The Health Sciences Academy®

Fundamentals of Anatomy, Pathophysiology, and Lifestyle Medicine ™

Knowledge-Based Certification

Certification Curriculum

Summary Certification Overview

0	Certification fundamentals	12	Immune system
1	Introduction to pathophysiology and lifestyle medicine	13	Digestive system
2	Cell structure and function	14	Respiratory system
3	Cellular metabolism	15	Urinary system
4	Integumentary system	16	Water, electrolytes, acid-base balance
5	Skeletal system	17	Reproductive system
6	Muscular system	18	Human development and life cycle
7	Nervous system	19	Modifiable lifestyle factors
8	The senses	20	Lifestyle medicine practice
9	Endocrine system	21	Core modifiable lifestyle factors
10	Cardiovascular system	22	Professional considerations
11	Lymphatic system		

Fundamentals of Anatomy, Pathophysiology, and Lifestyle Medicine™

Unit	Content
1	Your certification fundamentals
2	What's your goal?
3	Why study anatomy, physiology, pathophysiology, and lifestyle medicine?
4	Getting a grasp on anatomical terminology
5	Cell fundamentals: The basic units of life
6	What contributes to poorer health and disease?
7	Transport across a membrane
8	Cell division, mitosis, and meiosis
9	What is metabolism?
10	Enzymes: Catalysing reactions

Fundamentals of Anatomy, Physiology, and Pathophysiology™

Unit	Content
11	Why do we have skin?
12	What are the different layers of the skin?
13	Examining 6 common skin conditions
14	The bones that hold us together
15	The fundamentals of 4 skeletal conditions
16	Moving muscles
17	Muscular system conditions
18	The major control, regulatory, and communication system
19	The brain and nerves of the nervous system
20	Creating an action potential

Fundamentals of Anatomy, Physiology, and Pathophysiology™

Unit	Content
21	Nervous system conditions
22	What are our special senses?
23	Our 5 special senses
24	3 conditions relating to vision
25	Production, secretion, and regulation of hormones
26	6 structures and their hormones
27	Endocrine system disorders
28	Arteries, veins, and capillaries running through the body
29	The components of our blood
30	Cardiovascular system disorders

Fundamentals of Anatomy, Physiology, and Pathophysiology™

Unit	Content
31	Ridding the body of toxins, waste, and unwanted materials
32	Fighting infection
33	When the immune system is working too hard or not enough
34	Introduction to the digestive system
35	From mouth to stomach
36	The stomach
37	The pancreas, liver, and gallbladder
38	The intestines
39	Gastrointestinal conditions (part 1)
40	Gastrointestinal conditions (part 2)

Fundamentals of Anatomy, Physiology, and Pathophysiology™

Unit	Content
41	The science behind breathing in and out
42	When respiration is out of balance
43	More than just removing waste through urine
44	4 Urinary system conditions
45	Water balance
46	Electrolyte balance
47	Acid-base balance
48	Female reproductive system
49	Male reproductive system
50	Conception and implantation

Fundamentals of Anatomy, Physiology, and Pathophysiology™

Unit	Content
51	Reproductive health concerns
52	The 6 main human life cycle stages
53	Health Risk Questionnaires
54	Routine Screenings Per Age Group
55	Components of Basic Biometrics
56	Thyroid and other common blood tests
57	Lifestyle medicine practice within medical settings
58	Lifestyle medicine practice outside medical settings
59	Modifiable lifestyle factors for disease risk reduction
60	Sleep and stress

Fundamentals of Anatomy, Physiology, and Pathophysiology™

Unit	Content
61	Smoking and alcohol consumption
62	Weight maintenance, obesity, and metabolic syndrome
63	Dos, don'ts, and must dos

0. Advisory fundamentals

Unit	Here's what you'll learn	Extra support material
0.1 Your Certification fundamentals 0.2 Skills Lab™: What's your goal?	▪ A journey of scientific discovery ▪ Scope of this certification ▪ Not a course to be rushed through ▪ The first part ▪ The second part ▪ The third part ▪ A comprehensive certification ▪ Introducing your Success Map ▪ Your Anatomy, Pathophysiology, and Lifestyle Medicine Success Map™ ▪ Over 75 medical conditions… ▪ Tell us your goals ▪ Your Personal Strategy Questionnaire	▪ Skills Lab™: Personal Strategy Questionnaire (What's your goal?)

1. Introduction to pathophysiology and lifestyle medicine

Unit	Here's what you'll learn	Extra support material
1.1 Why study anatomy, physiology, pathophysiology, and lifestyle medicine? 1.2 Getting a grasp on anatomical terminology	▪ Understanding key terms ▪ What is anatomy? And physiology? ▪ What is pathophysiology? ▪ Putting it together ▪ A crucial understanding ▪ Asking the right questions ▪ A strong foundation ▪ Systems as a whole ▪ Modifiable or not? ▪ Lifestyle Medicine ▪ Prevention better than cure ▪ 30 million preventable deaths? ▪ The world's top 10 killers ▪ Even in high-income countries… ▪ No 'magic pill' for preventive care? ▪ So what is lifestyle medicine?	▪ Test Your Knowledge exercises ▪ Videos

1. Introduction to pathophysiology and lifestyle medicine

Unit	Here's what you'll learn	Extra support material
1.1 Why study anatomy, physiology, pathophysiology, and lifestyle medicine? 1.2 Getting a grasp on anatomical terminology	▪ Modifiable lifestyle factors ▪ Who can give recommendations? ▪ Lifestyle prescriptions vs guidelines ▪ Other professional considerations ▪ Anatomical terminology ▪ Anatomical position ▪ When laying down ▪ Learning direction terms ▪ Directional terms ▪ Dividing the body in sections ▪ 3 body planes ▪ Dividing the body in halves ▪ 3 main axes ▪ Planes and axes ▪ Movement terms ▪ Movement examples ▪ Regional terms	▪ Test Your Knowledge exercises ▪ Videos

1. Introduction to pathophysiology and lifestyle medicine

Unit	Here's what you'll learn	Extra support material
1.1 Why study anatomy, physiology, pathophysiology, and lifestyle medicine? 1.2 Getting a grasp on anatomical terminology	▪ Fluid-filled spaces in the body ▪ Visualising human body cavities ▪ Learning a new language	▪ Test Your Knowledge exercises ▪ Videos

2. Cell structure and function

Unit	Here's what you'll learn	Extra support material
2.1 Cell fundamentals 2.2 What contributes to poorer health and disease? 2.3 Transport across a membrane 2.4 Cell division, mitosis, and meiosis	▪ Trillions of cells working together ▪ Main cell types ▪ Human cell basics ▪ Functions of organelles ▪ What is DNA? ▪ DNA structure ▪ From DNA to RNA ▪ DNA, mRNA, and protein ▪ Amino acids sequence and structure ▪ Genes and proteins ▪ From DNA to proteins ▪ Protein in food ▪ Mutations: the cause for disease? ▪ Defective gene… or environment? ▪ Genes from mom and dad ▪ Scientists started to wonder… ▪ The Human Genome Project	▪ Test Your Knowledge exercises ▪ Videos

2. Cell structure and function

Unit	Here's what you'll learn	Extra support material
2.1 Cell fundamentals 2.2 What contributes to poorer health and disease? 2.3 Transport across a membrane 2.4 Cell division, mitosis, and meiosis	▪ The results? ▪ The start of GWAS ▪ Genes associated with curly hair ▪ Linking genes to phenotypes ▪ A gene that causes obesity? ▪ Nature + nurture ▪ What's the epigenome? ▪ We're not doomed by our genes ▪ "Let food be your medicine" ▪ Lifestyle medicine ▪ Transport across the membrane ▪ 3 main transport types ▪ Passive transport ▪ Molecules spreading out ▪ An example of diffusion ▪ Diffusion in the body too ▪ Gas exchange during respiration	▪ Test Your Knowledge exercises ▪ Videos

