



## Worrying about Weight Loss



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Beginning at about age 30, the average person starts losing 0.3 kg of lean body weight per year. Despite this, total weight does not vary, since muscles get replaced by fat. It is not before age 60 to 65 that weight starts decreasing, with a yearly loss of 0.5% of total weight per year.

So, when should we start worrying about weight loss? Studies show that it is significant when weight loss is > 5% of body weight or > 4.5 kg in a six-month period. We cannot wait for signs of malnutrition, since these signs start showing when weight loss is > 20% of total weight.

▶ **Is weight loss a frequent problem?**

It has been described that as many as 13% of aged patients living at home and up to 50% of institutionalized geriatric patients experience weight loss. One per cent to 8% of patients who present to the clinic will mention weight loss.

▶ **What can cause weight loss?**

There are many causes of weight loss. These causes can be divided into two major categories:

1. With increased appetite (where nutrients are lost in urine or stools, or basal metabolism is increased)
2. With decreased appetite (where total calorie intake is lower than normal)

Common causes of weight loss with increased appetite (Table 1) are normally easier to identify. When appetite is decreased, every system must be taken into account.

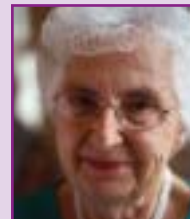
Table 1

### Frequent causes of weight loss with increased appetite

- Hyperthyroidism
- Diabetes mellitus
- Malabsorption syndromes
- Pheochromocytoma
- Increased physical activity

## Lorraine's Weight Loss

- Lorraine, 76, presents to your office complaining of heart palpitations.
- She is a smoker without any significant diseases.
- Lorraine is 155 cm (5.08 in).
- She reveals that she has lost 9 kg (19 lbs) since her husband's death six months ago.
- Lorraine also suffers from frequent heartburn, which she blames on stress.
- Her physical exam is negative.



You decide to investigate her weight loss further.  
Go to page 62, for more on Lorraine.

### ► What are the causes of weight loss with decreased appetite?

The most common cause of weight loss in a patient with a suppressed appetite is organic disease, which can be further subdivided into two broad categories—cancer or not cancer. Neoplastic disease is guilty in about 20% to 30% of cases. Gastrointestinal (GI) cancer and pulmonary cancer are the most common cancers involved (Figure 1).

Non-neoplastic diseases account for about 40% to 45% of weight loss cases (Figure 2). GI disorders are the most frequent problems. Of these, dysphagia, peptic ulcers, dysmotility and gastroesophageal reflux disease are seen most of the time. Endocrinopathies (especially hyperthyroidism) are frequently encountered, too. Respiratory failure can be responsible for weight loss, with 30% to 70% of severe chronic obstructive pulmonary disease patients suffering significant weight loss, which is an independent prognostic factor of their disease.

Similarly, 15% to 20% of cardiac failure patients will suffer lean body weight loss (often masked by oedema) and, in some cardiologic studies, it indicates a worse prognosis for the patient.

Psychiatric problems are responsible for about 15% of weight loss encountered in the clinic. Depression is, by far, the most common problem (weight loss is a *Diagnostic and Statistical Manual of Mental Disorders—Fourth Edition* criteria), while dementia is the most common problem in older individuals.



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**How should this common problem be approached?**

The first thing to do is to look at the patient's weight loss objectively. In one study, about 50% of patients complaining of weight loss did not, in fact, lose weight when put on a scale. This shows the importance of weighing patients during each visit. You should also clarify with the patient if the loss of body weight is voluntary or not. This can be difficult to determine, especially in younger patients, where voluntary weight loss can be inadequate, and the patient may try to hide his/her efforts to lose weight from the physician.

A complete history and physical should be done, keeping in mind the most common etiologies of weight loss. The questionnaire should not forget socio-economic factors, eating habits, medication and usage of drugs and alcohol. The physical exam must include organs frequently affected by cancer, like breasts in women and the prostate in men. Paraclinic studies must be done depending on clinical suspicion; the workup must be individualized for each patient. A suggested first workup is shown in Table 2.

Supplementary studies must be tailored depending on results. After a good clinical and paraclinical investigation, the etiology of weight loss will be discovered in about 80% of cases.

**If I don't find anything, what should I do?**

Idiopathic weight loss accounts for about 20% of weight loss cases. Prognosis in these cases is generally favourable, and cancer is very

**Table 2**  
**Suggested initial workup**

- Complete blood cell count
- Erythrocyte sedimentation rate
- Creatinine and electrolytes
- Liver enzymes
- Glucose
- Calcium and phosphorus
- Protein electrophoresis
- Albumin
- Thyroid-stimulating hormone
- Urinalysis
- Fecal occult blood testing
- Chest X-ray
- Abdominal ultrasound
- Appropriate neoplasia testing, depending on age and sex (prostate-specific antigen, mammogram, PAP smear)

