Glossary

	Chapter 1	Introduction to the nutrients
1.	Phytochemicals	Non-nutritive plant chemicals that possess protective effects against diseases such as cancer and cardiovascular disease
2.	Ultratrace nutrients	Nutrients found in very small amounts, typically <1 $\mu g/g$ of dry food such as fluorine
3.	Water-soluble vitamins	Vitamins that can dissolve in water but not fat. These vitamins must be replenished each day because they are not stored in the body and can be excreted through urine. Vitamins B and C are water-soluble vitamins
4.	Fat-soluble vitamins	Vitamins that can dissolve in fat but not water. These vitamins do not have to be replenished each day since they can be stored in the body. Vitamin A, D, E and K are fat-soluble vitamins
5.	Nutrient	A substance that provides nourishment for the body to help maintain and repair its bodily functions, support growth and sustain life
6.	Micronutrients	Nutrients that are needed in small amounts to maintain bodily function. Vitamins (e.g. vitamin D, vitamin B_{12}) and minerals (e.g. iron, zinc) are micronutrients
	Chapter 2	The relationship between diet, health and disease
7.	Scurvy	Disease caused by vitamin C deficiency that affects the skin, blood vessels and the body's healing process causing symptoms such as skin haemorrhages, oedema, gum disease and anaemia
8.	Beriberi	Condition caused by vitamin B_1 deficiency. It is characterised by symptoms such as weakness and pain in the limbs (difficulty walking), irregular heartbeat, oedema and shortness of breath
9.	Anaemia	Condition characterised by a lower number of red blood cells than normal. It also occurs if the red blood cells don't contain enough haemoglobin. Common symptoms include fatigue, pale skin, difficulties concentrating and dizziness
10.	Cytological profiles	Relating to the study of cell formation, structure and function
11.	Rickets	Softening and weakening of the bones due to severe vitamin D deficiency. It is often characterised by the outward bowing of the legs
12.	Renal	Scientific term to describe conditions related to the kidneys
13.	Hepatic	Scientific term to describe conditions related to the liver
14.	Hypercalcemia	Abnormally high level of blood calcium
15.	Neural tube defects	A group of birth defects in which the brain, spinal cord, skull and vertebral column fail to develop properly, leading to conditions such as spina bifida and anencephaly

16.	Energy intake	The amount of calories consumed and accessible by the body
17.	Energy expenditure	The loss or utilisation of calories in the form of the resting metabolic rate, thermic effect of food and physical activity
18.	Causation	Direct cause and effect relationship
19.	Parboiling	The partial boiling of foods. In the grain industry, producers parboil rice to help capture the nutrients in the husk before hulling, removal of the outer layer of grains. If grains are just hulled without parboiling, nutrients are lost. For example, in rice, the hull of the granule contains vitamin B. If rice is hulled to produce white rice without parboiling previously, the vitamin B will be trapped and lost in the hull
20.	Cardiovascular disease	A general term for the presence of any disease that affects the cardiovascular system. The main causes are atherosclerosis and/or hypertension. Atherosclerosis is a narrowing and hardening of the arteries, which affects the flow of blood within them. There is an increased risk of inadequate delivery of oxygen to meet the demand for exercise (resulting in pain on exertion) or a blockage to the blood flow, which may result in a failure of function in the affected area, for example, in the heart or brain
21.	Mediterranean diet	A term used to describe a food intake pattern. The diet is characterised by large amounts of fruit, vegetables, bread, starchy staples and olive oil, moderate amounts of seafood, fish, dairy products and poultry and small amounts of meats and sweets. This has been associated with lower incidence of nutrition-related non-communicable diseases
22.	Antioxidants	Natural or synthetic substances that prevent or delay cell damage from environmental exposures, ageing and/or lifestyle factors
23.	Dietary fibre	Indigestible carbohydrates that are beneficial for gut health. There are two types of dietary fibre: insoluble (e.g. found in bran) and soluble (e.g. found in beans)
24.	Cancer	Disease triggered by the uncontrollable growth of cells. These cells group together to produce tumours which may interfere with bodily functions
25.	Carcinogens	Any substances or exposures that may indirectly or directly cause tumour formation leading to cancer
26.	Heterocyclic aromatic amines	Carcinogens formed when meat is cooked at high temperatures (e.g. pan frying and open flame grilling)
27.	Colorectal cancer	Cancer located at the end of the large intestine. Malignant tumour (i.e. a tumour that can spread to other body parts) which develops in parts of the large intestine such as colon or rectum
	Chapter 3	Energy intake: Food sources
28.	Metabolisable energy content	The energy provided by a food during its biochemical transformation. This value is normally calculated by the use of 'proximate principles' and is the value for energy content that appears in tables of food composition

