Thyroid Foundation of Canada
La fondation canadienne de la thyroïde

SUMMER 2011

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Founder: Diana Meltzer Abramsky, C.M., B.A.
Fondatrice: Diana Meltzer Abramsky, C.M., B.A.

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Conseil National de la fondation Canadienne de la Thyroïde 2011-2012

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Front Row: Joanie Bruce, Cathy Fey, Mabel Miller, Joan DeVille, Eva McKaeff
Back Row: Philip Morrissey, Donna Miniely, Ashok Bhaseen, Dagmar Van Beselaere

Message from our President

Mabel Miller,
Newly elected National President,
Thyroid Foundation of Canada.
Nouvelle Présidente-élue, Nationale
Fondation canadienne de la Thyroïde

To all readers of the Thyrobulletin, I would like to say thank you for taking the time to read the articles that have been chosen for this edition. We hope you will find information that will benefit you and create more interest for you in thyroid disease. The Thyroid Foundation of Canada is not new to me by any means, having been involved in various capacities since 1990. The organization has become like family to me because of my health and the many dedicated people involved that I've met over the past 21 years. This year, the 31st Annual General Meeting of the Thyroid Foundation of Canada was held on May 28, 2011 at Holiday Inn, Midtown, Montreal, QC. At that meeting, I was ever so humbled to have the honour of being elected as President, a role I take very seriously knowing there are still lots of challenges ahead with lots of work to be done. I am very thankful we have an elected board who I feel are all very dedicated to the goals of the organization and supports our vision-**"to provide leadership to manage thyroid disease".**

I look forward to working with each and every one of them as we pursue Diana's Dream – **"Helping Thyroid Patients".** In addition, I am very thankful for the leadership that precedes me, Mr. Ashok Bhaseen our past president. His energies and his insight have been invaluable and instrumental in all our efforts and achievements during his tenure over the past 3 years. He has helped set for TFC a very firm foundation which we will continue to build on. To reflect on a quote I heard a long time ago - "***We must sail sometimes with the wind and sometimes against it. But sail we must and not drift nor lie at anchor***."

That AGM weekend saw us back into what I feel was a better sense of purpose for TFC and why we existed in the first place. It was almost like we were going back in time but we were not. The feeling comes from being back on track with our aims and objectives of TFC – Support – Awareness – Research. It saw everyone talking about - how to best deliver our mandate – expanding our message across Canada – the increase in incidence of thyroid cancer and further research for thyroid disease. Yes, TFC is **"The Face and Voice of Thyroid Disease in Canada"** a quote that is becoming more meaningful each and every day.
So on we go carrying out the necessary tasks and dealing with whatever we may encounter. There's no time to sit still and wait – only when we are moving in our intended direction can we hope to succeed. Life offers us many challenges and we know not where or when we will be faced with some that seem insurmountable and heavily demanding. This we have seen in TFC however, the worst of the storm appears to be behind us. There are times, no matter how big the challenge; we feel we have no other choice but to deal with it head on because of its significance in society, especially to people who benefit from the cause.

To everyone across Canada I want you to know, we are open to any comments, suggestions, questions you may have in supporting efforts to deal with thyroid disease. I welcome the opportunity to be able to connect with as many thyroid patients and families as possible. Anyone who has any connection or interest in Thyroid Disease is a welcome member of the Thyroid Foundation of Canada family. I encourage your involvement.

I wish all of you a safe, healthy and happy year ahead.

Mabel Miller

Un message du President de la FCT

Je souhaite remercier tous les lecteurs du Thyrobulletin d'avoir choisi de prendre le temps de lire les articles qui ont été sélectionnés pour la présente édition. Nous espérons que vous trouverez toute l'information dont vous pourrez bénéficier et qui saura susciter en vous encore plus d'intérêt pour la maladie thyroïdienne.

La Fondation canadienne de la Thyroïde ne m'est pas nouvelle puisque j'y opère de diverses façons depuis 1990. Cet organisme est devenu presqu'une famille pour moi à cause de ma santé et de toutes les personnes dévouées que j'ai rencontrées au cours des 21 dernières années.

Cette année, l'Assemblée Générale Annuelle de la Fondation canadienne de la Thyroïde eu lieu le 28 mai, 2011, à Montréal, QC, au Holiday Inn Montréal-Midtown. J'ai humblement accepté l'honneur d'être élue présidente, un rôle que je prends très au sérieux puisque nous avons encore tout un trajet à parcourir et beaucoup de travail à faire. Je suis reconnaissante que nous ayons un conseil d'élus qui s'engage à faire progresser les objectifs de notre organisation et qui partage notre vision – « **celle du leadership en matière de la gestion de la maladie thyroïdienne**. » C'est avec engouement que je m'apprête à travailler avec chacun d'entre eux pour que nous puissions continuer à concrétiser le rêve de Diana – celui d'aider les patients atteints de troubles thyroïdiens. De plus, je suis très reconnaissante envers mon prédécesseur, notre ancien président M. Ashok Bhaseen. Son énergie et les idées qu'il a su partager avec nous pendant ses trois années en tant que président se sont révélées être d'une valeur incommensurable pour tous nos efforts et nos avancements. Il a aidé à fonder une base solide pour la FCT sur laquelle nous continuerons de bâtir. Je reflète sur une citation que j'ai entendu il y assez longtemps de cela – « Il nous faut parfois naviguer poussés par le vent et parfois même le remonter. Toutefois, il nous faut naviguer sans dériver ni jeter l'ancre. »

La fin de semaine de l'AGA nous a rappelé que nous avons tous un but bien précis: la raison d'être de la FCT. C'était presque comme avoir fait un voyage dans le passé. Ce sentiment nous vient du fait d'avoir ressaisi le but et les objectifs de la FCT – Soutien – Sensibilisation – Recherche. Tout le monde discutait des moyens d'exécuter notre mandat, de répandre notre message à travers le Canada, de l'augmentation des cas de cancer de la thyroïde et de l'avancement de la recherche pour la maladie thyroïdienne. La FCT est effectivement « Le Visage et la Voix de la Maladie Thyroïdienne au Canada », un énoncé qui prend de plus en plus de valeur à chaque jour. Nous continuons donc de faire face à divers événements et à accomplir les tâches nécessaires pour notre réussite. Ceci n'est pas le temps de demeurer inactif – nous ne pouvons réussir que si nous continuons d'aller de l'avant avec notre cause. La vie nous lance des défis et nous ne savons quand des obstacles qui semblent insurmontables se dresseront sur notre chemin. La FCT a su braver bien des épreuves, mais il semble maintenant que le pire est derrière nous. Il y a des fois où nous n'avons pas d'autre choix que de persévérer peu importe l'ampleur du travail à faire, car celui-ci est de toute importance pour notre société, et surtout pour ceux et celles qui en bénéficient directement. J'aimerais que le Canada sache que nous sommes prêts à écouter tous vos commentaires ainsi que toutes vos questions et suggestions sur la lutte contre la maladie thyroïdienne. Je souhaite prendre l'opportunité d'apprendre à connaître le plus grand nombre possible de patients et de familles affectés par la maladie thyroïdienne. Toute personne touchée par la maladie thyroïdienne ou qui est intéressée est la bienvenue dans la famille de la Fondation canadienne de la Thyroïde. Je vous encourage à vous impliquer.