2. Cell structure and function

Unit	Here's what you'll learn	Extra support material
2.1 Cell fundamentals 2.2 What contributes to poorer health and disease? 2.3 Transport across a membrane 2.4 Cell division, mitosis, and meiosis	▪ Creating equilibrium with water ▪ Osmosis example 1 ▪ Osmosis example 2 ▪ Thirsty plant cells ▪ Osmosis in the human body ▪ Facilitated diffusion ▪ Who crosses using transporters? ▪ Transporting glucose into a cell ▪ Active transport ▪ Needing energy ▪ The Na+/K+ ATPase pump ▪ Vesicle transport ▪ Need to be carried ▪ Entering the cell through vesicles ▪ 3 types of endocytosis ▪ Exocytosis ▪ Complex and well-orchestrated	▪ Test Your Knowledge exercises ▪ Videos

2. Cell structure and function

Unit	Here's what you'll learn	Extra support material
2.1 Cell fundamentals 2.2 What contributes to poorer health and disease? 2.3 Transport across a membrane 2.4 Cell division, mitosis, and meiosis	▪ Why learn how cells divide? ▪ How do cells divide? ▪ Not all cells divide? ▪ Cell cycle phases ▪ Cell cycle stages ▪ Somatic cells vs gamete cells ▪ Chromosomes in humans ▪ Normal human karyotype ▪ 5 main stages of mitosis ▪ Dividing the nucleus ▪ Cell mitosis ▪ Meiosis: a special kind of division ▪ Why is meiosis important? ▪ Cells for reproduction ▪ How does meiosis occur? ▪ Cell meiosis	▪ Test Your Knowledge exercises ▪ Videos

2. Cell structure and function

Unit	Here's what you'll learn	Extra support material
2.1 Cell fundamentals 2.2 What contributes to poorer health and disease? 2.3 Transport across a membrane 2.4 Cell division, mitosis, and meiosis	▪ Comparing mitosis and meiosis ▪ Importance of cell division	▪ Test Your Knowledge exercises ▪ Videos

3. Cellular metabolism

Unit	Here's what you'll learn	Extra support material
3.1 What is metabolism? 3.2 Enzymes-catalysing reactions	▪ What's metabolism? ▪ Cats are always breaking things ▪ Breaking down and building up ▪ A network of roads ▪ Cellular respiration ▪ From food to ATP ▪ Glycolysis ▪ Krebs cycle ▪ Electron transport chain ▪ Why study these processes? ▪ Fats and protein for energy ▪ Gluconeogenesis ▪ Breaking down glucose ▪ Glucose or glycogen ▪ Blood sugar control ▪ Using glucose as energy ▪ Ketogenesis	▪ Test Your Knowledge exercises ▪ Videos

3. Cellular metabolism

Unit	Here's what you'll learn	Extra support material
3.1 What is metabolism? 3.2 Enzymes-catalysing reactions	▪ Too many ketones ▪ Taking too long ▪ Lowering the energy needed ▪ Lock and key ▪ Where the binding occurs ▪ Multiple binding sites ▪ A temporary change ▪ After consuming sucrose ▪ Breaking down sucrose ▪ Dehydration synthesis vs hydrolysis ▪ An assistant to enzymes ▪ Bridges are helpful ▪ Some vitamins are coenzymes ▪ Ascorbic acid: the coenzyme ▪ Extra energy required ▪ Cells working together	▪ Test Your Knowledge exercises ▪ Videos

4. Integumentary system

Unit	Here's what you'll learn	Extra support material
4.1 Why do we have skin? 4.2 What are the different layers of the skin? 4.3 Examining 6 common skin conditions	▪ Why do we have skin? ▪ What is the integumentary system? ▪ What are the 5 main skin functions? ▪ Role 1: Protection ▪ Is our skin waterproof? ▪ The skin is like a gate in a fence ▪ Role 2: Regeneration ▪ Main steps of wound healing ▪ Role 3: Sensation ▪ Thermoregulation ▪ Keeping it in balance ▪ Role 4: Manufacturing ▪ Vitamin D synthesis ▪ Role 5: Storage ▪ Why protect our skin? ▪ How many skin layers are there? ▪ 3 main layers of skin	▪ Test Your Knowledge exercises ▪ Videos

4. Integumentary system

Unit	Here's what you'll learn	Extra support material
4.1 Why do we have skin? 4.2 What are the different layers of the skin? 4.3 Examining 6 common skin conditions	▪ Visualising the skin layers ▪ Contacting the environment ▪ Layers of the epidermis ▪ New skin each month? ▪ Maturing skin cells ▪ Toughening up for protection ▪ Bricks and mortar ▪ Thick skin? ▪ Visualising the dermis ▪ Layers of the dermis ▪ The strength of collagen ▪ Making collagen fibres ▪ The flexible fibre ▪ Fatty skin? ▪ Site for drug injection? ▪ Where in the skin do drugs go? ▪ Differences due to cells?	▪ Test Your Knowledge exercises ▪ Videos

4. Integumentary system

Unit	Here's what you'll learn	Extra support material
4.1 Why do we have skin? 4.2 What are the different layers of the skin? 4.3 Examining 6 common skin conditions	▪ Cell types of the skin layers ▪ The cells in our skin ▪ Secreting substances from the skin ▪ Glands which sweat ▪ Glands in our skin ▪ Getting under your skin ▪ 6 common skin conditions ▪ How common is acne? ▪ When hair follicles are clogged ▪ Types of comedones ▪ Forming whiteheads and blackheads ▪ Bacterial growth ▪ Forming papules and pustules ▪ 3 main types of dermatitis ▪ Seborrheic and contact dermatitis ▪ Skin changes ▪ Contact dermatitis irritants	▪ Test Your Knowledge exercises ▪ Videos

4. Integumentary system

Unit	Here's what you'll learn	Extra support material
4.1 Why do we have skin? 4.2 What are the different layers of the skin? 4.3 Examining 6 common skin conditions	▪ Involvement of the immune system ▪ Limiting a reaction ▪ Yeast on our head? ▪ No "cure" for seborrheic dermatitis? ▪ What is eczema? ▪ Minimising AD flare-ups ▪ Genetics of dermatitis ▪ Diet for AD ▪ When bumps appear quickly ▪ Common triggers of hives ▪ Subtypes of hives ▪ Hives vs angioedema ▪ Treating hives ▪ What is psoriasis? ▪ Scalp psoriasis ▪ Psoriasis and disease ▪ Can nutrition help?	▪ Test Your Knowledge exercises ▪ Videos

4. Integumentary system

Unit	Here's what you'll learn	Extra support material
4.1 Why do we have skin? 4.2 What are the different layers of the skin? 4.3 Examining 6 common skin conditions	▪ What is rosacea? ▪ Rosacea subtypes ▪ Protecting what's insid	▪ Test Your Knowledge exercises ▪ Videos

5. Skeletal system

Unit	Here's what you'll learn	Extra support material
5.1 The bones that hold us together 5.2 The fundamentals of 4 skeletal conditions	▪ Muscular + skeletal ▪ 2 main skeletal divisions ▪ Axial and appendicular ▪ Skeletal system ▪ Bone classification ▪ Renovating a house ▪ Bone remodelling ▪ Bone function – it's alive! ▪ Calcium and collagen ▪ Cartilage: giving structure ▪ Connecting bone to bone or muscle ▪ Sprains and tears ▪ Joints: connecting bones ▪ Shoulder anatomy ▪ Neck and back anatomy ▪ Hip anatomy ▪ Knee anatomy	▪ Test Your Knowledge exercises

