

# YOUR DEFENCE SYSTEM

SLEEP | PHYSICAL ACTIVITY | NUTRITION





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Our health and wellbeing can often feel like it gets pushed aside with the many demands of modern day life, especially when working in the emergency services.

We all know there are aspects of our health and wellbeing that we could be doing better in, or increasing our focus on. Often it feels hard to know where to start, how much you need to change or exactly what to do.

This resource has been developed specifically for Tasmania's emergency services workforce. It provides background, practical tips and self-assessment tools on how your health and wellbeing is tracking in the three crucial pillars of positive health and wellbeing – sleep, physical activity and nutrition.

There are many influences on our health and wellbeing but research and experience in emergency services workers shows if you can make and sustain changes to these three pillars, you will see benefits across all aspects of your health and wellbeing.

Sleep, physical activity and nutrition regularly get pushed aside or compromised with the demands of life and emergency services work.

On top of the challenges faced by all Australians, working in emergency services adds additional pressures on our health and wellbeing. Examples include leadership, interacting with colleagues and the public, elevated stress, preparedness, shift work and more that require you to be 'up'. Being in this state requires a lot of your mental and physical capacity.

In biological terms 'being up' is supported via your nervous system – your pulse, breathing, body temperature, blood pressure and other functions. It also places demand on your psychological capacity – including your focus, motivation, and heightened awareness of the environment.

It is a normal and natural need for your body to then require periods outside of these peaks. When you do not need to be in this 'up' state it is normal and natural to have the opposite physiological and psychological responses - resulting in feeling flat and exhausted.

In the periods away from work this means you are less likely to want to focus on or have the energy to address the pillars of your health and wellbeing. However, having good sleep, adequate physical activity and balanced nutrition provides you with a positive base or foundation. This then allows you the opportunity to perform better in the peaks and minimise potential negative effects of the troughs, such as fatigue, weight gain, isolation and apathy.

Negative effects of these peaks and troughs play out differently for individuals but are experienced by most. It is the people who are aware, who are taking action to develop and strengthen their defence systems, that better handle and continue to thrive within these peaks and troughs.

### **What does regaining control and strengthening your defence look like?**

The first step is having an awareness of what good sleep, physical activity and nutrition looks like. And most importantly, how yours is traveling. This is covered in 'Be Aware' within this booklet.

Equipped with this understanding and self-awareness it's then about taking action and forming good habits to maintain the changes amongst the demands of work and life. This is covered in 'What You Can Do' and the additional resources within this booklet.

*The first step is having an awareness of what good sleep, physical activity and nutrition looks like.*

# Be aware

## PART 1: WHAT YOU NEED TO KNOW

Health and wellbeing is often talked about but poorly understood. It is no wonder due to the never ending amount of fads and fake news floating around.

It's not too hard to imagine reading that 'rubbing ginger on your palm fixes back pain'. This breaking news in health and wellbeing has been taken from the below fake health news generator. Have a go and you might discover the next million dollar fad...

# FAKE HEALTH NEWS GENERATOR

YOUR EYE COLOUR		FIRST LETTER OF FIRST NAME	BIRTH MONTH	FIRST LETTER OF LAST NAME
LIGHT BROWN	Putting	A raw onions	JAN. in your bed	A removes toxins.
		B alkaline water		B cures cancer.
		C tin foil	FEB. in your hair	C helps you lose weight.
DARK BROWN	Rubbing	D essential oils	MAR. under your doormat	D reduces allergy symptoms.
		E amethyst		E blocks EMF radiation.
		F avocado	APR. on your face	F cures acne.
BLUE	Sleeping with	G coconut oil		G makes you smarter.
		H urine	MAY. on your third eye	H wards off negative energy.
		I epsom salt		I fixes joint pain.
GREEN	Sprinkling	J turmeric	JUN. around your neck	J relieves constipation.
		K healing crystals		K boosts your serotonin.
		L raw eggs	JUL. in your handbag	L protects from bee stings.
OTHER	Visualising	M ginger	AUG. on your palm	M fixes back pain.
		N quantum energy		N cures migraines.
		O organic walnuts	SEP. in your sock	O realigns your chakras.
		P kombucha		P will help you find love.
		Q hemp	OCT. up your nose	Q cleanses your liver.
		R the frequency of love		R cures sinus pain.
		S garlic	NOV. in your ear	S rebalances your hormones.
		T detox pads (30% off)		T unclogs arteries.
		U broccoli juice	DEC. in your underwear	U prevents heart disease.
		V moonlight		V fights muscle cramps.
W activated charcoal		W reduces air contaminants.		
X brain pills		X helps others pronounce your name.		
Y inspirational quotes		Y helps you sleep.		
Z a mandala		Z reveals how many past lives you've had.		



Source: ABC Science. Available at <https://twitter.com/abcsience/status/1039378026948165633?lang=en>

The path to health and wellbeing is not via the latest trend. Like most things in life it's about doing some simple things really well.

## Pillar 1: Sleep

Story that might be familiar...

*"After being up for work and dealing with a lot of BS I tend to want to just withdraw and switch off. To do this often involves alcohol, binge watching TV instead of getting to bed and a racing mind when trying to sleep – all affecting my sleep quality – then reliance on caffeine the next day. I always feel tired."*

Everyone's individual sleep needs vary. In general, most adults thrive when there are 16 hours of wakefulness, followed by 8 hours of quality sleep.

But like every aspect of our health and wellbeing, exactly what your body needs to thrive has its own variance and it changes throughout our lifetimes.

You are best to develop an awareness of yourself by reflecting on the quality of your sleep and your performance following sleep when awake.

