

Supplementary Material

Maintaining the health of people with and without COVID-19 during isolation: a case study

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rpavirtual Health Package

This package contains three sections:

1. Exercise plan and resources
2. Advice on reducing anxiety
3. Nutritional information

General health advice

- Keep a regular routine
- Get adequate sleep – physical activity during the day will help
- Talk to friends via the phone - not always virtually
- Have ‘social’ events with a group via WhatsApp or other sites
- Find things to do that you enjoy

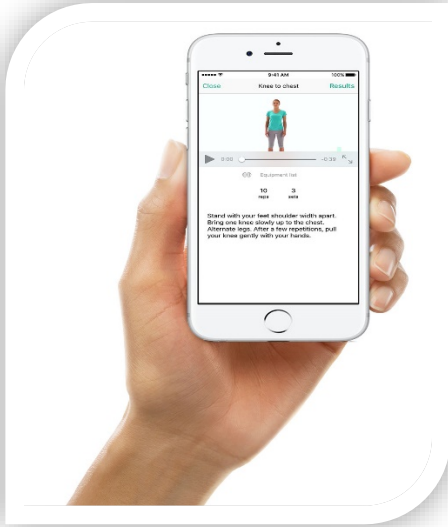


EXERCISE PACKAGE FOR PARTICIPANTS

Exercise Program

Your Positive Exercise Program

You will be provided with an exercise program either via a free, easy to use App (PhysiApp) or a printed handout.



Expected benefits of exercise during isolation

The exercise program is designed to keep you moving in order to keep you as well as possible during your time in self-isolation. The exercises focus on activities of daily living and can be easily performed at home or in your hotel room. The purpose of the exercise program is NOT to improve your fitness. Rather, the exercise program will help to provide structure to your day, help prevent deconditioning, help to improve your mood and manage feelings of stress, worry, and anxiety.

Exercise has been shown to:

- **Reduce stress and anxiety**
- **Help build coping and resilience**
- **Distract from negative thoughts**
- **Improve sleep and energy levels**
- **Manage symptoms such as fatigue and breathlessness**

- **Improve memory, focus, and productivity**
- **Prevent deconditioning and loss of fitness**
- **Help manage existing health conditions, and;**
- **Can help boost immunity!**

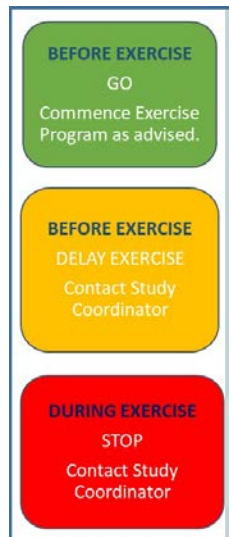
Exercising safely

It is important that you follow your prescribed exercise program, completing the exercises in the order given to you. Before you start your exercise program each day, it is very important to self-check before exercise and during exercise against the Upside Down '**Exercise Traffic Light**' (see attached for details) and only start with your exercise session if you meet the '**GO**' criteria. You are encouraged to take rest breaks frequently, for as long as needed. It is also a good idea to have small sips of water before, during and after exercise to stay hydrated.

Exercise safety

Prior to exercise you will be asked to fill in a questionnaire (Adult Pre-Exercise Screening System) which will help to determine your readiness for exercise. In addition, if you have COVID-19, a physiotherapist experienced in the exercise management of people with respiratory disease will assess you for safety to exercise. If you do not have COVID-19 an accredited exercise physiologist will assess you for safety to exercise.

You will be asked to report how you felt during the exercise program, especially about your levels of breathlessness and exertion and your



feelings of fatigue. You are asked to stop exercise if you have any concerns or experience a change in symptoms, and to inform the team managing your care.

Exercise intensity

We encourage you to **exercise at a LIGHT INTENSITY ONLY** and at a level that is comfortable for you. You will be asked to monitor your exercise intensity (how challenging the exercises feel for you) using a 0 – 10 scale of breathlessness or exertion (called the ‘Modified Borg Scale’ seen below

Modified Borg Scale

0	Nothing at all
0.5	Very, very slight (just noticeable)
1	Very slight
2	Slight
3	Moderate
4	Somewhat severe
5	Severe
6	
7	Very severe
8	
9	Very, very severe (almost maximal)
10	Maximal

You are encouraged to exercise at a level where you experience only “very, very slight (just noticeable)” to “slight” breathlessness or exertion i.e. 0.5 to 2 on the scale. If you experience “Moderate or Severe” breathlessness or exertion (i.e ≥ 3 or above), you should stop the exercise and inform the team managing your care before recommencing. Your exercise program can be modified by your treating team, including the Exercise Physiologist and/ or Physiotherapist.

