Myeloma Australia

LIVING WELL INFOSHEET

Nutrition and myeloma

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Things to remember

- Eating a balanced diet with a wide range of fresh, unprocessed foods is a vital part of living well with myeloma and will help you to keep up your energy levels, manage treatment side effects, promote recovery after treatment, improve your mood, sleep and overall wellbeing, and much more.
- A diet that focuses on a wide variety of whole plant foods — vegetables, fruits, legumes and wholegrains — can improve your gut health, which has many benefits for people with monoclonal gammopathy of undetermined significance (MGUS), smouldering myeloma, and active myeloma.
- You also need plenty of fluids to stay well-hydrated and to keep your kidneys functioning well. Fluids are especially important during and immediately following chemo or other infusions.
- Myeloma itself and many of its treatments can make eating and drinking more difficult at certain times. There are lots of tips and tricks to help make this easier.
- Steroids are an essential part of myeloma treatment for many people, but can also cause weight and body composition changes, and increased blood sugars, among other side effects. It helps to know that much of the weight change from steroids is caused by fluid retention and will go away when you are weaned off steroids.
- A dietitian can help develop an eating plan that's tailored to your diagnosis, food preferences, medicines and treatment goals. The World Cancer Research Fund recommends that everyone with a cancer diagnosis, past or current, seek nutrition advice from a dietitian.
- You may be able to see a dietitian at your treating hospital or in private practice. A Chronic Disease Management Plan can help with the cost of seeing a dietitian privately.
- Ask your treating team or GP for a referral to an oncology dietitian.

If you're reading a printed version of this infosheet, we've used a magnifying glass symbol throughout to let you know where you can search for more information in the **'Learn more'** section at the end of this infosheet.

Why good nutrition is so important when you have myeloma

Keeping up your food and fluid intake and enjoying a well-balanced diet is a vital part of living well with myeloma.

Your body works best when you eat a balanced diet with a wide range of fresh, unprocessed foods, while limiting processed, salty and sugary foods. Both myeloma itself and its treatments can affect your appetite and your nutritional needs. This can make eating well and keeping up your fluids more challenging. It also means that doing your best to follow a healthy diet can have a big impact on how well you feel and your energy levels.

This infosheet gives you practical ideas about eating well and keeping up your fluids, offers simple tips for times when eating and drinking may be more difficult, and answers some frequently asked questions about nutrition and myeloma.

Should I see a dietitian?

A dietitian can help you to sift through and understand the large amount of nutrition information that's available. They can help you to sort facts from fiction, and tailor recommendations that are unique to your diagnosis, food preferences, medicines, and treatment goals.

The World Cancer Research Fund recommends that everyone with a cancer diagnosis, past or current, seek nutrition advice from a dietitian.

You may be able to see a dietitian at your treating hospital or in their private practice. There are Accredited Practicing Dietitians (APDs) who specialise in cancer, called *oncology dietitians*. Sometimes, there may not be any specialised oncology dietitians in your area, and so a general dietitian can help you instead.

To search for a dietitian in your area, visit dietitiansaustralia.org.au/find-dietitian. Under the 'Help me with' option, choose 'Cancer' to search for dietitians in your area who have experience with cancer.

If you see a dietitian in private practice, Medicare can reimburse you for part or all of the costs of these visits if you are signed up to a Chronic Disease Management Plan. The plan includes five sessions in a calendar year with allied health professionals, which can include a dietitian (remember to check what the gap with each health professional will be so you're not surprised when it's time to pay).

Ask your GP about signing you up to a Chronic Disease Management Plan. You can read more about these plans on page 75 of Myeloma: *A comprehensive guide*.

OnCore Nutrition is a team of Accredited Practising Dietitians who specialise in oncology and haematology. They provide nutrition advice and support to people all over Australia via Telehealth (video or phone consultation) and in their clinics across Melbourne. Rebates are available through Medicare, private health funds and NDIS. Find out more or book a free 15-minute phone consult by calling 0435 464 778, visiting www.oncorenutrition.com, or emailing enquiries@oncorenutrition.com.