5. Skeletal system

Unit	Here's what you'll learn	Extra support material
5.1 The bones that hold us together 5.2 The fundamentals of 4 skeletal conditions	▪ Foot and ankle anatomy ▪ Bones and muscles ▪ Bone and joint conditions ▪ What is gout? ▪ Complications with gout ▪ Nutritional risks factors ▪ Reducing symptoms with the diet ▪ What is osteoarthritis? ▪ Stages of knee osteoarthritis ▪ Nutritional support ▪ Supplemental support ▪ Our immune system attacking us ▪ The role of genetics ▪ Behavioural risk factors ▪ Dietary support for symptoms ▪ Comparing OA and RA ▪ When bone mineral density is low	▪ Test Your Knowledge exercises

5. Skeletal system

Unit	Here's what you'll learn	Extra support material
5.1 The bones that hold us together 5.2 The fundamentals of 4 skeletal conditions	▪ Stages of osteoporosis ▪ A T-score vs Z-score ▪ Understanding T-scores ▪ Risk factors: smoking and alcohol ▪ Other risk factors ▪ Which nutrients for bone health? ▪ Connecting bones to muscles	▪ Test Your Knowledge exercises

6. Muscular system

Unit	Here's what you'll learn	Extra support material
6.1 Moving muscles 6.2 Muscular system conditions	▪ Working together ▪ Connecting body systems ▪ Muscles pulling on bones ▪ Muscles of the knee ▪ Working together to move ▪ More than just movement ▪ Muscular system ▪ Muscle tissue types ▪ 3 muscle types ▪ Involvement of nerves ▪ Muscle contraction ▪ The sliding filament theory ▪ Requirement of energy ▪ Understanding muscles ▪ Conditions affecting the muscular system ▪ Loss of muscle mass ▪ Factors contributing to sarcopenia	▪ Test Your Knowledge exercises ▪ Videos

6. Muscular system

Unit	Here's what you'll learn	Extra support material
6.1 Moving muscles 6.2 Muscular system conditions	▪ Not just 1 disorder ▪ Strengthening muscles ▪ DMD genetics ▪ Progressive muscle weakness ▪ Nutrition for DMD ▪ Not just during exercise ▪ 2 main hypothesis ▪ What to do with a cramp? ▪ When to see a doctor? ▪ Pain all over ▪ Other fibromyalgia symptoms ▪ Cause of fibromyalgia ▪ Epigenetic changes ▪ Changes in methylation ▪ Lifestyle and nutritional support ▪ Neuromuscular system	▪ Test Your Knowledge exercises ▪ Videos

7. Nervous system

Unit	Here's what you'll learn	Extra support material
7.1 The major control, regulatory, and communication system 7.2 The brain and nerves of the nervous system 7.3 Creating an action potential 7.4 Nervous system conditions	▪ More than just sensing pain ▪ 2 main divisions ▪ The CNS and PNS ▪ Voluntary or involuntary? ▪ Trying not to blink or breathe ▪ 3 main functions ▪ Integration and output ▪ Information in and instructions out ▪ Dividing the nervous system ▪ Fight, flight, rest, or digest ▪ Balancing the nervous system ▪ Sympathetic and parasympathetic ▪ Feeling stressed? ▪ Nerves connect to other systems ▪ The brain and nerves ▪ Functions of the brain ▪ Physical damage protection	▪ Test Your Knowledge exercises ▪ Videos

7. Nervous system

Unit	Here's what you'll learn	Extra support material
7.1 The major control, regulatory, and communication system 7.2 The brain and nerves of the nervous system 7.3 Creating an action potential 7.4 Nervous system conditions	▪ Layers of protection ▪ Protection against pathogens ▪ 3 main brain regions ▪ Visualising the brain ▪ Cerebrum divided ▪ Lobes of the cerebrum ▪ Functions of each lobe ▪ The cells of the nervous system ▪ The anatomy of a neuron ▪ Jumping from neuron to neuron ▪ Grey and white matter ▪ Afferent and efferent nerves ▪ Neurons don't work alone ▪ Regeneration of nerve cells ▪ Problems for PNS regeneration ▪ How does a neuron work? ▪ From neurons to the brain	▪ Test Your Knowledge exercises ▪ Videos

7. Nervous system

Unit	Here's what you'll learn	Extra support material
7.1 The major control, regulatory, and communication system 7.2 The brain and nerves of the nervous system 7.3 Creating an action potential 7.4 Nervous system conditions	▪ Messengers of the nervous system ▪ A change in concentration ▪ The resting membrane potential ▪ Key ions: sodium and potassium ▪ Movement of ions ▪ Depolarisation ▪ Repolarisation ▪ Change in membrane potential ▪ A failed action potential ▪ The role of calcium in transmission ▪ Action potential at the NMJ ▪ Inhibitory or excitatory ▪ Top neurotransmitters ▪ Nutrients to support the nervous system ▪ Brain and nerves work together ▪ Nervous system conditions ▪ What is carpal tunnel syndrome?	▪ Test Your Knowledge exercises ▪ Videos

7. Nervous system

Unit	Here's what you'll learn	Extra support material
7.1 The major control, regulatory, and communication system 7.2 The brain and nerves of the nervous system 7.3 Creating an action potential 7.4 Nervous system conditions	▪ Carpal tunnel anatomy ▪ What causes compression? ▪ What is Alzheimer's? ▪ Amyloid plaques ▪ Nutrition and Alzheimer's ▪ What is MS? ▪ Areas affected by MS ▪ Risk factors for MS ▪ What is a migraine? ▪ Cortical spreading depression ▪ Can't sleep at night? ▪ Blaming our genes? ▪ Connecting conditions ▪ How common is insomnia? ▪ Factors influencing insomnia ▪ What is RLS? ▪ What happens in RLS	▪ Test Your Knowledge exercises ▪ Videos

8. The senses

Unit	Here's what you'll learn	Extra support material
8.1 What are our special senses? 8.2 Our 5 special senses 8.3 3 conditions relating to vision	▪ What are you currently sensing? ▪ What are our special senses? ▪ What are sensory receptors ▪ 5 main sensory receptor types ▪ Does sensation equal perception? ▪ Sensation vs perception ▪ How do our senses work? ▪ Creating an action potential ▪ Diving in deeper… ▪ Our 5 special senses ▪ What is sight? ▪ Eye anatomy ▪ The layers of the retina ▪ Rhodopsin in rods ▪ 3 opsins in cones ▪ Tastiness is keeping us alive ▪ Tongue anatomy	▪ Test Your Knowledge exercises ▪ Videos

8. The senses

Unit	Here's what you'll learn	Extra support material
8.1 What are our special senses? 8.2 Our 5 special senses 8.3 3 conditions relating to vision	▪ Biology of taste ▪ Myth Buster ▪ What is olfaction? ▪ Nose anatomy ▪ How do we smell something? ▪ What is hearing? ▪ Ear anatomy ▪ How sounds travel through the ear ▪ 2 types of equilibrium ▪ The vestibular system ▪ Static equilibrium ▪ Dynamic equilibrium ▪ Sensing our way through the world ▪ 3 common eye conditions ▪ What are cataracts? ▪ An eye with a cataract ▪ An age-related condition	▪ Test Your Knowledge exercises ▪ Videos