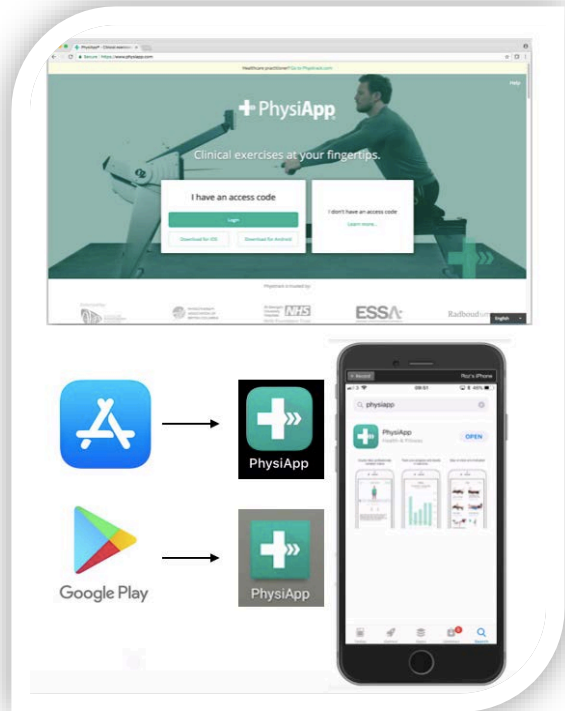
PhysiApp Support and FAQs

You will be sent a link with your personal access code for the Positive Exercise Program on PhysiApp (or we will provide a PDF or printed copy if required). You can access your personal program by downloading ‘PhysiApp’ for free via the App Store (Apple device) or the Google Play Store (android devices) or it can be accessed online via your chosen web browser.

For more information and instructional videos on how to use or access your program through PhysiApp, please see the links below:

- [Getting Started on PhysiApp](#)
- [My program and FAQs](#)

If you still have questions or concerns please contact the research team or inform the team managing your care.



