

# Healthy living after treatment

Tips for eating well and engaging in physical activity after treatment for childhood cancer

**A healthy life after treatment for childhood cancer involves a balance of a nutritious diet, regular physical activity, medical care, and emotional support. By adopting healthy habits and seeking appropriate care, survivors can thrive and lead fulfilling lives.**

Side effects experienced during treatment may take some time to go away. Some people will experience long term impacts from treatment and may need to make modifications in the beginning.

This resource aims to provide families with practical tips and advice on how to live a healthy life after treatment.



There is no one-size-fits-all answer to what "healthy" looks like after childhood cancer treatment.

## EATING WELL AFTER TREATMENT

**After treatment, a healthy and balanced diet is important to ensure normal growth and establish good, long-term eating habits to maximise recovery and overall health and wellbeing.**

### What can I expect?

During treatment maintaining a balanced diet may have been difficult as the focus was on simply eating enough; after treatment it can be challenging to modify behaviour to maintain a balanced diet. If you are finding this difficult speak to your GP, oncologist or dietitian about strategies to incorporate nutritious foods and limit low nutrient foods.

*The most difficult thing about finishing treatment was the fact that he didn't eat. The dietitian was fantastic, she gave me lots of strategies and lots of tips on how to introduce food slowly. Now three and a half years later, it's fantastic. He sometimes gets so hungry he could eat a horse and chase its rider.*

**Parent**

### At this timepoint:

- you can re-introduce some of the foods you may have cut out during treatment as you are no longer at high risk for bacteria infections e.g. cold cured or prepared meats, shellfish, ready to eat salads, pates, soft cheeses and soft serve ice cream or frozen yoghurt
- you may no longer be required to maintain a high energy diet, if it was necessary during treatment
- you may continue to experience sensory changes, including changes to taste, smell and texture; the time it takes for sensory changes to return to normal can be different for everyone
- if you had a feeding tube during treatment, your dietitian will work closely with you to help reduce reliance of tube feeding and increase oral intake.

## Healthy living after treatment

### Eating well after treatment (continued)

#### Maintaining a balanced diet

To stay healthy, it's important to eat a balanced diet with a wide variety of nutritious foods from the five food groups and drink plenty of water.

##### Try to eat:

- plenty of salads and vegetables, including different types and colours
- fruit
- wholegrain and/or high fibre grains and cereal foods such as breads, cereals, rice, pasta, noodles, polenta, couscous, oats, quinoa and barley
- lean meats and poultry, fish, eggs, tofu, nuts and seeds, and legumes/beans
- milk, yoghurt, cheese and/or their alternatives, mostly reduced fat (reduced fat milks are not suitable for children under the age of 2 years).



##### Limit:

- foods containing saturated fat, added fat, added salt and added sugars.

#### The importance of calcium, vitamin D and iron

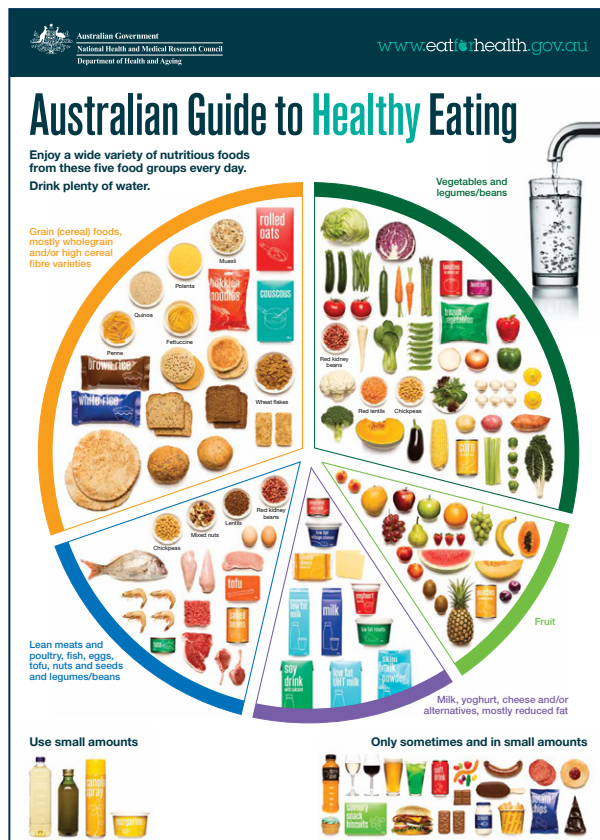
**Calcium** is important for building and maintaining healthy bones and teeth.

The major sources of calcium are:

- dairy products such as milk, yoghurt and cheese
- bony fish (canned salmon and sardines)
- almonds
- fortified soy products and fortified plant rice beverages
- small quantities of calcium can be found in other nuts, some dried fruits, sesame seeds and green leafy vegetables (spinach, parsley).

