a carbohydrate. There's a change that occurs with the carbohydrate and it produces this acrylamide and it's been shown to be a carcinogen. Some other examples are: crackers, baby biscuits, chips, breakfast cereals, roasted coffee has acrylamide, too. This is also used in plastics and cosmetics. Exposure to acrylamide has been linked to cancer and neurological dysfunction.

Mercury: Again another, you could say carcinogen but it does so many things that it can screw up so many different things in the body. So, whether it's the nervous system or the liver, it can really interfere on a cellular level on how cells try to function. The most common route of exposure is sea foods and the larger the fish you eat, potentially the more mercury it contains as it's been working it's way up the food chain. If you're eating krill, there's krill oil available now, it contains the lowest level of mercury because they're at the bottom of the food chain and don't accumulate a lot of mercury. The larger the fish, the more mercury, so shark, pike, albacore or halibut should only be eaten a few times a month, whereas tuna (can) or trout can be eaten a few times per week and salmon, Pollock and oyster, as often as you want. Atlantic salmon is one of the best for you, regards mercury. Fish is good for you but eat the fish low in mercury. If you were at the supermarket and you were selecting different fish you wanted to eat that night, you would want to select the things like haddock, cod, flounder, shellfish, Atlantic salmon, things like that. Wild fish is healthier than farmed fish, not necessarily for mercury but farmed fish are fed things like corn, which won't provide the omega 3s which make eating fish so good for you. Potentially there might be small amounts of mercury in vaccines

That was only five of the toxic elements I spoke of at the beginning, when there are actually 212. The question is no longer, "Are we toxic?" The real question is, "How toxic are we?" I hate to paint such a grim picture here but it's the truth. There are lots of things we have to be aware of now. Our food and water is not, unfortunately, as clean as we might think it is. How do you know if the toxins you've been exposed to are causing you health problems? There are different symptoms: you might be experiencing fatigue, anxiety, depression, any type of mood issues, joint or muscle pains, headaches, hormonal imbalances, cognitive issues (brain fog /poor concentration) memory problems, neurological issues: imbalance/dizziness, neuropathy: numbness and tingling in the hands and feet. And then there is a whole bunch of conditions associated with excessive toxic burden and cancer as well.

Increased cancer risk has paralleled the growth of synthetic chemicals since World War II and all the way from the 1970s to the 1990s there's been an increase in leukemia by 63%, childhood brain cancer by 40%. These increases are clearly not related to genetics. Over the course of 20 years, the 70s to the 90s approximately, genetics don't change. That's not a long time at all. So what has changed? One of the things, potentially, we don't know exactly if this is it, but one of the things that might be responsible for the increases is toxins.

We might point to the quality of food, the nutritional quality as well, but I think toxins do have a huge say in this.

Xenoestrogens, that's what we were talking about before. Interestingly, just to illustrate these can have a negative impact, Tufts Medical School in Boston, were actually doing an experiment at the time. They had breast cancer cells that were sensitive to estrogen and they had them in these test tubes and were starting to do an experiment and they started to notice that the breast cancer cells were proliferating out of control. They started to grow wildly and what they found when they investigated was that the test tube manufacturer had changed the way that they make the test tubes. They included this p-nonylphenol in the plastic test tubes, which is a type of Xenoestrogen, the whole test tubes now contain the xenoestrogen and all of a sudden the estrogen positive breast cancer cells were proliferating really aggressively. This can illustrate the type of affect these xenoestrogens can have. We don't want to have different types of estrogens in the body. We want to avoid those. This goes not just for breast cancer, this goes any type of cancer that can be related to hormones, which includes prostate cancer.

Risk of total and aggressive prostate cancer and pesticide use in the Agricultural Health Study. This is a study that I found in terms of prostate cancer specifically being linked to pesticide use. They were looking at different types of pesticides to find if they were a prostate cancer risk and would it affect the aggressiveness of the type of prostate cancer that was diagnosed. They found that three different insecticides were significantly associated with aggressive prostate cancer. These were linked to increased risk of the prospect of developing prostate cancer and increased aggressiveness of certain prostate cancers once they are diagnosed.