Que cette année soit pour tous pleine de santé et de bonheur.

Mabel Miller

A propos de Mabel Miller

Mabel travaille avec la FCT depuis qu'elle a créé la nouvelle section régionale à Gander, T.-N., en 1990. Depuis, elle a servi en tant que Présidente de la section régionale de Gander à deux reprises. Elle a aussi contribué de diverses façons au sein du Conseil National deux fois, la dernière étant en 2004. L'expérience professionnelle en gestion de Mabel avec le Gouvernement Fédéral lui confère les qualités nécessaires pour pouvoir atteindre les buts et les objectifs de la FCT de façon positive : l'esprit d'équipe, le leadership et le sens de l'organisation. Elle prend part à des activités communautaires dans sa région depuis plusieurs années, et elle a été récipiendaire du Prix du Gouverneur général pour l'entraide en 1997 et de la Médaille du jubilé d'or de la Reine en 2002 en reconnaissance de ses efforts. Mabel et son mari Ralph résident à Gander, T.-N. Ils ont quatre enfants et cinq petits-enfants. Elle espère que l'année à venir sera des plus prospère.

About Mabel Miller

Mabel has been involved with TFC since 1990 when she formed a new chapter in Gander, NL. Since then she has served, as President of Gander Area chapter on 2 occasions and on the National Board in various capacities on 2 occasions, most recently being 2004. Mabel's career background working with the Federal Government in management positions gives her the necessary attributes of leadership, management and teamwork to be able to carry out the aims and objectives of TFC in a very positive manner. She has been involved in local community activities for many years and for her efforts she was recognized with The Governor General's Caring Canadian Award in 1997 and was the Recipient of The Queen's Golden Jubilee Medal in 2002. Mabel and her husband Ralph reside in Gander, NL. They have 4 children and 5 grandchildren. She looks forward to a fruitful year ahead.

Thyroid Foundation of Canada is a member of Thyroid Foundation International

TFI has representation around the world, in the following countries:

Australia	**Republic of Georgia (EU)**	**The Netherlands**
Brazil	**Germany**	**Norway**
Canada	**Italy**	**Russia**
Sweden	**Denmark**	**Japan**
Finland	**Mexico**	**France**
United Kingdom	**United States of America**	

Thyroid Foundation of Canada

Thyroid Federation International

Thyroid Foundation of Canada 31st AGM

Holiday Inn, Midtown, Montreal was a very busy place on May 28 – 29, 2011
Most importantly it was a very busy place for Thyroid Foundation of Canada's 31st Annual General Meeting.

On the evening of May 28, the National Board was joined by members, guests from the Medical community & Corporate partners and friends of TFC from coast to coast. A Reception followed by a Banquet for approximately 50 people was held with a presentation on Management of Thyroid Cancer by Dr. Hortensia Mircescu, TFC's Medical Advisor, Endocrinologist, Assistant Professor of Medicine, Faculty of Medicine, University of Montreal.

Also, some deserving awards were presented to individuals whom graciously supported Thyroid Foundation of Canada in the past and continue to do so. We are extremely thankful for the support we have received from many, especially in the last few years. Entertainment was provided by Tracy K from Thunder Bay which added to a very pleasant evening.

The Annual General Meeting was held on Sunday, May 29 with approximately 22 members present. Various reports were received and issues were discussed. Election of Officers and Directors for the 2011 – 2012 Board took place. The meeting adjourned with great enthusiasm from all who attended as we look forward to a most productive year ahead fulfilling our goals – Awareness – Support and Research.

31ème AGA de la Fondation canadienne de la Thyroïde

Le Holiday Inn Montréal-Midtown grouillait de vie les 28 et 29 mai dernier, 2011. C'était surtout à cause de la 31ème Assemblée Générale Annuelle de la Fondation canadienne de la Thyroïde qui y avait lieu. Le soir du 28 mai, des membres, des invités de la collectivité médicale, des partenaires commerciaux et amis de la FCT d'à travers le pays se sont joint au Conseil d'Administration National. Une réception suivie par un banquet assisté par environ une cinquantaine de convives fut le théâtre d'un discours donné par Dr. Hortensia Mircescu, conseillère médicale de la FCT, endocrinologue et professeure adjointe en médecine de la Faculté de Médecine de l'Université de Montréal, traitant sur la gestion du cancer de la Thyroïde. Des prix furent décernés à des individus qui ont gracieusement appuyé la Fondation canadienne de la Thyroïde au fil des ans et qui continuent de le faire. Nous somme énormément reconnaissants pour le soutien que nous ont fourni bien des gens, et ce surtout au cours des dernières années. Tracy K de Thunder Bay fut responsable du divertissement pour faire de la soirée une des plus agréable. L'Assemblée Générale Annuelle eu lieu le dimanche, 29 mai, avec approximativement 22 membres présents. Divers sujets furent abordés et des rapports furent présentés. L'élection des administrateurs et dirigeants du conseil 2011-2012 eu lieu. La rencontre s'est clôturée avec l'enthousiasme des participants et nous sommes prêts à embarquer pour une autre année productive afin de remplir notre mission – Sensibilisation, Soutien et Recherche.

Farewell to our President

On May 28, 2011 at Holiday Inn, Midtown, Montreal, the Thyroid Foundation of Canada held its AGM Banquet.

One special part of the event was to recognize our Past President, Ashok Bhaseen.

Ashok Bhaseen receiving a thank you for his dedication and efforts to Thyroid Foundation of Canada during his tenure as National President 2008 - 2011. Plaque presented by Mabel Miller, on behalf of the National Board and all members of TFC.

Ashok Bhaseen reçevant un prix en guise de remerciement pour son dévouement et ses efforts au sein de la Fondation canadienne de la Thyroïde pendant son mandat en tant que président national de 2008 à 2011. Plaque présentée par Mabel Miller au nom du Conseil National et de tous les membres de la FCT.

To honour Ashok, the following presentation was made to acknowledge his many contributions to TFC from 2008 – 2011.

In 1980, Diana Abramksy of Kingston, ON, a patient of Dr. Jack Wall at the time decided that she wanted to do something for people who had problems with their thyroid. She too was a thyroid patient and found out during her time of diagnosis and treatment for Graves's disease that there was no information available and she wanted to know more about what thyroid disease. So she felt others with thyroid disease were no different and they too could benefit from more awareness and education. The result is of course as they say is history – the reason why we are here.

From this The Thyroid Foundation of Canada was born – the first of its kind in the world. Since then we've seen thyroid organizations spring up in many countries all over the world, who collectively meet once a year. Thyroid Foundation International was formed in Toronto, ON – this being Diana's Dream fulfilled and she was there to share in its birth.

