

## Body Mass Index: Why Is It Important?

As part of the research into the connection between lifestyle and cancer, *The Tomorrow Project* is looking at factors thought to influence people's risk for developing cancer. These factors are called risk factors.

### What is a risk factor?\*

A risk factor is anything that raises or lowers a person's chance of getting a disease. You can control some of them, but not all of them. Risk factors for cancer include

- \* lifestyle choices, like what a person eats
- \* environmental exposures, like smoke from other people's cigarettes
- \* inherited make-up or family history
- \* other diseases or medical problems

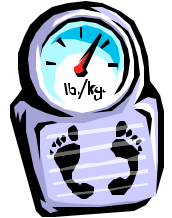
Risk factors mix together and have different effects on different people. Some people are more sensitive to risk factors than others. Just because you have one or even several risk factors, it does not mean you will definitely get cancer. Also, avoiding risk factors does not guarantee that you will be healthy.

While several cancers can share the same risk factors, different cancers have different risk factors. For example, one risk factor that may increase people's chances of developing endometrial (uterus) cancer, kidney cancer, postmenopausal breast cancer or cancer in the colon or gallbladder is a high body mass index.

### What is the body mass index?

Body mass index (BMI) is a measure of your body weight adjusted for height. Health Canada has recently announced four categories of BMI ranges for Canadians. These are

- \* underweight (BMI less than 18.5)
- \* normal weight (BMI 18.5 to 24.9)
- \* overweight (BMI 25 to 29.9)
- \* obese (BMI 30 and over)



An easy way to calculate your BMI is to multiply your weight (in pounds) by 705; divide the result by your height (in inches); then divide again by your height. The answer is your BMI. There's also a website that will calculate your BMI for you at [www.nhlbisupport.com/bmi](http://www.nhlbisupport.com/bmi). This website provides good information about how to assess your risk from being overweight and what to do about it.\*\*

Research studies in large groups of people have shown that BMI is related to health risk. Most adults with a high BMI (overweight or obese) have a high percentage of body fat. Extra body fat is associated with increased risk of health problems such as diabetes, heart disease, high blood pressure, gallbladder disease and some forms of cancer.

BMI classifications do not apply to children, pregnant or nursing women and athletes in heavy training.

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\*Harvard Center for Cancer Prevention website

\*\*UC Berkeley Wellness Letter, August 2003

## Research Update

### Who knows about our work?

This summer, we reported some *Tomorrow Project* study results at scientific conferences in Calgary, Edmonton and Halifax. At these conferences we discussed

1. finding study participants by using Random Digit Dialling in all areas of Alberta,
2. changes we made to the U.S.-based diet history survey for use by Canadians; and,
3. the feasibility of collecting blood samples from rural and urban study participants.

As well, Dr. Heather Bryant, the lead researcher on *The Tomorrow Project*, talked to a national audience about the overall development of the study to date and future plans for *The Tomorrow Project*.

### Our next survey

If you joined the study before the summer of 2003, you will receive the next study survey early in 2004. This marks an important milestone for *The Tomorrow Project*.



The information you give will be the first of many “layers” of information that you will be asked for over the years of your participation in *The Tomorrow Project*. We will be asking about hormone-replacement therapy (HRT) use among women, Prostate Specific Antigen (PSA) testing among men, and some of your current body measures.

All of these factors have been a focus of attention for health researchers, legislators, health care providers and the public over the past three years. We will also ask you to update information about important health-related factors that may have changed over the past 2 - 3 years, for example, smoking habits and general health status.

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### The Tomorrow Project and BMI results

Recent information from Statistics Canada shows that a large proportion of Canadian men and women aged 35-69 are either overweight or obese as indicated by BMI measures.

- \* *Men*: 44% are overweight and 19% are obese.
- \* *Women*: 30% are overweight and 17% are obese.

Participants in *The Tomorrow Project* study were asked about body measurements in the Health and Lifestyle Questionnaire. We used heights and weights to calculate everyone’s BMI, and we learned that participants’ BMI patterns follow those tracked by Statistics Canada.

- \* *Men*: 49% are overweight and 27% are obese.
- \* *Women*: 33% are overweight and 24% are obese.

It is known that BMI increases with age and this trend was also evident among participants.

- \* *Men under age 50*: 48% are overweight and 25% are obese.
- \* *Men aged 50 and older*: 50% are overweight and 30% are obese.
- \* *Women under age 50*: 30% are overweight and 20% are obese.
- \* *Women aged 50 and older*: 36% are overweight and 29% are obese.



Tracking the patterns of change in the BMIs of study participants will be an important focus of *The Tomorrow Project*.

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