	Chapter 4	Energy: Control of food intake
29.	Internal mechanisms	Physiological mechanisms that regulate food intake to ensure sufficient energy supply
30.	Ghrelin	A hormone, released from the stomach, that promotes appetite
31.	Leptin	A hormone, released from the adipose tissue, that promotes satiety
32.	External influences	Non-body-regulated factors that regulate food intake such as palatability, cost, convenience, social trends and peer influence
33.	Cholecystokinin	A hormone, released in the gut, that stimulates the secretion of bile. It can also act as a satiety signal and may be found in the brain
	Chapter 6	Energy requirements: Components of energy expenditure
34.	Basal metabolic rate	The minimum amount of energy expended by the body to maintain life in the awake state. It is measured under strict conditions
35.	Resting metabolic rate	Often used interchangeably with BMR; it is measured under conditions that are less strict and allows inclusion of recent food intake
	Chapter 7	Carbohydrates: Simple and complex carbohydrates
36.	Prebiotics	Non-digestible food substances that help promote the growth of probiotics (live cultures of good bacteria)
	Chapter 8	Carbohydrates: Digestion and utilisation in the body
37.	Resistant starch	Starches that are not digested or absorbed by the small intestine. Instead, they pass into the large intestine where they are fermented into short-chain fatty acids (SCFA) and become beneficial to gut health
38.	Retrograded starches	Starches that have been modified by temperature and/or the formation of a gel so that on cooling, new bonds will form that are resistant to digestion by amylase
39.	Glycaemic index	A scale that ranks the ability of food to raise levels of blood glucose, in comparison to glucose. The scale ranges from 0 to 100; a score of 100 means the food is equivalent to consuming glucose. Foods with a high GI raise glucose levels rapidly, whereas low GI foods slowly release glucose and maintain a steady blood glucose level that can help maintain satiety and prevent hunger
	Chapter 9	Fats: Types of fatty acids
40.	Emulsifying agents	Substances that help keep emulsions, a mixture of two or more immiscible substances, together. They have a hydrophilic and hydrophobic portion. An example of a natural emulsifying agent is eggs in mayonnaise. Eggs help keep the oil and the vinegar together so you get a creamy, even mixture when you open the jar instead of getting a layer of liquid and oil droplets
41.	Polyunsaturated fatty acids	Fatty acids that contain two or more double bonds in the molecule. The location of the double bonds characterises the 'family' to which the fatty acid belongs. The hydrogen atoms are arranged in <i>cis</i> -formation around double bonds in naturally occurring PUFAs. Docosahexaenoic acid (n-3) and arachidonic acid (n-6) are common polyunsaturated fatty acids
42.	Monounsaturated fatty acids	A fatty acid that contains one double bond in the chain. Oleic acid (C18) is considered to be the most important member of this group and is a key component of the Mediterranean diet
	Chapter 10	Fats: Compound lipids (triglycerides, phospholipids, cholesterol and phytosterols)

43.	Docosahexaenoic acid	A member of the n-3 family. DHA is a fatty acid with 22 carbon atoms and 6 double bonds. It is found predominantly in oily fish
44.	Eicosapentaenoic acid	A member of the n-3 family. EPA is a fatty acid with 20 carbons and five double bonds. It is found predominantly in oily fish
	Chapter 11	Fats: Digestion and utilisation in the body
45.	Lipoproteins	Molecules made up of both lipids and proteins. They help transport fat-soluble materials
46.	Chylomicrons	The largest and lightest lipoproteins. They help transport dietary triacylglycerol
47.	Adipose tissue	Scientific term for body fat. Adipocytes (cells within adipose tissue) store and release fat. Adipose tissue helps insulate the body and cushion the organs. Adequate amounts of adipose tissues are required for the onset and maintenance of menstruation in females. There are two types of adipose tissue: white adipose tissue and brown adipose tissue
48.	White adipose tissue	Main storage site of fats. White adipose tissue serves as a source of energy, cushion for the organs and insulation for the body
49.	Brown adipose tissue	A type of adipose tissue found principally in young mammals. It is highly metabolically active and thermogenic (i.e. heat production) when stimulated. It contains more mitochondria, blood capillaries and nerve fibres than the more prevalent white adipose tissue
50.	Postprandial phase	The period after consumption of a meal
	Chapter 12	Proteins: Chemistry and digestion
51.	Autodigestion	Digestion of the stomach or the pancreas by secretion of its own enzymes
	Chapter 13	Proteins: Functions and utilisation in the body
52.	Urea salvage	A cycle of processes that removes amino groups to yield ammonia, which is converted to urea in the liver, and in turn excreted by the kidneys, with the remainder being reabsorbed and recycled by the bacteria to carbon dioxide and ammonia to be used for the synthesis of nitrogenous compounds
53.	Glucogenic amino acids	Amino acids that can be converted into glucose by gluconeogenesis through the Krebs cycle when the body is low on its sources of glucose
54.	Ketogenic amino acids	Amino acids that cannot be converted into glucose when the body is low on glucose. Instead, these amino acids are converted into ketones to be used as an energy source
55.	Essential amino acids	Amino acids that cannot be synthesised in the body and must be consumed through the diet. There are nine essential amino acids: histidine, isoleucine, leucine, lysine, methionine, phenylalanine, threonine, tryptophan and valine
56.	Non-essential amino acids	Amino acids that can be synthesised within the body by using essential amino acids
	Chapter 14	Proteins: Needs, sources, protein quality and complementation

