

Diet and nutrition in myeloma

This Infosheet explains what a well-balanced diet is, why it is important for myeloma patients and what makes it difficult to maintain when you are a myeloma patient. It also discusses when a special diet might be necessary.

What should I be eating?

Myeloma patients often have questions about diet and nutrition – about what type of foods are best to eat or should be avoided. Many patients also want to know if there are alternative diets they should try.

Despite the interest in special diets, none have been scientifically studied so their

effects are unknown and unproven. The lack of evidence does not support an alternative diet for myeloma patients.

Myeloma patients should therefore follow the same basic principles of healthy eating that apply to us all. Eating a healthy and balanced diet will help to maintain your muscle tone and strength, increase your energy

levels and may aid recovery after treatment. A balanced diet is also rich in essential vitamins and minerals which helps the immune system to function more effectively.

A healthy balanced diet should include:

Carbohydrates – are a good source of energy. Foods that contain carbohydrates include: bread, pasta, cereals and rice.

Protein – helps build new cells and replace old ones. Foods that contain protein include: milk, yogurt, cheese, nuts, fish and meat.

Fats – are essential for vitamin absorption, body processes and a source of slow-release energy. Not all fats are the same. A healthy diet consists of more fat from fish, nuts, seeds and olive oil (known as mono and poly-unsaturated fats) than from meat, cheese, other dairy foods, cakes, biscuits and chocolate (known as saturated fats).

Fibre – maintains a healthy digestive system. Foods that are high in fibre include: bran, wholewheat breads and cereals, as well as most fruit and vegetables. It is recommended that you eat five portions of fruit and vegetables per day.

Vitamins and minerals – are essential for many body processes, including the body's ability to resist infection and maintain healthy nerves and tissues. As a general rule of thumb, brightly coloured fruit and vegetables such as broccoli, carrots, oranges, peppers and tomatoes are rich sources of vitamins and minerals.

Should I take any vitamins or dietary supplements?

There are no specific recommendations about vitamin supplements for myeloma patients – in most cases a well-balanced diet with plenty of fruit and vegetables should provide an adequate amount of vitamins and nutrients to maintain general health.

Some people do take a general vitamin supplement if they feel they may not be getting enough vitamins and nutrients from their diet. It is advisable, however, to avoid taking Vitamin C in large doses (i.e. more than 500mg a day), as this can increase the acidity of urine which can damage the kidneys.

Vitamin and mineral supplements such as magnesium, Vitamin B complex (including vitamin B12),

folic acid and alpha-lipoic acid are sometimes considered helpful in managing the symptoms of peripheral neuropathy. However, there is no firm research to support their use in myeloma.

It is best to avoid any supplements aimed at boosting the immune system (e.g. Echinacea) since it is not known how these may affect your myeloma.

Some dietary supplements have been studied in myeloma, but as yet there is no clear clinical evidence that these are of any benefit to patients. Of these, curcumin, the main ingredient in the spice turmeric, has been the focus of several laboratory studies as it is thought to have some anti-cancer properties. This has been studied in very small numbers of patients, but the results have been inconclusive.

Like curcumin, green tea has also been reported to have beneficial effects in myeloma patients because of its antioxidant properties. Clinical trials have however found that one of the compounds found inside green tea, may stop Velcade® (bortezomib) from working properly by blocking the action of the drug. At the

moment therefore, there is no clear scientific evidence for the use of curcumin or green tea in myeloma and it is recommended that patients receiving Velcade do not drink green tea or take any green tea supplements.

If you do decide to take any vitamins or dietary supplements then it is very important to let your haematologist know as some of them can inhibit the actions of drugs used to treat myeloma.

How much and what should I drink?

When you have myeloma it is important to drink a lot of fluids. Myeloma can sometimes damage the kidneys and limit how well they work. Drinking plenty of fluids can help to keep the kidneys healthy and can reverse the damage.

Drinking between two and three litres of fluid a day is recommended if you have myeloma. Most liquids count, so drink as many glasses of water, sparkling water, juice or squash, decaf tea and coffee or milk as you can. Caffeinated tea, coffee and alcohol can be included, but in moderation as they cause

dehydration. However, some complications or treatment side-effects, including dialysis, may mean that your fluid intake should be less than this (no more than one litre (a pint and a half) – your doctor will always advise you if this is the case.