*Time in bed or time of quality sleep.*

### Sleep and performance

- Sleep loss is associated with slower and less accurate cognitive performance. This is seen in areas such as reaction time, memory and decision making.
- Growth hormone, which is fundamental to regeneration and growth, is released during phases of deep sleep. A poor quality sleep is associated with less periods of deep sleep and less opportunity to recover.
- Your immune system's function is affected by the release of pro-inflammatory proteins with inadequate sleep.

Source: Le Meur, Skein and Duffield. In Recovery for Performance in Sport. 2013.

### Sleepiness or fatigue?

The terms sleepiness and fatigue are often used interchangeably. They can be related but are not the same thing.

Fatigue is associated with many health conditions and lifestyle factors. As such, it tends to be longer term than purely sleepiness.

Long term sleepiness (from poor quality or insufficient sleep) can contribute to fatigue.

Other contributors to fatigue include anxiety, eating disorders, emotional exhaustion, drug use, being physically unwell and many other stressors. In its simplest terms, fatigue is caused by insufficient down time or the opportunity to recover from the many stresses our physical and mental health undergoes.

### Alcohol

Alcohol interferes with the quality and patterns of your sleep, reducing sleep efficiency and increasing waking up after the onset of sleep (Chan *et al* 2013).

You might feel sleepier or relaxed and ready for sleep, however it results in a poorer sleep.

### Sleep as an emergency services worker

Reduced quality and duration of sleep can be significant problems when working night shift. This is largely due to our body's natural circadian rhythm. Our wake up time conflicts with powerful sleep regulating cues like sunlight. Plus, it can be hard to sleep during the day when on night shift due to everyone else's sleep pattern being the opposite to yours.

*Your needs change throughout life – teenagers need more, whilst the elderly need less.*

As well as the challenges presented by different rhythms and patterns of sleep as an emergency services worker, being on shift often requires heightened levels of vigilance (being 'up'). This vigilance provides the capacity to be ready when something takes place or focus is needed. This need to be vigilant is supported by heightened physical and mental functions such as elevated blood pressure, improved hearing, increased blood sugar and focus to process complex situations. This takes a toll and – unless sufficient sleep and recovery occurs – can lead to fatigue and poor health.

There are many physical and mental factors that can adversely affect our sleep duration and quality. But equally, if we understand these factors, then discover how we as individuals are sleeping and take action to enhance our sleep, all aspects of our lives respond positively. A study of 4,820 Police, Firefighters, Paramedics and Corrections Workers found that sleep is one of the modifiable variables that appears significantly related to mental health in this line of work (Carleton *et al* 2020).

*Shift work makes quality sleep harder compared to 9 to 5 type roles.*

## Pillar 2: Physical Activity

Story that might be familiar...

*"After a big day at work, dealing with the kids, housework and getting some sleep, the last thing I feel like doing is going for a walk, the gym or a run. I used to be fit and play sports, but I have let this slip and don't really have the time to do it now."*

Let's start with some often misunderstood terms. Fitness, physical activity and exercise are often used interchangeably.

- **Physical activity** is movement of your body, that requires energy to be expended (World Health Organisation, <https://www.who.int/dietphysicalactivity/pa/en/#:~:text=The%20term%20%22physical%20activity%22%20should,physical%20fitness%20is%20the%20objective.>)
- **Physical fitness** is a state of wellbeing with a low risk of premature health problems and the ability to participate in a variety of physical activities. (Howley & Franks, 1997). Fitness is made up of a lot of components like strength, balance, flexibility, speed and endurance.
- **Exercise** is a subcategory of physical activity and is more purposeful. It is typically planned and structured (World Health Organisation, <https://www.who.int/dietphysicalactivity/pa/en/#:~:text=The%20term%20%22physical%20activity%22%20should,physical%20fitness%20is%20the%20objective.>)

### What matters most is physical activity.

#### The good news:

Physical activity improves mood, strength, bone health, mental health, function, cognition and overall quality of life. Regular and adequate levels of physical activity are known to reduce pain, fatigue, and reduce your risk of depression, stroke, diabetes, cardiovascular disease. (Geneen et al 2017, Henschke 2010, WHO 2020). The list goes on....

#### The bad news:

A lack of physical activity has been identified as the fourth leading risk factor for global mortality (6% of deaths globally). Inactivity is estimated to be the main cause for approximately 21-25% of breast and colon cancers, 27% of diabetes and approximately 30% of ischaemic heart disease. (World Health Organisation, <https://www.who.int/dietphysicalactivity/pa/en/#:~:text=The%20term%20%22physical%20activity%22%20should,physical%20fitness%20is%20the%20objective.>)

This negative list unfortunately goes on too....

### So how much physical activity is enough?

The Australian Guidelines are:

- Be active on most, preferably all, days every week.
- Accumulate 150 to 300 minutes (2 ½ to 5 hours) of moderate intensity physical activity (takes some effort but you are still able to talk in full sentences whilst doing it) or 75 to 150 minutes (1 ½ to 2 ½ hours) of vigorous intensity physical activity (requires more effort and makes you breathe harder and faster), or an equivalent combination of both moderate and vigorous activities, each week.

- Do muscle strengthening activities on at least 2 days each week.

Source: <https://www1.health.gov.au/internet/main/publishing.nsf/Content/health-pubhlth-strateg-phys-act-guidelines#:~:text=Be%20active%20on%20most%2C%20preferably,and%20vigorous%20activities%2C%20each%20week.>

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If we boil down the recommendations a good way to look at it is 30 minutes per day, 7 days per week with some variety in the type of activity you are doing e.g. movement that increases your heart rate, requires strength, flexibility, change of direction and so on.