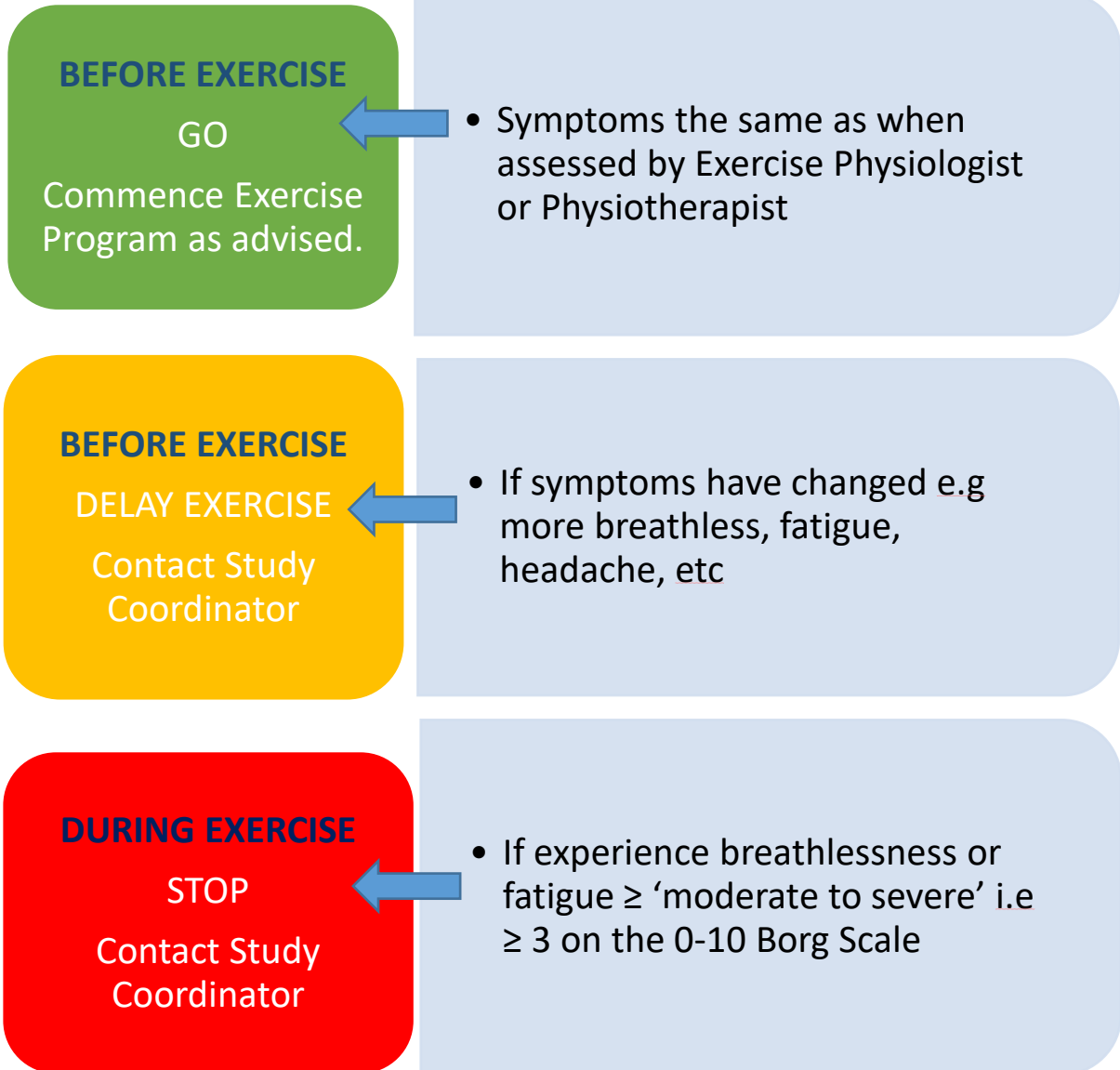
Helpful Links and Exercise Tips during isolation

- Exercise Right Australia
 - [Home Workouts](#)
 - [Workout Planner](#)
- [Active & Healthy NSW- Exercise at home](#)
- Sydney Local Health District - [Exercise Videos](#):
 - Standing Yoga Poses
 - Seated Yoga Poses
 - Breathing Techniques and exercises
- The Black Dog Institute- Exercise your way to better mental health:
 - [Dance Your Way](#)
 - [Get Physical Your Way](#)
- World Health Organization (WHO)
 - [Staying Physically Active during Quarantine](#)
 - [Be Active During COVID-19](#)
- [Beyondblue- Managing your mental health – the importance of looking after your physical health](#)
- [Australia's Physical Activity and Sedentary Behaviour Guidelines and the Australian 24-Hour Movement Guidelines](#)

Modified Borg Scale	
0	Nothing at all
0.5	Very, very light – Just noticeable
1	Very light
2	Light – Weak
3	Moderate
4	Somewhat hard
5	Heavy – Strong
6	
7	Very Heavy
8	
9	
10	Very, Very Heavy – Maximal

Target Zone

Upside Down Exercise Traffic Light



ANXIETY MANAGEMENT

Anxiety is a very normal human reaction to stress and uncertain times.

Anxiety can include symptoms such as worrying, 'racing mind', a sense of restlessness, 'butterflies', tight muscles, fast breathing and heart rate. These can be uncomfortable and stop us from doing things we enjoy. Anxiety can affect our sleep and our mood so that we may feel unable to cope.

Fortunately, there are simple techniques that we can practice to help anxiety which have been shown by research to be effective.

BREATHING CONTROL

Anxiety will cause an increase in our breathing rate and learning to slow our breathing rate can reduce anxiety. Try this slow breathing technique to help with relaxation

Slow-Breathing Technique:

Sitting or lying down, make yourself comfortable

Take a deep breath and let it out slowly; repeat it once
Close your eyes; focus your mind on your breathing.
Breathe easily and gently, with no effort

As you breathe in, say to yourself: "In"
As you breathe out, say to yourself: "Relax"

Keep repeating these two words over and over and keep letting go every time you breathe out

Practice this for at least 5 minutes, twice a day, if possible
Take time out during the day to use as needed

VISUALISATION OF A CALM PLACE

Imagining yourself in a place associated with calm and peace can bring about the associated feelings of relaxation

Sitting comfortably create a scene in your mind which is associated with calm and relaxation. It may be a beach, a river, a mountain or anywhere at all. Focus on letting your breathing settle into a slow rhythm and gently explore the scene with all of your senses. Feel the breeze, hear the sounds, smell the air and explore the sights.

