

OBESITY AND CARDIOVASCULAR DISEASE

(Update 2004)

(Applicable to Canadians aged 20-60 years)

Official Position:

Obesity is a chronic condition that is multi-factorial in origin, complex to treat, and is a major contributor to heart disease, type II diabetes, hypertension, stroke and some cancers. Due to the magnitude of the impact that obesity has on heart disease and stroke, and to the clustering of risk factors for cardiovascular disease that are often found in the obese patient, obesity is recognized as a major risk factor for cardiovascular disease.

The impact of obesity points to the importance of prevention through healthy behaviours including increased physical activity and a healthy nutritional diet beginning early in life, and continuing through all stages of life. Solutions require comprehensive approaches that are both education and environment based, and that target and assist individuals, the family, and communities to engage in healthy lifestyle patterns and behaviours. Solutions also require ongoing research to develop and evaluate comprehensive approaches to obesity prevention, management and treatment, and surveillance data that measures and tracks obesity and its impact in Canada.

Obesity Defined

The World Health Organization defines obesity as a condition of excessive body fat accumulation to an extent that health may be compromised.

Measuring Obesity

Body Mass Index (BMI) is a widely accepted parameter used to distinguish between obese and non-obese adults aged 20 to 60 years and thus provides information about the subsequent risk of cardiovascular disease.

BMI is calculated by dividing the weight (in kilograms) by the square of the height (in metres).

$$\text{BMI} = \frac{\text{weight (in kilograms)}}{\text{height (in metres)} * \text{height (in metres)}}$$

A BMI equal to or greater than 30 kg/m² is classified as obese, while a BMI in the range of 25 to 29.9 kg/m² is classified as overweight.

Waist circumference (WC) provides an independent prediction of health risks over and above BMI. Increased waist (abdominal) circumference is associated with increased risk of cardiovascular disease, dyslipidemia, type II diabetes and hypertension. As waist circumference increases above 102 cm for men and 88 cm for women, the risks of health-related illnesses increase.

Populations at Increased Risk

Obese individuals with diabetes, hypertension, or dyslipidemias or who are physically inactive are at increased risk of cardiovascular disease, compared to individuals without these conditions.

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A BMI between 25 and 29.9 kg/m² (overweight) is associated with elevated risk of cardiovascular disease, type 2 diabetes, hypertension and dyslipidemia.

Weight gain during young adult life may be one of the most important determinants of future development of cardiovascular risk factors and cardiovascular disease. Adults who gain weight have increased risk of coronary heart disease compared to those with stable weight. Weight gain during adult life may contribute to future development of ischemic heart disease regardless of initial body weight (obese or non-obese).

Canadians of Aboriginal, Chinese, and South Asian (from India, Pakistan, Bangladesh, and Sri Lanka) descent have higher rates of obesity-related chronic diseases (for example diabetes, hypertension and cardiovascular disease).

Individuals with lower socio-economic status have higher rates of obesity than those with higher socio-economic status.

Promotion of Healthy Weights

In April 2002, the Public Health Approaches to the Prevention of Obesity (PHAPO) Working Group of the International Obesity Task Force (IOTF) identified that a comprehensive approach to obesity prevention should:

- Address both dietary habits and physical activity patterns of the population
- Address both societal and individual level factors
- Address both immediate and distant causes
- Have multiple focal points and levels of intervention (i.e. at national, regional, community and individual levels);
- Include both policies and programs; and
- Build links between sectors that may otherwise be viewed as independent.

Required Research

Research is needed to:

- Develop a standard definition and a standard measurement technique for determining obesity in children.
- Develop obesity measures for older, ethnic

and gender specific populations.

- Identify and develop effective primary prevention methods for individuals, families and communities to reduce the prevalence of obesity in all stages of life.
- Improve awareness and knowledge about the health effects of obesity and healthy living.
- Develop effective primary prevention measures and strategies that are therapeutic, secondary and tertiary in nature.
- Identify and track rates of obesity and overweight in Canada.
- Assess the effectiveness of obesity prevention and treatment initiatives.
- Identify and implement the most effective primary prevention strategies for ethnic populations.
- Develop and implement effective healthy public policy for the prevention, treatment, and management of obesity.

Further, the surveillance of obese and overweight Canadians is necessary in order to assess the effectiveness of prevention and treatment initiatives.

It is only through the combined action and resources of governments, non-governmental organizations, non-profit and private sectors to develop and implement a comprehensive approach to curb the growing trend of obesity in Canada.