Human Toxome Project. There used to be a Human Genome Project, where they were basically trying to map out all the genes in humans and I'm pretty sure that is completed. They've done that and now they have a Human Toxome Project that's underway and they are trying to map out different chemicals and how they can affect our body and our genes as well.

What does all this mean and what can you do about it? This has a huge impact on everybody and, like I said, whether you're talking about prostate cancer prevention, you definitely want to pay attention to toxins and detoxification, or if you've been diagnosed with prostate cancer, you still want to pay attention to that. Even if you are currently doing PC therapies of any kind, detoxification is something you want to keep in mind, no matter what stage you're at or what your goals are. One of the things is to reduce your exposure. Once you have your awareness of what you're exposed to, knowing what things you're putting on your skin, knowing what things you're exposed to in terms of what you're putting into your body, eating and drinking, then you can make dietary changes, make different choices at the grocery store, reading labels. There are some toxins that we produce ourselves, naturally. Even right now in some of my cells there are going to be some toxins produced. They are going to be neutralized under normal conditions. That won't be a problem, but again, if I'm adding all these different toxins that are being introduced into the body, too that might overrun my ability to detoxify. We want to support detoxification as well.

Reducing Your Exposure: Use chemical free products in your home: different types of soaps, detergents, cleaning products, dryer sheets, natural insect and weed killers, etc. There are natural alternatives which won't contain the harmful chemicals.

Take off your shoes before entering the house. Suppose you've been doing yard work, and there are chemicals on the lawn or elsewhere. If you leave on your shoes you're tracking all these things inside. Reduce chlorine exposure by attaching filters to your shower heads. You get a lot of chlorine, especially in the shower because the water is heated. Aside from just dry skin, that's something that can actually be inhaled, especially if it's hot water you're using. Avoid personal products with phthalates, parabens and other chemicals.

Avoid scented personal hygiene products. Air out dry-cleaned clothing before wear/storage. Use cotton-based clothing/bedding which are less treated with chemicals. Wash new clothes in unscented detergent and place larger items outside to allow them to "off-gas." Use glass or stainless steel cooking utensils. Use glass or hard plastic for food storage. If plastic containers are fairly flexible that means they are not good plastic, these are really not good for you, especially if you're concerned with breast or prostate cancer. Use ceramic tile or hardwood as opposed to carpeting or carpet pads. Carpeting, as we mentioned before, has VOCs. If you are going to eliminate toxins in the home, you could just start room by room. Start in the bedroom, where you spend approximately 8 hours a day, so you're going to have the most impact if your bedroom is as toxic free as you can get it.

Reducing your exposure in terms of food. 90% of our exposure to certain chemicals such as PCBs comes from the food we eat. 35% of foods we purchase at supermarkets have measurable pesticide residues, which enter our bodies. One or more pesticides are found on 70% of fruit and vegetables. A really good percentage of all produce can have one or more pesticides on them. On one in ten fruit and vegetable samples they found 5 to 13 pesticides on them. That's a very good reason why you should be washing them really well and another good reason why all these should be organic, as much as you possibly can.

I understand a lot of people don't see the benefit of getting organic or even my patients say they are more expensive. There is a little bit of a way around that. If you just want to get started and you don't want to get every single thing organic, well you can actually just start with avoiding the "Dirty Dozen." That's just a list of 12 fruits and vegetables that would be your main targets to buy organics. Here's the

list: Celery, Peaches, Strawberries, Apples, Blueberries, Nectarines, Bell Peppers, Spinach, Cherries, Kale/Collard & Greens, Potatoes and Grapes. These all have pesticide residues or toxins on them. If you are going to select which ones you should get organic, these should the ones. On the other hand, we have the "Clean 15." These are the ones that contain the least amount of toxins. If you care to prioritize, you can say, "O.K., I want to get the ones with the highest toxins as organic and the lowest priority I don't have to worry too much about" and they would be the "Clean 15" which are onions, Avocado, Sweet Corn, Pineapple, Mangos, Sweet Peas, Asparagus, Kiwi, Cabbage, Eggplant, Cantaloupe, Watermelon, Grapefruit, Sweet Potato, Honeydew and Melon.

