

The

# INSIDE STORY<sup>®</sup>

NOVEMBER 2018

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# ‘JUST EAT LESS, EXERCISE MORE’



## SAY GOODBYE TO THIS SIMPLIFIED VIEW OF HOW TO TACKLE OBESITY

The predominant societal mindset about overweight and obese people is that they should have the self-discipline to eat healthy and exercise regularly. And if they'd done this in the first place, they wouldn't be in this situation—and society wouldn't be facing skyrocketing obesity rates. However, research is increasingly revealing that managing obesity isn't as simple as “just eat less, exercise more.” The complex nature of managing obesity can also lead to pitfalls: the feeling that obesity management is a lost cause, that it's a waste of time. Or worse, that it's completely out of our personal control. Fortunately, the opposite is the case...

Understanding the complexity of obesity opens up a whole new approach to managing it—an approach that focuses on health, *not* size. An approach that doesn't simply label people as either villains—who are the sole causes of their obesity—or victims at the mercy of their environments.<sup>1</sup> And more good news, this evidence-based approach to managing obesity also sheds light on prevention. Here's the lowdown...

### Defining obesity

Obesity is at epidemic levels around the world—and Canada is no exception. With 25.8% of Canadians over 15 years old considered obese, Canada has one of the highest obesity rates among OECD countries. Only the United States, Mexico, the United Kingdom, South Africa, Australia, New Zealand, and Hungary have higher rates.<sup>2</sup>

### FAR REACHING CONSEQUENCES...

People who are overweight or obese are at risk for not just physical issues, but issues that affect their overall quality of life and well-being.

- **Physical:** High blood pressure, high cholesterol, heart disease, stroke, respiratory problems, type 2 diabetes, metabolic syndrome, gallbladder disease, liver problems, arthritis, sleep apnea, dementia, decreased muscle function, some cancers.<sup>3</sup>
- **Emotional:** Isolation, depression, and sometimes suicidal tendencies.<sup>4</sup>
- **Social:** Stigma and discrimination can lead to isolation, as well as inequities in employment, health care, and education.<sup>5</sup>
- **Economic:** Stigma and discrimination can also negatively impact every aspect of employment including hiring, compensation, and promotion, which in turn, can lead to health and social inequalities. Costs to the Canadian economy are estimated at between \$4.6 billion and \$7.1 billion a year, with a fairly even split between health care costs and indirect costs, such as lost productivity due to people unable to work because of disability or unable to find employment because of discrimination.<sup>6</sup>

And the problem is getting worse in Canada, with today's obesity rates twice as high as in 1978-79.<sup>7</sup> Plus, when statistics include overweight Canadians, the percentage of overweight or obese rises to 61.3% for 2015.<sup>8</sup> And the prevalence of obesity is predicted to continue to rise. In fact estimates include that by 2025 there will be 2.7 billion overweight and obese people in the world—a third of Earth's population.<sup>9</sup> But what technically is overweight and obesity?

The World Health Organization (WHO) defines overweight and obesity as abnormal or excessive fat accumulation that may impair health.<sup>10</sup> Traditionally, overweight and obesity is most commonly assessed using a simple measure that has been around since the 19th century called the body mass index (BMI).<sup>11</sup> BMI is calculated by dividing a person's weight in kilograms by his or her height in metres squared. The WHO defines overweight for an adult man or woman as a BMI greater or equal to 25 and obesity for an adult man or woman as a BMI greater than or equal to 30.<sup>12</sup> In addition to BMI, waist circumference is another assessment tool: it measures the area above the hip bone and below the rib cage. A waist circumference of 35 inches or greater for women and 40 inches for men is considered unhealthy.<sup>13</sup> However, BMI and waist circumference are now widely recognized as having many limitations. Keep reading...