How can myeloma affect your diet?

You may find that at certain times your appetite and dietary requirements will vary and that eating and drinking may be difficult. Myeloma and its treatment can cause several temporary complications that may make it difficult to maintain a healthy balanced diet. They include:

- Loss of appetite
- Taste changes – e.g. a slightly metallic taste after chemotherapy
- Sore and/or dry mouth
- Nausea and vomiting
- Tiredness or fatigue
- Diarrhoea or constipation
- Anxiety and depression
- Increased appetite and weight gain – due to steroid use

It can be particularly difficult

for patients to eat after high-dose therapy and stem cell transplantation (HDT-SCT) because of some of the side-effects of treatment including, nausea, vomiting and oral mucositis (blistering in the mouth).

Tips to maintain a healthy balanced diet

Sometimes, particularly if you are receiving treatment and are feeling poorly, it may be difficult to eat and drink a healthy balanced diet. At these times it is important to eat what you can and try not to worry too much.

Tips that may help include:

- If your appetite is poor try eating small amounts regularly throughout the day instead of trying to eat ‘three square meals’
- A sore mouth or taste changes can put you off eating – ensure that you are using any treatments for your mouth as prescribed by your doctor to clean and to maintain the health of your mouth. Ice lollies, fruit juice and soft drinks can help to keep your mouth feeling fresh
- Gentle exercise (e.g. walking)

or a small alcoholic beverage may stimulate your appetite

- If you are suffering from fatigue try to cook larger portions on days you have more energy and freeze the leftovers for another day. Ask other people to help you with cooking and shopping or make use of online shopping and food delivery
- Even if you are unable to face food it is important to maintain a high fluid intake
- Speak to your nurse or dietician, they can provide Complian® or other nutritional, high-calorie, supplement drinks

Is a special diet ever necessary?

As stated above, there is no evidence to support specific long-term diet recommendations for myeloma patients that differ from the general population. However, there may be short periods when your diet may need to change.

There may be times, particularly after HDT-SCT, when your doctor might tell you that you are neutropenic (have low levels of white blood cells) which can increase your risk of an infection, and some foods may increase your risk of infection.

To reduce this risk, there may be times when it is recommended you follow a 'clean diet'. This will last until your white cell count is normal again. A clean diet will be explained to you by your doctor or nurse and they should provide you with a list of the foods that should be avoided during this time.

Essentially, a clean diet eliminates certain 'high-risk' foods from your regular diet, including:

- Raw or undercooked eggs
- Soft and blue cheeses
- Live yoghurts, e.g. probiotic yoghurts
- Meringue
- Shell fish
- Pâté
- Mayonnaise
- Unpasteurised dairy products, e.g. some soft ice creams

In addition to eating 'clean' food, it is important to follow good kitchen hygiene i.e. chilling foods, separating raw and cooked meats, eating food within the use-by date, and using separate chopping boards for food preparation.

Future directions

Many of the factors that influence your desire to eat can be linked to treatment. For example, fatigue, nausea/vomiting and changes in taste may often be side-effects of myeloma drugs and treatments.

As part of ongoing research into myeloma drug development, drugs are being produced that cause fewer side-effects. It is therefore hoped that future drugs will have less of an impact on patients' diet and appetite.

About this Infosheet

The information in this Infosheet is not meant to replace the advice of your medical team. They are the people to ask if you have questions about your individual situation. All Myeloma UK publications are extensively reviewed by patients and healthcare professionals prior to publication.

Other information available from Myeloma UK

Myeloma UK has a range of Essential Guides, Infoguides and Infosheets available covering many areas of myeloma, its treatment and management.

To order your free copies or to talk to one of our Myeloma Information Specialists about any aspect of myeloma, call the **Myeloma Infoline: 0800 980 3332** or **1800 937 773** from Ireland

The Myeloma Infoline is open from Monday to Friday, 9am to 5pm and is free to phone from anywhere in the UK and Ireland. From outside the UK and Ireland, call **0131 557 9988** (charged at normal rate).

Information and support about myeloma is also available around the clock at www.myeloma.org.uk

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