

# Fatigue and Myeloma

Fatigue related to cancer is not fully understood, however it is one of the most common effects of myeloma and its treatment. It is recognised that such fatigue is different to and more severe than normal fatigue as it tends to last longer and be quite exhausting and debilitating.

## What is fatigue?

Fatigue is described as a persistent tiredness or lethargy, affecting the ability to complete activities of daily living. It is unrelieved by rest or sleep. Almost all people with myeloma will experience varying degrees of fatigue at some point. In addition to affecting physical activity, it also may affect concentration, memory, the decision making process, motivation, and emotions.

Understanding the cause and adopting strategies to manage fatigue can help improve quality of life.

## What causes fatigue?

Fatigue related to cancer is a symptom of myeloma and is thought to be caused by changes in cellular physiology. As myeloma cells die, they release cytokines, which are substances that upset the normal chemical balance in the body. This effect can be amplified when treatments accelerate the rate of myeloma cell death. Treatments that contribute to fatigue are described below.

There are a number of other possible causes of fatigue. Pain, anaemia, inadequate diet, infection and psychological stress such as depression or anxiety can all contribute to fatigue levels.

## How do treatments for myeloma cause fatigue?

**Chemotherapy** requires a significant amount of energy to eliminate rapidly dividing cells, both cancerous and healthy. It can also cause nausea and in some cases mouth ulcers, making it difficult to maintain adequate nutrition. Chemotherapy can also cause anaemia related fatigue.

**Radiotherapy** related fatigue can develop over time and is the effect of the body repairing damaged cells. It usually lasts 3 to 4 weeks after the completion of radiotherapy but may last up to 3 months.

**Steroids** may cause insomnia and muscle weakness that can lead to fatigue. They are also known to cause swings in mood and energy levels. It is recommended steroids be taken early in the morning to avoid insomnia.

For further information on steroids see the **Steroid Therapy Fact Sheet** from MFA.  
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Myeloma Support Line 1800 693 566

**Thalidomide (Thalomid®), Bortezomib (VELCADE®) and Lenalidomide (Revlimid®)** may cause fatigue at the start of treatment but can improve as the body learns to tolerate the drug. These treatments may also help relieve fatigue as the myeloma activity reduces. Lenalidomide and Bortezomib may also cause anaemia.

**Stem Cell Transplants** are associated with fatigue due to the intensity and duration of the treatment. The fatigue usually improves with time as general wellbeing and fitness return. However some people report experiencing residual fatigue up to one year after their transplant.

### **What makes fatigue worse?**

- Stress
- Anxiety
- Depression
- Nausea
- Loss of appetite
- Insufficient fluid intake
- Infection
- Anaemia
- Travelling to appointments
- Change in routine (work and sleep)

### **What can be done to lessen fatigue?**

It can be useful to keep a diary to record fluctuating energy levels. This will help in planning activities for the time of day when energy levels are typically higher. Acknowledging signs of fatigue and accepting lifestyle changes can also help to manage the effects. Heavy legs, tired eyes, limited concentration, weakness, sleepiness, irritability and impatience are all signs of fatigue. The effects of fatigue can also be reduced if friends and family assist with tasks that require more energy to complete.

### **Exercise**

Research continues to show that a regular gentle exercise program to improve muscle strength is a very effective way to reduce fatigue. A daily gentle walk around the block or even to the letterbox and back is a good place to start. Activities such as Yoga and Tai-Chi combine gentle exercise and deep breathing which can also help to boost energy levels. Other benefits of exercise include: increased self esteem; improvement in mood; regained independence; increased stamina for walking, standing and general daily household tasks; a possible shorter hospital stay and an improvement in quality of life.

Participants in a UK study found that adhering to a program that included stretching, aerobic and resistance exercises reported having a better quality of life. The nurse or doctor can provide a referral to a physiotherapist or exercise physiologist who can design a tailored exercise plan that takes into account limitations such as fitness levels and pain. The doctor should be consulted before lifting any weights to ensure bone damage does not occur.

Up to 5 visits to a physiotherapist, exercise physiologist or other allied health professional are covered by the Medicare Chronic Disease Management Program.

For more information on this program please call Medicare on 132 011 or call the Myeloma Support Line 1800 693 566 or

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***Making a commitment to exercise with someone may help maintain a regular program.***

## **Nutrition**

If nausea or loss of appetite are preventing adequate food intake, the body will not have enough energy to perform activities of daily living. A balanced diet that includes foods that supply iron and energy, such as green leafy vegetables and red meat, is recommended. Eating more frequent, smaller meals or snacks throughout the day should help to maintain enough nutrition when appetite is affected. Fruits, nuts, cheese and crackers are all great nutritious snacks to keep handy or high protein supplements like Sustagen® to ensure maximum calories with minimum effort.