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But doing any physical activity is better than doing none. Every increase in physical activity results in lowering risk and increasing the positive benefits.

### What type of physical activity?

In further good news, no single type of physical activity or exercise is superior to another, meaning any movement or activity will be beneficial (Gross et al 2015, Peek & Stevens 2016, Saragiotto et al 2016).

The activity or exercise you choose should be what you enjoy, have an interest in and the ability to partake in. The positive outcomes of improving your health are influenced by you taking part in something you enjoy, value or set goals to (Nijs et al 2015, Gardner et al 2019).

Bringing this all together; move often and with variety. 30 minutes per day, every day. We will cover more of this in *What You Can Do* on page 9.



## Pillar 3: Nutrition

Story that might be familiar...

*"I find when I'm stressed, tired or in amongst a run of busy days, my cravings for junk food increase. Plus, getting take-away is an easier option."*

Nutrition is perhaps our pillar most susceptible to fads, fake news and confusion.

*Vegan or paleo*

*Convenience or raw ingredients*

*Are carbs still the enemy....?*

*I don't need to worry about my diet – I'm not fat.*

Consuming a healthy diet throughout your life helps prevent malnutrition as well as a range of diseases and conditions.

The increased production of processed food, urbanisation and changing lifestyles have led to a shift in dietary patterns. People are consuming more foods high in energy, fats, free sugars or salt, and many do not eat enough fruit, vegetables and dietary fibre such as whole grains.

The exact make-up of a diversified, balanced and healthy diet will vary depending on the individual needs (e.g. age, gender, lifestyle, degree of physical activity), locally available foods and dietary customs of our society. But basic principles of what constitute a healthy diet remain the same.

These basic principles are:

- Eat a wide variety of foods from different food groups, with an emphasis on plant-based foods.
- Consume just enough kilojoules to meet energy needs. The average adult needs about 8700 kilojoules (kJ) a day to maintain a healthy weight (Australian Guideline).
- Choose fresh and home-prepared, locally produced foods. Avoid highly processed foods, especially those which are high in fat, sugar or salt and/or low in vitamins, minerals and fibre. It is important to check food labels.
- Eat at least two to three portions of fruit every day, preferably fresh, seasonal and locally sourced.
- Eat at least three to five portions of vegetables every day (Potatoes, sweet potatoes, and other starchy roots do not count as portions of vegetables, but do feature in a healthy diet, preferably in minimally processed forms e.g. not chips!)
- Cereals should be mainly consumed as whole grains – such as oats or brown rice – rather than in refined forms (e.g. white rice, bread or pasta).
- Limit consumption of red meat and processed meat products – some national and international bodies suggest limits of around 500 grams of cooked meat per week, with very small amounts, if any, of processed meat products (e.g. ham, sausages or pre-made burger patties).
- Consume fish and shellfish around twice a week.
- Eat pulses (sometimes known as legumes) regularly. Dried beans, peas and lentils are excellent sources of protein, fibre and other nutrients and are naturally low in fat. Pulses are a good alternative to meat, and can play a key role in future healthy and sustainable diets.

- Include modest amounts of fats and oils, mainly from vegetable sources, and, preferably those containing unsaturated fats. Avoid industrially produced trans-fats (e.g. partially hydrogenated oils), which can be found in processed food, fast food, snack food and fried foods. Use healthier cooking methods, use vegetable oils and boil, steam or bake rather than fry.
- Drink tap water in preference to other drinks, especially sugar-sweetened drinks or fruit juice (one 150 ml glass of unsweetened orange juice, for example, contains around 15 g of free sugars).

Source: WHO 2018 <https://apps.who.int/iris/rest/bitstreams/1170558/retrieve>

### Getting the energy balance right

Nutrition is more than just controlling body fat levels. Like the other pillars of your defence system good nutrition improves your performance, minimises fluctuations in energy and focus and influences your overall physical and mental health and wellbeing.

In the simplest of terms the primary role of food is to provide us with the energy (measured in kilojoules – kJ) required to function. Energy in our food comes from macronutrients – fat, protein and carbohydrates. Our body requires large amounts of macronutrients per day however we also require micronutrients. Micronutrients are vitamins, minerals (such as calcium, iron and zinc) and water. These help our body to work efficiently and effectively, working alongside the body's actual energy requirements to help you be at your best.

If you take in more energy than you use, you store the extra as fat. To lose excess fat means you need to take in less energy or use more through exercise, or preferably both.

The energy content of the macronutrients are important to understand. Fat contains the highest amount of energy, per gram, followed by protein and carbohydrates.

**Fat:** 37 kilojoules per gram

**Protein:** 17 kilojoules per gram

**Carbohydrate:** 16 kilojoules per gram

And whilst not a macronutrient, a worthy mention in respect to energy is alcohol, coming in at 29 kilojoules per gram.

The specific numbers are not crucial but instead the knowledge that per gram with fat and alcohol, how quickly you reach 8,700 kJ for the day.

The percentage of energy in our diet should come from the following:

- 15-25% from protein
- 45-65% from carbohydrate
- 20-35% from fat with no more than 10% of this coming from saturated fat

Source: Dietitians Association of Australia 2020.

You should be able to work out how many kilojoules are in foods you buy by looking at the food labels. (We will cover this in *What You Can Do* on page 9).

By law in Australia, food labels must list the kilojoules in 100g (or 100mL) of a product and in some states and territories, certain food retailers are required to display the kilojoule content of their food and drinks at point of sale.

Whilst the recommendation for adults is to target 8700 kJ a day, you should pay attention to your body and it's needs. If you're active, tall or muscular you may require more than this. If you're small set, looking to lose weight or generally put weight on easily, you might require less.

