

PERMA+

Positive emotion, Engagement, Relationships,
Meaning and Accomplishment +
Optimism, Physical Activity, Nutrition and Sleep





The Wellbeing and Resilience Centre, SAHMRI

Overview

Professor Martin Seligman, so-called *father* of positive psychology, former head of the American Psychological Association and noted academic and global publisher, was Adelaide's Thinker in Residence from 2012-3. His residency addressed the following questions:

Can the science of positive psychology be used to prevent mental illness, which affects one in five Australians and one in four young Australians every year?

Is it possible to take a public health approach using the science of positive psychology to improve the mental wellbeing and resilience of every citizen in South Australia?

After a mighty 2-year process involving 14 powerful collaborators and 14,000 people at events and meetings, Professor Seligman made a number of recommendations to South Australia, in a bold proposition to create new global knowledge about building wellbeing in society at scale and creating a flourishing community.

1. Position South Australia as the State of Wellbeing;
2. Measure the wellbeing of all South Australians; and
3. Teach, build and embed wellbeing science in South Australia.

Efforts have been made in France, UK, OECD, and the United Nations to measure wellbeing and life satisfaction but South Australia will be the first political entity to attempt a society-wide implementation of wellbeing measurement, interventions and research initiatives, promoted and managed by the newly launched *Wellbeing and Resilience Centre* at the South Australian Health and Medical Research Institute (SAHMRI).

Nested within in the Mind and Brain theme, led by internationally renowned psychiatrist Professor Julio Licinio, at SAHMRI, the Wellbeing and Resilience Centre aims to decrease mental illness by building mental health assets at scale, and moving the population curve from mental illness towards mental health. In the Australian society in which one in four people suffer from mental illness, with numbers for severe illness, higher in the regions, a population approach to improving mental health will be of great value.

Wellbeing is not a one-dimensional idea but a multifaceted construct composed of different elements relating to both physical and mental health, as well as social determinants of health. Following consultation with academic leaders in the measurement of wellbeing, the Wellbeing and Resilience Centre is using the framework of **PERMA+** to provide a robust picture of individual and societal wellbeing.

**PERMA+ is Professor Seligman's Wellbeing Framework (Positive Emotion, Engagement, Relationships, Meaning, and Accomplishment)
PLUS Physical Activity, Nutrition, Sleep and Optimism**

PERMA+ is memorable; it can be communicated to large numbers of people easily and carries with it the easy-to-understand capacity to build individual wellbeing. Once understood, the word PERMA+ becomes a vehicle for positive preventative action – in the same way that *Slip Slop Slap* has become an instantly recognisable slogan.

The power of this public health wellbeing and resilience proposition is the development of new knowledge about scale impact, in order to share this capability nationally and globally.

For South Australia and Australia, this bold mission will have big impact. It will lead to long-term internationally relevant published research findings. It will support an influx of international students learning about positive psychology within the first integrated university and vocational education platform.

Each of the major projects financed so far work across the life course in education, aged populations, disadvantaged young people and auto-manufacturing industry workers facing redundancy. The consistent evidenced-based project methodology is to:

- **LEAD** by building wellbeing at scale and creating a common language and shared understanding of wellbeing and resilience;
- **MEASURE** the wellbeing of individuals and groups using PERMA+ through an automated online tool and evaluate results against an evidenced based research evaluation framework;
- **BUILD AND EMBED** wellbeing and resilience by training leaders in the delivery of skills and interventions to organisations and the community; and
- **RESEARCH** generate and publish research on how to build wellbeing efficiently, at scale, across the life course.

Resilience Train the Trainer Course

Building wellbeing and resilience in an organisation or group requires individuals to be exposed to the facts about and knowledge of positive psychology and other skills.

The Wellbeing and Resilience Centre takes a “train-the-trainer” approach to delivering interventions, using globally leading companies to train wellbeing leaders and “champions” within different organisations and settings.

Resilience Training (a train-the-trainer approach to delivery of skills and knowledge) is a pillar of the US Army’s successful *Comprehensive Soldier Fitness* program, which has been running for six years. We are working with US company TechWerks, consisting of US Army trainers, to deliver the training to participants while we build a skill base and capability in South Australia. TechWerks has extensive experience providing resilience training to military personnel and family members, and has partnered with academics from leading research institutions to implement the Army’s inaugural online resilience training modules for 1.1 million active duty soldiers.