8. The senses

Unit	Here's what you'll learn	Extra support material
8.1 What are our special senses? 8.2 Our 5 special senses 8.3 3 conditions relating to vision	▪ Not just a disease of ageing ▪ What to do? ▪ What is glaucoma? ▪ Who is at risk? ▪ Open-angle glaucoma ▪ Angle-closure glaucoma ▪ Development of glaucoma ▪ What can be done for glaucoma? ▪ What is macular degeneration? ▪ Risk for AMD ▪ 2 major types of AMD ▪ Macular degeneration types ▪ Slowing disease progression	▪ Test Your Knowledge exercises ▪ Videos

9. Endocrine system

Unit	Here's what you'll learn	Extra support material
9.1 Production, secretion, and regulation of hormones 9.2 6 structures and their hormone 9.3 Endocrine system disorders	▪ Functions of the endocrine system ▪ Comparing 2 systems ▪ What are glands? ▪ Male and female endocrine system ▪ What are hormones? ▪ Steroid and nonsteroid hormones ▪ Different types of hormones ▪ Communication with cells ▪ 3 types of hormone action ▪ Steps of a hormonal response ▪ Steroid hormone response ▪ Nonsteroid hormone response ▪ Regulating hormone levels ▪ Negative feedback ▪ 3 main mechanisms of action ▪ Where do hormones come from? ▪ 6 key structures	▪ Test Your Knowledge exercises

9. Endocrine system

Unit	Here's what you'll learn	Extra support material
9.1 Production, secretion, and regulation of hormones 9.2 6 structures and their hormone 9.3 Endocrine system disorders	▪ Hypothalamus anatomy ▪ Produced by the hypothalamus ▪ Pituitary gland anatomy ▪ Produced by the pituitary ▪ Thyroid and parathyroid anatomy ▪ Produced by the thyroid and parathyroid ▪ Hormones: connecting organs ▪ Adrenal gland anatomy and hormones ▪ Pancreas anatomy and hormones ▪ What's insulin? ▪ Insulin and fat gain ▪ Excess glucose and fat storage ▪ Sugar highs and lows ▪ Reproductive organ anatomy ▪ Tests and ovaries ▪ Sleep and stress ▪ Hormones involved in the HPA axis	▪ Test Your Knowledge exercises

9. Endocrine system

Unit	Here's what you'll learn	Extra support material
9.1 Production, secretion, and regulation of hormones 9.2 6 structures and their hormone 9.3 Endocrine system disorders	▪ Hunger hormones ▪ Hormone balance ▪ Glands get tired? ▪ Is adrenal fatigue a myth? ▪ Adrenal insufficiency ▪ 3 main types of insufficiency ▪ A long-term condition ▪ What is diabetes? ▪ Two main types of diabetes ▪ Understanding type 1 diabetes ▪ Type 1 diabetes management ▪ Understanding type 2 diabetes ▪ Prediabetes to type 2 ▪ Type 2 diabetes dietary support ▪ Type 2 diabetes management ▪ Comparing type 1 and 2	▪ Test Your Knowledge exercises

9. Endocrine system

Unit	Here's what you'll learn	Extra support material
9.1 Production, secretion, and regulation of hormones 9.2 6 structures and their hormone 9.3 Endocrine system disorders	▪ Hypo and hyperthyroidism ▪ Hormones affect the heart	▪ Test Your Knowledge exercises

10. Cardiovascular system

Unit	Here's what you'll learn	Extra support material
10.1 Arteries, veins, and capillaries running through the body 10.2 The components of our blood 10.3 Cardiovascular system disorders	▪ Run by a large pump ▪ Heart anatomy ▪ Cardiovascular transport ▪ Blood vessels structure ▪ Cardiac output = venous return ▪ Blood flow through the heart ▪ 2 circulatory systems ▪ Systemic circulation ▪ Pulmonary circulation ▪ Blood flow to the body ▪ Contraction and relaxation ▪ The cardiac cycle ▪ How to flow? ▪ What makes the heart beat? ▪ A Nobel Prize discovery ▪ ECG waves ▪ Normal sinus rhythm	▪ Test Your Knowledge exercises ▪ Videos

10. Cardiovascular system

Unit	Here's what you'll learn	Extra support material
10.1 Arteries, veins, and capillaries running through the body 10.2 The components of our blood 10.3 Cardiovascular system disorders	▪ Why have an ECG? ▪ An "echo" of the heart ▪ Heart rate ▪ Factors that affect heart rate ▪ Take action: Check your pulse ▪ What is in our blood? ▪ What is in our blood? ▪ Blood cells origin ▪ The components of blood ▪ Red blood cells ▪ Carrying oxygen through the body ▪ White blood cells ▪ Platelets ▪ Function of blood ▪ Transportation ▪ Regulation and Protection ▪ ABO blood types	▪ Test Your Knowledge exercises ▪ Videos

10. Cardiovascular system

Unit	Here's what you'll learn	Extra support material
10.1 Arteries, veins, and capillaries running through the body 10.2 The components of our blood 10.3 Cardiovascular system disorders	▪ Heart and blood ▪ Cardiovascular conditions ▪ Too much or too little pressure ▪ What changes blood pressure? ▪ Risk for increased blood pressure ▪ Reducing hypertension risk ▪ A diet to stop hypertension? ▪ What about low BP? ▪ One important lipid ▪ Happy or lousy? ▪ A build-up in artery walls ▪ Problem with plaques ▪ Atherosclerotic plaques ▪ Pain or tightness in the chest ▪ 3 main types of angina ▪ What is a heart attack? ▪ Heart muscle dies	▪ Test Your Knowledge exercises ▪ Videos

10. Cardiovascular system

Unit	Here's what you'll learn	Extra support material
10.1 Arteries, veins, and capillaries running through the body 10.2 The components of our blood 10.3 Cardiovascular system disorders	▪ What is a stroke? ▪ 2 types of stroke ▪ 2 systems combined ▪ See a stroke - BE FAST ▪ The many types of anaemia ▪ Low levels of iron ▪ Quick iron test ▪ What is a varicose vein? ▪ Why do they form? ▪ Limiting varicose veins ▪ Circulation in blood vessels	▪ Test Your Knowledge exercises ▪ Videos

11. Lymphatic system

Unit	Here's what you'll learn	Extra support material
11.1 Ridding the body of toxins, waste, and unwanted material	▪ Ridding the body of toxins ▪ Lymphatic system anatomy ▪ 2 main function of lymph nodes ▪ Types of lymphatic organs ▪ Lymph node structure ▪ Movement of lymph ▪ Lymphatic fluid ▪ Lymph surrounded by blood vessels ▪ Blood and lymphatic circulation ▪ Speed of transport ▪ Identifying an infection ▪ Looking for metastasised cancer ▪ New scientific discoveries ▪ Lymph and immunity	▪ Test Your Knowledge exercises

12. Immune system

Unit	Here's what you'll learn	Extra support material
12.1 Fighting infection 12.2 When the immune system is working too hard or not enough	▪ Cuts, colds, and allergies? ▪ What is the immune system? ▪ The organs of the immune system ▪ Antigens and antibodies ▪ White blood cells to the rescue ▪ Cells of the immune system ▪ T cells and B cells ▪ 3 types of immunity ▪ First line of defence ▪ Second line of defence ▪ Pathogen eating time! ▪ Phagocytosis ▪ Third line of defence ▪ 5 types of antibodies ▪ Monoclonal antibodies ▪ Nutrition for immune health ▪ Immunity Nutrition	▪ Test Your Knowledge exercises ▪ Videos

12. Immune system

Unit	Here's what you'll learn	Extra support material
12.1 Fighting infection 12.2 When the immune system is working too hard or not enough	▪ Factors influencing immunity ▪ Hindering or helping? ▪ Strong immunity is important ▪ Autoimmune or overactive? ▪ The viruses that cause the flu ▪ Symptoms and complications ▪ Antiviral drugs, rest, and vaccines ▪ What does autoimmune mean? ▪ Attacking cells ▪ Various body systems attacked ▪ HIV or AIDS ▪ Reduced CD4+ cells ▪ Grave's disease ▪ Bulging eyes ▪ Fighting off everything ▪ The IgE-mediated allergic response ▪ 8 common food allergies	▪ Test Your Knowledge exercises ▪ Videos