If your mind wanders off onto stressful thoughts, gently bring it back to your place of relaxation.

Sit with your relaxing scene for 10 or so minutes before bringing your mind to the 'here and now'.

RELAXING MUSCLES

If you tense up when you are anxious, a progressive muscle relaxation technique can help in reducing anxiety

Progressive Muscle Relaxation Technique:

- Find a place that is quiet and free from distraction
- Sit comfortably on a chair or the floor
- Allow your breathing to settle into a slow comfortable rhythm and let your eyes gently close
- Gently tense each of the muscle groups below for about 5 -10 seconds, bringing your awareness to the sensations in that area. Then let go of the tension as you are breathing out, saying to yourself 'relax' or calm', and focus on the feelings in that area for about 10-20 seconds until you move on to the next area.
- Sequence of muscle groups (please note you can skip any areas which may be problematic for you and can tense the area in a way that works for you. These are suggestions)
 1. Feet – curl your toes downwards
 2. Lower legs – gently curl your toes upwards to tense your calf
 3. Upper legs – push your thighs into the chair or tighten your thighs
 4. Buttocks – squeeze your buttocks together
 5. Torso – breathe in and fill your chest with air
 6. Back – pull your shoulder blades back
 7. Shoulders – bring your shoulders up towards your ears
 8. Upper arms – bend your forearm up to your shoulder
 9. Forearms – make a fist with your hands
 10. Neck – carefully bring your head in towards your neck
 11. Jaw – clench your teeth together
 12. Mid face – close your eyes tightly
 13. Forehead – raise your eyebrows
- When you have finished, sit quietly for a few moments before you go about your activities.

Like all skills this will improve with practice

MINDFULNESS

Mindfulness is the practice of being in the present moment and 'stepping back' from difficult thoughts and feelings.

It is helpful in reducing anxiety as it reduces the emotional response that accompanies thoughts and feelings by increasing the ability to observe rather than respond to stress.

It requires practice of meditation exercises regularly, involving turning attention to the 'here and now', including breathing, bodily sensations, sights and sounds.

There are many different types of exercises to choose from, below are two simple examples.

Mindfulness of breath:

- Sit comfortably, close your eyes and bring your attention to your breathing.
- Notice the feeling of the air coming into your nostrils, filling up your lungs and going out through your nostrils again. Notice your chest or abdomen rising and falling, notice how the air feels as you breathe it in and breathe it out.
- Choose one spot where you can notice your breathing in your body and observe how it feels as you breathe in and out.
- As you get distracted by other thoughts, feelings, sensations or sounds that occur, acknowledge them (“I’m having the thought/ feeling x”) and gently bring your attention back to your breath as it comes in and out of your body. It is normal for your mind to wander.
- Continue this exercise until you are ready to bring your attention back to the room and open your eyes (5- 10 minutes).

If you find you are very focussed on physical sensations which you are worried about, you may prefer the next exercise.

Mindfulness of everyday activity

- Choose an activity that is part of your everyday routine, such as cleaning your teeth or taking a shower, and during that activity focus all of your attention on what you are doing.
- Focus on the physical sensations, the sounds, the sights, the tastes etc. that you notice as part of that activity. For example, when cleaning your teeth, focus on the taste of the toothpaste, the sound of the toothbrush, the temperature of the water as you rinse, and so on.
- If you begin to be aware of thoughts or emotions, observe them, acknowledge them and let them come and go like clouds in the sky, bringing your attention back to the activity you are observing.

It’s normal to get distracted by our mind’s activity, such as anxious thoughts or feelings. With practice of mindfulness and learning to simply observe, we can learn to get less upset by them and improve how we are feeling.

The Apps ‘Smiling Mind’ and ‘Headspace’ have many more and there are many audio recordings of mindfulness exercises on the internet.

PLEASANT ACTIVITIES

Our mood responds closely to what we are doing and what we are thinking about. For this reason during stressful times it is important to schedule pleasant activities to regularly engage in. Think of what you enjoy doing but may not often have time for.