Source: <http://healthdirect.gov.au>

# Be aware

## PART 2: TESTING YOUR DEFENCES HOW ARE YOU TRACKING?

Part 2 contains some quick evidence-based questions to help you understand how you are tracking in each of the pillars of health and wellbeing. Your results will give you an overview of whether you need to focus your efforts on a pillar, as well as specific parts of each pillar. In part 3 of this resource, we provide practical advice for Emergency Services workers to make some changes in each pillar.

### Sleep

The *Epworth Sleepiness Scale* is a scale intended to measure daytime sleepiness developed by Dr Murray Johns of Epworth Hospital in

Melbourne, Australia. It is a useful tool for you to assess the effect of your sleeping habits during the day. How likely are you to doze off or fall asleep in the following situations, in contrast to feeling just tired? This refers to your usual way of life in recent times. Even if you have not done some of these things recently try to work out how they would have affected you.

**Use the following scale to choose the most appropriate number for each situation:**

- 0 = no chance of dozing
- 1 = slight chance of dozing
- 2 = moderate chance of dozing
- 3 = high chance of dozing

SITUATION	Chance of dozing
Sitting and reading	
Watching TV	
Sitting inactive in a public place (e.g. theatre, meeting or presentation)	
As a passenger in a car for an hour without a break	
Lying down to rest in the afternoon when circumstances permit	
Sitting and talking to someone	
Sitting quietly after a lunch without alcohol	
In a car, while stopped for a few minutes in traffic	
<b>TOTAL SCORE (ADD THE SCORES UP):</b>	

#### Interpreting your score:

- 0-5 Lower Normal Daytime Sleepiness
- 6-10 Higher Normal Daytime Sleepiness
- 11-12 Mild Excessive Daytime Sleepiness
- 13-15 Moderate Excessive Daytime Sleepiness
- 16-24 Severe Excessive Daytime Sleepiness

A score of 10 or less is considered normal, but if you are in the 'higher normal' range, you could still likely benefit from taking some action to address your sleep quality and quantity. For scores 11 and above, you should consider taking some action in regards to your sleep. If your score doesn't improve after 2 weeks of 7-8 hours of sleep a night, it is recommended that you consult your doctor. In the final part of this resource 'What You Can Do' we will cover what you can do about your sleep.



## Physical Activity

Utilising the Australian Health and World Health Organisation recommendations around physical activity – how close do you get?

IN THE LAST WEEK, HOW MANY TIMES	TIMES PER WEEK	MINUTES PER WEEK
<p>In the last week, how many times have you walked continuously, for at least 10 minutes, for recreation, exercise or to get to or from places?</p> <p>And how many minutes (total) during the week did you do of this type of activity?</p>		
<p>In the last week, how many times did you do any vigorous gardening or heavy work around the house or work, which made you breathe harder or puff and pant?</p> <p>And how many minutes (total) during the week did you do of this type of activity?</p>		
<p>In the last week, how many times did you do any vigorous physical activity which made you breathe harder or puff and pant? (e.g. jogging, cycling or competitive tennis)</p> <p>And how many minutes (total) during the week did you do of this type of activity?</p>		
<p>In the last week, how many times did you do any other more moderate physical activities (takes some effort but you are still able to talk in full sentences whilst doing it) that you have not already mentioned? (e.g. gentle swimming, social tennis, golf)</p> <p>And how many minutes (total) during the week did you do of this type of activity?</p>		
<b>TOTAL FOR YOUR LAST WEEK</b>		

**As per the recommendations in Part 1: Be Aware – how close did you get to 7 times per week? And more importantly, did your total minutes exceed 200 minutes?**

For those who met or exceeded this, well done. Keep up the positive work and enjoy the physical and mental health and wellbeing benefits.

For those who did not, think in the simplest of terms, “where can I fit in 30 minutes per day?” In the next section we will discuss some practical tips to help you ‘find your 30.’



## Nutrition

Circle the score in the box you feel is most appropriate for each Knowledge Statement. At the end, add up the score for each column and then add these together to get your overall final Knowledge score.

Knowledge Statements	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
I have a good understanding of how to read the nutrition panel on a food label	5	4	3	2	1
I know how many serves of fruit and vegetables I should eat a day	5	4	3	2	1
I am confident in making healthy food choices	5	4	3	2	1
I am aware of strategies I can use to reach a healthy weight / waist measurement	5	4	3	2	1
I know about the impact of alcohol on my health and the safe alcohol guidelines	5	4	3	2	1
I know about the importance of hydration on my health and how much water I should drink	5	4	3	2	1
I know what types of fats and oils to use for good health	5	4	3	2	1
<b>Score (add the scores in each column)</b>					

**Final knowledge score:** \_\_\_\_\_

A score below 20 in knowledge needs some work. This is just a matter of revisiting the nutrition information within this resource and you will also find plenty of relevant things you can do within *What You Can Do* on page 9. Scores 24 and above show your knowledge base is sound – let's see how you go in behaviours.

Similar to the Nutrition Knowledge above, circle the score in the box you feel is most appropriate for each Behaviour Statement. At the end, add up the score for each column and then add these together to get your overall final Behaviour score.