The aims and objectives of TFC are: Awareness, Support & Research. Carrying out these goals requires a lot of dedication from a lot of people who are willing to give of themselves the time and dedication. For the most part, this is true of all who endeavour to embark upon such a venture in life. As well, we could never survive without the support of our corporate friends and from them often comes more than a financial association.

Some of our corporate friends develop a passion for supporting the cause they were connected with through a career. In 2007, a person with such connections in the past was approached by a member of TFC to get involved with our organization and he did. Meeting this person for the first time, I could tell this man had a lot to offer and could contribute greatly given the opportunity. TFC's ability to function in a full capacity was being stretched to the limit at the time and soon there was to be a change in leadership as tenure was coming to completion. By the time the AGM in 2008 came we were becoming more desperate to carry on and the need for good leadership was very evident. Fortunately for TFC, we were able to attract this person to take on the National president.

Since then many hurdles were encountered and many battles were to be fought. Due to his leadership, insight, determination, selflessness and management expertise, TFC has now risen from almost destruction to functioning in its intended role in society. Working with Ashok Bhaseen for the past 4 years – especially the last 3 as our president, I admire greatly his tenacity to stay with it – enduring the many issues some would consider as nightmares – pushing on, seeking solutions to help us stay alive and rebuild what was almost extinct. As his 3 year-term as president now comes to an end and his desire to step aside and allow for another to continue on the track we've set out, we hope to have his commitment to stay associated with the many tasks that still lie ahead. Whoever, assumes the role of President next –**there are very big shoes to fill** – let's say "**we simply cannot do without you"**. You have been an inspiration, a tower of strength, a mentor and more to all of us and TFC on a whole. A heartfelt thanks to you, Ashok and we wish you well in the future! You are one in a million to say the least!

Au revoir monsieur le président

Le 28 mai, 2011, le Banquet AGA de la Fondation canadienne de la Thyroïde eu lieu au Holiday Inn Montréal-Midtown. Une part spéciale de cet événement fut consacrée pour rendre hommage à notre ancien président, Ashok Bhaseen.

Voici donc en son honneur pour sa collaboration assidue de 2008 à 2011 la présentation qui suit.

En 1980, une patiente du Dr. Jack Wall du nom de Diana Abramsky, originaire de Kingston, ON, décida qu'elle voulait aider les gens qui comme elle souffraient de troubles thyroïdiens. À l'époque où Diana fut diagnostiquée et traitée pour la maladie de Graves, il n'y avait aucune information disponible au sujet de la

maladie thyroïdienne et elle voulait en savoir plus. Selon elle, il y avait d'autres personnes comme elle atteintes de la maladie thyroïdienne qui pourraient bénéficier d'une connaissance accrue de cette maladie. Ce qui en résulta, comme on dit, appartient à l'histoire – et c'est notre raison d'être. C'est de là que naquit la Fondation canadienne de la Thyroïde – une première en son genre dans le monde. Depuis lors, nous avons vu se produire à travers le monde bon nombre d'organisations pour la thyroïde qui se réunissent collectivement une fois par an. La Thyroid Foundation International fut fondée à Toronto, ON – c'était le rêve de Diana devenu réalité et elle a assisté à ses tout premiers débuts. Les objectifs de la FCT sont : la sensibilisation, le soutien et la recherche. Afin d'atteindre ces objectifs, il nous faut une multitude de gens dévoués qui sont prêts à investir le temps et effort. Ceci est surtout vrai pour toute personne qui souhaite entreprendre une telle tâche dans la vie. De plus, il nous serait impossible de survivre sans l'appui de nos amis au sein du monde des affaires qui nous offrent parfois bien plus qu'un soutien financier.

Pour certains de ces collaborateurs (amis du monde des affaires), la cause qu'ils appuient au long du cheminement de leur carrière devient pour eux une passion. En 2007, un individu ayant eu de tels liens avec nous dans le passé fut abordé par un membre de la TFC et il accepta de se joindre à notre organisation. Lorsque j'ai rencontré cet individu pour la première fois, j'ai aussitôt su que cet homme avait beaucoup à offrir et qu'il contribuerait amplement si on lui en offrait l'opportunité. À l'époque, la capacité de la FCT de fonctionner à plein rendement avait atteint ses limites et un changement de leadership devait avoir lieu suite à la fin d'un mandat.

Au moment de l'AGA en 2008, nous étions sous l'emprise du désespoir et le besoin d'une personne avec des bonnes qualités de chef était manifeste. Heureusement pour la FCT, nous avions pu attirer cet individu qui fini par devenir notre président national. Depuis lors, nous avons fait face à plusieurs obstacles et à maints combats. Grâce à son leadership, son intuition, sa détermination, son altruisme, et son expertise en gestion, la FCT échappa au démantèlement et joue maintenant son rôle respectif dans la société.

Ayant travaillé avec Ashok Bhaseen durant les quatre dernières années – et surtout au cours de ces trois dernières années pendant lesquelles il fut notre président – j'ai su admirer sa ténacité lors d'épreuves qui s'avéraient être un véritable cauchemar pour certains, sa persévérance et ses efforts soutenus pour trouver les solutions nécessaires pour nous aider à garder le cap lorsque nous frôlions l'anéantissement. Maintenant que son mandat de trois ans en tant que président touche à sa fin et qu'il s'apprête à céder la place pour qu'un autre puisse emprunter le chemin tracé, nous souhaitons de tout cœur qu'il continuera de nous prêter main forte avec les maintes tâches qu'il nous reste à accomplir. Son successeur aura bien du mal à le faire oublier – nous ne pouvons nous passer de vous. Vous êtes pour nous une source d'inspiration et un appui, un guide et bien plus encore pour nous tous et pour l'ensemble de la FCT. Ashok, nous vous remercions de tout cœur et vous souhaitons bonne chance dans votre avenir!! Vous êtes une véritable perle rare!

Special Recognition at the Thyroid Foundation of Canada 31st AGM

Richard Lavoie, Abbott Laboratories is presented with Patient Care Award in recognition of the partnership shared with Thyroid Foundation of Canada.

Dr. Mirsescu was presented with an Appreciation Award for her dedication and the wonderful work that she has done for TFC.

Abbott Canada

TFC wishes to thank Abbott Canada for their generous grant for Thyroid Awareness

AstraZeneca

TFC wishes to thank AstraZeneca for their generous educational grant to our 31st Annual Conference.

A Touch of Spring, Fashion Show

By Donna Miniely, National Secretary, Thyroid Foundation of Canada

Spring was definitely in the air at the Hellenic Centre in London, ON on the evening of April 28, 2011. Almost 300 people gathered to attend the 11th Annual Fashion Show fundraiser for the Thyroid Foundation of Canada

More than a dozen local fashion retailers demonstrated their support by providing a large variety of looks for men, women, teens, and children, including: "Hot Looks and Cool Trends" for casual wear, business dress, semi-formal and evening wear - even sleepwear and handbags. Hosts Dave Collins and Rachel Gilbert of Radio Station BX93 provided entertaining commentary throughout the evening. Along with the fashion show, there were door prizes, a large selection of silent auction items, and displays of fashion jewellery and beauty products.