A few ideas are: favourite movies or music; a jigsaw puzzle; mindful colouring in; connecting with friends or family on Skype or Face time; reading a book or magazine; organize your photos.

Make a list and gradually work through it.

You may need to pace yourself with doing these if you are low in energy or not feeling well.

GROUNDING TECHNIQUES

Grounding techniques are a set of techniques that can be helpful in managing anxiety in the short term. Try using one of these to bring yourself to the 'here and now' if anxiety is rising:

"The 5,4,3 2,1 Grounding Technique:

- Notice and describe in detail to yourself
 - 5 things that you can see
 - 4 things that you can hear
 - 3 things you can touch
 - 2 things that you can smell
 - 1 thing that you can taste.

Other ideas:

- Push your feet hard into the ground and notice what it feels like
- Run cool or warm water over your hands
- Go for a walk around your home and notice everything you can see, hear and smell. Describe it in your mind to someone who is not there
- Count backwards from 100 to 1; or count your breaths in and out to 100.

BALANCED THINKING

Stressful times will very often lead to negative thinking, including predicting the worst, overly focusing on the negative.

Research has shown that managing negative thinking can reduce anxiety and improve mental health

Examples of managing negative thinking:

- **Sticking to that facts:** getting your information about Coronavirus from one source that you trust only and limiting your exposure to media
- **Keep the current situation in perspective:**
- **This situation will pass**
 - Your health is being closely monitored
 - You have access to help if needed
 - Most people recover from Coronavirus
- Trying to think of some random **positive aspects** of the current situation, for example spending less money on entertainment; avoiding the Sydney traffic; having time to get small jobs done; having more time with your pet.
- Remind yourself of all the times you **have coped** with difficult situations
- **Limiting your time worrying** to one set time period each day, for example 5 minutes of 'worry time' each day when you write down all of your worries. If a worry comes up at a different time postpone thinking about it until 'worry time'.

- Write down all of your negative thoughts and **balance distressing thoughts with a helpful alternative**. Ask a trusted friend/family member for their perspective if you are having trouble shifting

Electronic Resources

Apps for anxiety management

- “Calm” (for meditation and sleep)
- “Headspace”
- “Smiling Mind”

Internet resources to help anxiety management

- *Head to Health*: <https://headtohealth.gov.au/covid-19-support> - great information on coping with the distress around COVID-19, also links to other online COVID-19 MH services, such as Beyond Blue and Black Dog
- *ACT for COVID-19*: <https://www.actmindfully.com.au/wp-content/uploads/2020/03/FACE-COVID-eBook-by-Russ-Harris-March-2020.pdf>
- *Australian Psychological Society*: <https://www.psychology.org.au/COVID-19-Australians>
- *Beyond Blue*: <https://www.beyondblue.org.au/the-facts/looking-after-your-mental-health-during-the-coronavirus-outbreak>
- *Mindspot*: <https://mindspot.org.au/coronavirus>
- *Lifeline*: <https://www.lifeline.org.au/get-help/topics/mental-health-and-wellbeing-during-the-coronavirus-covid-19-outbreak>
- *Mood Gym*: <https://www.moodgym.com.au>

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General Nutritional Information

Following a healthy diet will help to ensure you are providing your body with all the nutrients it needs to maintain good health. Eating a healthy diet can support your immune system and provide you with energy for the day.

The key to eating well is to enjoy a variety of nutritious foods from each of the Five Food Groups.

Enjoy a wide variety of nutritious foods

- Eat plenty of vegetables, legumes and fruits
- Eat plenty of cereals, (including breads, rice, pasta and noodles), preferably wholegrain
- Include lean meat, fish, poultry and/or alternatives
- Include milks, yoghurts, cheese and/or alternatives Reduced fat varieties should be chosen, where possible
- Drink plenty of water

And take care to:

- Limit saturated fat and moderate total fat intake
- Choose foods low in salt
- Limit your alcohol intake if you choose to drink
- Consume only moderate amounts of sugars and foods containing added sugars

Up your fruit and veggies:

Fruits and Vegetables provide key vitamins and minerals for example Vitamin A, Vitamin C and Folic Acid which assist with body repair and good health. They are also full of fibre, which is great for helping you to feel fuller for longer.