How good nutrition can help when you have myeloma

Eating well and including plenty of water can help you to:

- keep up your energy levels
- promote recovery after periods of treatment
- maintain your muscle mass and strength
- maintain bone strength and bone health
- experience a greater sense of general wellbeing
- better manage the side effects of some treatments
- improve your mood
- sleep better
- maintain a healthy weight for you
- improve your body's ability to fight infection
- prevent or manage other health problems, like diabetes and heart disease.

> ***I thought I knew quite a bit about healthy eating, but when I was diagnosed with myeloma, I had so many new questions. Seeing a dietitian at different stages of my treatment has been so helpful. I've learnt how to keep up my food and fluids even when I don't feel hungry or thirsty, how to include extra veggies, legumes and protein in every meal, as well as some quick, healthy recipes.***
>
> **Shiva, South Australia**

What are the building blocks for healthy eating?

A well-balanced diet is one that will supply your body with all the nutrients it needs to help you live as well as possible.

We've included some general nutritional guidelines on the next page, which you can adapt based on your dietary preferences (such as following a vegetarian, vegan or flexitarian diet, or a diet that's traditional to your culture), and based on any food intolerances or allergies you may have.

Plant foods

Plant foods should make up a large part of your diet with wholegrain-based foods, vegetables, fruits and legumes making up more than half the foods you eat each day.

Plant foods provide your body with carbohydrates for energy, and essential vitamins, minerals and antioxidants, which help strengthen bones, maintain healthy nerves, repair cells, heal wounds, and support your immune system. Plant foods are also a rich source of fibre, which you need for healthy digestion and to increase the diversity of your gut's population of beneficial bacteria (called your *gut microbiome*, which you can read about on the next page). Legumes and wholegrains also provide protein, which is essential for preserving muscle mass, and for metabolism, strength, and immune function.

- Eat a variety of different coloured vegetables – orange, red, yellow and green — to help make sure you're getting many different nutrients and phytonutrients (natural chemicals or compounds produced by plants that have antioxidant and anti-inflammatory effects in our bodies).

- Choose wholegrain products, which are higher in nutrients, whenever you can. Popular grains include wheat, rice, barley, corn, buckwheat, quinoa, spelt and rye. You can buy these as both the grains themselves, and also find them in different breads and pastas.

- Include the skin and seeds of vegetables and fruits whenever possible (unless you've been advised not to due to digestive problems like IBS or diarrhoea). Skin and seeds are high in immune factors and are good for your gut health, which helps your overall health in many ways.

- Reduce highly-refined carbohydrates and sugary foods like cakes, biscuits, pastries, doughnuts, lollies and soft drinks. If you're interested, you'll find many recipes online for baked treats that use wholegrains and reduced sugar — Cancer Council has some delicious options.

- Legumes include chickpeas, cannellini, red kidney and black beans, split peas, and lentils. These provide many of the nutrients found in vegetables, as well as plenty of carbohydrates and protein.

- Talk to your treating team if you are having problems like constipation, diarrhoea, gastrointestinal pain or cramping, as they can advise whether these symptoms are a side effect of your treatment or medicines and how best to manage them.

All about your gut microbiome and why it's important for you

- There's a lot of research interest in the possible links between **diet and myeloma**, including how diet may influence:
  - the risk of developing myeloma
  - the risk of monoclonal gammopathy of undetermined significance (MGUS) or smouldering myeloma (SMM) progressing to active myeloma
  - your quality of life with myeloma
  - preventing and managing other health problems, like diabetes and heart disease
  - overall survival.
- Many studies show that **a diet rich in whole plant foods** (lots of fruit and veg, wholegrains and legumes) is associated with an improved quality of life, and survival in people with myeloma.
- The **positive impact of plant foods** is largely linked to how it effects our gut microbiome — the trillions of microorganisms that live in our gastrointestinal tract (our gut).
- A **healthy gut microbiome** has a large quantity and diversity of bacteria, which are important for just about every aspect of our health.
- We know that changing a person's diet to **include more fibre-rich plant foods** can change their gut microbiome and the molecules it makes, including those with anti-cancer and anti-inflammatory effects. One of these important molecules is *butyrate*.
- Eating more than **30 different plant foods a week** increases microbiome diversity and butyrate levels. You can download OnCore Nutrition's free *Plant Variety Checklist* to help you explore, track and expand the different plant foods you eat.
- Diets that **focus on whole plant foods** have also been shown to improve body composition. This is important, because body composition is associated with risk of myeloma and of MGUS and SMM progressing to active myeloma, as well as many other health problems.
- You might like to **chat to a dietitian** about ways you can increase the quantity and variety of whole plant foods you eat, and how to improve your body composition. Find out more about the ongoing research in this area in the 'Learn more' section at the end of this infosheet.