Staff, or community representatives, are trained in a five-day training package delivered by TechWerks and the Wellbeing and Resilience Centre, whose programs are practical, backed by science, and designed to provide concrete skills that participants can begin using immediately.

This will equip the newly trained “Resilience Trainers” with content and facilitation methods to then deliver interventions to the whole workforce.

The newly trained Resilience Trainers deliver the wellbeing and resilience interventions to groups, ideally of around 10-20 staff at times to be determined by the business.

The Resilience Trainers will receive support and ongoing leadership development from the Wellbeing and Resilience Centre, which will continue to develop the capacities of these workplace leaders, through conferences and workshops.

In the five-day course, participants will learn skills designed to enhance resilience and wellbeing. Resilience – or the ability to withstand, recover, and grow in the face of stressors and changing demands – is not one specific skill; it is a set of resources and skills that promotes effective problem-solving, adaptability, positive coping, self regulation, and social support.

The skills focus on the components of PERMA+ (**P**ositive Emotion, **E**ngagement, **R**elationships, **M**eaning, and **A**ccomplishment **PLUS** Optimism, Physical Activity, Nutrition, and Sleep), which serve as the building blocks for wellbeing.

The course will focus on the research behind building resilience, interactive activities, and concrete research-based resilience building skills that participants can begin using immediately.

Skills include:

- Cultivating gratitude and realistic optimism
- Understanding that emotions and behaviours are triggered by how we interpret events
- Reframing your thinking to take purposeful action
- Understanding purpose and values
- Developing mindfulness
- Capitalising on strengths
- Active constructive responding
- Building social support during adversity and interpersonal problem solving
- Strengthening community connection

PERMA+

Professor Seligman, founder of positive psychology and former head of the American Psychological Association, proposed that South Australia systematically measure and build wellbeing in across the whole society to reduce the number of people experiencing catastrophic mental illness and to improve the resilience of the population in a rapidly changing world.

Wellbeing is not a one-dimensional idea but a multifaceted construct composed of several different elements. The SAHMRI Wellbeing and Resilience Centre incorporates the following elements to measure and build wellbeing, including Dr Martin Seligman's [PERMA dashboard](#)

- **Positive Emotion**
- **Engagement**
- **Relationships**
- **Meaning**
- **Accomplishment**

PLUS

- **Physical Activity**
- **Nutrition**
- **Sleep**
- **Optimism**

The PLUS constructs have been added in response to consultations with global experts in wellbeing measurement, who have indicated that this will provide a more comprehensive evaluation of individual and societal wellbeing.

Our proposition is that PERMA + can become as memorable in the community as 'SLIP, SLOP, SLAP' (a very successful, iconic skin cancer prevention strategy in Australia.)

PERMA+ carries within its framework concepts for individual action to build wellbeing. The use of PERMA + Positive Emotion, Engagement, Relationships, Meaning and Accomplishment PLUS Optimism, Resilience, Physical Activity, Nutrition and Sleep, as a public health message for all citizens, will become the clarion call for a mentally healthy society in Australia.

"A measure of PERMA plus the trinity of physical health - physical, activity, nutrition and sleep - plus optimism builds resilience in people. PERMA plus optimism supports the "bounce back" from adversity that everybody needs to cope with normal life, let alone highly challenging events."

— Brigadier General (ret) Dr. Rhonda Cornum

Positive Emotion (P) (including Optimism)

The first element of PERMA is **positive emotion**.

Positive emotion is more than just 'happiness'. There are a range of positive emotions, including amusement, hope, interest, joy, love, compassion, gratitude, and pride. Part of our capacity for experiencing positive emotions is genetic, but all of us have the ability to purposefully experience more positive emotion.

Professor Barbara Fredrickson is a pioneer in the research of positive emotions. She believes that positive emotions are an indicator of flourishing, and that they can be cultivated to improve wellbeing over time (Fredrickson, B.L., 2001).

Fredrickson's Broaden and Build Theory says that positive emotions such as joy, interest, contentment, love and pride can broaden, or increase, our thoughts and actions. By exploring, savouring, integrating or visualising future success, positive emotions can broaden our habitual ways of thinking or acting to deliver a better result or feelings about life.