### Moving from size-focused to health-focused

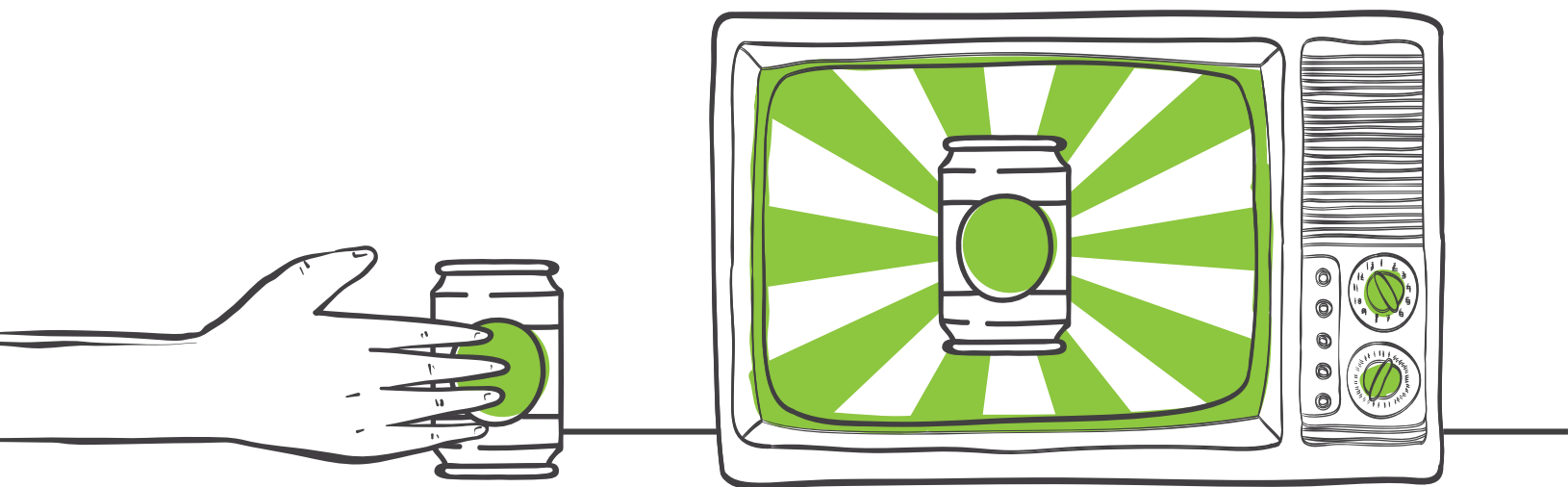
Not only do BMI and weight circumference *not* determine a person's actual percentage of body fat, they do not reflect the presence of potential underlying health issues. In addition, they don't capture other common consequences of overweight and obesity such as reduced quality of life and decreased functional abilities such as limited mobility. These tools just measure size not health or quality of life.

Accordingly, experts like the Canadian Medical Association advise that tools like BMI and waist circumference alone should not be used to clinically diagnose obesity.<sup>14</sup> Instead, additional tests and measures are necessary. For example, newer assessment approaches complement BMI and waist circumference by also investigating the medical, mental, and functional impact of overweight and obesity on an individual basis. In addition, for each individual, these new methods also explore the specific root causes that are contributing to their weight gain, as well as barriers impeding their weight loss. These root causes and barriers are often overlapping and can be one and the same.<sup>15</sup>

## BEYOND JUST PERSONAL CHOICES...

Researchers are finding that becoming overweight and/or having obesity are influenced by many root causes and barriers.<sup>16</sup>

