

## Windsor Hockey Skills Academy

### Reading: Teenagers and Sleep

Value: 20 marks

#### Curricular Competencies and Content

*It is expected that students will:*

- (Grade 10) demonstrate an understanding of health-related components of fitness
- (Grade 11) demonstrate an understanding of the prevention of athletic injuries
- (Grade 12) demonstrate the prevention of athletic injuries

Taken from: <https://www.betterhealth.vic.gov.au/health/healthyliving/teenagers-and-sleep>

#### Part A: Introduction

Sleep research suggests that a teenager needs between 9 and 10 hours of sleep every night. This is more than the amount a child or an adult needs. Yet most adolescents only get about seven or eight hours. Some get less. Regularly not getting enough sleep leads to chronic sleep deprivation. Chronic sleep deprivation can have dramatic effects on a teenager's life, including reduced academic performance at school as well as health issues. One recent US study found that lack of sleep was a common factor in teenagers who receive poor to average school marks. Even 30 minutes of extra sleep each night makes a difference. All recreational drugs (including alcohol, caffeinated drinks and cannabis) and chocolate can cause broken sleep.

#### Part B: Causes of Sleep Deprivation

Below is a list of some of the reasons why many teenagers may not get enough sleep:

1. Hormonal Time Shift - puberty hormones shift the teenager's body clock forward by about one or two hours, making them sleepier one to two hours later. Yet, while the teenager falls asleep later, early school starts don't allow them to sleep in. This nightly 'sleep debt' may lead to chronic sleep deprivation.
2. Hectic After School Schedule - homework, sport, part-time work and social commitments can cut into a teenager's sleeping time.
3. Leisure Activities - the lure of stimulating entertainment such as television, the Internet and computer gaming can keep a teenager out of bed.
4. Light Exposure - light cues the brain to stay awake. In the evening, lights from televisions, mobile phones and computers can prevent adequate production of melatonin, the brain chemical (neurotransmitter) responsible for sleep.
5. Vicious Circle - insufficient sleep causes a teenager's brain to become more active. An over-aroused brain is less able to fall asleep.
6. Social Attitudes - in many western countries, keeping active is valued more than sleep.
7. Sleep Disorder - sleep disorders, such as restless legs syndrome or sleep apnoea, can affect how much sleep a teenager gets.



### Part C: Effects of Sleep Deprivation

The developing brain of a teenager needs between nine and 10 hours of sleep every night. The effects of chronic (ongoing) sleep deprivation may include:

- Concentration difficulties or mentally 'drifting off' in class
- Shortened attention span
- Memory impairment
- Poor decision making
- Lack of enthusiasm
- Moodiness and aggression
- Depression
- Risk-taking behaviour
- Slower physical reflexes
- Clumsiness, which may result in physical injuries
- Reduced sporting performance
- Reduced academic performance
- Increased number of 'sick days' from school because of tiredness
- Truancy (skipping classes)

### Part D: Preventing Sleep Deprivation: Tips for Parents

Most parents understand the need to help their teenagers develop and maintain a healthy bedtime routine, which will enhance the quality of sleep for their adolescent. However, for some families, it can be a difficult and trying experience each and every night to try and get their teenager to go to bed at a constructive time. Below are some tips that teenagers may pass onto their parents to try and cooperatively plan and implement a bedtime routine that works for both teenagers and their parents. Try not to argue about bedtime. Instead, discuss the issue. Together, brainstorm ways to increase the nightly quota of sleep. Suggestions may include:

- Encourage an early night every Sunday. A late night on Sunday followed by an early Monday morning will make your child drowsy for the start of the school week.
- Decide together on appropriate time limits for any stimulating activity such as homework, television or computer games.
- Encourage restful activities during the evening, such as reading.
- Avoid early morning appointments, classes or training sessions for your child if possible.
- Schedule after-school commitments to free up time for rest and sleep.
- Assess weekly schedules together. Help them to trim activities if overcommitted.
- Encourage down time (no screens) right after school for a short period of time

### Part E: Preventing Sleep Deprivation: Tips for teenagers

The typical teenage brain wants to go to bed late and sleep late the following morning, which is usually hard to manage. You may be able to adjust your body clock but it takes time. Suggestions include:

- Choose a relaxing bedtime routine; for example, have a bath and a hot milky drink before bed.
- Avoid loud music, homework, computer games or any other activity that gets your mind racing for about an hour before bedtime.
- Keep your room dark at night. The brain's sleep-wake cycle is largely set by light received through the eyes. Try to avoid watching television right before bed. In the morning, expose your eyes to lots of light to help wake up your brain.

- Do the same bedtime routine every night for at least four weeks to make your brain associate this routine with going to sleep.
- Start your bedtime routine a little earlier than usual (for example, 10 minutes) after four weeks. Do this for one week.
- Add an extra 10 minutes every week until you have reached your desired bedtime.
- Avoid staying up late on the weekends. Late nights will undo your hard work.
- Remember that even 30 minutes of extra sleep each night on a regular basis makes a big difference. However, it may take about six weeks of extra sleep before you feel the benefits.