Research findings on positive emotion

- Increased positive emotion can build physical, intellectual, social and psychological resources (B. L. Fredrickson, Tugade, Waugh, & Larkin, 2003).
- Leaders who are seen as more positive tend to have followers who are more positive (Avey, Avolio, & Luthans, 2011).
- Positive emotions can undo the effects of negative emotions (Garland et al., 2010); and promote resilience (Tugade & Fredrickson, 2004).
- Positive emotional styles can help prevent and speed-up recovery from illness, including the common cold (Sheldon, Cohen, Doyle, Turner, Alper, & Skoner, 2003), and stress and heart disease (B. L. Fredrickson & Levenson, 1998).
- Positive emotions can predict a longer life-span (Danner, Snowdon, & Friesen, 2001; Levy, Slade, Kunkel, & Kasl, 2002; Xu & Roberts, 2010).
- Positive emotions can broaden cognition and help people be accepting of a greater variety of behaviours (Isen, 1993).
- Increases in positive emotions are shown to have a more significant impact on employee wellbeing and a range of other people and performance-related outcomes, than a comparable reduction in levels of employee negative emotions (Cotton & Hart, 2003; Hart, Caballero & Cooper, 2010).

You can build positive emotion by:

- Take time to find things you are grateful for in your life and reflect on what is going well and how you have contributed to those situations. This practice will build more positive emotion
- Spending time with people that you care about
- Doing activities that you enjoy, such as hobbies or pastimes
- Play with your children, your pets or your friends
- Listening to uplifting music that you love
- Exercising. It can help raise your levels of positive emotions, as well as keep you healthy

Optimism is a form of positive emotion and is critical to building resilience.

Optimism is the belief that one will generally experience good outcomes in life (Scheier & Carver, 1992). Optimism People who are optimistic are more likely to be resilient to stressful life events (Carver, Scheier & Segerstrom, 2010).

People who are optimistic experience a range of physical and psychological wellbeing benefits and research highlights that:

- Optimism helps people during times of adversity and has been linked to improved post-operative outcomes, reduced post-natal depression and better readjustment to college life (Scheier & Carver, 1992)
- Optimistic carers experienced less depression and less adverse impacts of caregiving on their physical health (Carver, Scheier & Segerstrom, 2010)
- According to the results of a Dutch study, more optimistic people live longer (Giltay et al, 2004)
- Life insurance sales people who were more optimistic salesmen sold more life insurance than less optimistic ones and were less likely to quit their job (Seligman and Schulman, 1986)
- Young men who had a more pessimistic explanatory style were more likely to experience physical illness in later life (Peterson, Seligman & Vaillant, 1988)



Engagement (E)

The second component of PERMA, is **engagement**.

Engagement means “being one with the music, time stopping, and the loss of self-consciousness during an absorbing activity” (Seligman, 2012).

When we are engaged in things that we love doing, we lose track of time. We are living in the present moment and entirely focused on the task at hand. In positive psychology, this is referred to as ‘flow’. During flow experiences, we are so intensely focused on what we are doing that time seems to stop.

The leading researcher in this field is Professor Mihaly Csikszentmihalyi. He says that we experience flow when our greatest strengths correspond to the challenges that we face. Flow is achieved when you have the combination of a challenging task and the opportunity to use your skills/strengths (Csikszentmihalyi, 1997).

People are more likely and able to experience flow when they are using their top character strengths. Knowing and employing your strengths contributes to wellbeing. Professor Chris Peterson and Professor Martin Seligman believe that there are 24 universal human strengths (Peterson, Seligman, 2004)

Research findings on engagement

- Individuals who tried using their strengths in new ways each day for a week were happier and less depressed six months later (Seligman, Steen, Park, & Peterson, 2005).
- People who reported using their strengths also reported more positive emotion, and greater vitality and self-esteem, compared with people who did not feel they used their strengths (Wood, Linley, Maltby, Kashdan, & Hurling, 2011).
- Use of character strengths contributes positively to both physical and mental wellbeing (Proctor, Maltby, & Linley, 2011).
- Employees who have the opportunity to do what they do best every day is the single best predictor of employee engagement (Harter, Schmidt, & Keyes, 2003).
- Engaged employees are significantly happier, have lower levels of stress and are less likely to be diagnosed with depression than those who are disengaged (Rath, Harter, & Harter, 2010).