- **Biological:** You can inherit obesity risk through your genes. As adults, identical twins separated at birth are often the same size and shape.
- **Socioeconomic:** Low education and low income usually negatively affect diet, sleep, and mental health, which can all influence obesity risk.
- **Medical:** Physical injuries and both physical and mental health issues can affect mobility, energy level, and motivation. Some medications have side-effects like increased appetite, decreased metabolism, fatigue, or soreness.
- **Emotional:** "Emotional eating" can be due to a range of emotions—good or bad—like happy, sad, anxious, or frustrated. Emotions can also affect substance abuse risk, which can add calories and/or lethargy.
- **Sociocultural:** Today, food has become a national pastime with most social events centred around eating.
- **Society's food environment:** Food education is low, incorrect, and/or confusing. We're inundated with low-cost, highly processed, and supersized foods. Unnecessary sugar added to products keeps sugar cravings going strong (check your ketchup, salad dressing, and pasta sauce). Sugar has been found to be more addictive than cocaine. Bottom line: more calories, less nutrients.
- **Society's active (or inactive) environment:** A knowledge-based economy means more sedentary jobs. Suburban sprawl means car reliance. Work and home life centre around screens. Always being plugged-in adds stress... which can mean less sleep... sleep deprivation and stress can lead to unhealthy eating... and on it goes.



### Not solely about individual responsibility

A growing body of scientific evidence reveals that a number of different and often overlapping root causes and barriers determine the weight our bodies settle on. Accordingly, the prevailing misconception—the blame game that overweight and obesity is solely an individual responsibility—is being replaced by a broader, more accurate, perspective—one that recognizes that numerous environmental and socioeconomic factors are working against weight management efforts.

Researchers continue to assess what is known as the obesogenicity of environments: “The sum of influences that the surroundings, opportunities, or conditions of life have on promoting obesity in individuals or populations.”<sup>17</sup> The goal is to identify the contributors to obesogenic environments and then develop strategies to combat them.

Case in point: Sugary drinks have become deeply entrenched in Mexican culture in a large part due to deliberate marketing in the 1980s and 1990s promoting pop as a cheap way to get energy and to hydrate. Very appealing given Mexico’s high poverty level, poor supply of drinkable water, and hot climate. Essentially, pop soon replaced water, with estimates that Mexico drinks more pop per capita than any other country. More than 70% of the Mexican population is overweight or obese with more than 70% of the added sugar in the diet coming from sugary drinks. To help combat this trend, on January 1, 2014, Mexico became the first country to impose a national pop tax. The result? Declining consumption: sugary drink sales fell by an average of 7.6% over a two-year period. It’s too soon to tell, but hopefully the tax will continue to decrease consumption and in turn, translate into lower rates of overweight and obesity and associated health consequences.<sup>19</sup>

“The environment is **obesogenic** when energy-dense but nutrient-light foods are cheaper than fresh, healthy ones; when they are promoted with discounts encouraging you to buy three rather than one; when alcohol is sold as a loss leader; when sweets are placed at checkouts not just in grocery stores but many non-food shops too; when junk food outlets dominate your high street; and when advertising insidiously steers your purchasing in the wrong direction. It’s obesogenic when cars take precedence over safety for pedestrians and cyclists, so parents fear to let their children walk, and when screen time pushes out exercise outdoors.”<sup>18</sup>

To reflect this more in-depth understanding of the nature of obesity, the WHO, the Canadian Medical Association, the American Medical Association, and Obesity Canada now categorize obesity as a complex chronic condition like hypertension and diabetes.<sup>20</sup> And like other chronic conditions, managing obesity is now recognized as a lifelong process.

## 'Battling the bulge' is an ongoing process

A main reason managing overweight and obesity is such a struggle is the way the body reacts to weight loss. A reduction in body weight of five to 10% can actually reduce resting metabolic rate by as much as 20%.<sup>21</sup> Resting metabolic rate is the number of calories the body needs to carry out basic functions like breathing, circulating blood, adjusting hormone levels, and growing and repairing cells. When someone loses weight, they are likely to regain the weight because their energy requirement (the amount of food they need) has decreased. As a result, although many people think that if they could just lose weight, they will be able to maintain the lower weight with less effort, the opposite is the case. Typically, the minute they relax their efforts, the weight simply comes back. Think yo-yo. Think rollercoaster.