#### Part F: Other Issues

If lack of sleep is still a problem despite your best efforts, suggestions include:

- Assess your sleep hygiene. For example, factors that may be interfering with your quality of sleep include a noisy bedroom, a lumpy mattress or the habit of lying awake and worrying.
- Consider learning a relaxation technique to help you wind down in readiness for sleep.
- Avoid having any food or drink that contains caffeine after dinnertime. This includes coffee, tea, cola drinks and chocolate.
- Avoid recreational drugs (including alcohol, tobacco and cannabis) as they can cause you to have broken and poor quality sleep.
- See your doctor if self-help techniques don't increase your nightly sleep quota.

#### Part G: Getting Help

- Family doctor
- Sleep Disorder Program, UBC: 604.822.7606

#### Part H: Summary of the Important Points

- Sleep research suggests that a teenager needs between nine and 10 hours of sleep every night.
- Chronic sleep deprivation can have dramatic effects on a teenager's life, including reduced academic performance at school.
- Even 30 minutes of extra sleep each night makes a difference.
- All recreational drugs (including alcohol, caffeinated drinks and cannabis) and chocolate can cause broken sleep.



Curricular Competencies and Content

*It is expected that students will:*

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Taken from: <https://www.betterhealth.vic.gov.au/health/healthyliving/teenagers-and-sleep>

Part A: Introduction

Complete the following section by filling in the blanks with the correct word or words after reading the article. (1/2 mark each)

1. Sleep research suggests that a teenager needs between \_\_\_\_\_ and \_\_\_\_\_ hours of sleep every night.
2. This is more than the amount a child or an \_\_\_\_\_ needs.
3. Yet most adolescents only get about \_\_\_\_\_ or \_\_\_\_\_ hours. Some get less.
4. One recent US study found that lack of sleep was a common factor in teenagers who receive poor to average \_\_\_\_\_.
5. Even \_\_\_\_\_ minutes of extra sleep each night makes a difference.
6. All recreational drugs (including alcohol, caffeinated drinks and cannabis) and \_\_\_\_\_ can cause broken sleep.

Part B: Causes of Sleep Deprivation

Complete the following section by answering the questions in a few words or sentences with information from the reading.

7. Explain the term Hormonal time Shift as it is explained in the article. (2 marks)  
\_\_\_\_\_  
\_\_\_\_\_
8. Explain why early school starting times may not be a good idea for teenagers (use the term **Hormonal Time Shift** in your answer) (2 marks)  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_
9. The article discusses "... *the lure of stimulating entertainment...*" List two of the three types of entertainment suggested by the article. (1 mark)  
\_\_\_\_\_  
\_\_\_\_\_



10. According to the article, light causes the brain to stay awake by preventing the production of which brain chemical? Name the brain chemical. (1 mark)

\_\_\_\_\_

11. List the two sleep disorders mentioned in Section B. (1 mark)

1. \_\_\_\_\_

2. \_\_\_\_\_

**Part C: Effects of Sleep Deprivation**

Complete the following section by completing the chart below from the material in the reading. (4 marks)

12. Look closely at the list of the Effects of Sleep Deprivation. In the space provided below, list **two** of these effects that you believe can and will affect an athlete's performance the most. In the space provided offer a **realistic** example, which this may occur as a result of sleep deprivation. Look at the example provided.

Effects of Sleep Deprivation	Consequences to an Athlete of Sleep Deprivation
<u>example:</u> Memory Impairment	*athlete may not remember plays or positional responsibilities during competition
1.	
2.	

**Part D: Preventing Sleep Deprivation: Tips for Parents**

Answer the following question by list two tips for parents in the appropriate space below.

13. In your opinion, which two "Tips for Parents" would be most helpful for **parents** to know when they are helping their teenagers deal with creating healthy sleep habits? (2 marks)

1. \_\_\_\_\_

2. \_\_\_\_\_

**Part E: Preventing Sleep Deprivation: Tips for Teenagers**

Answer the following question by listing two tips for teenagers in the appropriate space below.

14. In your opinion, which two "Tips for Teenagers" would be most helpful for **teenagers** to know when they are creating healthy sleep habits? (2 mark)

1. \_\_\_\_\_

2. \_\_\_\_\_



**Part F: Other Issues**

Answer the following question by list tips for teenagers in the appropriate space below.

15. In your opinion, which of the other point listed in Section F would be most helpful to you? (1 mark)

1. \_\_\_\_\_

**Part G: Getting Help**

Answer the following question with a word or a few words in the space provided.

16. Other than your family doctor, what other option does the article provide for students to call if they are in need of help with sleep related issues? Provide the name of the organization and the phone number. (1 mark)

\_\_\_\_\_