Behaviour Statements	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
I ensure I eat a combination of 5 or more servings of fruit and vegetables daily	5	4	3	2	1
I often take food from home to work	5	4	3	2	1
I ensure I have at least 2-3 alcohol free days each week	5	4	3	2	1
I drink at least 1.5 litres water per day	5	4	3	2	1
I avoid sugary drinks (soft drinks, fruit juice, energy drinks)	5	4	3	2	1
I buy takeaway foods no more than 1-2 times per week.	5	4	3	2	1
I restrict my intake of chocolate, lollies, cakes, biscuits and chips	5	4	3	2	1
I have a planned approach to eating and eat regularly	5	4	3	2	1
I am good at adjusting my portion size according to my hunger level	5	4	3	2	1
<b>Score (add the scores in each column)</b>					

**Final behaviours score:** \_\_\_\_\_

A score below 27 in behaviour needs some work to create better behaviours and habits in your nutrition. In the final part of this resource 'What You Can Do' we cover off some practical ways to improve your knowledge and behaviours for the pillar of nutrition. Scores 30 and above show you have some good behaviours and habits in respect to your nutrition. Let's ensure this is the same for the other two pillars of Sleep and Physical Activity.

# What you can do

## Sleep

As an Emergency Services worker you are often at a disadvantage when it comes to sleep. Instead of allowing this to jeopardise your health and wellbeing, control what you can control and you will see improvements in your sleep and overall health and wellbeing.

### Ensure you are preparing psychologically for sleep:

- Wind down prior to bed. You do not want to jump straight in to bed having just finished a task and still be thinking about work or have adrenaline pumping after exercise.
- Develop a routine and cues. Examples include showering pre bed, lights dim and reading.
- Write things down if your mind starts racing once you get into bed.
- Use bed for sleep and sex and nothing else so it has a positive place in your mind.
- If you are having difficulty falling asleep, resist the urge to look at the clock as this can increase your anxiety about how long you've been trying to fall asleep. Also resist the urge to reach for your phone as notifications or an urge to just quickly check something can often signal to your brain that it's no longer time to sleep.

Do not persist if you are tossing and turning or you risk developing a negative association with being in bed. This might mean writing down what's on your mind, getting up for a short period or reading in order to clear your mind and reset/restart the process.

### Ensure you are preparing physically for sleep:

- Avoid all screens when close to bed, to allow the brain to switch off and wind down. Two hours of exposure to light from electronic displays can suppress melatonin by about 22% and affect sleep (Le Meur *et al* 2013).
- Avoid stimulants – caffeine, nicotine etc. 5–8 hours before bed.
- Avoid exercise close to bed.
- Avoid alcohol – 2 hours before bed
- Avoid food too close to bed – about 2 hours before bed. Digesting large meals when trying to get to sleep affects your sleep quality

### General preparation

- Make sure your bedroom is dark, cool and quiet. If the room cannot be all of these things, make it as close as possible e.g. eye mask and ear plugs.
- Keep bedtimes and wake times as regular as possible.

All three pillars of nutrition, sleep and physical activity are strongly linked and feed off each other.

- If your physical activity increases, your ability to get to sleep and the actual quality of sleep improves.
- If your nutrition is good through the day you see less flat period of tiredness during the day and your digestion will not impact the quality of your sleep.

## Physical Activity

As we learned in Be Aware, the type of physical activity you do is not as important as how often you just get moving.

Whether you were a long way off or just missed meeting the 7 days, 30 minutes per day recommendation (or greater than 200 minutes per week) start with a plan for your next week.

### In the next 7 days:

- Where in each day are you going to find your 30 minutes?
- What is your plan B or day to make up the lost time if you miss one day? Try and not miss more than 1 day in a row as it quickly gets away from you and can then feel insurmountable if you need to do 90 minutes in one day.
- Schedule in your 30 minute window per day – put it in your diary, on the fridge or at least write down a plan.

As you approach the end of the week, plan your next 7 days.

- Where were the pressure points on getting your 30 in?
- Should you find another window?
- What have you got coming up this week that might get in the way?
- What did you enjoy and how can you plan more of that?

Have a plan. Commit to the plan. Keep planning the week ahead for at least 8–12 weeks.

We have developed a template for finding your 30 – see page 17.



## General Preparation

- If it's been a while since you've exercised or really had the activity levels we are talking about, build up over the first month or two with progressive increases each week rather than boom (doing a lot) and then potential bust (injury/it's too hard) cycles.
- If you have a history of injuries or health issues it is particularly important to start gently. If it's been a while since you've seen your GP / Health Professional book an appointment to get a check-up so you know you are good to go.

All three pillars are strongly linked and feed off each other:

- If your sleep quality improves you'll feel more willing to do physical activity.
- When you have fitness gains, are achieving your goals and are feeling good, you're more likely to avoid poor foods and alcohol.
- If you're drinking less and eating better, you'll find physical activity so much easier.

For a great list of ideas, tips and further motivation on finding your 30, visit <https://www.sportaus.gov.au/findyour30>.

## Nutrition

Nutrition plays a huge role on our ability to think and feel well.

When we eat good quality food our energy levels are maintained, we think clearer, we concentrate better, and we can focus for longer. We are more rational in our decision making, we are warmer in our relationships and we collaborate better.

Nutrition is a complex field. Unfortunately this leads to fads and advocates vocally espousing their way as the only way. If it was as simple as one diet that is perfect for everybody's food preferences, habits and nutritional needs – it would have been discovered and we'd all have no reason to think about eating. But taste, variety, enjoying ourselves and our habits associated with these all play a part and therefore there is no one perfect diet.

What we do know is understanding basic nutrition, doing these basics well and paying attention to how your body responds to what you eat is the way to better nutrition.

Below are some of the basics and practical tips to apply them.

## Knowledge: reading food labels

Don't rely on the health claims on packaging – these are designed for sales and not your benefit.

And for a little irony, whilst the food labeling system provides good nutritional information – foods that are not packaged (fresh fruit, vegetables and meat) are actually the best foods for us.

## Health Star System

The Health Star System is also a good, quick guide to buying healthy packaged foods.