58.	Limiting amino acid	Amino acid that is in the lowest amount relative to requirements compared to other amino acids. Synthesis of any protein can only occur up to the limiting amino acid. For example, even if there are high amounts of a particular amino acid (e.g. isoleucine) without sufficient amounts of the limiting amino acid (e.g. tryptophan), they cannot synthesise a specific protein
59.	Protein complementation	Combination of two different foods that on their own may lack certain essential amino acids, but when consumed in combination provide all essential amino acids (e.g. beans and rice)
60.	Net protein utilisation	The proportion of consumed amino acids that is converted to proteins in the body
61.	Biological value	A measure of protein quality that takes into account the digestibility of protein by comparing nitrogen retention against nitrogen absorption
	Chapter 15	Dietary supplements
62.	Naturopathic medicines	Form of alternative medicine or treatment used to support the body's own healing ability
63.	Homeopathic medicines	Form of alternative medicine where small doses of natural substances are given to patients to help cure their symptoms
	Chapter 26	Micronutrients: Structural role in bone II
64.	Osteomalacia	Softening of the bones due to vitamin D deficiency or an inability for the body to utilise vitamin D
	Chapter 28	Fetal alcohol spectrum disorder
65.	Fetal alcohol spectrum disorder	An overarching term for the array of disabilities and conditions caused by prenatal alcohol exposures. FASD includes fetal alcohol syndrome (FAS), partial FASD (pFAS) and alcohol-related neurodevelopment disorder (ARND)
66.	Full fetal alcohol syndrome	Condition caused by prenatal alcohol exposures, characterised by weight and height deficiencies, facial characteristics (small eyes, smooth philtrum and thin upper lip) and damage to the central nervous system (neurological, functional and/or structural impairment)
67.	Partial fetal alcohol syndrome	Condition caused by prenatal alcohol exposures and characterised by some but not all symptoms of full FAS
68.	Prenatal	Prior to birth or during pregnancy
69.	Community-based services	Services offered in the community based on and to fulfil the demands of the community needs
	Chapter 29	Fluids in the diet
70.	Fluid balance	Relationship between fluid intake and fluid loss
71.	Diuresis	Excretion/formation of large volumes of urine by the kidney
	Chapter 30	Introduction to nutrition epidemiology: Study designs I
72.	Descriptive studies	Aims to determine how a particular disease (outcome) or exposure (nutrient intake, e.g. deficiencies or excesses) is within a specific population. These studies try to answer questions such as, what is the prevalence of diabetes in youth? There are four main types of descriptive studies: prevalence surveys, case reports, surveillance data and analyses of routinely collected data