How to build engagement

- Engage in activities that you really love, where you lose track of time
- Learn mindfulness techniques, such as meditation, yoga or tai chi
- As you go about your daily activities, take the time to savour every moment
- Appreciate being in the ‘now’ and be aware of how you use your time
- Spend time in nature, watching, listening, and observing what happens around you
- Identify and learn about your character strengths



Relationships (R)

The next element of PERMA is **relationships**.

Relationships refer to the many different interactions you have with others: your partner, friends, family, boss, colleagues, children and/or your community. Relationships refer to feeling loved, supported, and valued by others. We are inherently social creatures and positive relationships have a significant impact on our wellbeing.” (Seligman, 2012).

Our relationships at work can have just as much impact on our physical and psychological health as our personal relationships. Workers who had a poor relationship with their boss were found to have a 25% higher risk of heart problems – and this risk increased the longer the employee had worked for that manager (Rath, T., J. Harter, J.K. Harter, 2010).

Building better relationships with colleagues, friends and family is something that most of us aspire to. One of the leading researchers in this field, Shelly Gable, says that sharing good news or celebrating success with other people has been found to foster positive social interactions, thus enhancing relationships.

Gable’s research found that, in close relationships where partners respond to each other enthusiastically, people have higher wellbeing including greater intimacy and marital satisfaction (Gable, et al, 2004). Gable refers to this as active-constructive responding which is a skill that all of us can learn.

Research findings on relationships

- The social environment can play an important role in protecting against cognitive decline in older age (Seeman, Lusignolo, Albert & Berkman, 2001) and having strong social networks contributes to better health outcomes for older people (Huxhold, Fiori & Windsor, 2013).
- People with significant mental illness report that the support of family and friends was the most important factor in aiding their recovery (S. Cohen, 2005).
- Successful workgroups are more likely when employees are friends with their colleagues (Harter et al., 2003).
- Happiness is contagious - people who are surrounded by happy people are also more likely to be happy (Fowler & Christakis, 2008).

How to build relationships

- Make new friends by joining a class or a group
- Ask questions of the people you don’t know well to find out more about them, their family, interests, hobbies etc
- Find someone at work that you can be friends with
- Get in touch with people you’ve not spoken to for a while, like a relative who lives in a different city or town



Meaning (M)

The fourth element in PERMA is **meaning**.

To have a sense of meaning, we need to feel that what we do is valuable and worthwhile. This involves belonging to and/or serving something that we believe is greater than ourselves (Seligman, 2012). The search for meaning is an intrinsic human quality.

Discovering our true self has been the subject of philosophers, academics, artists and poets for millennia. The closer we get to being our ‘true self’, the closer we are to our source of meaning (Schlegel, et al, 2009). Having a broader purpose in life helps us to focus on what is really important when we are faced with a significant challenge or adversity in our life.

Having meaning in your life, or working towards a greater purpose, is different for everybody. This may be pursued through your profession, a cause you are passionate about (such as an environmental group), a creative pursuit, a political cause, or a religious or spiritual belief. Many people seek meaning and purpose through the work that they do. For others, their sense of meaning may not be found in what they do for a living, but what they do in their spare time. That may include volunteering for a community group, raising money for a charity, lobbying for cause, umpiring their child’s sporting team or spending time with their family. For most people, their sense of meaning is strongly related to their personal values.

Research findings on meaning

- People who have purpose in their lives have greater longevity and life satisfaction and fewer health problems (Kashdan & McKnight, 2009).
- A sense of belonging to something bigger than oneself is an important element of employee engagement (Baumeister & Leary, 1995), while employees who can link their work to a larger purpose of the organisation they work for are likely to have greater levels of interest (Wrzesniewski et al., 1997)
- People who are more optimistic are more likely to experience personal growth following adversity (Joseph & Linley, 2005) and a strong sense of meaning can also help to facilitate post-traumatic growth’ (Boniwell, 2008).
- People who can identify a positive ending and a sense of closure from a difficult event have better subjective wellbeing outcomes (Pals, 2006) and those who find meaning after a negative life event are better able to return to positive levels of functioning (King, Hicks, Krull & Del Gaiso, 2006).
- Bereaved adults who had a sense of meaning were better psychologically adjusted than adults who reported no meaning (Tavernier & Willoughby, 2012).

