

# CONTENTS



## 010 THE INTEGRATED BODY

- 012 Human evolution
- 014 Human ancestors
- 016 Human genetic formula
- 020 The cell
- 022 Cells and tissues
- 024 Body composition
- 026 Body systems

## 028 ANATOMY

### 030 ANATOMICAL TERMINOLOGY

### 036 BODY SYSTEMS

- 038 Skin, hair, and nail structure
- 040 Skeletal system
- 050 Muscular system
- 060 Nervous system
- 066 Respiratory system
- 068 Cardiovascular system
- 074 Lymphatic and immune system
- 078 Digestive system
- 080 Urinary system
- 082 Reproductive system
- 084 Endocrine system
- 086 Surface anatomy

### 092 ANATOMY ATLAS

- 094 Head and neck
- 142 Thorax
- 174 Abdomen and pelvis
- 204 Shoulder and upper arm
- 234 Lower arm and hand
- 250 Hip and thigh
- 280 Lower leg and foot

## 296 HOW THE BODY WORKS

### 298 SKIN, HAIR, AND NAILS

### 304 MUSCULOSKELETAL SYSTEM

- 306 The working skeleton
- 308 Bones
- 310 Joints
- 312 How muscles work
- 314 Muscle mechanics

### 316 NERVOUS SYSTEM

- 318 How the body is wired
- 320 Nerve cells
- 322 Passing on the message
- 324 The brain and spinal cord
- 326 The CNS in action
- 328 Memory and emotion
- 330 How we move
- 332 How we sense the world
- 334 How we see
- 338 Hearing and balance
- 340 Taste and smell
- 342 Touch

### 344 RESPIRATORY SYSTEM

- 346 Journey of air
- 348 Gas exchange
- 350 Mechanics of breathing
- 352 Instinctive breathing



**354** **CARDIOVASCULAR SYSTEM**

- 356 Blood
- 358 Cardiac cycle
- 360 Controlling the heart
- 362 Blood vessels

**364** **LYMPHATIC AND IMMUNE SYSTEM**

- 366 Lymphatic system
- 368 Innate immunity
- 370 Adaptive immunity

**372** **DIGESTIVE SYSTEM**

- 374 Mouth and throat
- 376 Stomach
- 378 Small intestine
- 380 Liver
- 382 Large intestine
- 384 Nutrition and metabolism

**386** **URINARY SYSTEM**

- 388 Kidney function
- 390 Bladder control

**392** **REPRODUCTIVE SYSTEM**

- 394 Male reproductive system
- 396 Female reproductive system
- 398 Creation of life
- 400 The expectant body
- 402 Labor and birth

**404** **ENDOCRINE SYSTEM**

- 406 Hormones in action
- 408 The pituitary gland
- 410 Hormone producers

**414**  
**LIFE CYCLE**

- 416 Life's journey
- 418 Inheritance
- 420 Developing embryo
- 422 Fetal development
- 426 The newborn
- 428 Childhood
- 430 Adolescence and puberty
- 432 Adulthood and old age
- 434 End of life

**436**  
**DISEASES AND DISORDERS**

- 438 Inherited disorders
- 440 Cancer
- 442 Infectious diseases
- 444 Skin, hair, and nail disorders
- 448 Bone and joint disorders
- 452 Muscle, tendon, and ligament
- 454 Back, neck, and shoulder pro
- 456 Limb joint disorders
- 458 Cerebrovascular disorders
- 460 Brain and spinal cord disorde
- 462 General nervous disorders
- 463 Nervous system infection
- 464 Mental health disorders
- 466 Ear disorders
- 468 Eye disorders
- 470 Respiratory disorders
- 474 Cardiovascular disorders
- 478 Peripheral vascular disorders
- 480 Blood disorders
- 482 Allergies and autoimmune dis
- 484 Upper digestive tract disorder
- 486 Lower digestive tract disorder
- 488 Liver, gallbladder, and pancre
- 490 Kidney and urinary problems
- 492 Female reproductive system c
- 494 Male reproductive system dis
- 496 Sexually transmitted infection
- 498 Infertility
- 500 Disorders of pregnancy and l
- 502 Endocrine disorders

- 506** **GLOSSARY**
- 514** **INDEX**
- 536** **ACKNOWLEDGMENTS**