It is a good idea to cook when energy levels are highest and to freeze extra food for days when fatigue is limiting motivation. Accepting help from family and friends or enlisting home meal providers such as Meals on Wheels can also help to maintain nutrition.

Maintaining adequate fluid intake is also important to flush through the toxins and waste products that can also cause fatigue. Keeping a water bottle close by will help maintain hydration throughout the day. Aim for 2-3 litres/day unless the kidneys are impaired and the doctor has enforced a fluid restriction.

For further information on nutrition see the Nutrition Fact Sheet from MFA, download from our website at [www.myeloma.org.au](http://www.myeloma.org.au) or call the Myeloma Support Line 1800 693 566

## **Rest and Sleep**

Maintaining a regular sleep pattern where possible is recommended to help combat the effects of fatigue.

### **Mornings**

Rise at the same time each day, perhaps 7am to 7.30 am. Go outside, maybe for a walk and/or have breakfast outdoors. Take steroids (Dexamethasone, Prednisolone) early in the day to reduce sleeplessness.

### **During the day**

When tired, the body is most likely requesting a rest. If thoughts are worrying, set aside time during the day to deal with them if they are preventing sleep at night. Avoid caffeinated drinks like tea, coffee or cola drinks in the afternoon or evening.

Napping can be beneficial for some people. It is important to limit naps to around 30-60 minutes to avoid interfering with night sleep patterns.

### **Night time**

Avoid going to bed too early, as this does not encourage deep sleep. Try going to bed around 10pm to 10.30pm. Getting up and going to bed at the same time each day helps the body maintain a regular sleep pattern. Eating rich food or exercising too close to bedtime can make sleeping difficult. Make sure the sleeping environment is not too hot or cold and avoid watching television, using electronic devices, e.g. iPad or iPhone or reading in bed. This helps the body to associate the bedroom with sleep.

If sleep does not come easily, get up and do something quietly distracting until tiredness is experienced again. Aromatherapy oils or meditation may also be useful. Most importantly, do not get concerned if sleep is being evasive. Just lying quietly in bed can be as beneficial as sleep.

If considering taking a natural supplement to aid sleep, speak with the treating team. Some of these medications interrupt the effect of myeloma treatments.

## **Activities**

Taking time to partake in special interests is important. Hobbies such as listening to music, reading a book or social outings can help distract from the fatigue or illness. Relaxation, gentle massage and for some people, reflexology, can also help reduce the effects of fatigue.

## **Psychological Patterns**

The negative effects of stress can be alleviated in many ways. Exercise, relaxation techniques, visual imagery, meditation, spiritual practices, talking with others, and counselling can all be beneficial. These self help techniques can provide a sense of control of the situation. Support groups are also useful places to learn from the experiences of others and to share management strategies.

For further information on support groups visit our website at [www.myeloma.org.au](http://www.myeloma.org.au) or call the Myeloma Support Line 1800 693 566

## **Blood transfusions**

Anaemia is the term used to describe a low haemoglobin level. Haemoglobin in red blood cells is responsible for carrying oxygen around the body. Low levels can cause symptoms of dizziness, shortness of breath or tightness in the chest.

Anaemia can be treated with a blood transfusion or drugs to increase the production of haemoglobin. If there are no symptoms, treatment may not be necessary. The body has the ability to adjust to a lower than normal haemoglobin level if the decline is gradual and within an appropriate limit.

## **Infection treatment**

If fatigue is caused by an infection it is important to seek treatment promptly with antibiotics or antiviral medication. In some cases prophylactic antibacterial and antiviral medication may be prescribed. It may also be appropriate to have the flu vaccination. The doctor will advise if any of these measures are necessary.

Myeloma and/or the treatments increase the likelihood of an infection. A fever, which is a temperature of 38°C or above, is a sign of infection. It is recommended that patients have a thermometer at home and check their temperature if they feel excessively warm or hot, or develop the shakes (rigors).

*If a patient's temperature is 38°C or above medical attention must be sought immediately.*

## Antidepressant medication

Antidepressants may be of value when patients have fatigue associated with depression. Depression can occur in patients with cancer, particularly those with advanced disease.

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**The information in this fact sheet is not intended to replace medical care or the advice of a physician. Your doctor should always be consulted regarding diagnosis and treatment.**

For further information please contact one of our Myeloma Support Nurses  
on our Support Line:  
1800 MYELOMA (1800 693 566)  
or visit our website: [www.myeloma.org.au](http://www.myeloma.org.au)