How to build meaning

- Become involved in a cause or organisation that matters to you
- Spend time with people you really care about
- Review your strengths. What are you really good at or really passionate about? Think about how you could apply these to your life
- Be authentic – embrace the real ‘you’



Accomplishment (A)

The fifth element of the PERMA acronym is **accomplishment**, also known as achievement, mastery, or competence.

Having a sense of accomplishment means that we have worked towards and reached our goals, achieved mastery over an endeavour, and had the self-motivation to complete what we set out to do. Accomplishment contributes to our wellbeing when we are able to look back on our lives with a sense of achievement and say ‘I did it, and I did it well’ (Seligman, 2012).

The researcher Angela Duckworth introduced the concept of ‘grit’. Grit is defined as ‘perseverance and passion for long-term goals’ (Duckworth, et al., 2007).

People who exhibit ‘grit’ don’t just finish what they started, they persevere at their goals over time. Having perseverance and not giving up in the face of adversity or setbacks illustrates the success stories of many famous people including:

Albert Einstein, whose parents and teachers thought he had an intellectual disability

J.K Rowling, the author of the Harry Potter books, was a divorced, single mother living in public housing before becoming one of the greatest publishing success stories.

Michael Jordan, the NBA basketball star, who was kicked off his high school team for lacking talent. He has been quoted as saying “I have failed over and over and over again in my life. And that is why I succeed.”

Research findings on accomplishment

- Achieving goals has been found to enhance wellbeing over time (Brunstein, 1993)
- Individuals who exhibit conscientiousness (demonstrated by a strong sense of purpose, obligation and persistence) have better job performance than those who don’t (Barrick & Mount, 1991).
- People who have a more pessimistic explanatory style (“It’s my fault I failed”, “Nothing I do goes right”) are more likely to give up (Seligman & Schulman, 1986).
- Those who pursue goals that match their personal values and interests are more likely to attain those goals (Sheldon & Houser-Marko, 2001).
- Achieving intrinsic goals (relating to growth and connection, rather than money and status), produces larger gains in well-being (Sheldon 2004).

How to build accomplishment

- Set yourself achievable goals – remember SMART goals (Systematic, Measureable, Achievable, Realistic and Timebound)
- Goals don’t have to be big. Learning how to do a Sudoku puzzle could be enough!
- What strengths have you used to succeed in the past? Can they help you again?
- Look for ways to celebrate your achievements - with yourself as well as with others
- If at first you don’t succeed, try again!



Physical Activity

In addition to the subjective elements of wellbeing that are measured using the PERMA framework (positive emotion, engagement, relationships, meaning and accomplishment), research has shown that objective elements of wellbeing are equally as important. We generally cannot have good overall psychological wellbeing if we are neglecting our physical health.

Research shows that there is a link between wellbeing and physical health. People who are suffering from mental illness are more likely to be physically inactive, which is a risk factor for chronic heart disease (Burton, Pakenham, Brown, 2009).

Negative emotions are also associated with an increased risk of disease through poor health habits, such as physical inactivity, smoking and alcohol consumption (Chesney, 2009). In addition, people who are more psychologically resilient are less likely to be obese (Stewart-Knox, et al., 2012).

How to increase your physical activity

The National Physical Activity Guidelines ask us to think of movement as an opportunity for improving health, not an inconvenience.

As society has modernised, we have reduced our opportunities to move more and more. These decreases in activity have significant consequences for our wellbeing and have been associated with an increase in obesity and other health problems.

It is important to try and be active every day in as many ways as possible. Small increases in daily activity can come from small changes carried out throughout the day. For example, making a habit of walking or cycling instead of driving or riding in a car; doing some gardening; walking up stairs instead of using the lift or an escalator; and/or doing things by hand instead of using labour-saving machines. All these things can add to the level of daily physical activity.

Research findings on physical activity

It is important to remember that some activity is better than none, and more is better than a little.

- People who are suffering from mental illness are more likely to be physically inactive, which is a risk factor for chronic heart disease (Burton, Pakenham & Brown, 2009).
- Negative emotions are also associated with an increased risk of disease through poor health habits, such as physical inactivity, smoking and alcohol consumption (Chesney et al., 2005).
- People who are more psychologically resilient are less likely to be obese (Stewart-Knox et al., 2012).