12. Immune system

Unit	Here's what you'll learn	Extra support material
12.1 Fighting infection 12.2 When the immune system is working too hard or not enough	▪ Symptoms of a food allergy ▪ How common are allergies? ▪ Allergies = intolerances? ▪ Environmental allergies ▪ When pollen activates inflammation ▪ Immunity affects the whole body	▪ Test Your Knowledge exercises ▪ Videos

13. Digestive system

Unit	Here's what you'll learn	Extra support material
13.1 Introduction to the digestive system 13.2 From mouth to stomach 13.3 The stomach 13.4 The pancreas, liver, and gallbladder 13.5 The intestines 13.6 Gastrointestinal conditions (part 1) 13.7 Gastrointestinal conditions (part 2)	▪ What happens to the food we eat? ▪ The digestive system ▪ 6 events involved in digestion ▪ A long way down ▪ Digestive system organs ▪ Digestive system in sections ▪ The first entry point of food ▪ Mouth and throat anatomy ▪ Tongue and teeth ▪ Pharynx = throat ▪ 3 stages of swallowing ▪ Oesophagus ▪ Lower oesophageal sphincter ▪ Chewing and digestion ▪ More benefits to chewing? ▪ Kickstarting carb digestion ▪ The role of genetics	▪ Test Your Knowledge exercises ▪ Videos

13. Digestive system

Unit	Here's what you'll learn	Extra support material
13.1 Introduction to the digestive system 13.2 From mouth to stomach 13.3 The stomach 13.4 The pancreas, liver, and gallbladder 13.5 The intestines 13.6 Gastrointestinal conditions (part 1) 13.7 Gastrointestinal conditions (part 2)	▪ Breaking down fats ▪ What next? ▪ The stomach ▪ Stomach anatomy ▪ The stomach: an acid factory ▪ Gastric acid ▪ Stomach wall anatomy ▪ Secreting gastric acid ▪ Increasing gastric secretion ▪ More stomach secretions ▪ Decreasing gastric secretion ▪ What is chyme? ▪ Accessory organs ▪ Pancreas as an exocrine gland ▪ Pancreatic juices ▪ Pancreas anatomy ▪ Pancreas cells	▪ Test Your Knowledge exercises ▪ Videos

13. Digestive system

Unit	Here's what you'll learn	Extra support material
13.1 Introduction to the digestive system 13.2 From mouth to stomach 13.3 The stomach 13.4 The pancreas, liver, and gallbladder 13.5 The intestines 13.6 Gastrointestinal conditions (part 1) 13.7 Gastrointestinal conditions (part 2)	▪ Pancreatic cells secretions ▪ The bile producing organ ▪ Liver anatomy ▪ Hepatocyte communication ▪ Liver lobule anatomy ▪ What is the gallbladder function? ▪ Gallbladder anatomy ▪ A key gallbladder hormone ▪ Working together ▪ The long and winding road… ▪ Intestine anatomy ▪ The importance of folds ▪ Small intestine anatomy ▪ Duodenum reduces acidity ▪ Jejunum and ileum ▪ More enzymes ▪ Absorption summary	▪ Test Your Knowledge exercises ▪ Videos

13. Digestive system

Unit	Here's what you'll learn	Extra support material
13.1 Introduction to the digestive system 13.2 From mouth to stomach 13.3 The stomach 13.4 The pancreas, liver, and gallbladder 13.5 The intestines 13.6 Gastrointestinal conditions (part 1) 13.7 Gastrointestinal conditions (part 2)	▪ Large intestine function ▪ Large intestine anatomy ▪ 4 parts of the colon ▪ Gut bacteria ▪ How long does it take? ▪ Getting nutrients in ▪ Conditions covered ▪ Irritable bowel syndrome ▪ IBS symptoms ▪ How is IBS medically diagnosed? ▪ Lifestyle changes needed? ▪ What is dysbiosis? ▪ Link to whole-body health ▪ Diet and dysbiosis ▪ Constipation ▪ Factors influencing constipation ▪ What is diarrhoea?	▪ Test Your Knowledge exercises ▪ Videos

13. Digestive system

Unit	Here's what you'll learn	Extra support material
13.1 Introduction to the digestive system 13.2 From mouth to stomach 13.3 The stomach 13.4 The pancreas, liver, and gallbladder 13.5 The intestines 13.6 Gastrointestinal conditions (part 1) 13.7 Gastrointestinal conditions (part 2)	▪ Acute vs chronic ▪ What are haemorrhoids? ▪ 4 stages of haemorrhoids ▪ Haemorrhoids ▪ Reducing haemorrhoids ▪ What are gallstones? ▪ What increases risk for gallstones? ▪ Hydrochloric acid in the stomach ▪ Understanding stomach pH ▪ Minerals for balancing pH ▪ There's more! ▪ Conditions covered ▪ Not a new idea ▪ What is the "leaky gut"? ▪ Normal gut vs "leaky gut" ▪ How do molecules pass through? ▪ What are the junction proteins?	▪ Test Your Knowledge exercises ▪ Videos

13. Digestive system

Unit	Here's what you'll learn	Extra support material
13.1 Introduction to the digestive system 13.2 From mouth to stomach 13.3 The stomach 13.4 The pancreas, liver, and gallbladder 13.5 The intestines 13.6 Gastrointestinal conditions (part 1) 13.7 Gastrointestinal conditions (part 2)	▪ How does the "leaky gut" occur? ▪ How is the "leaky gut" defined? ▪ What causes the damage? ▪ What is Coeliac disease? ▪ Eat more fibre? ▪ How do you know? ▪ Signs and symptoms ▪ Time to go gluten-free? ▪ What is Crohn's disease? ▪ Crohn's disease symptoms ▪ Factors affecting Crohn's disease ▪ Diet personalisation ▪ What is diverticulitis? ▪ Visualising diverticulitis ▪ Diverticulosis vs diverticulitis ▪ What is an ulcer? ▪ H. Pylori affecting overall health	▪ Test Your Knowledge exercises ▪ Videos

13. Digestive system

Unit	Here's what you'll learn	Extra support material
13.1 Introduction to the digestive system 13.2 From mouth to stomach 13.3 The stomach 13.4 The pancreas, liver, and gallbladder 13.5 The intestines 13.6 Gastrointestinal conditions (part 1) 13.7 Gastrointestinal conditions (part 2)	▪ Anatomy of a stomach ulcer ▪ The role of diet in an ulcer ▪ Out of control? ▪ Candida overgrowth ▪ Upset stomach ▪ Encouraging growth ▪ What increases the risk? ▪ A "candida control diet" ▪ Rest (and digest) before we move on!	▪ Test Your Knowledge exercises ▪ Videos

14. Respiratory system

Unit	Here's what you'll learn	Extra support material
14.1 The science behind breathing in and out 14.2 When respiration is out of balance	▪ Breathe in ▪ Why do we breathe? ▪ Respiratory system anatomy ▪ 2 main respiratory tracts ▪ Upper respiratory tract anatomy ▪ Lower respiratory tract anatomy ▪ The nose and nasal cavity ▪ Nasal cavity anatomy ▪ Paranasal sinus functions ▪ Paranasal sinuses anatomy ▪ The oral cavity ▪ Which way does the air go? ▪ Producing a sound ▪ Where does air flow after that? ▪ Taking air to the bronchi ▪ From bronchi to alveoli ▪ Making room for air	▪ Test Your Knowledge exercises ▪ Videos