Protein

Your body needs protein to help build new cells and replace old ones. Protein is an important building block for bones, muscles, hormones, immune factors and neurotransmitters. We need more protein as we get older, where it's especially important to prevent muscle loss.

During myeloma treatment, your protein needs increase greatly. It's often helpful to chat to a dietitian for recommendations on the ideal amount of protein for your needs and healthy ways to include this in your eating plan.

- Good sources of protein include legumes, tofu, fish and seafood, unsalted raw nuts and seeds, poultry, lean red meat, and dairy products.
- Try to reduce reliance on red meat as your main protein source and get more of your protein from plant sources, fish, and poultry.
- Include canned or fresh fish a couple of times a week. Include oily fish varieties such as salmon, sardines, mackerel and tuna. Fish is very easy to prepare and digest and full of protein, omega-3 fatty acids and other nutrients that your body needs.

> ***I've started adding canned chickpeas, butterbeans and black beans to all types of meals: soups, salads, curries, taco fillings and more. It's such a quick, easy and delicious way to add extra protein and many other nutrients.***
>
> Cathryn, Victoria

> ***Canned sardines are my go-to emergency meal. I love them on wholegrain toast with some avocado and a squeeze of lemon – YUM!***
>
> Jake, Tasmania

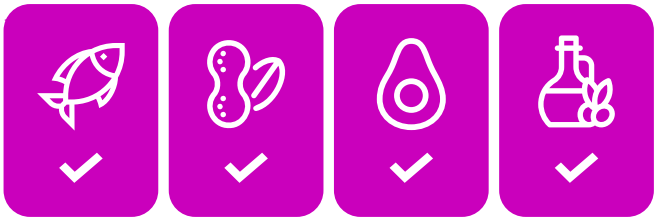
Dairy products and other calcium-rich foods

Dairy products include milk, yoghurt and cheese, which are a valuable source of calcium and other minerals needed as building blocks for bone. There are many non-dairy sources of calcium too.

- You need at least 2–3 serves of calcium-rich foods each day, and women over 51 need 4 serves a day.
- There are many plant-based dairy alternatives — including oat, almond, macadamia, rice and coconut milk, yoghurt and cheese. It's important to look for varieties that are calcium-fortified. Your dietitian can help you choose dairy alternatives that are best suited to your nutritional needs.
- Green leafy vegetables from the brassica family are also very good sources of easily absorbable calcium. These include broccoli, kale, rocket, Brussels sprouts, cabbage, bok choy and other Asian greens. (On the other hand, calcium in some other leafy greens like spinach, baby spinach and silverbeet, is much more difficult for your body to absorb, meaning these vegetables are less helpful as a source of calcium.)
- Canned sardines and salmon that include the cooked (and edible) bones are another way to enjoy more calcium, and provide the added bonus of omega-3 fatty acids.
- If you have myeloma bone disease, you might like to chat to a dietitian about more ways you can support your bones through food choices.
- If you don't eat dairy products, you may also need help from a dietitian to make sure you're getting enough calcium.

Fats

Fats provide your body with a valuable source of energy and are needed to transport some vitamins around the body.



- **Choose healthier fats** from oily fish, unsalted raw nuts and seeds, avocados and olive oil
- **Limit saturated and trans fats** found in meat, and processed foods like cakes, biscuits, ice-cream and chocolate.

Keeping up your fluids

Fluids are essential to keep you well-hydrated and to keep your kidneys functioning well so they can eliminate waste products. Keeping up your fluids is especially important during and immediately after the days you have your treatment. For most people, 2-3 litres of fluid a day is best.