That's why diets—as in “I'll eat healthy until I drop the weight and then stop”—don't work. Accordingly, the scientific director of Obesity Canada stresses that a fundamental principle of obesity management is “do not do things to lose weight that you are unlikely to continue doing to keep the weight off.”<sup>22</sup>

It's time to ditch “diets” and unrealistic numbers on the scales that set up failure. Instead, the success of obesity management should be measured in terms of improvements in health and well-being rather than the amount of weight lost. As described by Obesity Canada: “Obesity management is about improving health and well-being and not simply reducing numbers on the scale. The success of obesity management should be measured by improvements in health and well-being rather than in the amount of weight lost. For many patients, even a modest reduction in body weight can lead to significant improvements in health and well-being.”<sup>23</sup>

In fact, central to the categorization of obesity as a chronic condition is that good health is possible over a wide range of body weights. For example, although metabolism often slows down with weight loss, people with obesity who lose as little as 5% of their body weight can reduce the risk of developing type 2 diabetes and heart disease—if they can just keep the weight off while battling a slower metabolism.<sup>24</sup>

## THE BIGGEST LOSERS REGAIN THE WEIGHT...

The winner of season eight of the reality TV show *The Biggest Loser* lost 239 pounds—down to just 191 pounds from 430—more than anyone had ever lost on the show. *But...*

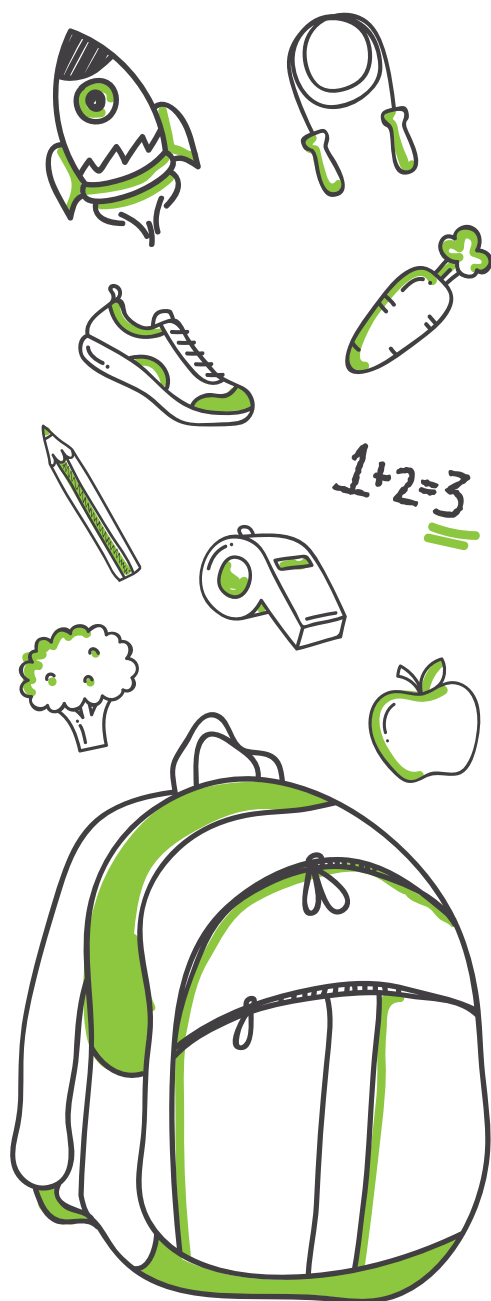
Despite his best efforts, he has gained more than 100 pounds back. And he's not alone; most of the 16 contestants in season eight have regained most—if not all—of the weight they lost. Some contestants are heavier now than when they started the show.

So what's going on here? A study followed the contestants for six years after the season aired. The findings highlight just how hard the body fights back against weight loss.

When the show began, the contestants had normal metabolisms for their size, so they burned a normal number of calories for people of their weight. However, by the end of the show their metabolisms had slowed to the point where they were not able to burn enough calories to maintain their smaller sizes. Their metabolisms became even slower as time went on. Now for the show's winner to maintain his current weight of 295 pounds, he has to eat 800 fewer calories per day than a typical man his size.