73.	Prevalence surveys	These surveys utilise a representative sample of people to estimate the proportion of a population that are affected by a health outcome
74.	Case reports	Cases of diseases are described in great detail in these reports to help identify potential causes of disease. Data from case reports are very selective and provide limited information about potentially relevant exposures
75.	Intravenous	Administration of medicine or substances through the vein
76.	Surveillance data	Collection of data on diseases used to measure prevalence, distribution, incidence of disease and mortality
77.	Raw data	Information collected from a study or studies that have not been statistically manipulated, edited and/or cleaned to produce meaningful relationships
78.	Analytical studies	Studies that aim to determine causal associations between specific factors and an outcome. They can be experimental (interventional) or non-experimental (observational)
79.	Intervention studies	These types of studies are carried out to test a hypothesis based on the developed interventions. For example, which strategies for increasing vegetable consumption are best?
80.	Uncontrolled trials	Experiments where treatment is provided to all willing participants and there is a complete absence of a control group
81.	Dietary intervention	Programme(s) tailored for an individual or group(s) to help provide intentional changes to their dietary habits/patterns
82.	Controlled trials	Experiments where a control group and an experimental group is utilised. Comparison of these groups allows identification of changes that may occur solely by the intervention
83.	Placebo	Drugs or treatments that have no real medical effect but are used to provide patients with a perception that they are receiving some medical treatment. It is usually used to test if the drug or treatment has any effect and how effective it is. For example, in an experiment, if patients were expected to receive cold medicine but were given sugar pills instead, then the sugar pills are the placebo
84.	Randomised controlled trails	Experiment used to evaluate an intervention. Groups of individuals with the same health status are selected and randomly allocated into a control or intervention group. The control group receives a placebo or standard treatment, while the intervention group receives the treatment. Any difference in outcomes between groups can thus be attributed to the intervention
85.	Community trials	A form of trials that evaluates preventative health measures. This type of trial is used when individual interventions are impractical so the whole community receives the intervention
86.	Quasi-randomised controlled trials	A form of randomised controlled trial that does not utilise a truly randomised method of group allocation. Instead, a quasi-method of allocation by date of birth, medical record number or the enrollment order of participant is used
87.	Non-randomised controlled trials	An experimental trial that uses a completely arbitrary and non-random method of group allocation to different interventions
88.	Epidural	A regional anaesthetic commonly used for childbirth to reduce pain or discomfort

	Chapter 31	Introduction to nutrition epidemiology: Study designs II
89.	Non-experimental (observational studies)	These studies do not involve any manipulation of participants. Instead, what happens naturally or previously occurred is recorded. The aim is to assess the natural course of disease progression, health outcome or exposure in relation to disease occurrence
90.	Cohort studies	Study that follows a group of individuals over a time period to assess a health outcome of interest; it provides information on the causes of a disease and offers measurement of an individual's risk, for example, for cancer
91.	Case-control studies	Study that gathers information about a specific disease. Those with the outcome of interest are selected (cases) along with unaffected members of the population (controls); detailed descriptions of participant's past exposure of interest are recorded and compared
92.	Cross-sectional studies	Studies that examine a specific exposure and health outcome within a sample of the population. They provide a snapshot of the situation upon which future investigations can be based
93.	Ecological studies	Studies that determine disease frequency in relation to frequency of exposure to some factor within entire populations
94.	Random errors	Errors that occur when measurements are varied
95.	Internal validity	Extent to which cause and effect can be concluded from an experiment
96.	External validity	Extent to which the results from a small group can be applied to a general population in other situations
97.	Sensitivity	The ability of a test to correctly identify those with the disease. If the test has low sensitivity, then it will not be able to identify people who have the disease and instead the test may identify those without the disease as having the disease
98.	Specificity	The ability for a test to correctly identify those without the disease
	Chapter 32	Research ethics
99.	Respect for persons	Research ethics concept where researchers have an ethical obligation to acknowledge autonomy (i.e. ability to determine what is best for oneself) and protection of vulnerable people with diminished autonomy
100	Beneficence	Research ethics concept where researchers have an ethical obligation to maximise benefits and minimise harm
101	Justice	Research ethics concept where researchers have an ethical obligation to treat each participant in a manner that is morally right
102	Research license	A license required to conduct some research activities. For example, prior to conducting any research in Arctic Canada, the territories of Northwest Territories, Nunavut and the Yukon specifically, the researcher must have a research license approved
	Chapter 33	Nutritional assessment methods: Anthropometric assessment
103	Anthropometric measurements	Measurements of weight, height and proportions of the human body. These measurements can be used to estimate health risks and nutritional states, measure body fat and even create meaningful relationships when combined with other sources of data
104	Growth charts	Charts that allow health professionals to measure the pattern of growth in height and weight to compare against an expected standard