Keep in mind this is a voluntary system and fresh is best (which doesn't have the Health Star System).

- Use the Health Star system to compare like-for-like, e.g. comparing two brands of muslei, rather than comparing muslei with rice.
- When comparing like-for-like, the more stars, the healthier the food.
- The Health Star System also displays five good summary points on the food:

**Energy:** remember the average Australian adult is advised to consume 8,700Kj per day

**Saturated fat:** the lower the better

**Sugars:** the lower the better

**Sodium:** the lower the better

**Fibre:** the higher the better

Nearly all disease becomes non-existent if we get a majority of our intake from fruit and vegetable sources. Eating in this way promotes healthy weight, keep blood sugar levels stable, helps us stay fuller for longer, promotes good gut bacteria.



## How to understand food labels

### What to look for...

Don't rely on health claims on labels as your guide. Instead learn a few simple label reading tips to choose healthy foods and drinks, for yourself.

#### TOTAL FAT

Generally choose foods with less than 10g per 100g. For milk, yogurt and icecream, choose less than 2g per 100g. For cheese, choose less than 15g per 100g.

#### SATURATED FAT

Aim for the lowest, per 100g. Less than 3g per 100g is best.

#### Other names for ingredients

**high in saturated fat:** Animal fat/oil, beef fat, butter, chocolate, milk solids, coconut, coconut oil/milk/cream, copha, cream, ghee, dripping, lard, suet, palm oil, sour cream, vegetable shortening.

#### FIBRE

Not all labels include fibre. Choose breads and cereals with **3g or more per serve**.

#### INGREDIENTS

Listed from greatest to smallest by weight. Use this to check the first three ingredients for items high in saturated fat, sodium (salt) or added sugar.

### Nutrition Information

Servings per package – 16  
Serving size – 30g (2/3 cup)

	Per serve	Per 100g
Energy	432kJ	1441kJ
Protein	2.8g	9.3g
Fat		
Total	0.4g	1.2g
Saturated	0.1g	0.3g
Carbohydrate		
Total	18.9g	62.9g
Sugars	3.5g	11.8g
Fibre	6.4g	21.2g
Sodium	65mg	215mg

**Ingredients:** Cereals (76%) (wheat, oatbran, barley), psyllium husk (11%), sugar, rice, malt extract, honey, salt, vitamins.

#### 100g COLUMN AND SERVING SIZE

If comparing nutrients in similar food products **use the per 100g column**. If calculating how much of a nutrient, or how many kilojoules you will actually eat, use the per serve column. But check whether your portion size is the same as the serve size.

#### ENERGY

Check how many kJ per serve to decide how much is a serve of a 'discretionary' food, which has 600kJ per serve.

#### SUGARS

Avoiding sugar completely is not necessary, but try to avoid larger amounts of added sugars. If sugar content per 100g is more than 15g, check that sugar (or alternative names for added sugar) is not listed high on the ingredient list. **Other names for added sugar:** Dextrose, fructose, glucose, golden syrup, honey, maple syrup, sucrose, malt, maltose, lactose, brown sugar, caster sugar, maple syrup, raw sugar, sucrose.

#### SODIUM (SALT)

Choose lower sodium options among similar foods. Food with less than 400mg per 100g are good, and less than 120mg per 100g is best. **Other names for high salt ingredients:** Baking powder, celery salt, garlic salt, meat/yeast extract, monosodium glutamate, (MSG), onion salt, rock salt, sea salt, sodium, sodium ascorbate, sodium bicarbonate, sodium nitrate/nitrite, stock cubes, vegetable salt.

Source: [https://www.eatforhealth.gov.au/sites/default/files/files/eatingwell/efh\\_food\\_label\\_example\\_130621.pdf](https://www.eatforhealth.gov.au/sites/default/files/files/eatingwell/efh_food_label_example_130621.pdf)



Source: [http://www.healthstarrating.gov.au/internet/healthstarrating/publishing.nsf/Content/891BF37AA18EC2CECA257FB000190A26/\\$File/7\\_can\\_provide\\_information\\_about\\_key\\_nutrients.JPG](http://www.healthstarrating.gov.au/internet/healthstarrating/publishing.nsf/Content/891BF37AA18EC2CECA257FB000190A26/$File/7_can_provide_information_about_key_nutrients.JPG)







## Eating Behaviours

Eating regularly will give you sustained energy throughout the shift to prevent you from getting so hungry that you're likely to be tempted by the vending machine, charity chocolates, biscuits in the meal room or drive through fast food.

### **The three key's to eating well with work and especially shift work are:**

1. Good snacks.
2. Prepare meals before shifts to bring to work and eat when at home.
3. Having healthier take-away options as a last resort.

### **1. Good snacks**

Unpredictable work might mean you never know when or if you'll even get a meal break so pack healthy snacks or have a few good go-to's.

Some ideas are:

- Nuts – rich in good fats and protein to fuel your body for longer.
- Fruit
- Yoghurt – natural yoghurts are the best and aim for those with the most protein (so check the food label for more than 5g per 100g). Add in real fruit, nuts, oats or seeds if plain natural yoghurt isn't to your liking.
- Wholegrain bread or crisp breads – keep a jar of nut butter at work, in your locker or desk drawer to add to these.
- Wholegrain cereals kept at work or in containers in your bag – oats, muesli, bran based etc.
- Boiled eggs
- Canned Tuna
- Beans on wholegrain toast
- Keep hydrated – are you hungry or actually thirsty for water? Aim for 1.5 litres or more per day, evenly spread through the day. A 3–4% drop in hydration can cause a 20% reduction in physical and mental performance.

