

Simple Office Approach to Weight Management



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Weight excess is becoming common in Canada, with statistics revealing that 59% of adults and 26% of children are overweight.¹ Obesity is a chronic disease which can increase the risk of other health problems, such as:

- Diabetes
- Hypertension
- Heart disease
- Arthritis
- Hyperlipidemia
- Stroke
- Cancer
- Fatty liver

Also, obesity can contribute to poor self-esteem, along with social and economic (personal and public) distress.

Etiology

The etiology of obesity is complex and still not fully understood. Genetics plays a major role and environmental influence cannot be overlooked. Recent studies implicate the participation of adipocytes as endocrine cells whose products contribute to insulin resistance.² Insulin resistance is the foundation for the Metabolic syndrome which describes those with:

- dysglycemia,
- hyperlipidemia and
- hypertension.³

Metabolic syndrome is more common in those who carry extra weight.

Xavier's case

Xavier, 45, has struggled with his weight since childhood. It worsened during college when he became less active. He now has a desk job.

He presents to you as he has recently slipped on the ice, twisting his knee. This is the second time this has happened. The orthopedic surgeon assured him his knee would heal but advised him strongly to lose some weight.

Biometric data and laboratory results

Clinical investigations reveal:

- Height: 1.7 m
- Weight: 99 kg
- BMI: 32.2 kg/m²
- Waist circumference: 110 cm
- BP: 142/86 mmHg
- Heart rate: 70 bpm
- Total cholesterol: 6.47 mmol/L
- Triglycerides: 1.79 mmol/L
- HDL-C: 1.76 mmol/L
- LDL-C: 3.89 mmol/L
- Fasting glucose: 5.9 mmol/L

Food diary

Xavier's food diary is as follows:

- 6 a.m.: coffee (cream and sugar)
- 10 a.m.: trail mix and juice
- 12 p.m.: 12 inch sub (meat, cheese, sauce), with a soft drink and chips
- 6 p.m.: steak, potato, caesar salad and milk
- Evening: cheese, crackers and cookies

Turn to page 74 for more on Xavier.

Xavier's case cont'd...

Diagnosis

Xavier is diagnosed as being obese and as having hypertension, hyperlipidemia and dysglycemia.

Intervention

You recommend that Xavier:

- Cut back on portions (e.g., a 6 inch sub vs. a 12 inch one)
- Alter drinking fruit juice for actual fruit
- Limit his fat intake (e.g., 15 ml of salad dressing; low fat cheese; 6 nuts; milk instead of cream)
- Eliminate sweets and soda
- Walk for 30 minutes each day

Follow-up

In 3 months time, Xavier has lost 10 kg. His BP and glucose are normal. Unfortunately, he is now "stuck" (i.e., unable to reduce additional weight), so a trial of bariatric medications is started to help with additional weight loss and shows good results.

Xavier returns for a check-up in 3 more months and is now doing well.

Table 1

Basic physical exam and laboratory tests

Physical exam

- | | |
|-----------------------|--------------|
| • Height | • Weight |
| • BMI | • BP |
| • Waist circumference | • Heart rate |

Laboratory tests

- Fasting blood sugar
- Cholesterol profile
- Liver function tests
- Urinalysis

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Management

The enormous personal and public burden created by obesity can no longer be ignored. Physicians are of paramount importance in sending a message to those who suffer. Obesity is a complex disease and not a lifestyle choice.

Management focuses on the treatment of a chronic disease which cannot be obliterated. Regardless of a patient's weight, he/she will always need to keep an eye on it. A modest reduction (10%) in weight provides a significant risk reduction.⁴

Assessment

In order to properly assess a patient with excess weight, a detailed history, both personal and family, should be obtained. The minimal physical exam and recommended laboratory evaluations are outlined in Table 1.

The diagnosis of unhealthy weight is made by calculating BMI and/or waist circumference (Table 2).

Intervention

The acronym FATS (food, activity, therapeutics and surgery) can be useful in planning an appropriate and effective intervention.

Food

Get the patient to bring in a food diary chronicling three days of eating habits. Examine this and look for obvious problems. Based on this, make suggestions for reducing caloric intake (i.e., suggest that your patient eat two slices of bread at lunch instead of three).

Table 2

Measures of healthy weight

BMI (weight [kg]/height [m²])

- Healthy: 18.5 to 24.9
- Overweight: 25 to 29.9
- Obese: > 30

Waist circumference

- Men: < 102 cm
- Women: < 88 cm

Activity

Encourage the patient to have some form of physical activity for 30 minutes daily. Some patients will be able to start with chair exercises, moving their joints one at a time. Pick your audience carefully. Do not talk about walking for 30 minutes per day to a person who ambulates with a walker into your office.

Therapeutics

Therapeutic options include the following:

1. **Multivitamins:** Chromium benefits insulin resistance. Encourage nutrition at reference daily intake levels. When we get overzealous with megadosing it is often a disaster for the patient in the longrun
2. **Omega 3 oil:** This improves basal metabolic rate
3. **Orlistat:** A GI lipase inhibitor which decreases the absorption of dietary fats
4. **Sibutramine:** A norepinephrine and serotonin reuptake inhibitor which increases satiety and basal metabolic rate

Surgery

Surgery is restricted for those with a BMI > 40 kg/m², or a BMI > 35 kg/m² with comorbidities.

Take-home message

- Be comfortable talking about weight with your patients
- Always measure BMI and waist circumference
- Ask patients to bring in a 3-day food journal for a gentle critique
- Encourage 30 minutes of physical activity per day
- Do not erect barriers to patient success at managing weight
- Use medications if required
- Refer a patient for bariatric surgical options if appropriate
- A 10% reduction in weight is the single largest reduction in risk. This is equivalent to medical success!

Various surgical procedures work by modifying the GI tract to reduce nutrient intake and/or absorption.

Surgery is a great option for some patients and it is best if offered through a multidisciplinary team which provides preoperative and post-operative support. **Dx**

References

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3. Reaven GM: Banting Lecture 1988. Role of Insulin Resistance in Human Disease. Diabetes 1988; 37(12):1595-607.
4. Lau DC, Obesity Canada Clinical Practice Guidelines Steering Committee and Expert Panel: 2006 Synopsis of the 2006 Canadian Clinical Practice Guidelines on the Management and Prevention of Obesity in Adults and Children. CMAJ 2007; 176(8):1103-6.