If you aim to include at least 3 serves of dairy per day, you will be well on your way to meeting your calcium requirements! One serving size of dairy is equal to:

- 2 x small slices of cheese
- 1 cup of cow or soy milk
- 1 small tube of yoghurt



Getting enough **vitamin D** is important too. It helps the body absorb calcium from the diet. Our main source of vitamin D is from exposure to sunlight. A limited number of foods contain small amounts of vitamin D such as egg yolks, liver, oily fish (salmon, tuna, mackerel, herring) and selected products fortified with vitamin D (eg milk powder, margarine and cereal).

**Iron** deficiency anaemia is the most common nutritional deficiency in childhood. Iron carries oxygen around the body. Try to reduce milk intake to no more than 500ml each day and include good food sources of iron at meals such as: red meat, poultry, fish, legumes, nuts/seeds, and cereals fortified with iron.

Your GP or dietitian can provide you with specific information if you are concerned about calcium, vitamin D or iron intake.

## Healthy living after treatment

### Eating well after treatment (continued)

#### Tips for eating well after treatment

- **Make food fun!** Get involved in the cooking and preparation process. This could include helping other family members with meal choices, supermarket shopping, cutting sandwiches/fruit/vegetables into fun shapes, ensuring the meal is colourful and visually appealing.
- **Keep hydrated.** Young children need approximately 1.5 –2 litres of fluid per day, adolescents and young adults require 2–3L per day. Try using a drink bottle with a straw to increase fluids and keep track of volumes. Adolescents may find setting an alarm on their phone or using a hydration tracking app as a reminder helpful.
- **Maintain variety.** Eat foods from all food groups. It is helpful to be creative and serve foods in different ways to avoid food fatigue.
- **Consider healthy alternatives.** Replace intake of ultra-processed foods for home prepared alternatives such as replacing instant noodles with freshly cooked pasta, roll ups and muesli bars with fresh fruit and soft drinks with sparkling water or freshly squeezed juices.
- **Maintain flexibility.** What works initially may not continue to work, be prepared to adapt your diet accordingly. Parents and carers can ask children for suggestions!
- **Avoid restrictive fad diets.** Instead follow the principles in the Australian Guide to Healthy Eating and consider the links at the end of this resource for recipe ideas. Speak to your GP, oncologist or dietitian before making any major changes to your diet.
- **Ensure mealtimes are low pressure, enjoyable experiences.** It can be helpful to eat as a family or with others and engage in conversations during meals to eliminate the primary focus on finishing your plate.
- **Keep a routine.** It may be helpful to set out a mealtime structure, encouraging meals and snacks to be offered at similar times each day. This also helps regulate our hunger and fullness cues.
- **Seek help.** If you have concerns about your relationship with food and/or body image, please discuss this with your GP, oncologist or dietitian. You can also seek help from external services such as [Butterfly Foundation](#).
- **Be a role model.** Parents and siblings should be role models themselves by eating a variety of healthy food.
- **If you are finding eating challenging try, try, try again.** Children can take up to 20 experiences with a food before they will start to accept it. Stay positive and be patient with the process.



*A big part of my treatment was being on steroids, that gave me the moon face and I put on a bit of weight. So post treatment I was a little bit more conscious about what I was eating. Coming out of it, I tried to look after my body, my sleep and my whole routine to try and get myself back to who I felt I was.*

**Childhood cancer survivor**



## Healthy living after treatment

### ENGAGING IN PHYSICAL ACTIVITY AFTER TREATMENT

**Physical activity is important for overall health, development and quality of life. Resuming physical activities and sport after treatment is important because it can help to reconnect with school, friends and the community.**

#### What is physical activity?

Staying active after treatment will look different for everyone. 'Physical activity' can include a wide range of activities and does not always mean a structured exercise program. The types of activities that are possible will depend on factors such as age, type of cancer treatment, physical limitations and abilities.

When getting back to physical activity it can be challenging to stay motivated, especially in the beginning. Seek out assistance and support from a physiotherapist or exercise physiologist to keep on track and stay motivated.

#### Physical activity can involve playing active games or sports, such as:

- running
- cycling
- climbing
- yoga
- swimming
- ball games.



#### Or everyday activities, such as:

- walking to school
- helping out around the house
- walking the dog
- getting out and about to catch up with friends.



Now that treatment has finished, it is important to increase your physical activity to improve your physical and mental health. Doing this can help you feel healthier now and in the future.

The benefits of physical activity include:

- **Improvements in physical health:** muscle strength, co-ordination, fitness, bone and joint health, energy levels and healthy weight
- **Improvements in mental health:** concentration, memory, mood, confidence and self-esteem
- **Social improvements:** can help to reconnect with friends, school and the community

Engaging in physical activity after treatment can also improve sleep and appetite and reduce the risk of long-term chronic illness.

#### How much physical activity should I be doing?

After completing treatment it's important to get back into physical activity at a pace that feels appropriate. Start off slowly and build up as strength and confidence in your body improves.

The Australian [Physical Activity and Sedentary Behaviour Guidelines](#) recommend that:

- **Children aged 2–4 who are not in school** engage in at least 180 minutes a day of physical activity, including energetic play and no more than 60 minutes a day engaged in screen-based activity.
- **Children aged 5–12 and 13–17** engage in at least 60 minutes a day of moderate to vigorous intensity physical activity with no more than 2 hours a day of screen-based activity for entertainment. The 60 minutes can be spread out across the day.