If you have kidney impairment you may be on fluid restriction. Please check with your doctor if this might apply to you.

Water is the best fluid to choose most of the time, and you should do your best to limit:

- alcohol, which can contribute to dehydration and has many other risks
- sugary soft drinks and juices, especially when you're on steroids, which can increase blood sugar levels.

Note that coffee and tea contain caffeine, which acts as a diuretic, causing the body to actually get rid of fluid, and so shouldn't be counted towards your fluid intake.

It can be difficult to drink enough, especially when you're feeling tired or unwell. Here are a few tips that can help:

- Try drinking your nutrients in soups and smoothies, so you're getting double value!
- Link drinking fluids to other regular activities throughout your day. You could try drinking a full glass of water straight after you brush your teeth in the morning and at night, each time you take your medicines, or when you first sit down to eat a meal. This helps your fluid intake to quickly add up and takes the pressure off needing to remember to drink all the time.
- Buy yourself a water bottle that you love and take it everywhere with you. Measured water bottles with time markings are motivational and fun!
- Make your water more interesting: add a wedge of lemon or lime, fresh mint, ginger, lemongrass, or fresh berries to a big jug of water and keep it in the fridge. You can also try sparkling water, or make unsweetened iced tea with a herbal tea infusion bag, or fresh herbs and spices.

> ***I fill up a 2-litre water bottle every morning and drink from it throughout the day to make sure I'm getting enough fluids. It's really motivating to see the water level go down as the day goes on."***
>
> **Anh, Queensland**

Both green tea and high doses of vitamin C decrease the effect of bortezomib (Velcade®). It is therefore very important to avoid green tea and high-dose vitamin C during your course of this treatment.

What can make a well-balanced diet difficult?

Myeloma itself and many of its treatments can cause side effects that make eating and drinking more difficult at certain times. Some of the problems you may experience include:

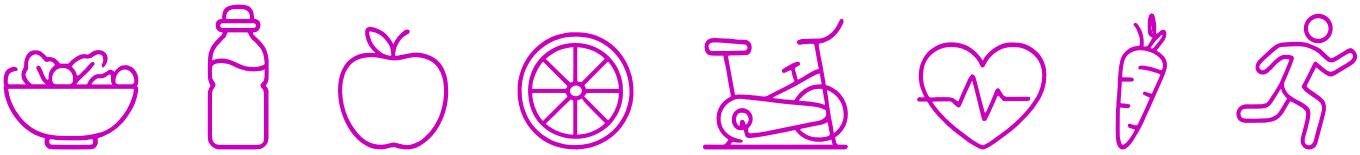
- reduced appetite and enjoyment of food
- changes in taste and smell, including a metallic taste after treatment and a decreased sense of smell
- a sore, dry mouth, especially after high-dose chemotherapy
- nausea and vomiting
- tiredness or fatigue
- diarrhoea or constipation
- anxiety and depression
- acid reflux and heartburn
- increased appetite that can lead to weight gain and digestive issues — caused by steroids.

Everyone's experience with myeloma will be different, so it's important to seek tailored advice from your treating team to help manage your side effects and nutrition.

Tips to make healthy eating easier

When you don't feel like eating, these tips can help you to get the nutrients and energy you need:

- **Eat small amounts regularly throughout the day** — aim for more snacks and mini meals rather than large meals.
- **Light, gentle exercise** like walking can help to stimulate your appetite, improve fatigue, and keep your bowel moving.
- **If the smell of hot food is off-putting**, try cold or room temperature meals instead.
- **You may find that softer, cooler or frozen foods are more appealing.** Try yoghurt, milkshakes, smoothies or frozen yoghurt and frozen yoghurt icy poles — homemade or store bought.
- **Try squeezing lemon juice on food** to help bring out the flavour.
- When you're feeling well and less fatigued, **try cooking a bigger batch of a favourite recipe** and freezing some for another day.
- **Ask friends and family to help** with food shopping and cooking.
- **Stock up on simple, nutritious snacks,** so that when you feel like eating, there's something within easy reach.
- **When you don't feel like eating much, it's important to still drink enough fluids.** Keep a water bottle nearby and take regular sips. See the previous section of this info sheet for more tips on keeping up your fluids.
- **If you're experiencing a sore mouth or taste changes,** ask your treating team about topical treatments that can help.
- **Some myeloma treatments can give you a metallic taste in your mouth.** Try using wooden, silicone or plastic cutlery to help minimise this at mealtimes.
- **Help keep your mouth fresh** and clean by using a non-alcohol-based mouthwash.
- **If you're struggling to eat well,** ask to see a dietitian who can give you extra information and tools to help make sure you're getting all the nutrients you need.