14. Respiratory system

Unit	Here's what you'll learn	Extra support material
14.1 The science behind breathing in and out 14.2 When respiration is out of balance	▪ Breathing air in and out ▪ Breathing during physical activity ▪ Gas exchange in an alveoli ▪ 5 phases of respiration ▪ What makes us breathe? ▪ How is breathing regulated? ▪ When breathing goes wrong ▪ Respiratory conditions ▪ What exactly is a "cold"? ▪ Incidence of colds over the year ▪ Cold vs allergies vs flu ▪ Can we prevent the common cold? ▪ What is sinusitis? ▪ Sinusitis symptoms ▪ Fluid and inflammation ▪ Factors influencing sinusitis ▪ 2 main types of ear infection	▪ Test Your Knowledge exercises ▪ Videos

14. Respiratory system

Unit	Here's what you'll learn	Extra support material
14.1 The science behind breathing in and out 14.2 When respiration is out of balance	▪ Otitis media ▪ Otitis externa ▪ Antibiotics, drying ears, washing hands ▪ What is COPD? ▪ 4 stages of COPD ▪ What is bronchitis? ▪ Inflammation of bronchitis ▪ What causes the obstruction? ▪ Mucus build-up ▪ More secretion, less elimination ▪ What is emphysema? ▪ Damaged tissue ▪ Destruction of the alveoli ▪ What is the cause? ▪ Gene mutation lowers protection ▪ What is asthma?	▪ Test Your Knowledge exercises ▪ Videos

14. Respiratory system

Unit	Here's what you'll learn	Extra support material
14.1 The science behind breathing in and out 14.2 When respiration is out of balance	▪ Wheezing and coughing ▪ Breathe – you're almost there!	▪ Test Your Knowledge exercises ▪ Videos

15. Urinary system

Unit	Here's what you'll learn	Extra support material
15.1 More than just removing waste through urine 15.2 4 Urinary system conditions	▪ Urinary system ▪ Urinary system anatomy ▪ The main functions ▪ The kidneys ▪ Kidney anatomy ▪ Kidney structures ▪ The filtering units ▪ Urine formation ▪ 1. Filtering the blood ▪ 2. Reabsorption and 3. Secretion ▪ What goes where? ▪ 4. Excretion ▪ The urea cycle ▪ Too much protein ▪ Purine metabolism ▪ Too many purines? ▪ Female bladder anatomy	▪ Test Your Knowledge exercises

15. Urinary system

Unit	Here's what you'll learn	Extra support material
15.1 More than just removing waste through urine 15.2 4 Urinary system conditions	▪ Male bladder anatomy ▪ What makes it flow? ▪ Blood flow through the nephron ▪ GFR can fluctuate ▪ Hormones involved ▪ Regulating blood pressure ▪ Antidiuretic hormone ▪ Urine elimination ▪ Bladder control ▪ Emptying the bladder ▪ No more control ▪ 4 urinary conditions covered ▪ What is incontinence? ▪ 4 types of incontinence ▪ Stress incontinence ▪ The hammock hypothesis ▪ A loose hammock changes pressure	▪ Test Your Knowledge exercises

15. Urinary system

Unit	Here's what you'll learn	Extra support material
15.1 More than just removing waste through urine 15.2 4 Urinary system conditions	▪ Urgency incontinence ▪ Change in bladder function ▪ 3 reasons for less bladder control ▪ What affects bladder function? ▪ What is cystitis? ▪ 4 types of incontinence ▪ Risk factors and treatment ▪ What are kidney stones? ▪ Symptoms and risk factors ▪ Similar conditions? ▪ What is nephropathy ▪ Changes in diabetic nephropathy ▪ Blood pressure and blood sugar ▪ Importance of fluid balance	▪ Test Your Knowledge exercises

16. Water, electrolytes, acid-base balance

Unit	Here's what you'll learn	Extra support material
16.1 Water balance 16.2 Electrolyte balance 16.3 Acid-base balance	▪ We are mostly water ▪ H20: the universal solvent ▪ Why polarity is important ▪ Fluids in the body ▪ Water balance ▪ Full of hot air? ▪ Water in, water out ▪ Water intake and loss ▪ Dehydration and too little water ▪ Dangers of dehydration ▪ Overhydration also a risk ▪ How to tell if you're dehydrated ▪ Feeling thirsty? ▪ Producing water? ▪ Properly hydrated? ▪ Food water sources ▪ Water loss through urination	▪ Test Your Knowledge exercises ▪ Videos

16. Water, electrolytes, acid-base balance

Unit	Here's what you'll learn	Extra support material
16.1 Water balance 16.2 Electrolyte balance 16.3 Acid-base balance	▪ Sweat it out! ▪ More than just water ▪ Fluid in the body ▪ Minerals with a charge ▪ Ions: inside or outside? ▪ Losing electrolytes ▪ How much electrolytes are where? ▪ How do electrolytes move? ▪ Renin-Angiotensin-Aldosterone System ▪ Feeling thirsty? ▪ Regulation of RAAS ▪ Its all about balance ▪ Acids and bases ▪ Understanding pH ▪ More than 1 scale ▪ pH in different tissues ▪ pH off-balance	▪ Test Your Knowledge exercises ▪ Videos

16. Water, electrolytes, acid-base balance

Unit	Here's what you'll learn	Extra support material
16.1 Water balance 16.2 Electrolyte balance 16.3 Acid-base balance	▪ Reviewing stomach pH ▪ How is blood pH regulated? ▪ A key role of hydrogen ions ▪ How does it work? ▪ Reversible reaction ▪ Buffer system working together ▪ What is a pH test? ▪ Stomach pH testing ▪ Oesophageal pH test for GERD ▪ Low oesophageal pH? ▪ Why test blood pH? ▪ Arterial blood gas test procedure ▪ Urine testing ▪ Out of normal range ▪ Saliva testing ▪ What are alkaline diets? ▪ Acid and alkaline-forming foods	▪ Test Your Knowledge exercises ▪ Videos

16. Water, electrolytes, acid-base balance

Unit	Here's what you'll learn	Extra support material
16.1 Water balance 16.2 Electrolyte balance 16.3 Acid-base balance	▪ Do alkaline diets prevent bone loss? ▪ Taking calcium from our bones? ▪ Protein and calcium absorption ▪ Benefits and risks ▪ What's next?	▪ Test Your Knowledge exercises ▪ Videos

17. Reproductive system

Unit	Here's what you'll learn	Extra support material
17.1 Female reproductive system 17.2 Male reproductive system 17.3 Conception and implantation 17.4 Reproductive health concerns	▪ What to expect ▪ What is the uterus? ▪ Female reproductive system ▪ Flexible anatomy ▪ Ovaries in the spotlight ▪ Changes in the menstrual cycle ▪ A pair of walnuts ▪ Hormones produced by the ovaries ▪ An egg delivery service ▪ Destined to meet ▪ Hang fire! ▪ Born with eggs? ▪ The female HPG axis ▪ Hormones are the messengers ▪ Timing egg release ▪ Fighting for dominance ▪ Under pressure	▪ Test Your Knowledge exercises

17. Reproductive system

Unit	Here's what you'll learn	Extra support material
17.1 Female reproductive system 17.2 Male reproductive system 17.3 Conception and implantation 17.4 Reproductive health concerns	▪ When is the fertile window? ▪ A temporary structure – just in case ▪ Ovarian vs menstrual cycle ▪ Ovarian cycle hormone levels ▪ A limited number of eggs? ▪ Fertilisation requires sperm ▪ Increasing chances of fertilisation ▪ Male reproductive system ▪ Prostate push ▪ The sperm factory ▪ 3 more key organs ▪ The messengers ▪ The chief male hormone ▪ Additional hormonal players ▪ The male HPG axis ▪ Bringing the two together ▪ Egg and sperm meet together	▪ Test Your Knowledge exercises