105	Percentile lines	Specialised reference lines running parallel to each other on the growth chart. For example, if a child's weight is at the 75th percentile line, this means that out of 100 normal children at the same age, 75 will be lighter and 25 will be heavier than the child
106	Undernutrition	Condition caused by deficiency of nutrients or energy intake. Characterised by being underweight, stunted, wasted and deficiency in micronutrients
107	Body mass index	An index calculated from the subject's body weight (in kilograms), divided by the square of the height (in metres) (kg/m ²). This is widely used to indicate categories for underweight, normal weight, overweight and obesity
108	Oedema	Swelling of body's tissues due to excessive accumulation of fluid
109	Kwashiorkor	Condition caused by chronic deficiency of protein. Characterised by oedema (specifically swollen stomach), anorexia, severe loss of muscle mass, compromise to the immune system and hair and skin changes
110	Subcutaneous tissue	The third layer of skin made up of nerves and larger blood vessels. This is the layer of skin where fat resides under the skin
111	Visceral adiposity	Fat located in the torso that surrounds the organs. This fat provides cushioning for organs
112	Waist-to-hip ratio	A ratio of the circumference at the waist divided by the circumference at the largest part of the hips. A higher ratio may be associated with 'central obesity' and is considered to be a risk factor for disease, such as diabetes
113	Mid-arm circumference	A measurement of the circumference of the upper arm, taken at the midpoint between shoulder and elbow. When used in conjunction with fat measurement by skinfold thickness, circumference can be used to calculate mid-arm muscle circumference, which is used as an indicator of nutritional status
114	Callipers	A tool used for measuring skinfold thickness. Skinfold thickness is then used to estimate body fat
115	Densitometry	Method of measuring percentage of body fat by first weighing the individual in air for their body mass and then their body volume by immersing the individual under water to obtain water displacement. Both body mass and body volume are then entered into appropriate equations to calculate percentage body fat
116	Air displacement plethysmography (BodPod)	Method for measuring body composition by measuring air displacement
117	Bioelectrical impedance analysis	Method for measuring body fat by sending small electric currents through the body. As these currents move through the body, the instrument used will measure the amount of resistance (impedance) the current has as it moves through the water from muscles and fat in the body. The more fat in the body, the more resistance the current will encounter
118	Dilution techniques	Method for measuring total body water by injection of radioactive isotopes into the body. The output of the isotope is measured in the urine
	Chapter 34	Nutritional assessment methods: Dietary assessment I
119	Food balance sheets	Tool used to assess the quantity of food available for consumption within a country during a specified time period

120	Dietary inadequacy	Not having or consuming enough food to meet nutrient requirements
121	Household food	Tool used to obtain information on the foods consumed within a household. For at
	consumption record	least a week, the head of the household or staff records a description of all foods
4.2.2		consumed, including brand, method of preparation and weight
122	24-hour recall	Nutritional assessment tool where participants are required to recall all they have consumed within the past 24 h
123	Food records	Nutritional assessment tool where participants are required to keep a record of what they have eaten over a period of time (days or weeks) either physically on paper or electronically
124	Food frequency questionnaires	Questionnaire that requires the participant to report how many times (e.g. 1–2 times per week, 3–4 times per week, 5–6 times per week) they have eaten the foods on a fixed list of food items. The portion consumed is usually included
125	Respondent burden	Degree to which participant perceives that participation is time consuming, emotionally stressful and/or difficult
126	Portion size models	Food models/toy foods that are made to reflect the actual size and appearance of the real food
	Chapter 36	Inadequate nutritional intakes: Causes
127	Morbidity rate	The prevalence of a particular disease in a population
128	Mortality rate	The frequency of death in a population
129	Food security	All people, at all times, have physical and economic access to a culturally appropriate, safe and affordable food supply that is of a nutritional quality to meet the needs for a healthy and active life
130	Food insecure	Inability to access and consume safe, affordable, nutritious and/or culturally appropriate food
131	Globalisation	The flow of ideas, people, services, goods and finances across countries
132	Socioeconomic status	Individual or group's standing in society based on factors such as education level, income, occupation and housing
	Chapter 37	Inadequate nutritional intakes: Consequences
133	Macronutrients	Nutrients that are needed in large amounts to maintain bodily function. This includes carbohydrates, fats and proteins
134	Marasmus	Condition caused by chronic deficiencies in both protein and calories. It is characterised by extreme wasting of muscle, fat and tissues of the body
135	Low birth weight	Generally used to describe a newborn who weighs less than 2.5 kg
136	Intergenerational effects	Effects that carry on and affects several generations
	Chapter 38	Definitions of an adequate diet
137	Dietary reference intakes	Reference values for normal and healthy individuals. These values include the Estimated Average Requirement, recommended dietary allowance, adequate intake and tolerable upper intake level
138	Estimated average requirement	The median daily nutrient intake that satisfies the needs of approximately half of the healthy individuals in a specific age or gender group
139	Recommended dietary allowance	The daily average minimum nutrient intake that is sufficient for approximately 97.5% of the healthy individuals in a specific age or gender group

