**ALCOHOL**

1. Explain the following key terms:

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| Alcohol | An alcoholic drink is a drink that contains ethanol, a type of alcohol produced by fermentation of grains, fruits, or other sources of sugar. |
| Alcohol use disorder | A chronic disease characterized by uncontrolled drinking and preoccupation with alcohol. |
| Alcoholism | When a person can’t stop drinking once they have started or has a constant desire to drink alcohol. |
| Binge Drinking | Drinking seven or more standard drinks for males or five more standard drinks for females in one sitting.  |

1. Use this link ([https://drinkwise.org.au/alcohol-and-your-health/#](https://drinkwise.org.au/alcohol-and-your-health/)) and your text book to explain the effects of alcohol on the following parts of the body:

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| **Condition** | **Explanation** |
| Brain | Alcohol slows down the central nervous system which, in turn, impacts almost all the body’s cells and systems. Alcohol misuse may cause alcohol-related brain impairment or brain injury. |
| Immune System | Alcohol can suppress the immune system, particularly in long-term or excessive drinkers, making you susceptible to illness. |
| Heart | Long-term and excessive drinking can increase your risk of developing heart disease, high blood pressure, weakening of the heart muscle and heart failure. |
| Liver | Regularly drinking to excess may result in a fatty liver which can adversely affect your liver function. Continued excessive drinking may result in the liver becoming inflamed, causing alcoholic hepatitis or permanent liver scarring (cirrhosis) and subsequent liver cancer. |
| Stomach | Alcohol may irritate the stomach lining which can bring on nausea, vomiting and sometimes diarrhea. Long-term, excessive drinking has been associated with increased risk of upper gastrointestinal cancer including stomach cancer |
| Pancreas | Continuous and excessive drinking can lead to pancreatitis. This can lead to permanent pancreatic damage and increases the risk of pancreatic cancer. |
| Kidney | Alcohol has a diuretic effect which means it tends to make you pass more urine. Drinking to excess can cause a substantial increase in urine flow and lead to excessive losses of body fluid and marked dehydration. |
| Bowel | Alcohol may cause bowel irritation and may trigger symptoms of irritable bowel syndrome. Excessive drinking can increase the risk of colon cancer. |
| Male Reproductive System | Drinking alcohol can decrease sex drive and performance. Alcohol can also reduce the amount of testosterone in the blood with heavy consumption of alcohol increasing risk of male fertility problems. |
| Breasts | Breast cancer is the most prevalent cancer among women. Studies indicate a relationship between alcohol consumption and the risk of developing breast cancer. Of course, drinking alcohol does not mean you will automatically get breast cancer, but it does mean your risk of developing it will be increased. How much you drink over your lifetime is what increases the risk; therefore, you should stick to the Australian Government’s national drinking guidelines. |
| Female Reproductive System | Drinking excessive amounts of alcohol can affect a woman’s menstrual cycle and ovulation. This may make it difficult to conceive a healthy baby. Women who are planning pregnancy, pregnant and/or breastfeeding should abstain from drinking alcohol. |
| Developing Foetus | Prenatal alcohol exposure can cause Fetal Alcohol Spectrum Disorder (FASD). This is a term used to describe a range of conditions that result from brain damage caused by alcohol exposure before birth. Other effects of alcohol exposure during pregnancy can include miscarriage, stillbirth, premature birth and low birth rate. |

1. Explain 3 ways that alcohol can contribute to **Burden of Disease** in Australia:

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| Alcohol use is responsible for all of the DALY associated with alcohol use disorders. |
| 28% per cent of the total burden due to road traffic injuries was due to alcohol. |
| Caused 24% of the total DALY due to liver diseases. |

1. Explain 3 ways that alcohol can contribute to **Health Status** in Australia:

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| Increased incidence and mortality from cardiovascular disease, type 2 diabetes, some cancers, liver diseases, injuries. |
| Higher rates of morbidity due to mental health issues. |
| Increased infant and under-five mortality rates. |

Complete Test your Knowledge question 4 and Apply your Knowledge questions 2-4 from section 3.3 in your textbook.

4. Alcohol contains kilojoules and therefore energy, which means it can increase the chances if an individual gaining weight.

2a. 38.7%
2b. stroke
2c. 70.9%
2d. Suicide and self-inflicted injuries.

3a. 50-54 year olds.
3b. 15-19 year olds worse in injuries and substance/mental use, whereas 90-94 year olds are higher in cardiovascular.

4. Helps to work productively as you aren’t drunk and can think properly, increase time spent with friends as you are in a good mindset and can remember the ‘good times’ rather than remember nothing while being wasted.