"Hot Looks and Cool Trends" Here We Come!

Thanks to Judy Duncan's marvelous organizational skills, there was a delightful atmosphere of spring beauty and carefree fun. In recognition of Judy Duncan's tremendous efforts in rallying teams of volunteers to help organize the fashion show, solicit donations, find the perfect models, and ensure that the evening flowed smoothly, the Foundation presented her with the Thyroid Foundation of Canada's Volunteer of the Year award. This was the tenth fundraiser fashion show that Judy has organized for the Thyroid Foundation.

A Touch of Spring, Fashion Show

Judy Duncan, London, ON was presented with "Volunteer of the Year Award" plaque at the AGM Banquet, May 28, 2011. L to R Ashok Bhaseen- Past President, Cathy Fey - Treasurer, - Judy Duncan, Donna Miniely - Secretary.

A huge thanks goes out to the more than 120 businesses and individuals who donated items for the silent auction, gift bags, loot bags and the wheelbarrow of wine.

Mark your calendar for the end of April next year. You won't want to miss the **Thyroid Foundation's "Touch of Spring Fashion Show 2012"!**

FUNDRAISING – WE NEED YOUR HELP!!!

TFC IS ALWAYS LOOKING FOR FUNDRAISING IDEAS

DO YOU HAVE SOME? WOULD YOU LIKE TO SHARE THEM WITH US?

WE ARE LOOKING FOR PEOPLE WHO ARE WILLING TO ORGANIZE SOME FUNDRAISING EVENTS THAT WILL WORK IN THEIR AREA. CAN YOU HELP IN YOUR TOWN??

IF YOU ARE INTERESTED AND WILLING TO DO A FUNDRAISER

PLEASE CALL US AT 1-800-267-8822 SO WE CAN CHAT ABOUT IT.

The Thyroid Family:

A Long Lost Friend

Dr. M. Sara Rosenthal, Ph.D

Some of our TFC members may remember one of our past volunteers and members, M. Sara Rosenthal, author of *The Thyroid Sourcebook*, now in its 5th edition (2009, McGraw-Hill New York).Sara is most known at TFC for her involvement in creating the TFC documentary, "The Woman Behind The Foundation," (1992), which we have streamed on our TFC website at: www.thyroid.ca and can be found under "The Foundation". Sara wrote, narrated and co-produced the video. She also served briefly on TFC's National Board in the early-mid 1990s. Sara started her career as a medical journalist, and brought a lot of attention to thyroid disease in Canada through her many appearances on Canadian media throughout the 1990s. She's appeared on Canada AM, several national talk shows, including the CBC (television and radio).

What we didn't know was that at the same time, Sara was completing her doctorate in bioethics at the University of Toronto's Joint Centre for Bioethics at the University of Toronto's Joint Centre for Bioethics. We caught up with Sara recently to ask about her memories of the TFC, and see what she is doing. Sara is now Associate Professor, Bioethics, and Director of the Program for Bioethics at the University of Kentucky.

Here are some of the things we talked about re her past with TFC and what's happening in her life today:

TFC: How did you first come into contact with the TFC?

Sara: I was diagnosed with thyroid cancer in 1983, when I was 20. Around 1991, as a young freelance journalist who was also a thyroid cancer survivor, I pitched an article to *Homemaker's Magazine* about thyroid disease, and my proposal was accepted. I was referred to the TFC by the late Dr. Bob Volpe. As medical advisor to the TFC at the time, he directed me to Joan Dawson, President of the TFC's Toronto Chapter. Joan Dawson was my first entry into the TFC. She recognized I was enthusiastic, and introduced me to several of the members on the National Board. I was very motivated to contribute and thought the TFC was a natural place to put my energy – particularly since I had been so frustrated with finding good information on thyroid disease when I was diagnosed.

TFC: So was the TFC helpful in your writing *The Thyroid Sourcebook*?

Sara: Absolutely! It was research for the *Homemaker's* article that led me to the conclusion that a book written *by a patient for other patients* was needed. Based on the discussions I had with TFC members, a common pattern of information gaps for patients with thyroid disease were revealed, which helped to form the outline for the book. The late Bob Volpe served as Medical Advisor on the book, and *The Thyroid Sourcebook* was first published in 1993. Jane Brody of the *New York Times* discovered the first edition of the book and did a nice review of it in her weekly health column. The book then "took off" and became known all

over the world as a result. I wrote more than 30 other health books for patients throughout the years, but *The Thyroid Sourcebook* remains the most popular title.

TFC: Did you ever meet the TFC Founder, Diana Abramsky?

Sara: Fate interfered with that. Diana was battling the illness that would eventually take her life just when I got involved with the TFC. Since I was in Toronto, and she was in Kingston, there were only a few opportunities to meet her, and each time, she wasn't well enough. The TFC members at that time were in grief over her long illness and passing, and I think it was a very difficult time to be involved on the national Board.

TFC: How did you become involved in the documentary, *The Woman Behind the Foundation* and what do you recall about it?

Sara: For a very brief time, there was an Executive Director of the TFC. The Executive Director contacted me to develop a documentary about Diana and her creation of TFC. It was a volunteer project. There was a sense that Diana's time was limited, and the documentary was a bit of a "race against time" so we could capture her on film. I wrote the script with the assistance of some archived material I was provided, and gave the documentary the title "The Woman Behind the Foundation." I still have the original script. A local producer from Kingston, Ontario, John Esford (who had done a lot of work for local Kingston television) was commissioned by the TFC to produce the script I wrote. I also served as narrator of the documentary. John and I arranged all the talking head interviews over the course of a day at the Hochelaga Inn in Kingston, Ontario. John worked with the TFC to obtain archived photos, home videos members had of Diana, and so forth. One of John's treasured finds was actual footage of Diana receiving the Order of Canada award; the footage was captured by Canadian public television, which had broadcasted that particular awards ceremony. As for Diana's interview – ultimately John filmed it at Diana's house. We kept trying to find a day to do it, and it looked like we weren't going to manage to tape her at all. When she had a "good day" and was feeling well enough to do it, John dropped everything and went to her house to do the interview. I think she looks great on film, and regret I couldn't be there for that particular taping. During post-production, the Executive Director of the TFC was voted out by the Board, and Nathalie Gifford took over as National President. Nathalie continued to work with John and I during post-production (editing footage, scoring, etc.), and the video was released in 1992.

TFC: How long were you involved with the TFC and why did you leave the organization?

Sara: I served briefly on the National Board for about a year in the mid-1990s. I ultimately left the TFC in 1996, but did organize its first multi-disciplinary panel on thyroid disease. Ultimately, service on the TFC's national board was not in the cards for me. Then, by the later 1990s, as thyroid cancer patients began to organize, my volunteer efforts were directed to thyroid cancer patient groups before I became a full time academic.

TFC: How did you get interested in bioethics?

