



# THE FACTS ABOUT EXERCISE

## EXERCISING WELL

- Sedentary behaviour is associated with poorer mental health and evidence suggests that increased levels of exercise can positively impact on mood and general wellbeing.

## AUSTRALIA'S PHYSICAL ACTIVITY AND SEDENTARY BEHAVIOUR GUIDELINES FOR YOUNG PEOPLE (13-17 YEAR OLDS)

Being active is important for everyone. Keeping physically active and limiting sedentary behaviour is not always a priority for young people, but it is important. These guidelines are for all young people, irrespective of cultural background, gender or ability.

### Physical activity guidelines

- For health benefits young people aged 13-17 years should accumulate at least 60 minutes of moderate to vigorous intensity physical activity every day.
- Young peoples' physical activity should include a variety of aerobic activities, including some high intensity activity.
- On at least three days per week young people should engage in activities that strengthen muscle and bone.
- To achieve additional health benefits young people should engage in more activity - up to several hours per day.

### Sedentary behaviour guidelines

- To reduce health risks, young people aged 13-17 years should minimise the time they spend being sedentary every day.
- Limit use of electronic media for entertainment (e.g. television, seated electronic games and computer use) to no more than two hours a day - lower levels are associated with reduced health risks.
- Break up long periods of sitting as often as possible.

## EXERCISE AND THE BRAIN

Research suggests that regular exercise may increase the level of brain serotonin, a neurotransmitter involved in regulating mood, sleep, libido, appetite and other functions.

Exercise can also increase the level of endorphins in the brain which have 'mood-lifting' properties.



## REGULAR EXERCISE MAY ALLEVIATE SYMPTOMS OF DEPRESSION BY:

- Increasing energy levels
- Improving sleep
- Distracting from worries and rumination
- Providing social support and reducing loneliness if exercise is done with other people
- Increasing a sense of control and self-esteem, by allowing people to take an active role in their own wellbeing

M T W T H F

## THE EVIDENCE

- Numerous studies have shown that people who exercise regularly experience fewer symptoms of depression and anxiety than those who do not exercise regularly.
- Several trials have shown that regular exercise of moderate intensity can be an effective adjunctive treatment by itself for both melancholic and non-melancholic depression.
- Two trials have found that 16 weeks of regular exercise is equally effective as antidepressant medication in the treatment of mild to moderate depression.
- Research also suggests that exercise can further assist individuals with depression who have only partially responded to an antidepressant medication.
- Both aerobic exercise (e.g. brisk walking, cycling or jogging) and resistance or strength training (e.g. weight-lifting) have been found to be helpful in treating depression.
- Exercise interventions for children and young people show positive short-term effects on self-esteem.



*The make your move - Sit less - Be active for life!* brochure (PDF 401 KB) | HTML presents the guidelines and provides further information and advice about physical activity and sedentary behaviour (sitting) for young people.

### This fact sheet has been adapted from the following sources:

- *Physical Activity Guidelines for Young People Aged 13-17*, [health.gov.au/internet/main/publishing.nsf/Content/health-publth-strateg-phys-act-guidelines#apa1317](http://health.gov.au/internet/main/publishing.nsf/Content/health-publth-strateg-phys-act-guidelines#apa1317)
- *Exercise and Depression Fact Sheet*, The Black Dog Institute, [blackdoginstitute.org.au](http://blackdoginstitute.org.au)
- Parker et al, *The effectiveness of simple psychological and exercise interventions for high prevalence mental health problems in young people: a factorial randomised controlled trial*. *Trials* 2011, 12:76



# THE FACTS ABOUT DIET

## EATING WELL

- Good food is important in maintaining mental health as well as physical health. In general eating a nourishing diet can improve your overall sense of wellbeing.
- Eating well means having a wide variety of healthy foods including plenty of vegetables, fruit and cereals (like bread, rice and pasta), some lean meat, chicken or fish, dairy products (milk, yoghurt, cheese) and lots of water. It's a good idea to avoid fatty foods and foods with lots of sugar in them. Excessive dieting and over-exercising may put young people at risk of developing an eating disorder.

