

Let's Get Active!

Planning Effective Communication Strategies

PHYSICAL ACTIVITY AND SPORT MONITORING PROGRAM



Body mass index among Canadian adults

Based on the reported weight and height measurements of respondents in a 2013 study, just over 4 in 10 Canadian adults (20 years and older) are classified as having normal weight (body mass index range between 18.50 and 24.99).¹ For the purposes of this bulletin, body mass index (BMI) is examined in relation to activity level. Data provided in this bulletin are based on self-report measures (see sidebar).

Among those who are at least moderately active, almost half of Canadians are classified as having a normal weight (47%). Slightly more than one-third of adults are classified as overweight (36%), whereas 15% are considered obese. A mere 2% are considered underweight. Among the inactive population, 38% are considered to have a normal weight. More than one-third (35%) are overweight and roughly one-quarter (24%) of inactive adults are considered obese. Only 3% are classified as underweight.

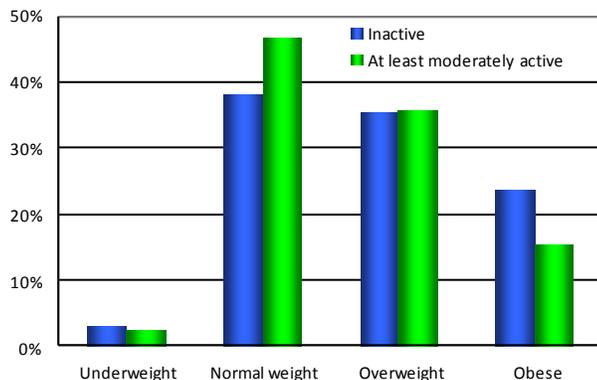
As such, a higher proportion of active adults are considered of normal weight compared to inactive adults, whereas more inactive adults are considered to be obese compared to active adults. Interestingly, regardless of activity level more than half of adults are overweight or obese, which places them at an increased risk of health problems.²

Measuring self-report, BMI - In this study, BMI was calculated by dividing the respondents weight (in kilograms) by their height (in meters) squared. The World Health Organization and Health Canada guidelines were used to develop the following weight classifications:

- less than 18.50 (underweight);
- 18.50 to 24.99 (normal weight);
- 25.00 to 29.99 (overweight);
- ≥ 30.00 (obese).

Measuring physical activity - In this study, the physical activity indicator measures the single domain of leisure time physical activity (LTPA). This self-report measure assesses recall of physical activity participation during the past 3 months. Activity level is calculated by multiplying the occasions by the average time reported for each activity participated in by the MET (metabolic equivalent which indicates the amount of energy expended on the activity relative to a resting state) value for each of these activities. As the question is based on 3 month recall, in order to calculate the yearly total, this product is multiplied by 4. This calculation is repeated for each PA reported. The energy expenditure value is summed across each activity and divided by 365 to yield the average energy expenditure from LTPA per day. For the purposes of this bulletin, active is considered achieving 1.5 or greater MET per day. See Bulletin 1 in this series for more information on physical activity rates based on 2013 data.

FIGURE 1
Body mass index by activity level



Canadian Community Health Survey, 2013¹

Gender

More women than men fall within the normal weight or underweight category, regardless of activity level. On the other hand, a greater proportion of men are considered overweight, regardless of activity level. A greater proportion of men who are at least moderately active are considered obese compared to their female counterparts. The following section will examine differences in BMI by activity level and age and sex.

Age

Among active adults, a higher proportion of 20 to 34 year olds are considered underweight compared to older adults (65 years and older). Moreover, 20 to 34 year olds are also *most* likely to be classified as having a normal weight. Conversely, they are *least* likely to be overweight or obese. Similar findings were noted among inactive adults. In addition, adults 45 years and older are more likely to be overweight compared to adults younger than 45 years. These older inactive individuals are also more likely than 20 to 34 year olds to be considered obese.

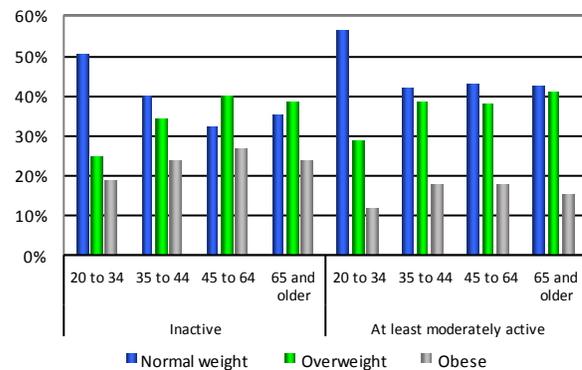
Age and Gender

Compared to their inactive peers, a higher proportion of active women in all age groups (*except* 35 to 44 year old women) are classified as having a normal weight. Similarly, active older men (65 years and older) are more likely to be of a normal weight compared to their inactive peers.

Inactive women and men at all ages (with the one exception of 35 to 44 year old men) are more likely to be obese compared to their active counterparts. There are very few age and sex differences for the overweight category with the exception that inactive women aged 45 to 64 years are more likely to be considered overweight compared to their active female counterparts of the same age.

FIGURE 2

Body mass index by activity level, by age



Canadian Community Health Survey, 2013²

References

1. Statistics Canada. Canadian Community Health Survey (CCHS), 2013. Reproduced and distributed on an "as is" basis with the permission of Statistics Canada. This does not constitute an endorsement by Statistics Canada of this product.
2. Lee I-M, Shiroma EJ, Lobelo F, Puska P, Blair SN, Katzmarzyk PT. Effect of physical inactivity on major non-communicable diseases worldwide: an analysis of burden of disease and life expectancy. *Lancet*, 2012; 380:219-29. Published online July 18, 2012, available at: [http://www.thelancet.com/pdfs/journals/lancet/PIIS0140-6736\(12\)61031-9.pdf](http://www.thelancet.com/pdfs/journals/lancet/PIIS0140-6736(12)61031-9.pdf), accessed May 10, 2015.

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