

ANNEXES

ANNEX I

Anatomy and physiology

To provide adequate medical care on board ship there is no need to have a detailed knowledge of anatomy (structure of the body) or of physiology (function of bodily systems). Nevertheless the information provided in this Annex could be useful when examining a patient or obtaining and acting on radio medical advice.

The principal bones of the skeleton and the main muscles of the body are illustrated in Figures I.1 and I.2. The position of the organs in the chest and abdomen is depicted in Plates 14 and 15.

The bone structure

The skeleton, which consists of bones and cartilages, provides a rigid framework. The separate bones and cartilages are held together firmly at the joints by strong bands of connective tissue (the ligaments). Each bone is enveloped in a very tough adherent sheath of fibrous tissue. Between this sheath and the bone surface is a layer of bone-forming cells which can produce new bone in the event of a fracture.

The shaft of a typical long bone has a thick wall of dense bone which forms a hollow cylinder enclosing a central canal containing bone marrow. At each end the shaft is expanded to make the joint surface. These surfaces are covered by a smooth layer of cartilage to permit movements without causing friction.

Voluntary muscles

These form the bulk of the fleshy parts of the body. They are fixed to the bones by blending with the sheaths of fibrous tissue surrounding the bones. Some are attached directly to a wide area of bone surface but others taper to form a strong cord (tendon or leader) which is attached at a specific place on a bone. Muscles, and especially those of the limbs, are arranged in two opposing groups. Contraction of one group in response to an impulse through the nerve supply must be accompanied by simultaneous relaxation of the opposing group, or movement will not take place. These movements are under conscious control.

Involuntary muscles

These are found in the stomach and intestines, in the heart and blood vessels, and also in other internal organs of the body. They continue to work throughout life as part of natural body function outside the control of personal will.

ANNEX I

Anatomy and physiology

Bone structure
Voluntary muscles
Involuntary muscles
Circulatory system
Breathing system
Digestive system
Urinary system
Nervous system

S.I.I.

ANNEX II

Anatomical drawings

The skeleton
Main voluntary muscles
Organs of chest and abdomen

Circulatory system

Blood

The body contains about 5 litres of blood which consists basically of four constituents: plasma; red cells; white cells; and platelet cells.

The plasma is the liquid component of the blood which circulates to all the tissue cells throughout the body. It distributes food, water, salts and heat and collects waste products which are subsequently excreted.

The red cells predominate and give the blood its colour. This colour is derived from a complex iron compound (haemoglobin) which is the main oxygen carrier.

The white cells give protection against infection by attacking and killing bacteria and also by producing substances which are necessary for building up resistance to further infections.

The main purpose of platelets is to assist in the blood clotting mechanism.

The heart and blood vessels

The heart is a thick-walled muscular pump about the size of a clenched fist. It is divided in the mid line into two sides which do not communicate. Each side has an upper and lower chamber which communicate through a main heart valve. These separate chambers are each served by a major blood vessel that either brings blood to the chamber or carries it away. See Plate 7.

The right side of the ventricle pumps blood which, having been circulated around the body, has given up its oxygen and collected carbon dioxide. This blood is pumped through the lungs where it is replenished with oxygen and discards the carbon dioxide. As purified blood, it returns to the left side to be pumped through the arteries to all parts of the body.

The blood vessels form a closed system of tubes. The arteries, which have to take the full force of the pumping pressure, have thick walls containing muscle fibres and elastic tissue. Each heart beat widens the bore of the arteries to accommodate the surge of blood. Between beats the bore is returned to normal by the action of the muscle fibres and elastic tissue. Where an artery runs close to the body surface, the changing pressures can be felt as a pulse.

The arteries penetrate to all parts of the body, dividing and sub-dividing until they narrow to form very thin-walled vessels (capillaries). The capillaries then join with the venous network which returns the blood to the heart (Figure 1.2). The size of veins increases until the heart is reached.

The capillary system is vital to the life of all tissues. The thin capillary vessel wall allows nutrients, oxygen, heat and beneficial chemical substance to enter the cells and, most important, waste products to be passed out into the blood.