PHYSICAL ACTIVITY AND SEDENTARY BEHAVIOUR GUIDELINES FOR ADULTS (18-64) (from the Australian Department of Health)

Sedentary Behaviour is ...

Sitting or lying down (except for when you are sleeping). It is common to spend large amounts of time being sedentary when at work, travelling or during leisure time.

Break up long periods of sitting as often as possible.

Physical Activity is ...

Any activity that gets your body moving, makes your breathing become quicker and your heart beat faster. You can be physically active in many different ways, at any time of the day. Be active on most, preferably all, days every week.

Each week:

- 150 minutes (2.5 hours) of moderate intensity physical activity, **or** 75 minutes (1.25 hours) of vigorous intensity physical activity, will help improve blood pressure, cholesterol, heart health, as well as muscle and bone strength.

Each week, increasing to:

- 300 minutes (5 hours) of moderate intensity physical activity, or 150 minutes (2.5 hours) of vigorous intensity physical activity, will provide greater benefit and help to prevent cancer and unhealthy weight gain.

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

Moderate Intensity Activities

Take some effort, but you are still able to talk while doing them.

- Recreational swimming
- Dancing
- Social Tennis
- Golf
- Household tasks like cleaning windows or raking leaves
- Pushing a stroller

Vigorous Intensity Activities

Require more effort and make you breathe harder and faster (huff and puff).

- Jogging
- Aerobics
- Fast cycling
- Many organised sports
- Tasks that involve lifting, carrying or digging

Muscle Strengthening Activities

Maintain your ability to do everyday tasks.

- Body weight exercises, like push-ups, squats or lunges
- Tasks around the house that involve lifting, carrying or digging
- Weights or other resistance training



Nutrition

“You are what you eat” is a popular saying... and it is true. Besides putting people at risk of major health issues such as diabetes or heart disease, being obese is also linked to depression, low self-esteem and low social confidence (Tiffin et al, 2011). Research has also found that the behavioural risk factor most consistently associated with poor mental health was low fruit and vegetable consumption (Stranges et al., 2014).

What are the recommended servings?

For adults, the government recommends the following average daily number of serves from each of the five food groups*.

Life Stage/ Age	Vegetables & legumes/ beans	Fruit	Grain (cereal) foods, mostly wholegrain	Lean meat and poultry, fish, eggs, nuts & seeds, & legumes/ beans	Milk, yoghurt, cheese &/or alternatives (mostly reduced fat)
Men (serves)					
19-50	6	2	6	3	2.5
51-70	5.5	2	6	2.5	2.5
70+	5	2	4.5	2.5	3.5
Women (serves)					
19-50	5	2	6	2.5	2.5
51-70	5	2	4	2	4
70+	5	2	3	2	4
Pregnant	5	2	8.5	3.5	2.5
Lactating	7.5	2	9	2.5	2.5

**Includes an allowance for unsaturated spreads or oils, nuts or seeds (4 serves [28-40g] per day for men less than 70 years of age; 2 serves [14-20g] per day for women and older men.)*

These guidelines are meant as general information only. For dietary guidelines specific to your circumstances, please consult your doctor or pharmacist.

Further information may also be found on the Department of Health website at <http://www.eatforhealth.gov.au>.

FURTHER NUTRITIONAL INFORMATION

The CSIRO Healthy Diet Score is a free online tool that assesses your diet against the Australian guidelines. It can be accessed at:

<http://www.csiro.au/en/Research/Health/CSIRO-diets/CSIRO-Healthy-Diet-Score>

You can also calculate your energy needs at the government's Eat for Health website:

<http://www.eatforhealth.gov.au/eat-health-calculators>



Sleep

The final physical element that is important for overall wellbeing is sleep. Lack of sleep is associated with disruptions in mood, thinking, concentration, memory, learning, vigilance and reaction times (Hillman & Lack, 2013). Sleep is considered an important diagnostic criteria for depression, while people who are good sleepers report better quality of life than those who suffer from insomnia (Nes et al., 2005).

The following facts about sleep come from the *Sleep Health Foundation*.