> ***Sometimes I don't have the energy to prepare healthy meals. This is when my friends and family step in. I really appreciate their help, and they feel good about being able to help me too."***

Svetlana, New South Wales

Healthy eating and steroids

Steroids are an essential part of myeloma treatment for many people, but can also have many bothersome side effects, including weight and body composition changes, and increased blood sugars.

It's helpful to know that:

- much of the weight gain when taking steroids is caused by fluid retention, so when you are weaned off steroids, that weight often comes off as quickly as it appeared
- steroids may increase your appetite, and you also need more food and nutrients when you're having treatment — so think of this as an opportunity to eat more of the foods that your body really needs, especially lean protein and whole plant foods
- a dietitian can help you make simple changes to your diet that can help you to manage the side effects of steroids, helping you to feel more comfortable in your body, and feel more energised. It can be especially important to see a dietitian if you blood sugar levels become elevated.

> ***Steroids make me so hungry, but I've learnt to be prepared with snacks that I know are doing my body some good! I cut up fresh veggies and fruit and have hardboiled eggs on hand. I store them in containers in the fridge and have high-protein options to dip them in — hummus, cottage cheese, Greek yoghurt and almond butter are favourites."***
>
> Dawn, South Australia

Do I need to follow a neutropenic diet?

During treatment, when your immune function may be especially low, you may need to avoid certain foods and follow good food hygiene practices to reduce the chances of picking up a foodborne infection. This is called a neutropenic diet, and is similar to the diet women are advised to follow during pregnancy.

At these times, you may need to avoid:

- raw or undercooked eggs, meat, poultry, fish or shellfish
- unpasteurised dairy products
- pâté
- soft cheeses — such as brie and camembert, and blue cheeses
- tahini and tahini-containing products, like hummus dip
- sushi and rice paper rolls
- takeaway foods or foods that have not been freshly prepared, such as foods from a buffet
- pre-made salads and sandwiches

You'll also need to:

- wash your hands well before handling food and eating
- thoroughly wash your cooking and eating utensils
- avoid mixing raw meat or seafood with any other foods on your chopping board
- carefully check and follow 'best before' and 'use by' dates on food
- immediately store any leftover food in the fridge and discard it after 24 hours — or freeze it instead
- thoroughly reheat any leftover food before eating it, and only reheat food once.

Queensland Health has a guide to safe eating when you have a weakened immune system, which includes a handy list of safer food options to choose and high risk foods to avoid.

An important note about alternative diets, therapies and supplements

There are many alternative diets, therapies, and specific supplements that claim to prevent, cure or impact cancer in some way.

It's important to be mindful that there is a lot of misinformation and misleading advice available, even if it's suggested to you by well-meaning friends and family.

Here are some tips to help you sort facts from fiction:

- There is no evidence that any one particular type of diet or set of foods (often called an alternative diet), will prevent, cure or stop cancer from coming back.
- No single food will improve a person's response to treatment.
- Eating enough to keep your healthy cells working well is important. Losing weight during treatment often means losing muscle, which can impact your treatment tolerance, outcomes, and long-term health.
- Alternative diets can be harmful to your mental and physical health, make side effects worse, and may be expensive and hard to follow.
- Choose an eating pattern that is healthy, balanced, and includes all food groups, as well as fitting with your lifestyle, cultural background, and any religious beliefs. A dietitian can support you with this.
- Alternative therapies are treatments that are promoted *instead of* conventional treatments. They are unproven, usually expensive, and may be harmful. Examples of alternative therapies include megadoses of vitamins, shark cartilage and juice fasting.
- Supplements include vitamins, minerals, herbal and other plant-based medicines. Some of these can interact with myeloma treatments, causing the treatment to be less effective or to cause more side effects. Your team can advise you on the safety of any supplements you are considering.
- Talk to your doctor, dietitian or pharmacist before making any major changes to your diet, using any alternative therapies, or taking any supplements. Your team won't judge you: they are here to support you throughout your treatment, making sure you are safe, and experience the best results from your treatment, as well as the best possible quality of life.