17. Reproductive system

Unit	Here's what you'll learn	Extra support material
17.1 Female reproductive system 17.2 Male reproductive system 17.3 Conception and implantation 17.4 Reproductive health concerns	▪ Destination: endometrium ▪ The egg and sperm unite ▪ Two halves coming together ▪ A gamete comparison ▪ A helping hand ▪ A preventative measure ▪ Zygote formation ▪ A fusion of information ▪ A summary of fertilisation ▪ The egg's final destination ▪ An overview of conception ▪ Fertilisation but no implantation? ▪ The 4 key processes ▪ An overview of implantation ▪ Blastocyst activation and competency ▪ Changes during blastocyst activation ▪ Time is of the essence	▪ Test Your Knowledge exercises

17. Reproductive system

Unit	Here's what you'll learn	Extra support material
17.1 Female reproductive system 17.2 Male reproductive system 17.3 Conception and implantation 17.4 Reproductive health concerns	▪ The window of implantation ▪ A flexible structure ▪ A 'sticky' blastocyst ▪ Cellular suicide ▪ Nutritious blood ▪ At the start of pregnancy ▪ A foreign entity ▪ The steps of implantation ▪ What could go wrong? ▪ Conditions of ageing? ▪ What are PMS symptoms? ▪ Altered functioning ▪ Limiting PMS symptoms ▪ What is clinical infertility? ▪ What qualifies as good sperm? ▪ Tests evaluating sperm parameters ▪ Low sperm counts?	▪ Test Your Knowledge exercises

17. Reproductive system

Unit	Here's what you'll learn	Extra support material
17.1 Female reproductive system 17.2 Male reproductive system 17.3 Conception and implantation 17.4 Reproductive health concerns	▪ WHO sperm parameters ▪ Genetics and medical conditions? ▪ Male reproductive conditions ▪ Factors influencing female infertility ▪ PCOS ▪ What is endometriosis? ▪ What is menopause? ▪ 4 main systems affected ▪ Vasomotor symptoms ▪ Hot flashes and serotonin ▪ Mood-related symptoms ▪ Oestrogen and mood pathways ▪ Cognitive symptoms ▪ Sleep-related symptoms ▪ Vaginal symptoms ▪ Genito-urinary symptoms ▪ When breasts feel lumpy	▪ Test Your Knowledge exercises

17. Reproductive system

Unit	Here's what you'll learn	Extra support material
17.1 Female reproductive system 17.2 Male reproductive system 17.3 Conception and implantation 17.4 Reproductive health concerns	▪ Body mass involvement ▪ Prostate enlargement ▪ A compressed urethra ▪ DHT hormone ▪ Baby on board?	▪ Test Your Knowledge exercises

18. Human development and life cycle

Unit	Here's what you'll learn	Extra support material
18.1 The 6 main human life cycle stages	▪ 6 main stages ▪ The weeks after fertilisation ▪ From embryo to foetus ▪ Foetal development ▪ Changes in pregnancy ▪ Hormones in pregnancy ▪ Anatomy during pregnancy ▪ Breast milk ▪ Female breast anatomy. ▪ Neonatal to infant ▪ Development skills ▪ Developmental milestones ▪ Baby steps ▪ Dividing childhood ▪ What is a child? ▪ Preschool and school-aged children ▪ What is an adolescent?	▪ Test Your Knowledge exercises ▪ Videos

18. Human development and life cycle

Unit	Here's what you'll learn	Extra support material
18.1 The 6 main human life cycle stages	▪ Looking all grown up ▪ What is an adult? ▪ Age is just a number? ▪ Feeling young keeps you healthy? ▪ Changes occurring more rapidly ▪ Age-related changes ▪ Can we slow ageing?	▪ Test Your Knowledge exercises ▪ Videos

19. Modifiable lifestyle factors

Unit	Here's what you'll learn	Extra support material
19.1 Health Risk Questionnaires 19.2 Routine Screenings Per Age Group 19.3 Components of Basic Biometrics 19.4 Thyroid and other common blood tests	▪ What are health risk assessments? ▪ Health screening questionnaires ▪ Food Relationship Questionnaire ▪ Food Relationship Scores ▪ When to refer to a doctor? ▪ Referral examples: Mental Health ▪ Client health status ▪ Client Health Check Questionnaire™ ▪ Medical Referral Form™ ▪ Doctor Release Form™ ▪ Referral to another professional ▪ A later need to refer may arise ▪ Other screening questionnaires ▪ Integration of health information ▪ Wellness Assessments ▪ Beyond disease prevention… ▪ A new definition of 'health'?	▪ Test Your Knowledge exercises ▪ Videos ▪ Client Health Check Questionnaire™ ▪ Medical Referral Form™ ▪ Doctor Release Form™

19. Modifiable lifestyle factors

Unit	Here's what you'll learn	Extra support material
19.1 Health Risk Questionnaires 19.2 Routine Screenings Per Age Group 19.3 Components of Basic Biometrics 19.4 Thyroid and other common blood tests	▪ Are 'health' and 'wellness' the same? ▪ Health and wellness hand-in-hand ▪ Components of wellbeing ▪ PERMA-H Profiler ▪ Hettler's dimensions of wellness ▪ The Wheel of Life ▪ Other wellness assessments ▪ Tips for discussing assessments with a client ▪ What is biometrics? ▪ Health screenings using biometrics: ▪ 4 types of biometrics and 22 examples ▪ Benefits of biometrics? ▪ Biometrics: when and how? ▪ The TLC Program ▪ Why are health screenings important? ▪ Which tests, and when? ▪ 18 routine biometric screenings per age group	▪ Test Your Knowledge exercises ▪ Videos ▪ Client Health Check Questionnaire™ ▪ Medical Referral Form™ ▪ Doctor Release Form™

19. Modifiable lifestyle factors

Unit	Here's what you'll learn	Extra support material
19.1 Health Risk Questionnaires 19.2 Routine Screenings Per Age Group 19.3 Components of Basic Biometrics 19.4 Thyroid and other common blood tests	▪ Early detection saves lives ▪ Basic biometrics ▪ Components of basic biometrics ▪ Understanding BMI ▪ How to calculate BMI ▪ BMI: What's your range? ▪ Understanding blood pressure ▪ What is blood pressure? ▪ Blood pressure: What's your range? ▪ Understanding blood lipids ▪ Blood lipids panel ▪ Blood lipid values: What's your range? ▪ Different countries, different guidelines ▪ The American Heart Association ▪ Understanding blood glucose ▪ Fasting glucose and HbA1c ▪ Blood sugar: What are your values?	▪ Test Your Knowledge exercises ▪ Videos ▪ Client Health Check Questionnaire™ ▪ Medical Referral Form™ ▪ Doctor Release Form™

19. Modifiable lifestyle factors

Unit	Here's what you'll learn	Extra support material
19.1 Health Risk Questionnaires 19.2 Routine Screenings Per Age Group 19.3 Components of Basic Biometrics 19.4 Thyroid and other common blood tests	▪ Measurement Units ▪ How is your cardiometabolic health? ▪ Optimal measurements for heart health and longevity ▪ Practising lifestyle medicine ▪ From T3/T4 to a full blood count… ▪ Hypothyroidism: underactive thyroid ▪ Hyperthyroidism: overactive thyroid ▪ Thyroid function blood testing ▪ Looking at normal reference ranges ▪ Other common blood tests ▪ Full blood count ▪ Test results myths and misconceptions ▪ Normal results: "Am I in the clear?" ▪ Practising lifestyle medicine	▪ Test Your Knowledge exercises ▪ Videos ▪ Client Health Check Questionnaire™ ▪ Medical Referral Form™ ▪ Doctor Release Form™