In addition, by the season's finale, the contestants had almost no leptin at all—one of a group of hormones that controls hunger—so they were incredibly hungry. After the show, as their weight returned, their leptin levels rose, but only to about half of what it had been at the show's start. As a result, the contestants constantly battled hunger, cravings, and binges.

The contestants' bodies appeared to be doing everything possible to pull them back to their previous weights.<sup>25</sup>



## Obesity management provides lessons learned for prevention...

Maybe prevention of overweight and obesity starts with youth—and the sooner the better as not only are obesity rates on the rise for Canadian adults, rates of obesity among Canadian children and youth have also nearly tripled in the last 30 years.<sup>26</sup> Between 1978/79 and 2004, the combined prevalence of overweight and obesity among children age two to 17 years old increased from 15% to 26% with increases highest for children age 12 to 17 years. And here's the kicker: most adolescents do not outgrow this problem—in fact, many continue to gain excess weight.<sup>27</sup>

The government of Canada recognizes that “addressing the factors that contribute to obesity early in a person’s life helps to reduce the likelihood of being overweight or obese in adolescence and adulthood.”<sup>28</sup> Accordingly a range of initiatives are underway across Canada to reach children where they live, learn, and play to address obesogenic environments. This is all part of an official federal/provincial/territorial framework on curbing childhood obesity and achieving healthy weights. Initiatives include everything from healthy school food guidelines to promoting physical activity among youth after school and both urban and rural planning that focuses on designs that promote activity.<sup>29</sup> In addition, in 2016 top health officials from Canada, Mexico, and the United States met to discuss their joint commitment to addressing childhood obesity. The three countries continue to share information on innovative policies and programs as best practices to prevent overweight and obesity.<sup>30</sup>

## Make the mind shift

Clearly there is no single or simple solution to overweight and obesity. It's a complex problem that requires a supportive environment that promotes health not only at home and school, but also at work. For instance, GSC is helping support plan members through the Change4Life® health management portal as well as offering health coaching programs. Here's to gaining health!

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## NEW TRADE AGREEMENT RAISES CONCERNS ABOUT BIOLOGIC PRICES

The United-States-Mexico-Canada Agreement (USMCA) extends the minimum period of market exclusivity and data protection for manufacturers of biologic drugs up from eight years to 10 years. Essentially, this allows American companies to sell biologic drugs to the Canadian market for a longer period before potential competitors can have access to necessary data to develop lower-cost biosimilars. Although research and development of biologics does occur in Canada, most is done in the United States. Whether the extension of the market exclusivity period will affect the price of Canada's biologics depends on what happens next.

Critics of the USMCA feel the extension in data protection could mean higher drug costs for provinces, territories, plan sponsors, and plan members who cost-share drug plans. Although the government of Canada recognizes that the extended protection can have an impact on costs, it says that countermeasures are in place that will bring costs down in the long term. For instance, the government continues to work with provinces and territories to negotiate lower prices for prescription drugs through the pan-Canadian Pharmaceutical Alliance and is also examining national pharmacare models. In addition, some predict that there may be limited to no impact on the cost of biologics because drug patent protection is already at 20 years, which is well beyond the 10-year data exclusivity.

**What does this mean for your plan?** The USMCA isn't expected to have any immediate impact on costs because the change in market exclusivity and data protection is only expected to affect new drugs entering the market, not those already approved. However, ultimately, delayed availability of new biosimilar drugs could lead to higher costs for plans in the longer term.

For more information, visit <https://www.cbc.ca/news/health/usmca-pharma-drugs-prices-cost-1.4846421>. The USMCA is available here: <https://international.gc.ca/trade-commerce/trade-agreements-accords-commerciaux/agr-acc/usmca-aeumc/index.aspx?lang=eng>.

## STUDY DEBUNKS 'SITTING IS THE NEW SMOKING'

The claim "sitting is the new smoking" has been flying around cyberspace for a while now implying that sitting is as bad for your health as smoking. Although sitting for long periods definitely isn't good for you, a new study finds that equating sitting to smoking is an overblown claim.