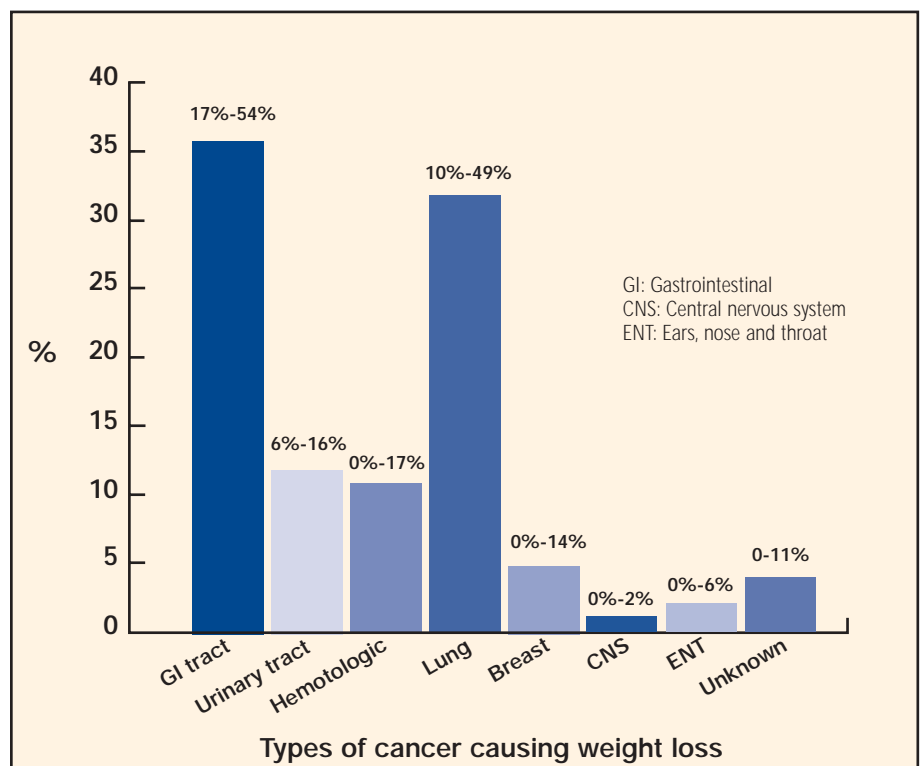


Figure 1. Frequency of cancers causing weight loss. Numbers at the top of the bars are the lowest and highest percentages according to different studies.

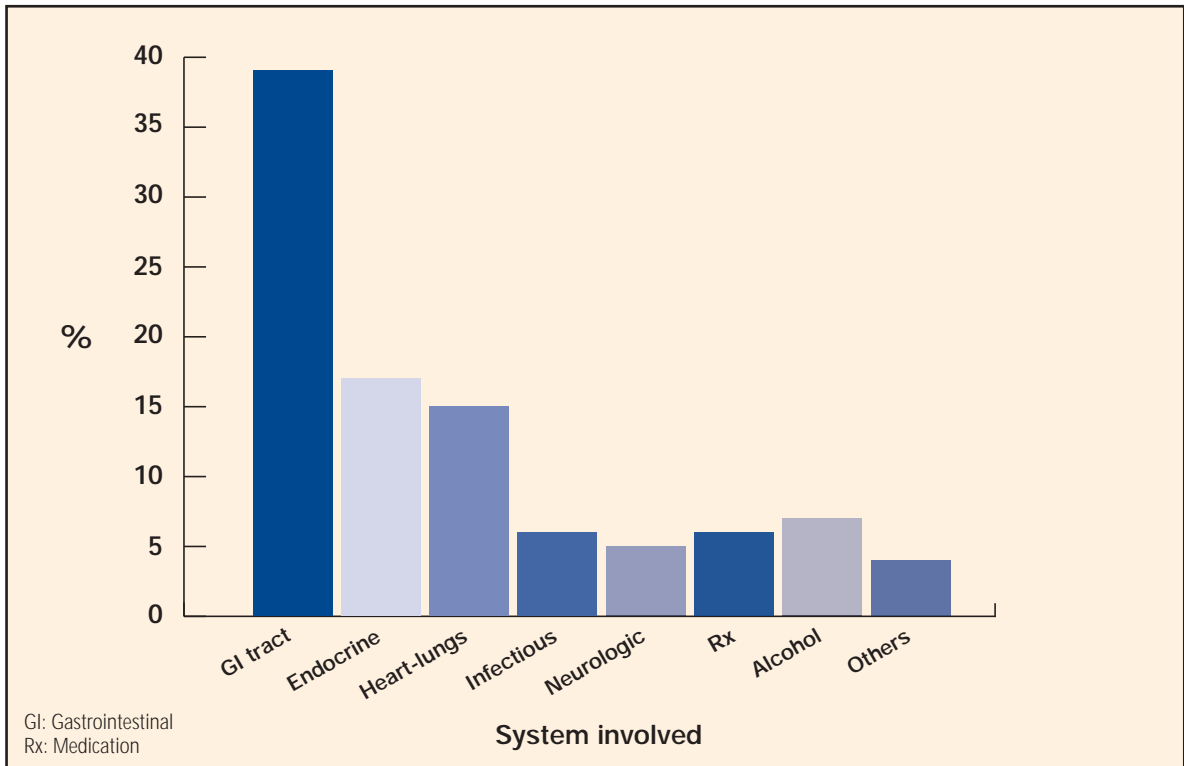


Figure 2. Frequency (by system) of non-neoplastic disease causing weight loss.

## Back to Lorraine...

Lorraine said her appetite decreased since her husband's death. History did not show evidence for depression or any organic disease explaining her weight loss. Laboratory and radiologic workup did not show anything remarkable, and you decide to follow her.

Three months later, she feels good again and her weight has stabilized at 56 kg.

rare among these patients (< 2%). Weight will often stabilize at a new level in over 85% of cases and few patients will regain it or continue to lose weight.

So, if the etiology of weight loss is not discovered with the suggested approach, it is reasonable to follow-up with the patient in three to six months to explore any new symptoms and check their weight evolution.

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