Sara: Bioethics is a young field that didn't emerge until the mid-1990s. All of the frustrations pioneering thyroid patients dealt with are essentially problems with informed consent and doctor-patient communication. These are all issues I deal with as a bioethicist every day. My early work in patient health books was basically facilitating informed consent by providing critical information in accessible language. When I discovered the field of bioethics, it was a natural fit for me. It just so happened that the University of Toronto had one of the first established doctoral programs in bioethics. Eventually, I would marry the field of bioethics to thyroid disease. I now do thyroid ethics, and am on the board of the American Thyroid

Association's ethics and patient education committees. I also served for many years on the Endocrine Society's Ethics Committee. I have published several papers in thyroid ethics in various peer-reviewed medical journals.

TFC: Speaking of marriage – wasn't it marriage that led you from Toronto to Lexington, Kentucky?

Sara: That story is documented in the Introduction to my latest thyroid book, *The Complete Thyroid Book*, Second Edition (2011, McGraw-Hill), co-authored with my husband, Dr. Kenneth Ain, who is a thyroid oncologist. I initially met Ken at a 2000 ThyCa conference in Washington, DC. We were both speakers at that conference, and I took Ken's card. Two years later I contacted him to be the Medical Advisor on the first edition of a dedicated book on thyroid cancer I was writing called *The Thyroid Cancer Book*, now in its second edition. (2003, Your Health Press/Trafford). When we met over that project, we eventually got engaged and I needed to move to Lexington, Kentucky for personal reasons. I had just finished my Ph.D. in 2002, when I was interviewed at the University of Kentucky for a faculty position. They had no bioethics program despite the fact that they were a large academic medical center. I was given the opportunity to start a bioethics program there, and it has grown into a very rewarding, competitive Bioethics Program with a clinical ethics consult service and many educational activities.

TFC: Thank you Sara for this opportunity. I'm sure lots of old friends will be delighted to read about what you are doing now. It was great catching up with you and we look forward to being in touch again in the not too distant future.

For more information about our long lost friend, Dr. M. Sara Rosenthal, you can visit her website at www.msararosenthal.com.

Who is Dr. Sara Rosenthal?

Dr. Sara Rosenthal is a bioethicist and Director of the University of Kentucky Program for Bioethics. She is an expert in reproductive ethics and women's health ethics, endocrine ethics, clinical ethics, and research ethics. Dr. Rosenthal is also the author of several peer-reviewed publications, and over 30 consumer health books, including books on diabetes, thyroid disease and a range of women's health issues. Dr. Rosenthal has been quoted by the science and health media such as *Discover Magazine* and CNN, appears on TV and news shows to discuss current bioethical issues, and has delivered over 100 ethics presentations nationally and internationally.

Do you have a story to tell about thyroid disease?
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Thyroid Disease in the Family

By Donna Miniely, National Secretary, Thyroid Foundation of Canada

They say that one in three Canadians has a thyroid disorder and I would believe it, based on my own family's experience and the fact that everywhere I go, someone spontaneously tells me about thyroid problems in their families. In fact, just last weekend, at a workshop, the facilitator spoke about his daughter who, at age 15, had gone through a sudden change from being a competitive gymnast, to being too weak and fatigued to attend practices. "Thyroid" flashed across my mind and, sure enough, he said she had been diagnosed with Hashimoto's Disease. A few days before that, a co-worker had told me her teenage daughter was having trouble because her family doctor and endocrinologist disagreed on the right level of thyroid medication for her. Thyroid conditions are very common and we can benefit by educating ourselves, our families, and speaking with our doctors.

My first encounter with thyroid disease was seeing white blotches ("vitiligo") on my aunt's arm. At the time, back in the early 1960's, no one in my family understood what they represented, but later, we learned that vitiligo is a thyroid-related condition which can occur in association with both Graves' disease and Hashimoto's disease (Wood, Cooper, Ridgeway, 1996, p. 114).

When I was a teen, I perceived that something was wrong with my mom's health but it was a mystery and a struggle that went on for years. I perceived her as being very emotional and having trouble sleeping (but what mother of teens would *not* be in a similar state!). She remembers being exhausted, gaining weight, having slurred speech and muscle cramps. Years later, I learned that her doctor had suddenly, without any test, taken her off thyroid medication that she had been taking for 10 years. Over time, she developed the symptoms described above. Put back on medication, she was restored to a proper TSH level according to the tests, but after a while, she developed hypothyroid symptoms again. It turns out that she needed more levothyroxine than the TSH tests showed. At the TFC's 30th Anniversary education symposium in 2010, Dr. Tevaarwerk stated that one in three hypothyroid patients requires more levothyroxine than the TSH tests reveal but many physicians do not realize that a lot of patients require this higher dose. With this higher level of medication, my mother feels great, but she says, "It is a battle to persuade doctors to pay attention to how the patient feels instead of just reading the lab test results." Fortunately, the Thyroid Foundation was established around the time that she was facing these challenges and she was able to get good education and support from the organization. She says, "The Thyroid Foundation helps patients understand their symptoms more clearly so they can persist when they realize they have symptoms, and this enables them to get the help they need."

Detecting thyroid disease in another family member involved applying knowledge that my mom had gained from the literature and presentations at the TFC chapter meetings. My cousin was in his early 30's, but at work they called him "boy" and indeed, he looked like he was still a teen. He was short, about 5'4", with none of the normal facial hair you would expect on a 30-year-old man, and with leathery dry, puffy skin. He also reported feeling tired and heavy, and found it really hard to drag his body around.

All of these indicators seemed to form a pattern, so my mom convinced him to get this thyroid checked out. Bingo! Once on medication, my cousin's physical maturity developed appropriately, his skin returned to normal, and his energy level returned to normal. From his experience, we learned that hypothyroidism can affect so many systems in the body and can eventually lead to serious heart problems.

Since then, another cousin has discovered that she is hypothyroid and her husband had thyroiditis. So, in my family, we have lots of conversations about thyroid health. My doctor and I have discussed the various indicators of hypothyroidism and the research that shows a possible relationship between high cholesterol and "borderline hypothyroidism". I am grateful that the education and awareness provided by the TFC have helped my family members to lead healthy, productive lives.

The TFC's educational materials, website resources and meetings help individuals and families develop awareness of thyroid conditions so that they can have conversations with their doctors and get appropriate medical care.

Reference:

Wood, Dr. Lawrence, Cooper, Dr. David, Ridgeway, Dr. Chester. Your Thyroid - A Home Reference, 3rd edition. New York: Ballantine Books. 1996.

Do you have an idea for an article in thyrobulletin??

We welcome your suggestions.

Please get in touch. 1-800-267-8822

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TFC wishes to thank FR@SNM
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Nutrition for Thyroid Health

Prepared by Victoria Miller, BSc. Nutrition

Maintaining thyroid health consists of a balance of many lifestyle factors, including good nutrition, physical activity, coping with stress and for some, medication. Good nutrition is important for maintaining weight, bone health, strength, flexibility, coordination, mental functioning and prevention of some diseases and illnesses. Nutrition is often neglected as we focus on the other aspects of our busy lifestyles, but hopefully these few tips can increase awareness of good nutrition and how to implement healthy eating in our lives.