140	Adequate intake	Daily median nutrient intake value based on approximations from studies of healthy individuals
141	Tolerable upper intake level	The largest daily nutrient intake shown to cause no adverse effects in a large majority of the individuals in a particular age or gender group
142	Acceptable macronutrient distribution ranges	Recommendations for adequate macronutrient intake. These values are expressed as a percentage of the total energy consumed
	Chapter 39	Creating an adequate diet
143	Adequate diet	Diets containing all the nutrients listed in the dietary reference intakes table in amounts that meet the requirement for an individual's age and sex
144	Balanced diet	Diets containing appropriate amounts of foods from the four food groups relative to one another
145	The plate model	Diet where food proportions are determined by using a plate. The cereals and starchy foods group and the fruit and vegetables group should each comprise of one-third of the plate. The remaining one-third should comprise of meat, fish and alternatives and dairy products, and only a small proportion of the diet should come from foods rich in fat and sugar
146	Traffic light labelling	System designed to make it easier for people to choose foods that contribute to a balanced diet. Foods are labelled with a series of traffic light symbols based on the target levels of intake for particular nutrients. Foods are labelled green (may be eaten freely without compromising dietary quality), amber and red (should be limited)
	Chapter 40	Optimising nutrition
147	Chapter 40 Fortification	Optimising nutrition The addition of a nutrient or nutrients to a widely consumed food in order to improve the nutritional intake in a population. For example, orange juice is fortified with calcium and vitamin D. Fortification may be legally required or occur on a voluntary basis at the discretion of a manufacturer
147	Chapter 40 Fortification Chapter 41	Optimising nutritionThe addition of a nutrient or nutrients to a widely consumed food in order to improve the nutritional intake in a population. For example, orange juice is fortified with calcium and vitamin D. Fortification may be legally required or occur on a voluntary basis at the discretion of a manufacturerExcessive or unbalanced nutritional intakes
147	Chapter 40 Fortification Chapter 41 Energy density	Optimising nutritionThe addition of a nutrient or nutrients to a widely consumed food in order to improve the nutritional intake in a population. For example, orange juice is fortified with calcium and vitamin D. Fortification may be legally required or occur on a voluntary basis at the discretion of a manufacturerExcessive or unbalanced nutritional intakes The amount of energy supplied per gram of food. Low energy dense foods have fewer calories per gram and generally contain large amounts of water or nonnutritional factors such as nondigestible carbohydrate. High energy dense foods contain large amount of calories per gram and are likely to be rich in fat or low in water content
147	Chapter 40 Fortification Chapter 41 Energy density Chapter 42	Optimising nutritionThe addition of a nutrient or nutrients to a widely consumed food in order to improve the nutritional intake in a population. For example, orange juice is fortified with calcium and vitamin D. Fortification may be legally required or occur on a voluntary basis at the discretion of a manufacturerExcessive or unbalanced nutritional intakesThe amount of energy supplied per gram of food. Low energy dense foods have fewer calories per gram and generally contain large amounts of water or nonnutritional factors such as nondigestible carbohydrate. High energy dense foods contain large amount of calories per gram and are likely to be rich in fat or low in water contentFood choice: Individual, social and cultural factors
147	Chapter 40 Fortification Chapter 41 Energy density Chapter 42 Binge eating	Optimising nutritionThe addition of a nutrient or nutrients to a widely consumed food in order to improve the nutritional intake in a population. For example, orange juice is fortified with calcium and vitamin D. Fortification may be legally required or occur on a voluntary basis at the discretion of a manufacturerExcessive or unbalanced nutritional intakesThe amount of energy supplied per gram of food. Low energy dense foods have fewer calories per gram and generally contain large amounts of water or nonnutritional factors such as nondigestible carbohydrate. High energy dense foods contain large amount of calories per gram and are likely to be rich in fat or low in water contentFood choice: Individual, social and cultural factors An eating disorder characterised by frequent episodes of compulsive overeating and feelings of guilt or distress while or after bingeing
147 147 148 149 150	Chapter 40 Fortification Chapter 41 Energy density Chapter 42 Binge eating Hunger	Optimising nutritionThe addition of a nutrient or nutrients to a widely consumed food in order to improve the nutritional intake in a population. For example, orange juice is fortified with calcium and vitamin D. Fortification may be legally required or occur on a voluntary basis at the discretion of a manufacturerExcessive or unbalanced nutritional intakes The amount of energy supplied per gram of food. Low energy dense foods have fewer calories per gram and generally contain large amounts of water or nonnutritional factors such as nondigestible carbohydrate. High energy dense foods contain large amount of calories per gram and are likely to be rich in fat or low in water contentFood choice: Individual, social and cultural factors An eating disorder characterised by frequent episodes of compulsive overeating and feelings of guilt or distress while or after bingeingThe urge or need to eat, generally regulated by internal cues (e.g. blood glucose levels, hormones) but may be influenced by external cues (e.g. peers, media). It may be voluntary (e.g. eating disorders) or involuntary (e.g. food insecure)