Teenage boys and girls aged 14 to 16 are eating only half the recommended serves of fruits and vegetables per day.  
*(2007 Australian National Children's Nutrition and Physical Activity survey)*



### FOOD AND MOOD

- There is evidence of a relationship between diet quality and emotional adjustment.
- Greater fruit and vegetable intake is associated with a lowered risk of depression and general distress.
- The association between diet quality and depression has been established over and above socioeconomic and family factors.



### FOOD AND THE BRAIN

While genes and environment play an important role in brain development, diet is another factor that influences the health of the brain. This is partly because much of the brain's structure is derived directly from food. So it is easy to see why what we eat will have a dramatic effect on our thoughts and feelings. Just as the products that we put into a car affect its performance, so the engine of our thoughts and feelings is designed to work most effectively when certain nutritional requirements are met.

The brain is acutely sensitive to what we consume in our daily lives. To remain healthy, it needs different amounts of the following essential nutrients:

- Complex carbohydrates
- Essential fatty acids (EFAs)
- Amino acids
- Vitamins and Minerals
- Water



### ALCOHOL AND DRUGS

Taking drugs or drinking alcohol has negative effects on the mind as well as the body. They can contribute to, or trigger, mental health problems in some young people. If a young person has an existing mental health problem using alcohol or drugs can cause more problems than either issue on its own. The safest level of drinking for teenagers is no drinking, especially for young people under 15 years of age. But if older teenagers do drink, parents or carers can minimise the risks by providing adult supervision and encouraging consumption within the adult guideline for low-risk drinking (two standard drinks in any one day).



### CAFFEINE

Caffeine is a stimulant drug that acts on the brain and nervous system. In small doses, it can make you feel refreshed and focused. In large doses, you are likely to feel anxious and have difficulty sleeping. Like many other drugs, it is possible to develop a tolerance to caffeine, which means ever greater doses are needed to achieve the same effect. Caffeine intake should be investigated if a young person is showing symptoms of irritability, inability to sleep, interrupted sleep or stomach upsets. Energy drinks typically have more caffeine and sugar than soft drinks.



# THE FACTS ABOUT DIET



## MYTHS ABOUT DIET

There are lots of myths about healthy food. Don't make food choices based on false beliefs. Suggestions include:

- Compare the prices of junk foods against the price of healthier food options to see that 'healthy' doesn't always mean 'expensive'.
- Experiment with different foods and recipes. You'll soon discover that a meal cooked with fresh ingredients always beats a limp burger or soggy chips.
- Try different 'fast' options like whole-wheat breakfast cereal, muesli, wholemeal bread, wholegrain muffins, fruit, yoghurt or pasta.
- Don't think that your diet has to be 'all or nothing'. Eating well doesn't mean you must be a health food freak. A good diet allows for treats occasionally.

## AUSTRALIAN DIETARY GUIDELINES 1-3

### 1. To achieve and maintain a healthy weight be physically active and choose amounts of nutritious food and drinks to meet your energy needs.

- Children and adolescents should eat sufficient nutritious foods to grow and develop normally. They should be physically active every day and their growth should be checked regularly.

### 2. Enjoy a wide variety of nutritious foods every day from these five food groups.

- Vegetables, including different types and colours
- Fruit
- Grain (cereal) foods, mostly wholegrain and/or high cereal fibre varieties, such as breads, cereals, rice, pasta, noodles, polenta, couscous, oats, quinoa and barley
- Lean meats and poultry, fish, eggs, tofu, nuts and seeds, and legumes/beans
- Milk, yoghurt, cheese and/or their alternatives, mostly reduced fat
- Drink plenty of water

### 3. Limit intake of foods containing saturated fat, added salt, added sugars and alcohol.

- Limit intake of foods high in saturated fat such as many biscuits, cakes, pastries, pies, processed meats, commercial burgers, pizza, fried foods, potato chips, crisps and other savoury snacks.
- Replace high fat foods which contain predominantly saturated fats such as butter, cream, cooking margarine, coconut and palm oil with foods which contain predominantly polyunsaturated and monounsaturated fats such as oils, spreads, nut butters/pastes and avocado.
- Limit intake of foods and drinks containing added salt.
- Do not add salt to foods in cooking or at the table.
- Limit intake of foods and drinks containing added sugars such as confectionary, sugar-sweetened soft drinks and cordials, fruit drinks, vitamin waters, energy and sports drinks.
- If you choose to drink alcohol, limit intake. For women who are pregnant, planning a pregnancy or breastfeeding, not drinking alcohol is the safest option.