- Eat plenty of fruit and vegetables; try to include one dark green and one orange fruit or vegetable each day. Keep them ready to eat and handy
- Increase whole grain consumption. Be sure to read the label for the word 'whole grain' and try new grains such as bulgur, quinoa, wild and brown rice
- Aim for two servings of fish each week
- Choose beans, lentils and tofu more often
- Limit foods high in fat, calories or sugar. Think of these items as 'treats' and limit to one a day
- Plan meals and snacks in advance. Set aside time to make a grocery list around meals and snacks for the week.
- Cook from scratch when possible. Try making large amounts and freezing the extras for later meals
- Eat foods that are less processed. This will increase the intake of essential vitamins and minerals and reduce amounts of unnecessary sodium and fats
- Eat frequent, smaller meals and snacks to avoid hunger
- Take your time when eating and try to eat with family and friends whenever possible
- When making dietary changes, focus on one change at a time. Once you have incorporated that change into your lifestyle without feeling like effort, focus on another one. Take your time to make change last
- Drink adequate amounts of water. Everyone's intake requirements vary, but a good rule of thumb is eight eight-ounce glasses each day.
- Eat for your activity level. Not everyone in a household needs the same intake if they each have differing lifestyles.

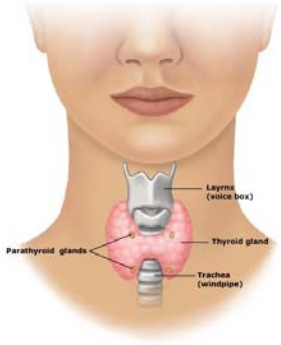
It is important to remember that no one thing will prevent, control or cure any ailment; it is more often a balance of many lifestyle factors. These recommendations are intended for use by individuals who have normal thyroid functioning, and may be contra-indicated with some medications. Speak with your healthcare provider before making any lifestyle changes.

Information adapted from Canada's Food Guide to Healthy Eating and the Heart and Stroke Foundation at http://www.heartandstroke.com/

your HEALTH

The Thyroid Zone:

"Knowing how thyroid disease can affect your body"



Hortensia Mircescu MD FRCPC
Medical Advisor to Thyroid Foundation of Canada.

Assistant Clinical Professor, Faculty of Medicine, University of Montréal
Endocrinology Division, Hôtel-Dieu du CHUM, Montreal, QC

Although weighing at most 20 g when normal, the thyroid is one of the largest glands of the human body. Its importance has been in the limelight lately because of the nuclear leak in Japan**.** So why is radiation dangerous for the thyroid?

The thyroid gland produces its hormones using iodine. When there is a nuclear leak, radioactive iodine can be released in the atmosphere and it then contaminates the soil and the food we eat. The thyroid gland is unable to distinguish between the iodine it needs to produce thyroid hormones and the radioactive iodine. Radioactive iodine capture by the thyroid, if present in high doses, can lead to the development of thyroid cancer. Radioactive thyroid is especially problematic for young children or pregnant women because the foetus might get exposed. It is important to note that the foetal thyroid has completed its development by approximately the 12th week of gestation and starts producing its own thyroid hormones

So far, the doses of radiation that have reached North America are not high enough to be considered dangerous and do not warrant thyroid protection by taking potassium iodide pills to block the capture of radioactivity by the gland. Public authorities are keeping a close watch and will advise the public if they need to take potassium iodide pills. They should not be taken unnecessarily as they can have side effects in some people (allergic reaction, skin rashes, interference with normal function of the thyroid gland).

The thyroid gland affects our life in many other ways besides making us worry in case of a nuclear explosion. It produces essential hormones that are released in the bloodstream and that increase metabolism and promote growth and development. So when the thyroid gland is underactive (hypothyroidism) things can seem to be "slow". One can be tired, have problems concentrating, gain weight, and have muscle cramps. Young women with thyroid hypofunction can have changes in their menstrual cycle and have problems with fertility. When the thyroid gland is overactive things can be in "override": symptoms include palpitations, heat intolerance, tremors, increased sweating, anxiety and weight loss despite conserved appetite. Symptoms of thyroid dysfunctions are not exclusive to the thyroid and confirmation by appropriate lab tests is usually required. Hypothyroidism is easy to treat by replacing the missing hormone with thyroxine tablets. Hyperthyroidism can be treated with medication, radioactive iodine to destroy the part of the thyroid that is overactive. Surgery is used for cases not responding to medical therapy or special circumstances where rapid control of thyroid hormone levels is required or there is a contraindication to the other treatment.

The thyroid can also harbour thyroid cancer without any exposure to radiation. Thyroid nodules ("lumps") are a common occurrence and are more frequent in women and with increasing age. Thyroid cancer usually

presents as a painless nodule. Its prognostic is usually very good but requires complete thyroid removal and long term thyroid hormone supplementation and follow-up. Depending on the type of cancer, its size and the risk factors for recurrence, it is sometime necessary to complete the treatment with a dose of radioactive iodine, given under medical supervision. If you suspect thyroid dysfunction, do not hesitate to talk to your physician. Investigations are easy to perform and readily available all throughout the country

Reference for radiation precautions:
A Joint Statement from the American Association of Clinical Endocrinologists, the American Thyroid Association, The Endocrine Society and the Society of Nuclear Medicine
www.thyroid.org accessed on March 31st 2011.

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Iodine, Radioactivity and the Thyroid
As Researched by Diane Miller, BSc. MSc. – Environmental Biology.

One of the radioactive iodines is Iodine-131 (I-131), which has a radioactive half-life of 8 days. Iodine-131 is also a beta-emitter and a gamma-emitter, making it useful in nuclear medicine. Radio-iodines are considered to have contributed to health effects due to airborne releases following open-air atomic bomb testing in the 1950s and from the Chernobyl disaster.
Today, I-131 is therapeutically used to treat thyroid cancer in controlled doses. I-131 effectively damages the cancer cells by delivering beta particles, since I-131 is a beta-emitter. (In a nutshell, beta particles are energetic electrons characteristic of certain radionuclides).

Alternatively, I-131 is sometimes used as a diagnostic tool since the gamma rays can show up in nuclear imaging techniques much like a picture.

You may have heard discussions of Iodine 131 in recent news casts following the Fukushima Daiichi nuclear power plant explosions and subsequent releases of fission products. In the case of a nuclear accident involving a release of radioactive iodine and subsequent intakes of radio-iodine into people's bodies through inhalation, potential detrimental effects can be minimized. Firstly, the human thyroid requires a certain amount of iodine and the body will deliver the supply of iodine up to the point that enough is gained, then excrete the excess iodine in the urine. The body does not discriminate radioactive iodine from stable (non-radioactive) iodine. It follows that if there is sufficiently abundant stable iodine available from the diet (i.e. iodized table salt), or the proportion of stable iodine exceeds radioactive iodine in the body then the amount of radioiodine your body "keeps" due to inhalation is minimized.
Consumption of iodine pills (potassium iodide, containing stable iodine) following a suspected exposure to airborne radioactive iodine will "tip the scales" so to speak in the body so that the relative abundance of any radioiodine available to the thyroid is kept small.