152	Satiety	A state of post-meal fullness that persists after eating. The sensation delays the onset of the subsequent meal. The longer one is in the state of satiety the longer the time until the next snack/meal occurs
153	Appetite	A desire to eat a particular food
154	Aversion	Avoidance of specific foods from (perceived) experience. For example, a boy enjoys eating apples but one day he finds a worm in one, and now, he refuses to eat apples
	Chapter 43	Food choice: The food environment
155	Core foods	Starchy or bland foods (e.g. rice, potato, pasta) that are mostly at every meal and are eaten several times a day
156	Secondary foods	Foods that are often eaten in conjunction with core food but are not eaten at every meal. They are often sources of protein and vegetables
157	Peripheral foods	Foods that are eaten occasionally or eaten in small amounts, such as sweets, high- fat snacks and drinks
	Chapter 44	Nutrition in ethnic minority groups and potential impact of religion on diet
158	Dietary acculturation	Adoption of the dietary practices of the host country
159	Healthy immigrant effect	A phenomenon in which healthy immigrants residing in a host country initially have superior health, but over time, as they learn and take on the lifestyle patterns/habits of the host country, their health starts to diminish
	Chapter 45	Nutrition in pregnancy and lactation
160	Amenorrhoea	Absence of menstruation
	Chapter 46	Nutrition in infants, toddlers and preschool children
161	Maltodextrins	Disaccharides (i.e. units of two glucose molecules) made from breaking down polysaccharides by using enzymes and/or acids. Maltodextrins are easily digestible carbohydrates
162	Anovulation	Absence of ovulation (i.e. release of a ripened egg from the ovaries) during menstruation in women. Anovulation is a factor in infertility
	Chapter 47	Nutrition in school-age children and adolescents
163	Adiposity rebound	Body mass index (BMI) rapidly increases in the first 2 years of life. From age 2 onwards, BMI decreases until around age 4. Around age 4–6 years, children experience adiposity rebound, which is a second increase in BMI from an increase in adipose tissues in the body
164	Menarche	The first menstrual bleeding that marks the onset of the reproductive cycle in females
165	School allotments	Land made available to schools for community gardening
	Chapter 48	Nutritional challenges in infants, children and adolescents
166	Intrauterine growth retardation	Condition in which fetuses do not grow to their potential and at the expected rate as a result of genetic or environmental factors
167	Small for gestational age	A newborn whose birth weight is lower than expected for its calculated age at delivery. These babies' weights are below the 10th percentile for their appropriate gestational age and are considered to have experienced intrauterine growth retardation (IUGR)

168	Nasogastric tube	Tube that is inserted through the nose to gain access to the stomach. For example, in patients with dysphasia, doctors may use a nasogastric tube to feed and provide patients with nutrients
169	Nutrient dense	High amounts of nutrients such as vitamins and minerals per gram of food
170	Energy dense	High amounts of calories per gram of food
171	Anorexia nervosa	Type of eating disorder characterised by a BMI ≤18 kg/m ² , extreme thinness, intense fear of weight gain, desire to lose weight and body image distortions. Anorexics may follow drastic calorie-restricted diets, voluntarily induce hunger, be involved in excessive exercising, voluntarily induce vomiting after meals and engage in abusive use of diuretics and/or laxatives to maintain or to lose weight
172	Bulimia nervosa	Type of eating disorder characterised by binge eating and purging afterwards in fear of weight gain. Individuals with bulimia feel guilt, shame and/or disgust after bingeing that causes them to self-induce vomiting, use laxatives and diuretics and/or excessively exercise. Individuals with bulimia are often of normal weight
	Chapter 49	Nutrition and early origins of adult disease
173	Neonatal	Refers to anything to do with a newborn
174	Second trimester	The time period between 12 and 24 weeks of gestation
175	Third trimester	The time period between 24 and 40 weeks of gestation
176	Barker hypothesis	Theory put forward by Dr. David Barker that babies born with a low birth weight have an increased risk of developing cardiovascular disease later in life
177	Fetal origins hypothesis	Theory by Dr. David Barker that undernutrition in prenatal or infancy will lead to cardiovascular disease and associated diseases in later life
	Chapter 50	Nutrition in older adults
178	Sarcopenia	Condition characterised by the loss of muscle and strength. It is commonly seen in older adults and is associated with disability and frailty
179	Sarcopenic obesity	A new phenomenon where individuals have a BMI ≥30 and have a loss of muscle and strength
	Chapter 52	Nutrition and the gastrointestinal tract II
180	Emulsification	The mixing/combining of two immiscible substances. It can be a combination of protein and liquid, but most commonly, emulsions are a combination of fat and liquids
181	Micelle	Spherical ball of phospholipids. The spherical shape is formed by the alignment of the phospholipid heads on the outside and the phospholipid tails on the inside
182	Probiotics	Probiotics are live cultures of beneficial bacteria that help repopulate or change the gut flora and benefit gut health when consumed. An example of a common food product with probiotics is yogurt
	Chapter 55	Nutrition and the eye
183	Reactive oxygen species (or oxygen-derived radicals)	Part of the group of free radicals formed in the body as a result of metabolic reactions, defence mechanisms and exposure to environmental factors. A number of antioxidant systems are in place within the body to inactivate these molecules and protect against damage. They include nutrient-dependent pathways
	Chapter 56	Overweight and obesity: Aetiological factors

