

Welcome New Participants

If this is your first newsletter, welcome to the Project – you are joining over 24,000 other Albertans who have enrolled in the study since 2000. Watch for your copy of *Tomorrow's News* every six months – inside you will find information from the world of cancer research as well as updates about the progress of the study. To read back issues of the newsletter, go to the newsletter archive on www.thetomorrowproject.org.

Be a Tomorrow Project Ambassador

We are looking for participants in *The Tomorrow Project* who are willing to share a bit about themselves and the story of why they joined the study.

If you live in either Edmonton or Calgary you may recently have seen news items reporting how Albertans in *The Tomorrow Project* are helping scientists unravel the complex causes of cancer. We extend a big thanks to those who shared their story for articles and TV features.

We are now asking for your help in spreading the word about the Project. Would you be willing to speak with the media about why you volunteered for the study? Or would you be interested in telling your story for an upcoming newsletter, just like Don did in this issue?

To volunteer, just call us at 1-877-919-9292 or email us at tomorrow@cancerboard.ab.ca – we will gladly keep your name on file.

Alberta's Cancer Free Future

The Alberta Cancer Board (ACB) recently announced its vision for a Cancer Free Future, with milestones set for the year 2025. In collaboration with Alberta's health, research, government and not-for-profit sectors, the ACB is committed to:

- Preventing more than 61,000 cancers by 2025 by reducing the projected cancer incidence by 35 percent

- Saving more than 45,000 lives by 2025 by reducing projected deaths by 50 per cent
- Working to eradicate all forms of suffering associated with cancer.

The goals are ambitious and a lot of work needs to be done. However, a \$500 million endowment from the provincial government will contribute roughly \$25 million each year toward cancer research and prevention. As a beneficiary of this legacy, *The Tomorrow Project* and its participants will play an important part in reaching these milestones.

For more information about how the ACB will work toward achieving its 2025 goals, go to www.albertacancer.ca, click 'About the Alberta Cancer Board' and then choose 'On-line Publications' and select 'Annual Report 2005-06'

Please Help Us To Keep Our Files Up To Date

On the front cover of this issue, you will see the address and phone numbers we currently have on file for you. Because *The Tomorrow Project* is a long-term study, staying in touch with participants is an important part of our work because it reduces the number of participants who are "lost-to-follow-up". Please take a moment to review the information and to contact us with any corrections or additional information. Remember, we can send you information wherever you live, even outside Alberta.

Need To Contact Us?

Email: tomorrow@cancerboard.ab.ca
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ISSN 1911-0995

A research initiative of the
Alberta Cancer Board



Tomorrow's News

Volume 7 Issue 1 February 2007

The Tomorrow Project® — Albertans Studying the Connection Between Lifestyle and Cancer

Who's Who in The Tomorrow Project

Up in the Athabasca oil sands, Don Bithell drives some of the world's largest vehicles. Working with the heavy machinery and trucks used to excavate the oil sands, Don drives the enormous 380-tonne trucks, which deliver 500,000 tonnes of oil sand each day to the Suncor Energy processing plant. He can also be found behind the wheel of the bulldozers that are used for grading at the open-pit excavation operations.

Don has lived in Fort McMurray since moving there from Cambridge, Ontario in 2000. He decided to take up residence in Alberta to work with Suncor Energy Inc. at their oil sands mining operations, and while he has enjoyed his time here, he is looking forward to returning home to Ontario one day.

As one of close to 600 people from Fort McMurray who have enrolled in Alberta Cancer Board's *The Tomorrow Project* to date, Don became involved "because cancer touches so many lives." He wanted to be a part of a project that will make a difference in the lives of Albertans and others. "I am interested to see the results of *The Tomorrow Project* because the answers may help people who get cancer in the future," says Don. "Any little bit of research or participation helps."

As a child growing up in Cambridge, Ontario, Don was an avid hockey player. This love for the game has continued throughout his life. For the past six years that he has been living in Fort McMurray, Don has enjoyed playing hockey in the local pick-up leagues and is also part of his company's shift league, Suncor J2Moose. Often playing a defenseman against opponent teams from other companies operating in the Athabasca oil sands,



A heavy hauler at the Athabasca Oil Sands
Photo Courtesy of Suncor Energy Inc.

Don also covers positions for other team members if they can't make a game. When asked what he enjoys most about hockey in Fort McMurray, Don quickly answers, "I enjoy the camaraderie of playing hockey with my coworkers."