UNICEF, among other researchers maintains that the incidence of thyroid cancer in children in the Chernobyl fall-out zone is linked to intakes of radioactive iodine immediately following the Chernobyl disaster. Currently, UNICEF continues to pressure governments in Belarus, Russia and Ukraine to legislate universal salt iodization (likely more towards the purpose of decreasing incidence of medical issues that arise from iodine deficiency rather than prevention of health effects following radioactive intakes).

REFERERENCES & RECOMMENDED FURTHER READING:

Cardis, E., Kesminiene, A., Ivanov, V., Malakhova, I., Shibata, Y., Khrouch, V., Drozdovitch, V., Meceika, E., Zvonova, I., Vlassov, O., Bouville, A., Goulko, G., Hoshi, M., Abrosimov, A., Anoshko, J., Astakhova, L., Chekin, S., Demidchik, E., Galanti, R., Ito, M., Korobova, E., Lushnikov, E., Maksioutov, M., Masyakin, V., Nerovnia, A., Parshin, V., Parshkov, E., Piliptsevich, N., Pinchera, A., Polyakov, S., Shabeka, N., Suonio, E., Tenet, V., Tsyb, A., Yamashita, S., Williams, D. 2005. **Risk of thyroid cancer after exposure to 131I in childhood**. Journal of the National Cancer Institute, Vol.97 No. 10: 724 732

Jackson, R.J., DeLozier, D.M., Gerasimov, G., Borisova, O., Garbe, P.L., Goultchenko, L., Shakarishvili, G., Hollowell, J.G., Miller, D.T. 2001. **Chernobyl and iodine deficiency in the Russian Federation: An environmental disaster leading to a public health opportunity**. Journal of Public Health Policy, Vol. 23 No.4: 453-470

Mahoney, M.C., Lawrence, S., Falkner, K.L., Averkin, Y.I., Ostapenko, V.A., Michalek, A.M., Moysich, K.B., McCarthy, P.L. 2004. **Thyroid cancer incidence trends in Belarus: examining the impact of Chernobyl**. International Journal of Epidemiology 33: 1025-1033

World Health Organization, Geneva. 1999**. Guidelines for Iodine prophylaxis following nuclear accidents**. Pp 1-39.

http://en.wikipedia.org/wiki/Iodine-131
http://www.unicef.org/ceecis/media_4145.html
http://www.unicef.org/ceecis/media_4165.html
http://www.endocrineweb.com/news/thyroid-cancer/4780-un-releases-report-chernobyl-survivors-thyroid-cancer

TFC wishes to thank Montréal en Santé for their partnership for Thyroid Awareness

Thyrofacts!

Your thyroid is a small butterfly shaped gland located in the front of your neck below your Adam's apple. It produces hormones that interact with all of your body's organs. These hormones regulate your weight, energy, heart rate, body temperature and even your mood!

When your thyroid is not functioning properly, you may feel unwell and this may lead to a thyroid disorder.

Some common thyroid disorders are:

An **underactive thyroid** is one common disorder that we call **hypothyroidism**. This disorder **slows down your metabolism** which may cause weight gain, depression fatigue, sleepiness, constipation, and increased sensitivity to cold.

An **overactive thyroid** is another common disorder that we call **hyperthyroidism.** This disorder **speeds up your metabolism** which may lead to weight loss, heart palpitations, heat intolerance, fatigue, nervousness, and irritability.

How prevalent are thyroid disorders?
A recent survey revealed that almost one in ten (10) Canadian adults said they had been diagnosed with a thyroid disorder.

What are the risk factors for developing a thyroid disorder?
Aging and menopause may increase the risk of developing a thyroid disorder.

How are thyroid disorders diagnosed?
A simple blood test called the thyroid-stimulating hormone (TSH) test is the most accurate way to diagnose a thyroid disorder. Other anomalies are generally discovered by massaging the throat during an annual medical exam or else with an X-ray.

How are thyroid disorders treated?

An **underactive thyroid** is usually treated with thyroid replacement therapy. The goal of this treatment is to return hormone levels to normal.

An **overactive thyroid** may be treated with radioactive iodine, anti-thyroid drugs, or surgery.

A word of Caution!
As thyroid disorders, hypothyroidism and hyperthyroidism are not easy to diagnose by their symptoms alone. These diseases progress slowly and your body does not change from one day to the next. At the same time, these symptoms may be confused with other symptoms of burn-out, depression or menopause. A word of caution! If you are feeling a combination of these symptoms, see a doctor.

Autoimmunity and how the thyroid gland fits into this

Jack R Wall MD, PhD, FRACP, FRCPC
Professor of medicine, The University of Sydney, Nepean clinical School, Penrith, NSW, Australia 2751

Graves' hyperthyroidism, Hashimoto's thyroiditis, ophthalmopathy ('poppy eyes'), and some cases of transient thyroiditis are *autoimmune disorders*. This means that the patient's immune system (antibodies and white blood cells) is attacking the thyroid gland, and slowly destroying it. In the case of Graves' disease, a unique antibody called TSH-receptor antibodies stimulates the thyroid cell to make more thyroxin. It also induces the cells to grow and divide and the thyroid gland becomes very large, vascular ("hot") and very spongy, which is typical of the goitre of Graves' disease. The increased blood levels of thyroid hormone produce the symptoms that are so characteristic of the disease namely; heat intolerance, rapid heart beat, weight loss despite increased appetite, shakiness, sweatiness, diarrhoea and a host of other symptoms. In Hashimoto's thyroiditis, certain white blood cells called T-lymphocytes, and cytotoxic antibodies, attack and destroy thyroid cells leading to progressive inflammatory damage, swelling of the thyroid (another form of goitre), pain and, eventually, hypothyroidism as the amount of thyroid tissue decreases.

Hashimoto's thyroiditis is the most common autoimmune disorder in humans effecting around 6% of adult females while Graves' disease affects 1% of adult females. Men are also affected but much less often. The underlying disorder is called 'thyroid autoimmunity' characterised by circulating antibodies reacting with thyroid proteins called "antigens" namely, thyroid peroxidise and thyroglobulin, and tissue infiltrations with mononuclear cells including lymphocytes. The only difference between the two disorders is the production of TSH-receptor antibodies that will always cause hyperthyroidism (Graves' disease), probably within weeks of their production.

Autoimmune disorders are not supposed to happen; indeed the old term for this was *horror autotoxicus,* in other words it was deemed impossible that the immune system would turn upon the body. The immune system is there to protect us against external agents, such as bacteria, viruses and other proteins, to destroy and eliminate these foreign proteins to maintain the *status quo* and health. Strangely enough, although thyroid disorders have been studied since the 1950s, the underlying causes are not well understood. Autoimmune diseases run in families, so there is a genetic element and probably an environmental trigger such as stress, infection, or other illness that alters the balance and the immune system may become auto-reactive in a patient with the genetic tendency to do so.