#### Why is physical activity important?

During treatment it may have been difficult to be physically active because of treatment side effects and having to spend lots of time in hospital. Cancer treatment can cause changes in your body that can reduce strength in your muscles, reduce fitness and cause fatigue. Treatment can also cause late effects that increase the chances of chronic disease.

Moderate to vigorous activities are those that make your heart beat faster and strengthen muscle and bones. Activity can be play-based and social e.g. ball games, bike or scooter riding, swimming, climbing, dancing, running and outdoor play at a playground. Activity can also include formal exercises such as push-ups, sit-ups, squats or yoga.



## Healthy living after treatment

### Engaging in physical activity after treatment (continued)

#### Re-engaging in community sports

After completing treatment, some people want to re-join a sport team or try something new. Community sports are a great way to stay active and socialise. Here are some steps to re-engaging in sport again:



1. Speak to your oncologist or GP about the sport and if required ask them if they can write a clearance letter.
2. Get in touch with the sporting club to learn more about what is involved and share your treatment history.
3. Go down and visit the local club or centre, to see if it is a good fit for you.
4. Start with some participation with parent assistance.
5. Increase the intensity with the guidance of a coach or trainer as your confidence improves.

#### Is it safe to participate in physical activity at school?

After completing treatment, unless you have been advised by your oncologist or physiotherapist otherwise, it is safe to participate in physical education (PE) at school again, however some children may need to make some modifications in the beginning and build up to full participation. When re-starting school it is a good idea to speak to the classroom teacher or PE teacher about getting back into physical activity and what you can do.

If you are unsure about participating in PE at school again, speak to your GP, oncologist or physiotherapist.

*He wanted to join a basketball team after he finished his treatment, and what we tried to do was build up towards that. We let him do the things that he naturally felt good at which was getting out and riding his bike and built up his endurance and stamina that way, and then when we felt he was ready we tried out a team.*

Parent

#### Tips for getting back into physical activity

- **Start slowly.** Go for walks with family or friends, help out around the house or go watch your community sport team play again.
- **Keep a routine.** Set up a routine and incorporate everyday activities, e.g. a daily walk around the block, to the park or with the dog.
- **Use goal setting.** Set short and long-term goals as this can help with motivation, e.g. aiming to first participate in ball skills before working towards participating in a full training session.
- **Focus on having fun.** It can help to pick an activity you enjoy where you can also spend time with friends and family.
- **Maintain variety.** Explore different activities at home and school.
- **Consider using activity monitors** e.g. Fitbit, Apple Watch or Samsung Galaxy Watch, these can be a great way to support goal setting and monitor progress.
- **Communicate your needs with others.** Share information with sport coaches about your treatment history and recovery, so that they can modify the activities while you build confidence and endurance.
- **Reach out to charities.** Consider activities offered by charity organisations, they can be a fun way to engage in physical activity and a good way to meet other young people.



## Healthy living after treatment

### Engaging in physical activity after treatment (continued)

#### What should I be careful of?

After a period of reduced activity it's common for children and adolescents to experience some shortness of breath, dizziness or fatigue when engaging in physical activity. If this happens simply take a rest.

#### Stop the activity if you experience any of the following symptoms:

- severe dizziness
- sudden onset of nausea
- vomiting
- severe pain
- an inability to talk while exercising
- frequent tripping or falls
- severe shortness of breath
- or if you feel unsafe.

*People were doing basketball training, and after surgery I couldn't really do it much. I just worked on building up my strength in my muscles and I'm playing basketball again which made me feel happy. Getting those goals makes you feel so good.*

**Childhood cancer survivor**



#### When to seek help

Depending on your diagnosis, treatment and potential side effects, you may require some extra support to eat well and engage in physical activity once your treatment is complete. Children and adolescents may be limited in their ability to return to a normal diet or participate in physical activity due to:

- damage to nerves (vincristine-induced peripheral neuropathy) impacting physical function eg. frequent falls, tripping or numbness
- long term side effects affecting movement
- long term tube feeds during treatment
- trouble with swallowing
- pre-existing growth concerns
- bone deficiencies
- any precautions outlined by their treating team, dietitian or physiotherapist.

If you are unsure whether you require extra support or modifications in returning to a regular diet and physical activity speak to your GP, oncologist, dietitian or physiotherapist.



#### Where to go for more information and support

- [Australian Guide to Healthy Eating](#)
- [Find a dietitian](#)
- [Healthy Lunch Box](#) (Cancer Council)
- [Oncore Nutrition](#)
- [Physical Activity and Sedentary Behaviour Guidelines](#)
- [Find an exercise professional near you \(ESSA\)](#)
- [Find a physiotherapist near you \(APA\)](#)
- [Regenerate](#) (information about life after cancer treatment for young people aged 15-25)
- If you are still experiencing side effects or have long term complications following treatment, talk to your GP, dietitian or physiotherapist.