The Australian Guide to Healthy Eating recommends aiming for **5 serves of vegetables** and **2 serves of fruit** every day.

What does this look like?

- One serve of fresh **fruit** is around the size of a tennis ball or 1 cup diced / canned fruit or occasionally 125ml fruit juice. It is always



best to eat the whole fruit rather than in juice form where possible, as this helps you get the fibre and not too much sugar.

- One serve of **vegetables** is ½ cup of cooked green / orange vegetables, ½ cup of legumes (e.g. beans, peas, and lentils), 1 cup of green leafy / raw salad vegetables, 1 medium tomato or ½ a medium potato.
- It's really important to eat a rainbow of fruit and vegetables to get all the important vitamins and minerals. If your meal is looking all yellow or white, try and add a little bit of fruit and vegetable colour.



Quick tips for getting in your daily fruit and vegetable serves:

Breakfast / Brunch: if having eggs opt for an option that includes veggies e.g. spinach, mushrooms and grilled tomato. Or if you're going for a cereal option why not add in some fresh fruit.



Lunch / dinner: simple swaps of choosing salad over hot chips, grilled vegetables over deep fried options, opt for a vegetarian meal occasionally, and try a lighter option like a sandwich and a piece of fruit.

Keep up your hydration:

WATER WATER WATER! Having enough water throughout the day is vital for all essential organs and optimal brain function.

Even mild dehydration can lead to decreased cognition, reduced concentration levels and alertness, making you feel a little bit blah.

Aiming for **8 glasses of fluid** per day is the gold standard – this unfortunately does not include tea and coffee for all you caffeine lovers. It is recommended that water is the preferable choice for hydration as other beverages can have hidden sugars.



Nutritional Advice for Hotels

How to look after yourself in isolation in a hotel

Following a healthy diet will help to ensure you are providing your body with all the nutrients it needs to maintain good health. Eating a healthy diet can support your immune system and provide you with energy for the day.

The key to eating well is to enjoy a variety of nutritious foods from each of the Five Food Groups.

Enjoy a wide variety of nutritious foods

- Eat plenty of vegetables, legumes and fruits
- Eat plenty of cereals, (including breads, rice, pasta and noodles), preferably wholegrain
- Include lean meat, fish, poultry and/or alternatives
- Include milks, yoghurts, cheese and/or alternatives Reduced fat varieties should be chosen, where possible
- Drink plenty of water



And take care to:

- Limit saturated fat and moderate total fat intake
- Choose foods low in salt
- Limit your alcohol intake if you choose to drink
- Consume only moderate amounts of sugars and foods containing added sugars

Tips for choosing healthier delivery options:

- Order additional vegetables or salad with your meal to add more fibre and nutrients.
- Opt for a side dish of cooked vegetables or salad to go with your meal instead of fatty sides like fries, chips, mashed potato and gravy, garlic bread, coleslaw.
- Limit dishes that are creamy, battered or fried. So for example with pasta, choose the tomato based sauce over the carbonara.
- Choose a meal option that is vegetable based or contains a load of vegetables e.g. stir-fry with rice instead of a noodle dish.
- Avoid over ordering as you would be tempted to eat more. For example things like dim sims, spring rolls, garlic bread and guacamole and chips, may seem like a small addition, however eating daily can really add up.



- Select vendors that have healthier options on the menu e.g. Japanese, Vietnamese, Salad
- Change your typical order to be healthier. For example with a burger choose the grilled meat over the battered or fried option, opt for a bun-less or low carb burger bun and add more vegetables.
- Be mindful of extra calories from sugary drinks like soft drink and juice. Choose to have water or if craving a sweet beverage opt for sugar free options.



How to curb the unnecessary snacking:

- Keep yourself hydrated. Often when you haven't had enough water, you are more likely to over eat.
- Slow down at meal times and switch off any electronic distractions. When you pay attention to what you are eating, you enjoy what you are eating and give your brain enough time to register that you are full.
- Set up a routine and try and stick to that routine, with regular meal times.
- Still enjoy that biscuit with your cup of tea, but limit it to just once a day.
- You can now order snacks on delivery platforms. Some healthy snack options available include:
 - Popcorn
 - Protein balls and bars
 - Nuts
 - Up&Go
 - Tinned Tuna
 - Cup of soup