When he finds some spare time in the warmer weather, Don also enjoys golfing at one of the three courses in Fort McMurray. "The summer season is short in northern Alberta so I try to get in as many golf games as possible," adds Don. Camping and hiking are two other recreational activities he enjoys when he returns home to Ontario to visit.

PLEASE UPDATE

Please help us update the information printed below.

For corrections or additions:

- Call our 24 hour toll-free line: 1-877-919-9292
- Email us: tomorrow@cancerboard.ab.ca

Screening for Lung Cancer: A New Approach?

Lung cancer was the leading cause of cancer death among Albertans in 2003, and while rates for men have been decreasing, rates in women have been increasing steadily over the past 15 years¹. Between 80 and 90 per cent of lung cancer cases can be attributed to smoking. The remaining 10 to 20 per cent could be associated with exposure to second hand smoke, asbestos or radon gas, or they may be associated with pre-existing lung disorders, genetic factors or unknown factors.

One of the most devastating facts about lung cancer is that the length of time between receiving a diagnosis and dying from the disease can often be quite short. By the time a diagnosis is made, the cancer is often too far advanced to be treated successfully. Although it has been estimated that about 70% of lung cancer cases could be treated effectively if they were detected early enough, a major challenge is that there is not yet a good way to detect early stage lung cancer.

In the past, it was thought that chest x-rays, or laboratory tests on sputum coughed up from the lungs, might be useful. However, trials were disappointing, as there was no evidence that these tests actually resulted in greater life expectancy. This may mean that by the time the cancers were detected by these methods, they were already too advanced for treatment to be successful.

Several studies are now evaluating a new approach using spiral computed tomography (spiral CT). The CT scanner takes a series of pictures of the inside of the lungs. This approach can detect smaller abnormalities than could be found using x-rays, and it may turn out to be an approach that could be used for lung cancer screening.

However, before that can happen, there are many challenges that must be addressed and some very important questions that need to be answered.

One of the major challenges is that the test has the potential to produce a high number of 'false positives'. For example, in one trial, a substantial proportion of smokers and ex-smokers who didn't have any symptoms were told that they had lung abnormalities that might be tumours. When investigated further, many of these abnormalities were found to be harmless. If this high rate of 'false positives' were to occur within a screening program, many people would have to undergo unnecessary procedures that may increase risk of injury, or even death.

Another major question surrounds the issue of over-diagnosis. This means that the test often detects tumours that might be very slow-growing or non-aggressive. If left alone, such tumours may never cause symptoms or death. Researchers need to figure out a way of differentiating potentially problematic tumours from those that are not likely to pose future health risk.



Photo Courtesy of Brian Brady, Alberta Cancer Board

There is also some concern that repeated exposure to the low-dose radiation needed to do the test might itself be associated with increased cancer risk.

The most important issue is that we still do not know whether the test actually increases life expectancy. Until this big question is answered, it is too early to think about implementing the same sort of screening program for lung cancer that we have now for breast and cervical cancers, and that we will have for bowel cancer in the near future.

However, there are several pieces of good news associated with this story. Firstly, progress is being made in the area of lung cancer early detection and treatment. If the new large trials currently being undertaken conclude that spiral CT could increase life expectancy associated with lung cancer, that will be a great leap forward.

Secondly, results from a long term cohort study undertaken in Great Britain have shown that it is never too late to stop smoking. That study followed about 35,000 male doctors for over 50 years, and recently reported that even men who quit smoking between the ages of 55 and 64 could reduce their lung cancer risk, compared to the level of risk they would face if they kept smoking².

As *The Tomorrow Project* progresses, we will be able to see how changes in smoking rates and exposure to second hand smoke impact lung cancer in Alberta. In the first questionnaires that were filled out, 38% of participants told us that they used to smoke but had quit, while 43% of people told us that they had never smoked. However, almost a quarter of never smokers said that they were exposed to second hand smoke on most days of the week. Of those participants who completed Survey 2004, 83% said that they didn't smoke. If the exposure to cigarette smoke decreases in the population, and if a useful test for lung cancer screening can be implemented, there is great potential for decreasing the impact of lung cancer in the relatively near future.



For further information about lung cancer, smoking and lung cancer screening:

www.cancer.gov/nlst
www.cancer.gov/cancertopics/smoking
www.lung.ca/diseases-maladies/cancer-cancer_e.php

¹ Alberta Cancer Board. **Cancer in Alberta: A Regional Picture 2006**. www.cancerboard.ab.ca/pdf/cancer_prevention/regionalpicture_2006.pdf

² Doll R *et al.* Mortality in relation to smoking: 50 years' observations on male British doctors. *British Medical Journal*, 2004; 328: 1519-1527.