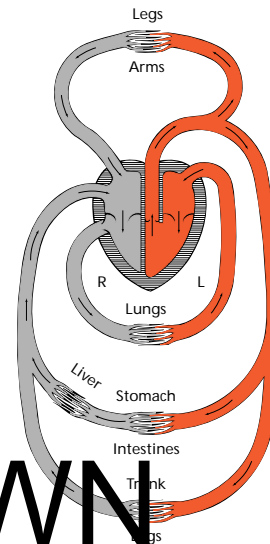


Figure 1.1 The heart and the various circulations, diagrammatic



Figure 1.2 Capillaries

WITHDRAWN
PUBLICATION

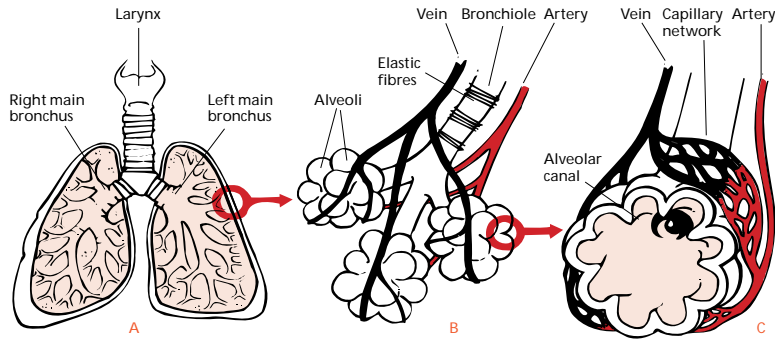
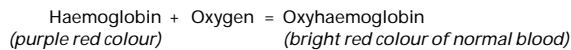


Figure 1.3 Lungs, bronchi, and alveoli

Breathing system

Every time a breath is taken in, the air (20% oxygen) passes through the nose or mouth and then past the larynx or voice box into the windpipe (trachea) which is about 12 cm long. At its lower end the windpipe divides into two main tubes called bronchi (Figure 1.3).

The main air passage in each lung (the bronchus) divides into successively smaller branches which carry inhaled air to all parts of the lung. Each small branch terminates by forming a cluster of tiny air sacs (the alveoli). A fine network of blood vessels covers the surface of every air sac thereby permitting gas exchange by diffusion. Oxygen from the inspired air passes through the thin tissues to combine with the haemoglobin of the red blood cells. Waste gases, mainly carbon-dioxide, pass from blood into the air sacs and are expelled on breathing out.



Whenever the blood is insufficiently oxygenated, as in pneumonia, the purple red hue of the blood shows as a blue tinge of the lips.

Each lung is covered by a lubricated lining called the pleura. The inner side of the chest wall is also covered by a similar lining. These two layers of pleura are in contact and slide smoothly over one another during breathing.

The act of breathing is mainly due to the diaphragm moving up and down. The diaphragm is a large dome-shaped muscle which separates the chest from the abdominal cavity. When the diaphragm muscle contracts, its dome becomes flattened and draws down the lungs, causing air to enter them; when it relaxes the lungs become smaller and the air in them is expelled. The muscles of the abdomen also help in breathing. When they tighten up, they press the abdominal contents up against the diaphragm and help in expelling air from the lungs; when they relax, they assist the diaphragm in drawing down the lungs as breathing in takes place.

The normal rate of breathing at rest is 16–18 times a minute. This rate increases considerably with exertion and also with certain diseases, especially those affecting the heart and lungs.

Digestive system

The abdomen is a cavity shut off from the chest by the diaphragm. The cavity is lined by a sheath of membrane (the peritoneum) which also enfolds some of the abdominal organs. The sheath secretes fluid which keeps the abdominal contents moist and prevents friction.

The digestive tract

This is a passage consisting of the gullet (oesophagus), the stomach, the small intestine, the large intestine, the rectum and the anus.

The gullet is a straight muscular tube which joins the throat to the stomach. It passes down through the back of the chest cavity and goes through an opening in the diaphragm to connect with the upper part of the stomach.

The stomach is a J shaped pouch. It enlarges when food or liquid is consumed. The lower part of the stomach is narrow where it joins with the first part (duodenum) of the small intestine.