There are some excellent resources out there which provide detailed information about the mental health benefits that certain foods provide. Here is a good place to start:

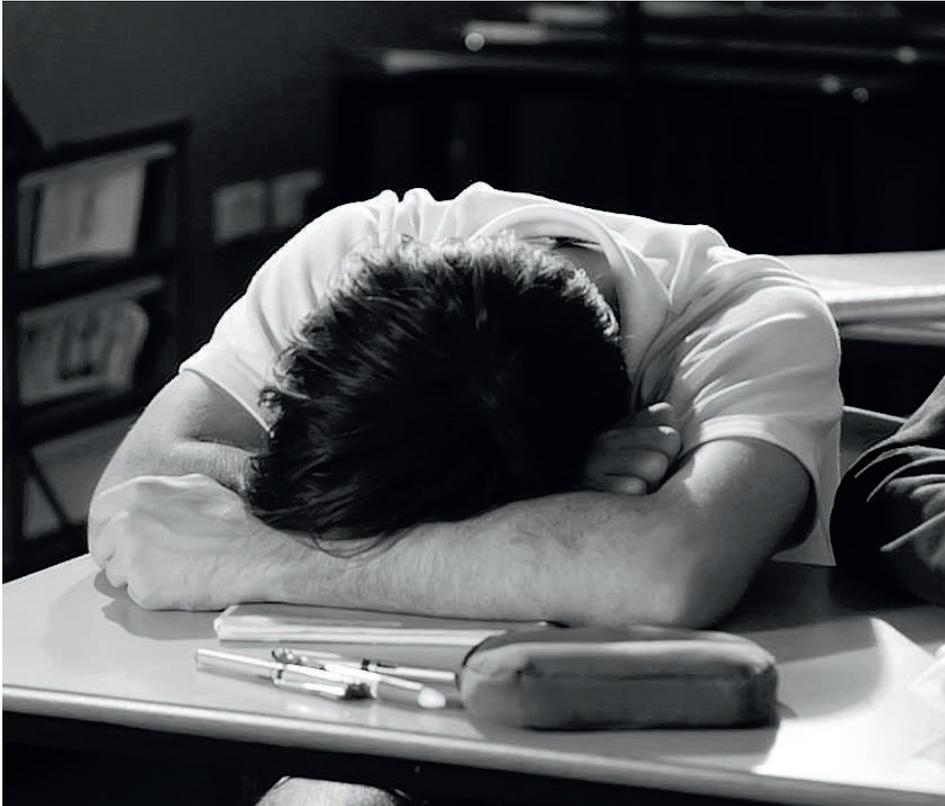
*Beyond Blue Fact Sheet #30 Healthy Eating for people with depression, anxiety and related disorders*  
[beyondblue.org.au/the-facts/recovery-and-staying-well](http://beyondblue.org.au/the-facts/recovery-and-staying-well)

#### This fact sheet has been adapted from the following sources:

- Youth Beyond Blue Factsheet, *Staying Healthy*, [youthbeyondblue.com](http://youthbeyondblue.com)
- Jacka et al 2010, *Associations between diet quality and depressed mood in adolescents: results from the Australian Healthy Neighbourhoods Study*, Aust & NZ J of Psychiatry, 44: 435-442, 2007
- *Australian National Children's Nutrition and Physical Activity Survey - Key Findings*, [health.gov.au/internet/main/publishing.nsf/Content/phd-nutrition-childrens-survey-keyfindings](http://health.gov.au/internet/main/publishing.nsf/Content/phd-nutrition-childrens-survey-keyfindings)
- *Feeding Minds: The impact of food on mental health*, [mentalhealth.org.uk/content/assets/PDF/publications/Feeding-Minds.pdf?view=Standard](http://mentalhealth.org.uk/content/assets/PDF/publications/Feeding-Minds.pdf?view=Standard)



# THE FACTS ABOUT SLEEP



## THE IMPORTANCE OF SLEEP

- Sleep is important for physical and mental health. All body systems involved in either physical or mental health do not function well without sleep.
- Sleep is important for the body to rest and repair its systems.
- Sleep happens in two stages, non Rapid Eye Movement (non-REM) sleep and REM sleep.
- Non-REM sleep occurs in four stages and is vital to get the body systems rested, this process is called homeostasis. A growth hormone is also produced during non-REM sleep, which causes children to grow and develop.
- REM sleep allows us to dream and studies have shown that dreaming allows us to learn. People who don't dream or get REM sleep will not learn as efficiently.