- 1. Sleep need varies.** Different people need different amounts of sleep. Eight and a quarter hours is the average for adults. Some people can cope very well with much less and some need much more every night.
- 2. Sleep is an active state.** We used to think that everything shuts down when we sleep. But over the last 60 years scientists have discovered that our brains are very active while we sleep. In fact, some parts of the brain use more oxygen and glucose while asleep than when awake.
- 3. Deep sleep happens first.** The first three hours of sleep have the deepest stages of sleep (Slow Wave Sleep). Later on in the night we have more of the sleep stage with vivid dreams (Rapid Eye Movement Sleep, REM sleep).
- 4. Sleep changes in cycles.** Sleep changes across the night in cycles of about 90 minutes. There is REM (dreaming) sleep in every cycle, even if only for a short time. We also have very brief arousals many times across the night. We are not aware of most of these arousals and we forget most dreams.
- 5. A body clock affects our tiredness.** The timing of our need for sleep is based on two things. The first is how long we have been awake. The second is our body clock. If we stay awake all night we will feel more tired at 4am than at 10am. Scientists call the time between 3am and 5am the 'dead zone'. It's when our body clock makes us 'dead' tired.
- 6. Falling asleep can be hard.** You cannot make yourself fall asleep – just like you can't digest your food faster. Sleep onset is not something we can control. We can only create the right conditions for sleep – both in our minds and in our environment.
- 7. Lack of sleep can bring you down.** Some people cope with a lack of sleep much better than others. But people who are very sleepy lose concentration easily and experience mood changes, such as feeling more depressed and irritable.

How much sleep do I need?

- It is recommended that adults get between 7 to 9 hours of sleep per night.
- However, for some people, their normal sleeping pattern may be around 5-6 hours per night.
- It is not recommended that adults sleep less than 6 hours or more than 10 hours per night.

If you experience any problems with your sleep, or would like more advice on your sleeping patterns, please contact your doctor or pharmacist.

Further information may be found on the Sleep Health Foundation website at

IMPORTANT THINGS TO KNOW ABOUT GOOD SLEEP HABITS (from the Sleep Health Foundation)

- There are many things that can be done to have a better night's sleep
- It is not good to frequently change the times you go to bed and get up
- The hour before going to bed should be used to wind down and do more relaxing things
- Meals should be timed to avoid going to bed on a full stomach, but not hungry either
- If you are not asleep after 20 minutes in bed, go to another room until you feel tired again and then go back to bed
- Many poor sleepers spend too long in bed
- Don't have things in the bedroom that distract you from sleep
- Getting sunlight during the day will help you to sleep better at night
- Most adults need 7-9 hours of sleep a day. This stays the same even in old age
- Naps in the evening can make it hard to sleep at night

<http://www.sleephealthfoundation.org.au/>.



What is Resilience?

Resilience is, simply put, a person's ability to effectively cope with, adjust, or recover from stress or adversity (Burton, Pakenham, Brown, 2010).

Everybody has different levels of psychological resilience and some people cope better than others when faced with setbacks – what affects one person may have little impact on another. Similarly, people can demonstrate resilience in their personal lives, but be less resilient in an organisational setting, or vice versa. A manager may be able to calmly deal with his or her three-year old's tantrums but, explodes with anger when faced with conflict in the workplace.

Being resilient doesn't mean you won't experience adversity, but having resilience can buffer the adverse effects of stressful life events. Individuals who use a broader range of coping strategies experience less distress from stressful life events.

While genetics do have some influence in the development of wellbeing and psychological resilience (Huppert, 2009) the good news is that resilience can be built.

Resilience is not one specific skill, but a set of resources and skills that promote:

- effective problem-solving;
- adaptability;
- positive coping;
- self-regulation; and
- social support.

Research has shown that learning new skills—and practicing those skills—can increase resilience. In particular, focusing on positive coping skills, self-regulation, and social connections can build our resilience.

Research findings on resilience

- When faced with adversity, people with low resilience are at risk of depression, stress, anxiety and interpersonal difficulties, and may adopt health compromising behaviours and experience somatic complaints and poor physical health (Burton, Pakenham & Brown, 2010)
- Strong infant-mother bonding is an important protective factor for building resilience in children (Huppert, 2009).
- Higher resilience has been associated with greater job satisfaction, work happiness and organisational commitment (Youssef & Luthans, 2007).
- Face-to-face resilience training in government organisations has been found to improve an employee's self-esteem, sense of control over life events, sense of purpose in life and interpersonal relations (Waite & Richardson, 2004).