The study *Evaluating the Evidence on Sitting, Smoking, and Health* set out to compare the risks posed by both sitting and smoking. The researchers recognized that—no matter how long people remain sitting—some differences between smoking and sitting are obvious. For example, smoking is an addiction—a physiological process that makes the body crave nicotine and creates withdrawal symptoms. Whereas, sitting is essentially a habit (you may think you have Netflix couch-time withdrawal, but it's not actually a physiological response). Similarly, it's obvious that second-hand smoke affects other people, whereas sitting doesn't affect anyone but the sitter.



So what about the scientific evidence? Regarding sitting and health risks, excessive sitters—sitting more than eight hours a day—had a 10-20% increased risk of getting chronic conditions such as diabetes and cardiovascular disease over those who sit for only two to three hours per day. But the health risks of smoking are far greater: even smokers who only smoke a small number of cigarettes each day are 10 times more likely to get lung cancer than non-smokers. And heavy smokers—who smoke more than 40 cigarettes a day—have a 40 times higher lung-cancer risk than non-smokers. The researchers also looked at overall risk of death. Excessive sitters have a 22% higher risk of dying than non-excessive sitters. By contrast, smokers have a two-to-three-times greater risk of dying than non-smokers.

Accordingly, the study concludes that the health and mortality risks of sitting are not nearly of the same magnitude as is the case with smoking. Although the researchers don't think that the claim "sitting is the new smoking" accurately represents risks, they hope that people take the warning about sitting too long seriously—without overstating the dangers.

For more information and to read the study, visit: <https://ajph.aphapublications.org/doi/10.2105/AJPH.2018.304649>.

## **WORLD'S LARGEST SLEEP STUDY REVEALS UNIQUE FINDINGS**

At first take, some findings from the world's largest sleep study to date could be considered a bit of a snooze; simply reinforcing the well-established sleep recommendation of seven to eight hours per night. But the study also found that consistently sleeping less—or more—than the recommendation can have a major impact on the brain. Viewed from a real-world lens, these findings suggest that many of us may be functioning day to day with impaired cognitive abilities. This is especially troubling given that people in responsible positions often operate on very little sleep.

Although the study was conducted by neuroscientists from Western University in London, Ontario, it captures sleeping habits from around the world. This is because more than 40,000 adults worldwide participated in the online study by completing an initial questionnaire followed by a series of cognitive performance activities. This real-world approach also means that the findings should more accurately reflect the impact of sleep on how people function than smaller studies done on people in laboratories.

Overall, a study of this size allowed for numerous intriguing findings to emerge. These include that reasoning, problem solving, and communication skills were most strongly negatively affected by participants who reported typically sleeping less than—or more than—seven to eight hours per night. In addition, most participants who consistently slept four hours or less per night performed as if they were almost nine years older in terms of their overall cognitive abilities. Another important insight is that the amount of sleep associated with high-performing cognitive behaviour—seven to eight hours—was the same for all participants regardless of their ages. Similarly, whether participants had cognitive difficulties with too little or too much sleep did not depend on age.

Also, there is hope if you have bouts of sleep deprivation. Participants who slept even slightly more than their usual amount the night before testing performed better. This suggests that a single night's sleep can benefit cognition; it may be possible for people to recover from short periods of too little sleep.

For more information and to read the study, visit: <https://academic.oup.com/sleep/advance-article/doi/10.1093/sleep/zsy182/5096067>.

November  
Haiku

Old belief systems  
Do not help us in our fight  
With obesity

## FITBIT WINNER

Congratulations to **D. CORKUM**, of **CAMPBELL RIVER, BC**, the winner of our monthly draw for a Fitbit. Through this contest, one name will be drawn each month from plan members who have registered for Plan Member Online Services for that month.

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**London** 1.800.265.4429  
**Toronto** 1.800.268.6613  
**Calgary** 1.888.962.8533

**Vancouver** 1.800.665.1494  
**Montréal** 1.855.789.9214  
**Atlantic** 1.844.666.0667

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