Read more in our *Complementary therapies and myeloma* infosheet.

Learn more

You'll find more information about living as well as possible with myeloma in these resources available from myeloma.org.au.

RESOURCE	NAME	LINK
INFOSHEETS	→ 'Exercise and myeloma living well infosheet' → 'Fatigue and myeloma living well infosheet' → 'Complementary therapies and myeloma living well infosheet' → 'Steroids treatment infosheet'	Go to: myeloma.org.au Search for the document using the name following the icons
RECORDED SEMINARS	→ Wellness, Exercise and Nutrition → Investigating the impact of dietary interventions in progression of MGUS & smouldering myeloma to active myeloma – **About** Note that this seminar is relevant to all people living with myeloma, not only MGUS or smouldering myeloma.	Go to: myeloma.org.au/resources/ Click on **Recorded Seminars** to go to myeloma.org.au/resources/recorded-seminars/ Scroll down the Recorded Seminars page to find the relevant seminar.
PODCASTS	→ Mye Conversations podcast, Season 1, Episodes 3 and 4: 'All Things Nutrition and Myeloma'. – **About** These episodes feature OnCore Nutrition dietitian Lauren Atkins and answer many questions from people living with myeloma, including the role of antioxidants, prebiotics and probiotics, sugar and cancer, keeping weight stable while on treatment, tips for dealing with nausea, and much more.	Go to: myeloma.org.au/resources/ Click on **Podcasts** to go to https://myeloma.org.au/resources/podcasts/

More information and support

- **Search for a dietitian** in your area who specialises in cancer nutrition. Visit dietitiansaustralia.org.au/find-dietitian and choose 'Cancer' under the 'Help me with' option.
- **Visit the World Cancer Research Fund's** website wcrf.org and go to their 'Living well' page to learn more about current research-based recommendations for eating well when you have cancer and during treatment. Their booklet, *Eat well during cancer* provides tips and recipes to help you eat as well as possible while managing the side effects of cancer treatment.
  - Go to wcrf.org and search for 'Eat well during cancer'.
- **Download Cancer Council Australia's booklet**, *Nutrition for People Living with Cancer*, which includes answers to common questions about nutrition and cancer, as well as practical tips on managing many of the nutrition-related side effects of cancer treatment.
  - Go to cancervic.org.au and search for 'Nutrition for People Living with Cancer'.
- **Queensland Health's** *Safe Eating for Poor Immune Function* includes a handy list of safer food options when you need to follow a neutropenic diet.
  - Enter 'Safe eating for poor immune function queensland health' into your search engine.
- **OnCore Nutrition** oncology dietitians offer a free 15-minute phone consultation. Call 0435 464 778, visit www.oncorenutrition.com, or email enquiries@oncorenutrition.com to find out more.
- **Our Specialist Myeloma Nurses** are available on our Telephone Support Line to talk with you about any aspect of myeloma, its treatment and management, including providing you with support and practical tips to eat well.

  To book a 30- or 60-minute call with a Specialist Myeloma Nurse:

  call **1800 MYELOMA** (1800 693 566)
  Monday–Friday, 9am–5pm AEST/AEDT, or

  go to **myeloma.org.au** and click on the 'Book a call with a Specialist Myeloma Nurse' button.

  email nurses@myeloma.org.au to contact a Specialist Myeloma Nurse at any time.

We hope you've found some new tips and tricks to make eating well easier and that you'll enjoy the many benefits fuelling your body with nutritious foods and staying well hydrated.

The information in this sheet is not intended to replace medical care or the advice of your treating team. Please talk to your doctor or dietitian about the type of eating plan and amount of fluid that is right for you.