### **2. Take the time to learn how to prepare and cook healthy meals in preparation for the week ahead.**

- Strive to develop good habits around planning your meals and organisation to avoid the 'I have nothing to make so eating out seems the best option right now'.
- To get your vegetable intake up have a try squeezing them in to established meals you and your family like or as substitutes for other foods. For example spinach in a smoothie, lentils and veggies in bolognaise sauces or carrots as crackers.
- Going for wholegrain and higher fibre choices every time in breads, pasta, rice and grains to feel fuller longer and aid digestion. These foods take longer to digest, make us fuller for longer and are higher in fibre content which helps our body get rid of waste more effectively.
- Get plenty of colours on your plate. Richly coloured foods contain higher levels of antioxidants.

### **3. Better take-away options when you need them**

When you do have to fall back on takeaway when at work or before/ after work try and pick a healthier option.

Some ideas are:

- Vietnamese rice paper rolls.
- Sushi with lean meat and veggies.
- Plain burgers – ditching the bacon or deep fried onion, instead with lots of salad.
- Wraps – seared or grilled meats with plenty of veggies.
- Sandwiches – on grain or wholemeal bread with seared or grilled meats with plenty of veggies.
- Salads – add protein such as meat, nuts or beans.

Avoid the Meal Deal with chips and a soft drink, instead if you need more, order more of the healthier option or a side salad, corn cob, fruit, yogurt and opt for plain water.

Keep an eye on non-hungry eating – that eating that has nothing to do with physiological hunger:

- Procrastination/boredom.
- Emotional (sad/happy/angry/mad).
- Reward (I deserve it).
- Because someone else is eating.
- Eat everything on the plate (20-30% more than we need).
- Because I feel like food (there is a big difference between physiological hunger and just feeling like food).

All three pillars are strongly linked and feed off each other

- If you're sleeping and recovering well, your cortisol levels will be lower – reducing cravings for junk food.
- By eating well, our body has the energy and nutrients it needs to exercise and function at its greatest capacity in waking hours.

## What You Can Do: Habit Formation

In all three pillars good intentions and motivation (positive or negative) will get you going for a while but forming habits leads to long term changes.

The most crucial element to developing new habits is valuing making changes. If you do not value making a change, it will most likely not stick and become a habit.

It's important to realise that values are different to goals. Goals are something that can be completed, achieved or ticked off whereas values are our overarching principles that guide and motivate us throughout life. Values provide ongoing meaning and purpose and are the direction we want to keep moving that never ends. Goals are just landmarks along the way that are connected to our values.

The last piece of the puzzle are habits – those regular actions we perform sometimes every day, almost without thinking, that can either help us achieve our goals and help us live a life that aligns with our values, or the complete opposite.

To get an idea of your likeliness to adopt and sustain changes which become good habits, the *Stages of Behaviour Change* model is useful.

To get an idea of what phase you are in for the pillars of health and wellbeing use the statements below as guide:

- As far as I'm concerned my [sleep/physical activity/nutrition] habits don't need changing or I know I should improve my [sleep/physical activity/nutrition] habits but I don't intend to. Is this you? If so you're in the Precontemplation Stage.
- I'm seriously intending to improve my [sleep/physical activity/nutrition] habits in the next 6 months. = Contemplation Stage.

- I have definite plans to improve my [sleep/physical activity/nutrition] habits in the next month. = Preparation Stage.
- I am doing something to improve my [sleep/physical activity/nutrition] habits. = Action Stage.
- I took action more than 6 months ago to change my [sleep/physical activity/nutrition] habits and I'm working hard to maintain this change. = Maintenance Stage.

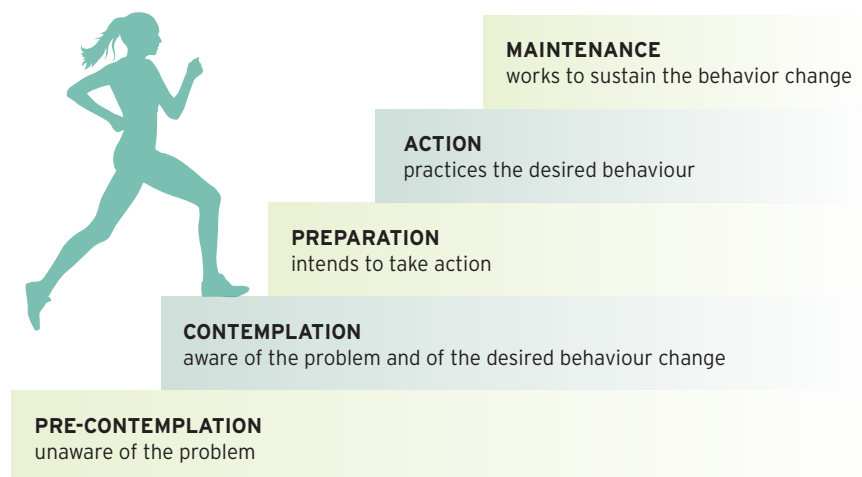
Source: Lacey and Street BioPsychoSocial Medicine (2017) 11:30. Measuring healthy behaviours using the stages of change model: an investigation into the physical activity and nutrition behaviours of Australian miners.

People in the Maintenance Phase have generally sustained changes long enough to develop habits. Nice work!

People in the Action phase have made change and are sticking to it. Generally speaking if you can maintain an action for 12 weeks, you're on the way to making it a lasting habit.

When in Preparation and Contemplation Phases, people have yet to take action and make changes to their health and wellbeing, but are planning to do so. If you're in this group – focus on the positive action you are going to take for your health and wellbeing. Why do you want to take action? Is the result of action or inaction something you care about? What will the 'view from the top' look like? Using this visualisation of the habits you've got and the outcome can be helpful to make and sustain change.