20. Lifestyle medicine practice

Unit	Here's what you'll learn	Extra support material
20.1 Lifestyle medicine practice within medical settings 20.2 Lifestyle medicine practice outside medical settings 20.3 Modifiable lifestyle factors for disease risk reduction	▪ What we can control, we can change ▪ The Spheres of Influence ▪ Totally or partly in our control? ▪ "What matters to you most?" ▪ The spotlight on two aspects ▪ Lifestyle Medicine Practitioners ▪ Who may practise lifestyle medicine? ▪ Filling the gap ▪ Conventional vs Lifestyle Medicine ▪ Scope of lifestyle medicine practice ▪ Lifestyle medicine practice within medical care ▪ Medical practice ▪ Managing health problems ▪ Beyond chronic disease ▪ Enter the COVID-19 pandemic… ▪ Communicable disease risk ▪ A new model for lifestyle medicine	▪ Test Your Knowledge exercises ▪ Videos

20. Lifestyle medicine practice

Unit	Here's what you'll learn	Extra support material
20.1 Lifestyle medicine practice within medical settings 20.2 Lifestyle medicine practice outside medical settings 20.3 Modifiable lifestyle factors for disease risk reduction	▪ Practice principles ▪ Inside out ▪ The best way forward ▪ Practice outside medical settings ▪ Reducing risk ▪ Focusing on modifiable factors ▪ Identifying target behaviours ▪ What motivates us to change? ▪ Behaviour change techniques ▪ Client communication ▪ Lifestyle modifications ▪ Using the right terms with clients ▪ Instead of prevent, treat, reverse… ▪ Which terms to avoid and to use? ▪ No substitute for medical care ▪ Client Case: "I want to stop my medication" ▪ Uncovering core modifications	▪ Test Your Knowledge exercises ▪ Videos

20. Lifestyle medicine practice

Unit	Here's what you'll learn	Extra support material

20.1 Lifestyle medicine practice within medical settings
 	
20.2 Lifestyle medicine practice outside medical settings
 	
20.3 Modifiable lifestyle factors for disease risk reduction
	▪ Promoting physical and mental health
	▪ Lifestyle changes to lower disease risk:
	  ▪ Key Modifiable Factors for Health Risk Reduction
	  ▪ Mini lifestyle self-assessment
	▪ Meet The Human Exposome
	▪ And The Human Foodome
	▪ Key principles for diet quality:
	  ▪ Improving diet quality
	  ▪ Mini dietary self-assessment
	▪ Mitigating health risks for over 35 common conditions:
	  ▪ Conditions with modifiable factors
	  ▪ Modifiable Lifestyle Factors for Risk Reduction
	▪ Conditions with largely genetic factors
	▪ Diving into specific lifestyle factors
		▪ Test Your Knowledge exercises
		▪ Videos

21. Core modifiable lifestyle factors

Unit	Here's what you'll learn	Extra support material
21.1 Sleep and stress 21.2 Smoking and alcohol consumption 21.3 Weight maintenance, obesity, and metabolic syndrome	▪ Core modifiable factors ▪ Sleep ▪ "Just 5 more minutes!" ▪ Why do we sleep? ▪ 8 hours for adults? ▪ Sleep recommendations ▪ Short sleep and chronic conditions ▪ What does good sleep look like? ▪ Consequences of poor sleep ▪ Sleep disorder classification ▪ 3 key body systems ▪ Linking body systems and sleep ▪ External and internal influences ▪ Factors we may be able to control ▪ Mental health and stress ▪ What is "mental health"? ▪ Diet and mental health	▪ Test Your Knowledge exercises ▪ Videos

21. Core modifiable lifestyle factors

Unit	Here's what you'll learn	Extra support material
21.1 Sleep and stress 21.2 Smoking and alcohol consumption 21.3 Weight maintenance, obesity, and metabolic syndrome	▪ Gut health = mental health? ▪ What is stress? ▪ Negative or positive stress? ▪ Pressure vs performance ▪ Does anxiety equal stress? ▪ Introducing the cognitive triad ▪ The stress response ▪ An overactivated HPA axis ▪ What if we are born "anxious"? ▪ Polishing up our coping skills ▪ 8 main coping mechanisms ▪ Mindfulness and cognitive flexibility ▪ Supporting mental health ▪ Two modifiable behaviours ▪ Smoking ▪ How common is smoking? ▪ Affecting the whole body	▪ Test Your Knowledge exercises ▪ Videos

21. Core modifiable lifestyle factors

Unit	Here's what you'll learn	Extra support material
21.1 Sleep and stress 21.2 Smoking and alcohol consumption 21.3 Weight maintenance, obesity, and metabolic syndrome	▪ At least 5,000 chemicals ▪ Smoking cessation ▪ Cessation support matters ▪ Alcohol intake ▪ How common is alcohol consumption? ▪ Health concerns ▪ Changing our eating habits? ▪ Alcohol: which vitamin and mineral losses? ▪ Alcohol and smoking ▪ UK alcohol guidelines ▪ Commonly misused substances ▪ What is substance abuse? ▪ Professional help ▪ 40% of the population ▪ Risks of excessive body (fat) weight ▪ A whole system approach ▪ Weight loss	▪ Test Your Knowledge exercises ▪ Videos

21. Core modifiable lifestyle factors

Unit	Here's what you'll learn	Extra support material
21.1 Sleep and stress 21.2 Smoking and alcohol consumption 21.3 Weight maintenance, obesity, and metabolic syndrome	▪ Weight loss isn't easy ▪ 15 diet-related strategies ▪ More than about "calories in" ▪ Factors influencing weight (fat) loss ▪ Is exercise necessary for fat loss? ▪ Weekly exercise guidelines ▪ The weight loss wheel ▪ Metabolic syndrome ▪ What is metabolic syndrome? ▪ From obesity to metabolic syndrome ▪ Increased risk for other conditions ▪ Reducing risk	▪ Test Your Knowledge exercises ▪ Videos

22. Professional considerations

Unit	Here's what you'll learn	Extra support material
22.1 Dos, don'ts, and must dos	▪ The importance of medical advice ▪ Committing to ongoing learning ▪ Your professional boundaries ▪ When working with clients: ▪ What you CAN and CANNOT do ▪ What you MUST do ▪ Acting ethically and responsibly	▪ Test Your Knowledge exercises ▪ Videos

learnerservices@thehealthsciencesacademy.org

The Health Sciences Academy®

The Health Sciences Academy

Specialisation your clients need,
Success your career deserves.

The Health Sciences Academy is the world's largest, 100% science-based, online educational institution that is

- ✓ **Helping health professionals build their expertise in specialised areas**
- ✓ **Raising industry standards through personalised nutrition and practical science**

Their team of accomplished scientists and PhDs have transformed the careers of +150,000 health professionals by equipping them with accredited certification courses – from clinical weight-loss, advanced supplements, and child nutrition to gut health and fertility nutrition.

Their expertise is sharing what's new and what's actually working in the fields of health and nutrition, helping YOU leverage the latest science and strategies to expand your client base and continue growing your practice.

Take your career to the next level by joining us today!

ymca awards endorsed · CPD MEMBER The CPD Certification Service · ScienceDirect · PLATINUM TRAINING PROVIDER International Institute for Complementary Therapists · 2019 SEAL of EXCELLENCE · CLINIC TOOLKIT