**HIGH BODY MASS INDEX**

1. Explain the Body Mass Index.
A statistical measure of body mass calculated by dividing weight (kg) by height (m^2). A score of 18.6-24.9 is considered a healthy weight. Between 25-29.9 is considered overweight and 40 and over is considered obese.
Provides a height to weight ratio.
2. How is it calculated?
Weight in kg divided by height in m^2
3. Calculate the BMI of a person who weighs 84kg and is 178cm tall.

84 / (1.78)^2 = 26.51

1. What are the BMI classifications for adults?

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| --- | --- |
| Under 18.5 | Underweight |
| 18.6-24.9 | Healthy weight |
| 25-29.9 | Overweight |
| 30 and over | Obese |

1. Why is waist circumference sometimes considered a better indicator of increased health risk than BMI?
BMI doesn’t take fat distribution into account. Research has shown that those with a higher proportion of abdominal fat are more at risk of disease and illness compared to those with a lower proportion of abdominal fat. For this reason, waist circumference is increasingly being used as an indicator of the health risks associated with high body mass.
2. Use this link (<https://www.betterhealth.vic.gov.au/a-zofhealthcontent?ps=10&pn=1&s=az&f=201259CD997C4AF1A3C48062E8ABACDC_A>) and your text book to explain the following conditions which a person is at increased risk of if they have a high BMI:

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| --- | --- |
| **Condition** | **Explanation** |
| Hypertension | High blood pressure; a rick factor in many diseases, such as heart attack, kidney failure and stroke; hypertension often doesn’t show any symptoms; leading a healthy lifestyle is one of the best ways to both treat and prevent hypertension. |
| Heart disease | High BMI usually means there is a greater strain on the heart, which increases the risk of hypertension and of high levels of cholesterol in the blood. This increases the rate of atherosclerosis and the risk of cardiovascular disease. High body mass also increases the risk of an irregular heart beat. |
| Stroke | Plaque build-up in the arteries supplying blood to your heart muscle can trigger angina or a heart attack. Plaque build-up and blood clots in arteries supplying blood to the brain can cause a stroke. |
| Cancer | Cancer is a disease of cells in the body and it is caused by changes to some genes that control how cells behave. There are around 200 different types of cancer and most areas of the body can be affected. |
| Type 2 Diabetes | More common in people who don’t do enough physical activity, and who are overweight. Can often be prevented or delayed with early lifestyle changes. Symptoms include being thirstier, passing more urine, feeling tired, slow closing wounds, recurring infections and blurred vision. In type 2 diabetes. The pancreas does not produce enough insulin, or the body cannot use insulin effectively. High BMI is a greater risk factor for type 2 diabetes. It used to be associated with adulthood but increasing rates of high BMI among children has seen rates increase in younger age groups. |
| Chronic Kidney Disease | Kidney disease is when your kidneys are damaged in some way and are not filtering your blood effectively.  |
| Osteoarthritis | High BMI puts more pressure on joints, which can increase the chances of developing arthritis. Current research also indicates that high BMI can increase the risk of osteoporosis. |
| Gestational Diabetes | Diabetes that occurs during pregnancy. When the pregnancy is over, the diabetes usually disappears. Women who develop gestational diabetes have an increased risk of developing type 2 diabetes. |
| Asthma | Children with a high BMI have a greater risk of developing asthma than children with a healthy body mass. |
| Pre-eclampsia | A serious condition of pregnancy, usually characterized by high blood pressure, protein the urine and severe swelling. Most women with pre-eclampsia feel fine; there is not cure, except birth of the baby and delivery of the placenta. |

1. Explain 3 ways that high BMI can contribute to **Burden of Disease** in Australia:

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| Contributed to 52% of diabetes burden. |
| 38% of kidney disease burden was caused by high BMI. |
| Contributes to 23% of coronary heart disease burden and 17% of stroke burden. |

1. Explain 3 ways that high BMI can contribute to **Health Status** in Australia:

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| Increased morbidity and mortality rates due to a range of causes such as cancer, cardiovascular disease and kidney disease. |
| Lower life expectancy and HALE |

Complete Test your Knowledge question 2 and Apply your Knowledge questions 6 & 7 from section 3.4 in your textbook.

2a. Overweight
2b. Obese
2c. Healthy weight

6. Ava’s weight could affect her emotional health and wellbeing as she may feel embarrassed about her weight, so she may exclude herself from her friends, stopping her from making meaningful relationships (social), thus reducing her ability to experience the full range of emotions (emotional).

7. Reducing high BMI can act as a resource nationally as it could reduce risks of disease within the community, thus allowing for people to live longer and healthier lives.