And for those in the Precontemplation Stage, your focus needs to be on awareness. Understanding what good health and wellbeing really is and how your health and wellbeing is tracking. If you understand what is positive health and wellbeing is and you're tracking well in this – great work. But in most cases, there is always something that if we make some changes in, we will see a positive effect to our lives.



## THE STAGES OF BEHAVIOR CHANGE

Source: <https://images.app.goo.gl/634wTELUz2jK5Wuo7>

Understanding the science, recommendations, influences, how you are tracking and then making and sustaining changes to your sleep, physical activity and nutrition provides the greatest defence against the physical and mental challenges of being an emergency services workers

By taking positive action and regaining control within the 3 pillars, you can not only defend yourself, but also thrive with better physical and mental health and wellbeing allowing you to be the best version of yourself.





# PHYSICAL ACTIVITY PLANNER

As discussed in Your Defence System the type of physical activity you do is not as important as how often you just get moving. The best recommendation is physical activity for 30 minutes per day, all 7 days of the week. For the greatest chance of success and to form good habits start with a plan for your next week.

Before we begin the plan, place here (and on each weeks plan) why you want to find your 30 minutes per day. Some ideas to get you going are "I feel like a disciplined and in control person when I ensure I do my 30", "When I achieve this my sleep, mood and clarity are all so much better" or "I value being a great parent and when I find my 30 per day, I feel up to playing with the kids".

My why: .....  
.....  
.....

As you approach the end of the week, plan your next 7 days.

- Where were the pressure points on getting your 30 in?
- What have you got coming up this week that might get in the way?
- What did you enjoy and how can you plan more of that?

**HAVE A PLAN.**

**COMMIT TO THE PLAN.**

**KEEP PLANNING THE WEEK AHEAD FOR AT LEAST 8-12 WEEKS.**



	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
On each of these days what time will you do your 30?							
What physical activity are you going to do in this 30?							
What are the threats to this 30 minute window?							
If one of these threats take this 30 minute window away, what time is your fallback 30?							
Mark off at the end of the day – did you do your 30? If you didn't achieve it, where in the rest of the plan are you going to make it up?							

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## Additional Resources

- AT & DPFEM have a world leading proactive health and wellbeing program, MyPulse. MyPulse helps you increase your awareness of your health and wellbeing and supports you to make changes. Visit [www.mypulse.com.au](http://www.mypulse.com.au) for more information.
- AT & DPFEMs Wellbeing Support provides a range of both proactive and reactive services. For more information on the services available please contact any of the below Wellbeing Support numbers. Wellbeing Support is available 24 hours.

Wellbeing Support offices are located at:

- Level 5/111 Macquarie Street, Hobart
- Level 2, Henty House, 1 Civic Square, Launceston
- Cradle Coast Health Centre, 11 Alexandra Road, Ulverstone

Prepared in partnership with



To learn more or get in touch visit [www.follaine.com.au](http://www.follaine.com.au)

## Wellbeing SUPPORT

Wellbeing Support Officers are available to all Ambulance Tasmania and DPFEM members and their immediate family, 24/7:

**SOUTH** 0429 453 689  
0436 800 604

**NORTH** 0436 812 038

**NORTH WEST** 0419 126 551

Wellbeing Support Officers can assist with referrals for:

- Counselling
- Psychological support
- Transition pathways (e.g. to retirement, a new role)
- Drug and/or alcohol counselling
- Grief and loss counselling
- Accident, illness or hospitalisation
- Work related difficulties
- Relationship support
- Return to work planning and assistance

## CISM Critical Incident Stress Management

Tasmanian Emergency Services

CISM Peers are available 24/7 to all Tasmanian emergency services workers, both career and volunteer.

For 24/7 on scene\* support and urgent notifications:

**24 HOUR CONTACT 0427 181 207**

**[manager@cism.tas.gov.au](mailto:manager@cism.tas.gov.au)**

**[cism.tas.gov.au](http://cism.tas.gov.au)**

CISM Peers provide assistance, advice and referral to emergency services workers who have been exposed to traumatic incidents. The CISM Program also offers the following services:

- Assessment (phone contact by a peer)
- On scene\* support
- Defusing
- Debriefing - Group
- Debriefing - Individual
- Follow-up Assistance
- Advice to Partners, Families and Friends
- Education and Information Sessions

\*On scene support may be either at the incident site, at a demobilisation point, or at a nearby station

## Wellbeing SUPPORT



AT & DPFEM

GPO Box 308, Hobart TAS 7001  
Level 5, 111 Macquarie St, Hobart TAS 7000  
P (03) 6173 2188

E [wellbeing@dpfem.tas.gov.au](mailto:wellbeing@dpfem.tas.gov.au)  
2021

## GET HELP NOW

You can access a range of confidential services, which are designed specifically for the Tasmanian emergency services community from Wellbeing Support.

**Ambulance Tasmania Peer Support** 6166 1994

**CISM** 0427 181 207 | [manager@cism.tas.gov.au](mailto:manager@cism.tas.gov.au)

**Wellbeing Support Psychological Services**

Phone (office hours) 6173 2188 | [wellbeing@dpfem.tas.gov.au](mailto:wellbeing@dpfem.tas.gov.au)

**Wellbeing Support Officers:**

**South** 0429 453 689 or 0436 800 604 **North** 0436 812 038 **North West** 0419 126 551

Further general information is available at [mypulse.com.au](http://mypulse.com.au)

Printed fact sheets are available from [wellbeing@dpfem.tas.gov.au](mailto:wellbeing@dpfem.tas.gov.au)