### EFFECTS OF SLEEP DEPRIVATION

Sleep deprivation may affect the following areas:

- Physiological/Physical health (cardiovascular and endocrine systems).
- Psychological (emotional and mental health).
- Psychosocial (behaviour, peer relations, family relationships).
- Cognitive (learning, attention, problem solving).



### HOW MUCH SLEEP DO YOUNG PEOPLE NEED FOR OPTIMUM PHYSICAL AND MENTAL HEALTH?

The current thoughts are that teenagers need about nine hours per night. Most teenagers get between 7-8 so they are in 'sleep debt'.



### POSSIBLE REASONS FOR DISRUPTED SLEEP PATTERNS IN YOUNG PEOPLE

#### 1. Circadian (sleep/wake) rhythm factors

During adolescence there is a delay in the time when melatonin (one of the hormones which makes us sleepy) is released from our brains to our bodies. This may mean that adolescents are not tired until later in the evening and may then find it hard to get up in the morning.

#### 2. Social changes and pressures

Adolescents have a lot going on in their lives (phone, TV, jobs, social activities, school, sports, more homework, worry). Sleep is sometimes low on the priority list and is often given up for these other things.



# THE FACTS ABOUT SLEEP



## PHYSICAL EFFECTS OF SLEEP DEPRIVATION

- An increase in accidents, resulting from clumsiness.
- Increase in obesity; lack of sleep mixes up your appetite hormones so you feel hungry when you shouldn't.
- Sickness; the immune system cannot be repaired and rested, resulting in decreased efficiency.



## PSYCHOLOGICAL EFFECTS OF SLEEP DEPRIVATION

- Depression
- Anxiety
- Mood swings and changes
- Increase in frustration
- Decreased ability to concentrate resulting in the decreased ability to learn



## TECHNIQUES TO IMPROVE SLEEP

### 1. Psychological – *Are they worried, stressed, anxious or depressed?*

This can be addressed by talking with a mental health professional, school counsellor or even a good friend. Relaxation and exercise are excellent ways of learning to relax the mind and the body so sleep is easier. Routine is important – going to bed and waking at the same time every day helps establish a pattern.

### 2. Physiological – *(Body and physical health)*

Are they sick? If so, it is important to see a health professional.

There are other physiological reasons for poor sleep – it is worth speaking to a health professional if other factors have been ruled out.

### 3. Environmental and behavioural – *Are they ready for sleep?*

Is the room too dark or light or noisy or hot?

Have they had too much coffee/energy drinks throughout the day?

Avoid heavy exercise three hours prior to bed.

Turn off all screens at least 30 minutes prior to sleep.



## SLEEP DEPRIVATION AND SCHOOL BEHAVIOUR

The prefrontal cortex is an area in the brain that controls important tools in the body that affect learning.

This particular part of the brain needs lots of sleep to function efficiently. When the prefrontal cortex is affected by a loss of sleep, people can find it difficult to:

- regulate learning
- regulate emotions and behaviour
- remember or concentrate on information
- plan ahead.

These effects are cumulative, meaning that a person will not just suffer from one effect of sleep deprivation, they will all pile up, decreasing their knowledge base.

If learning becomes difficult due to lack of sleep a young person may become frustrated and lose motivation to continue.

### Sources

This information has been adapted from Dr Sarah Blunden's *Adolescent Sleep Facts Sheet*, [sleepeducation.net.au/Docs/Adolescent's%20Sleep%20Facts%20Sheet.pdf](http://sleepeducation.net.au/Docs/Adolescent's%20Sleep%20Facts%20Sheet.pdf)