Dealing with meat and dairy, the conventionally raised meat and dairy are found to have the highest amounts of hormone-disrupting chemicals. Again, anything that's hormone-disrupting is really important to prostate cancer. This is something that applies to everybody but especially to those dealing with prostate cancer. It's really crucial to pay attention to this. Millions of pounds of antibiotics are fed to livestock and animal feed each year, which is highly sprayed with chemicals as well. Animal feed contains high amounts of fat, which allows for easy storage of large amounts of these fat-soluble chemicals. These are passed on to your digestive system and body when you eat them. It's the same here as with the fish, whatever is fed to those animals is going to be passed on to you, you are at the top of the food chain. If you have a grain fed animal and you're eating that meat, it actually has a good source of Omega 3s, really good beneficial fats, a lot more anti-inflammatory in the body, as opposed to other, non-organic meat that you may eat. They actually have different types of chemicals, hormone-disrupting chemicals, antibiotics, really bad fats that are more inflammatory, all types of bad things. These are things that you can easily avoid by making a different choice when you go to the supermarket.

To summarize reducing your exposure: choose free-range, hormone and anti-biotic free, growth hormone free, dairy, meats, eggs, whenever possible. Choose fresh, cold-water fish in place of farm-raised. Only consume foods on the dirty dozen list if they have been organically grown and always wash all produce very well before eating, peeling or cooking. Use stainless steel or glass drinking containers. Eliminate all plastic utensils, drinking containers, plates and storage containers. Store food in non-plastic containers and bags whenever possible. Never microwave food in plastic containers. Use air purifiers at work and at home.

That's reducing exposure. If I reduce how much I'm exposed, that's number one but I'm still going to be exposed. I'm not going to completely eliminate my exposure, there's still going to be some and I'm still going to produce my own internally, so I also want to take care of, as much as I can how well I'm detoxifying. There are different organs in the body that really play a large part in detoxification and it's more than just the liver. So there's the liver, kidneys, intestinal tract, lungs, skin, lymphatic circulation and the cardiovascular circulation, too. All that is important. For example, if you eat something, it goes down to the stomach, then into the intestines and so on to the liver. So the liver is very important. It basically screens everything. It's like security. Anything that you just ingested, food or drink, it's one of the first areas that gets to screen and look at what's been absorbed: should I get rid of anything, is anything here potentially harmful? This goes for any type of chemical, especially something that's carcinogenic. Hopefully your liver is healthy enough to remove that but, if it isn't healthy, it could bypass the liver. It has basically gotten past security. There are a lot of things that need detoxification but the liver's number one. It's the key organ of detoxification, or the "filter." So 24/7 it's screening all nutrients, wastes and toxins. It will protect us from metabolic and environmental toxins. If it's bad for us, the liver will remove it. There are different types of cells here. There's the Hypatocytes and the Kupffer Cells. The Kupffer cells remove dangerous materials: dead cells, bacteria, foreign substances, from the blood. The Hepatocytes are there to detoxify a lot of things: drugs, heavy metals, chemicals, alcohol and hormones from the blood. The way I usually explain as an analogy for liver detoxification: there are two pathways. Dangerous toxins get labeled by the liver and channeled to the correct pathway to be changed and excreted. They are either going to be got rid of by the kidneys in the urine or in the feces via the gall bladder and the intestinal tract. The problem here is what if these pathways are not working in sinc? That could result in a lot of problems in the liver and toxins could get through. Genetically there are about 20% of people who are fast detoxifiers, which means that they are moving toxins really fast and things are not being screened properly. Then there's about 30% that are slow detoxifiers and then there's this backlog. So 50% of people don't detoxify properly from the get-go. Other things that can impair your detoxification too are: alcohol, nicotine, acetaminophen, iron deficiency, high protein diet, hydrocarbons (smoking), those can really impact a fast detoxifier. For slow detoxifiers, nutrient deficiencies, fasting – if these people fast they'll feel miserable it won't be a pleasant experience at all, protein deficiency, high-carbohydrate diet, PTC deficiency, different drugs, grapefruit juice can actually interfere with detoxifying. There are changes that happen with aging and bacterial toxins, too.

Dr. Morsillo then described methods of detoxifying the body and answered many questions

Many thanks to our member Harry Grey for his kind donation to our support group.