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## Cancer and malnutrition

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### Summary

- Malnutrition can occur if you are eating less than your body needs, if you are eating the wrong kinds of foods, or if your body is unable to digest and absorb your food.
  - Under-nutrition is a form of malnutrition that occurs when your body takes in less energy, protein and other nutrients than it needs.
  - People with cancer are at higher risk of malnutrition compared with the rest of the population.
  - Early identification of the risk of malnutrition and early diagnosis of malnutrition is important so that it can be treated as soon as possible.
  - A dietitian can design an appropriate diet for you to help you prevent or manage malnutrition or weight loss, which can affect treatment and recovery from cancer.
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Malnutrition occurs when a person doesn't get enough food or the right type of food, or experiences absorption issues. A common type of malnutrition in people with cancer is under-nutrition. This is when the body gets less energy or essential nutrients (such as protein, fats and vitamins) than it needs. Under-nutrition causes the body to break down fat and muscle, leading to unplanned weight loss.

People with cancer are at higher risk of malnutrition compared with the rest of the population. A 2014 study found that approximately one in three Victorians undergoing cancer treatment (all types) have malnutrition.

If you have cancer, malnutrition can influence the effectiveness of your cancer treatment, your strength, recovery and quality of life. It can increase the time you spend in hospital and the risk of infection. Malnutrition also has the potential to reduce your life span.

### Causes of malnutrition in cancer

Malnutrition can occur if you are eating less than your body needs, if you are eating the wrong kinds of foods, or if your body is unable to digest and absorb your food.

For some people with cancer, it can be difficult to eat enough and eat the right kinds of foods. This may be for many reasons, including:

- The type of cancer you have and the body part affected – cancer in the head, neck or gastrointestinal system can affect your ability to swallow or to digest your food.
- The type of cancer treatment – surgery, chemotherapy and radiotherapy can increase your body's energy and protein needs.
- Side effects from cancer treatment – for example, nausea, vomiting and diarrhoea can make it difficult to eat, and the food you do eat might not be absorbed as well as usual.
- A hospital stay – being unwell in hospital can affect your appetite and your ability to take in food.
- Anxiety or depression – being unwell and living with a cancer diagnosis is understandably stressful and can lead to anxiety or depression, which can impact on your nutritional intake.

While there are many factors that can lead to weight loss during cancer treatment, weight loss should not be considered an expected outcome of cancer or cancer treatments, and there are things you can do to help with optimal nutrition and weight maintenance. It is important for the health of people with cancer to eat well before, during and after cancer treatment.

### Symptoms of malnutrition in cancer

A number of physical symptoms might indicate that you are malnourished or at increased risk of malnutrition.

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Symptoms that people with cancer and their carers can look out for include:

- poor appetite – eating less than usual or not eating between meals
- unplanned weight loss – even a small amount like three to four kg can be a concern
- feeling full quickly
- pain or dryness in your mouth or throat
- difficulty chewing or swallowing food
- changes to your sense of smell and taste – this can affect your food choices
- diarrhoea or constipation – this can affect absorption of nutrients
- nausea and vomiting – this can affect your ability to eat and to absorb nutrients
- fatigue – not being able to walk as far or as fast as usual.

People undergoing cancer treatment should aim to maintain their weight at the very least. If they experience even a small drop in weight (three to four kg), they might be at risk of malnutrition. It is important to remember that malnutrition can occur even if you are overweight.

### **Identification of malnutrition in cancer**

Early identification of malnutrition risk is important. Identification of malnutrition risk may include the use of a screening tool that checks for unintentional loss of weight or reduced appetite. You can then be referred to a dietitian where appropriate.

### **Diagnosis of malnutrition in cancer**

A full assessment of your nutritional status should be completed by a dietitian, who can diagnose whether you are malnourished or not. The dietitian can then regularly assess you and develop an eating plan to help maintain your weight and nutritional status.

The assessment may include:

- taking a medical history
- an assessment of your food and drink intake
- a physical assessment of muscle and fat stores
- asking about recent changes to your appetite, treatment symptoms, weight, energy levels and eating patterns
- ordering blood tests.

### **Treatment of malnutrition in cancer**

The dietitian will design an eating plan for you to avoid or minimise weight loss and enhance your recovery. Your dietitian might suggest a number of dietary changes that are different from your usual eating patterns.

These might include:

- increasing your energy (kilojoule or calorie) and protein intake
- consuming nourishing drinks including milk drinks that contain high levels of protein
- eating smaller meals more frequently
- different foods that may be easier to chew or swallow
- taking nutritional supplement drinks.

People with cancer generally do not need to eat or avoid any particular foods. It is important to include foods from all food groups. Your dietitian may suggest less focus on including lots of fruits and vegetables, and recommending eating more snack foods, desserts, full-cream dairy foods and eggs. These foods can help you meet your energy and protein needs. This may be quite different to your normal eating patterns.

It is important to let your doctor, nurse, dietitian or pharmacist know if you are taking any nutritional, herbal or vitamin supplements, as these can interfere with the effectiveness of your cancer treatment and medication.

### **Feeding tube or intravenous nutrition**

In some situations, a feeding tube (or parenteral nutrition) might be temporarily needed to help reduce your risk of becoming malnourished. This can be a soft feeding tube that is passed down your nose and throat, and into your stomach, or a longer-term feeding tube that is inserted directly through your stomach wall into your stomach. A specialised liquid nutrition is then fed directly into your stomach.

Situations where you might need a feeding tube include:

- head or neck cancer
- oesophageal cancer
- lung cancer
- very dry or painful mouth
- difficulty swallowing
- significant and ongoing loss of weight.

In less common situations, your doctor might recommend that your nutrition is given to you via a line inserted directly into a vein (intravenous or parenteral nutrition). In this case, you don't have to eat because the nutrients are supplied directly to your bloodstream to help maintain your body weight.

### **Where to get help**

- Dietitian
- Your doctor
- Oncologist
- Oncology nurse

### **Things to remember**

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- People with cancer are at higher risk of malnutrition compared with the rest of the population.
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**This page has been produced in consultation with and approved by:**

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