Hashimoto's thyroiditis and Graves' disease are part of the spectrum of autoimmune disorders of which there are many involving most of the tissues of the body. Other examples include; type I diabetes where white blood cells and antibodies destroy the beta islet cells in the pancreas, usually in young people, leading to the absence of insulin producing cells and the clinical syndrome of diabetes. These patients are typically young and require insulin almost immediately after diagnosis. Another common autoimmune disease is coeliac disease, an autoimmune disorder of the small bowel where there is destruction and atrophy of the villi, those protuberances from the mucus membrane covering of the gut that are important for absorption. Patients with coeliac disease react to gluten which sets off the immune reaction and causes malabsorption. Patients are quite unwell; they lose many nutrients in their bowels, including calcium which makes their bones thin and

fracture. But this is manageable by avoiding gluten. The diagnosis is made from a series of antibodies in the blood and then by carrying out a small bowel biopsy.

Other common autoimmune disorders include pernicious anaemia, a disease of the blood and nervous system, psoriasis, a common disease of the skin, multiple sclerosis, a neurological disorder that can be quite devastating and *Myasthenia Gravis,* a neurological disorder of the eye muscles. And there are what we call "autoimmune markers" such as premature grey hair in women and loss of skin pigment or vitiligo. Autoimmune disease affects, mainly women. Anecdotally, I can recall giving a talk to the Thyroid Foundation in Montreal one evening to a room comprising mainly of grey haired women, I commented that either thyroid disease affects mainly women or the men are all at home watching the hockey. These days women tend to dye their hair, so this is not such a useful marker now!

More serious autoimmune diseases include those that involve many systems, including systemic lupus, rheumatoid arthritis and scleroderma. In these disorders the immune systems attack multiple parts of the body, mainly through attacking a common antigen such as nuclear antigens in the nuclei of the cells and antigens in the joints and tissues of the skin. Thus, these so-called multi-system diseases are more generalised and usually more serious since they may involve important organs such as the liver or kidneys. The disorders described above are called 'organ specific' disorders because they attack mainly one organ, such as the thyroid. However, Graves' disease is really a multi-system disease because the autoimmune disorder involves several tissues; the thyroid cell, the tissues and muscles around the eyes, the lacrimal gland and, in some cases, the long bones and finger ends (acropachy) and the skin (dermopathy). Although there are associations of autoimmune disorders these are not very impressive; for example, I have seen many patients with thyroid autoimmunity over a long period of time and almost always they have only Hashimoto's thyroiditis or Graves' disease. However, 20% of patients with type I diabetes also have thyroid disease and patient's with Graves' disease or Hashimoto's thyroiditis may have psoriasis, coeliac disease, premature grey hair or vitiligo. Type I diabetes, lupus and rheumatoid arthritis are occasionally present in other family members. Sometimes, within a family, one patient may have Graves' disease, her sister has Hashimoto's thyroiditis and one parent or grandparent has/had rheumatoid arthritis. Where there is a family history of multi-system disease such as lupus (SLE) or rheumatoid arthritis, the genetic element appears to be stronger and there will be a greater prevalence of various autoimmune disorders, in particular Graves' disease and Hashimoto's thyroiditis, in family members. When these affect men, one believes that the genetic factor is stronger since men are 10 times less likely to develop thyroid or other autoimmunity than women. The only autoimmune disorder that affects both sexes approximately equally is type I diabetes. When I see a patient with Hashimoto's thyroiditis I usually test for anti-nuclear antibodies as a marker for a more serious multi-system disease. However, these antibodies are often positive in thyroid autoimmunity and do not indicate that the patient has lupus or another multi-system disease (such as Sjogren's disease, rheumatoid arthritis or scleroderma). We also check for coeliac antibodies and sometimes for antibodies that are markers of type I diabetes. But most patients remain free of these other problems in the long term.

Serious autoimmune disorders are treated with steroids or immunosuppressant drugs. However, we do not do this for Graves' disease or Hashimoto's thyroiditis as the drugs have non-specific side effects and can cause harm in many ways. On the other hand it is easy to treat Hashimoto's thyroiditis, we do not treat the process we treat the end result, namely, hypothyroidism, with thyroxin. Interestingly, recent studies suggest that patients with Hashimoto's thyroiditis also have symptoms due to the inflammation itself, such as swelling, pain, tenderness of the thyroid gland, feeling generally unwell, and we should be treating these symptoms

with anti-inflammatory drugs. In Graves' disease, the treatment is to block thyroid production or to take out the thyroid gland or destroy it with radioactive iodine. The common thyroid disorders in North America and Australia are autoimmune, the other disorders that are quite common are nodules or multi-nodular goitre, but these disorders are not autoimmune; they are different and have nothing to do with immune abnormalities. In some parts of the world, particularly in mountainous areas of Asia, South America, Europe and New Guinea, the predominant thyroid disorder is still iodine deficiency. Iodine is needed for thyroxin production. The treatment is iodine replacement to the population. Because iodine is needed for thyroid hormone production, the thyroid gland becomes very large because of TSH-stimulation which forces as much iodine as is available into the thyroid. These mechanisms do not pertain at all to Hashimoto's thyroiditis or Graves' disease where the organ damage is due to the abnormal immune reaction in the thyroid gland, destruction in Hashimoto's and stimulation in the case of Graves' hyperthyroidism.

Finally, a word about the association of these disorders. It is not clear why patients with Graves' disease development ophthalmopathy, or why there are other associations of autoimmune disorders, but it seems that where there are multiple tissues involved one mechanism is reaction against proteins expressed in both or all of the tissues. In the case of Graves' disease, shared antigens in the orbit and the thyroid such as the

TSH-Receptor and possibly calsequestrin, are targeted by antibodies and lymphocytes leading to two diseases (Graves' hyperthyroidism or Hashimoto's thyroiditis and ophthalmopathy). In multi-system disease the common antigens may be nuclear proteins which are expressed in all cells and tissues. However, even the apparently "organ specific" protein TSH-receptor is found in other tissues including the testis and lymphocytes, so a reaction against antigens in one tissue or many tissues, is not the whole answer.

Finally, although thyroid autoimmune disease has been known since the mid 1950s it is still not yet clear why some people, but not others, develop these disorders. We do know that there are genetic factors and environmental factors. Luckily, in the case of the thyroid, treatment is usually simple and effective, and we do not need to worry about the immune abnormalities since we treat the end result of the disease, not its cause.

Once stable; patients generally remain well in the long term. Type I diabetes is an organ specific disorder that can be devastating, particularly if it develops in a young child, and is lifelong with complications and associated disorders in the nerves, kidneys and eyes.

Upcoming issues in thyrobulletin

- **Thyroid disease in children –and its affects**
- **Have you had your thyroid checked lately?**

Thyroid Foundation of Canada

La Fondation canadienne de la Thyroïde

The Face and Voice of Thyroid Disease in Canada
Awareness - Support – Research
People with Thyroid Disease are all around us
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Thyroid Disease is a genetic condition and can affect any member of your family.

Did you know that production at work can be affected by undiagnosed thyroid disease?

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Regular: __ 1 yr: $25.00 __ 2 yrs: $40.00 Family: __ 1 yr. $30.00 __ 2yrs. $50.00

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