184	Waist circumference	The measurement of area between the bottom of the ribs and the top part of the hip bone. This measurement is used to estimate abdominal fat and to assess risks of chronic disease
	Chapter 59	Overweight and obesity: Prevention and management
185	Restrictive surgery	Type of surgical intervention for obesity where the size and capacity of the stomach are reduced to induce earlier feelings of satiety to enhance weight loss or prevent weight gain
186	Malabsorptive surgery	Type of surgical intervention for obesity that reduces the area of the small intestine available for absorption to enhance weight loss or prevent weight gain
	Chapter 65	Diet and cardiovascular disease: Prevention
187	C-reactive protein	A marker of inflammation released by the liver
	Chapter 66	Adverse reactions to food and inborn errors of metabolism
188	Double-blind technique	An experimental technique to prevent bias and placebo effects, where neither the researcher administering the experiment nor the participant knows the critical aspects (e.g. if participant is in the control group or experimental group)
	Chapter 68	Nutrition transition
189	Nutrition transition	A phenomenon resulting from rapid globalisation and changes in socioeconomic status and food availability. Nutritional transition is characterised by changes in dietary patterns, shifts to energy dense foods (e.g. high in fats and/or sugar) and/or diminishing levels of physical activity
	Chapter 71	Promoting nutritional health: The role of the dietitian
190	Food poisoning	Illness caused by the ingestion of harmful bacteria, parasites or viruses from contaminated food or drinks. Symptoms often include vomiting, stomach cramps, diarrhoea, fever and nausea
	Chapter 73	Nutrition and sport II
191	Isotonic	Possesses the same concentrations of solutes as the blood. Isotonic drinks are designed to replace and maintain the level of solutes in the body that may have been lost during demanding exercises
192		
	Hypertrophy	Excessive aggregation or growth of the body's cells
	Hypertrophy Chapter 74	Excessive aggregation or growth of the body's cells Functional foods
193	Hypertrophy Chapter 74 Functional foods	Excessive aggregation or growth of the body's cells Functional foods Products that carry a claim of health-promoting properties, usually on the basis of an added ingredient, which may or may not be naturally present in the food. Claims that can be made are controlled by law
193	Hypertrophy Chapter 74 Functional foods Chapter 77	Excessive aggregation or growth of the body's cells Functional foods Products that carry a claim of health-promoting properties, usually on the basis of an added ingredient, which may or may not be naturally present in the food. Claims that can be made are controlled by law Food safety
193 194	Hypertrophy Chapter 74 Functional foods Chapter 77 Food hazards	Excessive aggregation or growth of the body's cells Functional foods Products that carry a claim of health-promoting properties, usually on the basis of an added ingredient, which may or may not be naturally present in the food. Claims that can be made are controlled by law Food safety Biological, chemical and physical hazards in food that have the potential to cause illness or injury
193 194 195	Hypertrophy Chapter 74 Functional foods Chapter 77 Food hazards Biological hazards	Excessive aggregation or growth of the body's cells Functional foods Products that carry a claim of health-promoting properties, usually on the basis of an added ingredient, which may or may not be naturally present in the food. Claims that can be made are controlled by law Food safety Biological, chemical and physical hazards in food that have the potential to cause illness or injury Microorganisms such as bacteria, viruses, parasites, moulds and yeast that may be found in food
193 194 195 196	Hypertrophy Chapter 74 Functional foods Chapter 77 Food hazards Biological hazards Chemical hazards	Excessive aggregation or growth of the body's cellsFunctional foodsProducts that carry a claim of health-promoting properties, usually on the basis of an added ingredient, which may or may not be naturally present in the food. Claims that can be made are controlled by lawFood safetyBiological, chemical and physical hazards in food that have the potential to cause illness or injuryMicroorganisms such as bacteria, viruses, parasites, moulds and yeast that may be found in foodChemical substances such as detergent, bleach, pesticides and antimicrobial residues that may be found in food

198	Hazard Analysis Critical
	Control Point (HACCP)

A universally used method of practising food safety. It helps identify, prevent, control and correct hazards (biological, physical and/or chemical) that may appear during the food production process. Each HACCP plan is unique to its product