The small intestine is a narrow-bore coiled tube, roughly 7.5 metres long, which occupies most of the central part of the abdominal cavity. The internal surface of the wall bears a large number of very small folds which project inwards to increase the surface area in contact with the contents of the intestine. The small intestine joins with the large intestine in the right lower quarter of the abdomen.

The large intestine is a wide-bore tube, roughly 1.5 metres long, which arches upwards and across the abdominal cavity before descending the left side to join with the rectum.

The rectum is roughly 150 mm long and is continuous at its lower end with the very short anal canal which opens to the exterior.

The digestive process

Digestion is the physical and chemical breakdown of food into useful products which are then absorbed by the capillaries of the blood vessels serving the gut. The unwanted residue of food is excreted as faeces.

The digestive tract walls contain involuntary muscle which by contraction moves the contents through the length until they reach the rectum where they are stored as faeces prior to evacuation. At certain places such as the entrance and exit to the stomach and at the anus, circular bands of muscle capable of constriction (sphincters) act as valves to shut off the flow.

The physical breakdown of food is accomplished by chewing, by the churning actions of the gut and by the addition of special digestive juices to the food. This begins in the mouth when food is mixed with saliva which contains enzymes. In the stomach, acid gastric juice is secreted by the stomach walls and acts on the food which may be retained there for several hours before passing through the duodenum. Small ducts from the bile system of the liver and also from the pancreas open into the duodenum. These ducts provide juices which are partly designed to neutralise the acid from the stomach juice and thus allow the enzymes secreted by the duodenal walls to act more efficiently. The churning of the gut then ensures a thorough mixing of food and digestive juices throughout the length of the small intestine where most of the chemical breakdown takes place. The main functions of the large intestine are to re-absorb water from the food residue and to reduce the bulk of the faeces.

The liver

The abdominal veins drain into the liver and carry to it the useful products which have been absorbed during the digestive process. One of the main liver functions is to act as a chemical factory which processes these products into substances necessary for nutrition.

Urinary system

The kidneys are located at the back of the upper part of the abdominal cavity, one on each side of the spine (see Plate 14). They are embedded in fat to cushion them from injury.

The main kidney function is to remove water and certain harmful waste products from the blood and, by this filtering process, to form urine. They control total body water and the concentration of various chemical substances in the blood. The kidneys also play an important part in maintaining a steady level of blood pressure.

The urine is carried downward from the kidneys to the urinary bladder by tubes of small calibre (the ureters); one tube for each kidney. The urinary bladder is a muscular bag situated in the front part of the cavity formed by the pelvic bones. The bladder acts as a reservoir where urine collects until it is expelled by voluntary muscular contractions through a tube (the urethra) which leaves from the bladder base.

The male urethra measures 18 to 20 cm from the bladder to the external opening at the end of the penis. A knowledge of this length is important when passing a catheter. The female urethra is much shorter, being about 4 cm in length. It runs embedded in the upper vaginal wall to the external opening just above the vaginal orifice.

Nervous system

Cerebro-spinal nervous system

This consists of the brain, spinal cord and the associated nerves. The brain is in the cavity of the skull. It is the co-ordinating centre for the nervous system, processing incoming information from nerves concerned with sight, smell, taste, hearing, sensation etc. and controlling various parts of the body, particularly muscles by way of out going (motor nerves). Higher functions include intellect, memory, personality etc.

The spinal cord emerges from the base of the brain and leaves the skull into the bony vertebral canal. It is protected by vertebrae throughout its length, and nerves emerge at regular intervals. These nerves control muscles and transmit sensations back through the spinal column to the brain.

Sympathetic nervous system

This is a fine network of nerves not under direct voluntary control influencing the function of various organs, especially gut, bladder, blood vessels and heart.

Skin

This protects and covers the body. It consists of two layers. The outer layer is hard and contains no blood vessels or nerves. This outer layer protects the inner layer, where there are sensitive nerve endings, numerous sweat glands and the roots of the hair.

Sweat consists of water, salt and some impurities from the blood. The evaporation of the sweat cools the body, and helps to regulate its temperature.

ANNEX II

Anatomical drawings

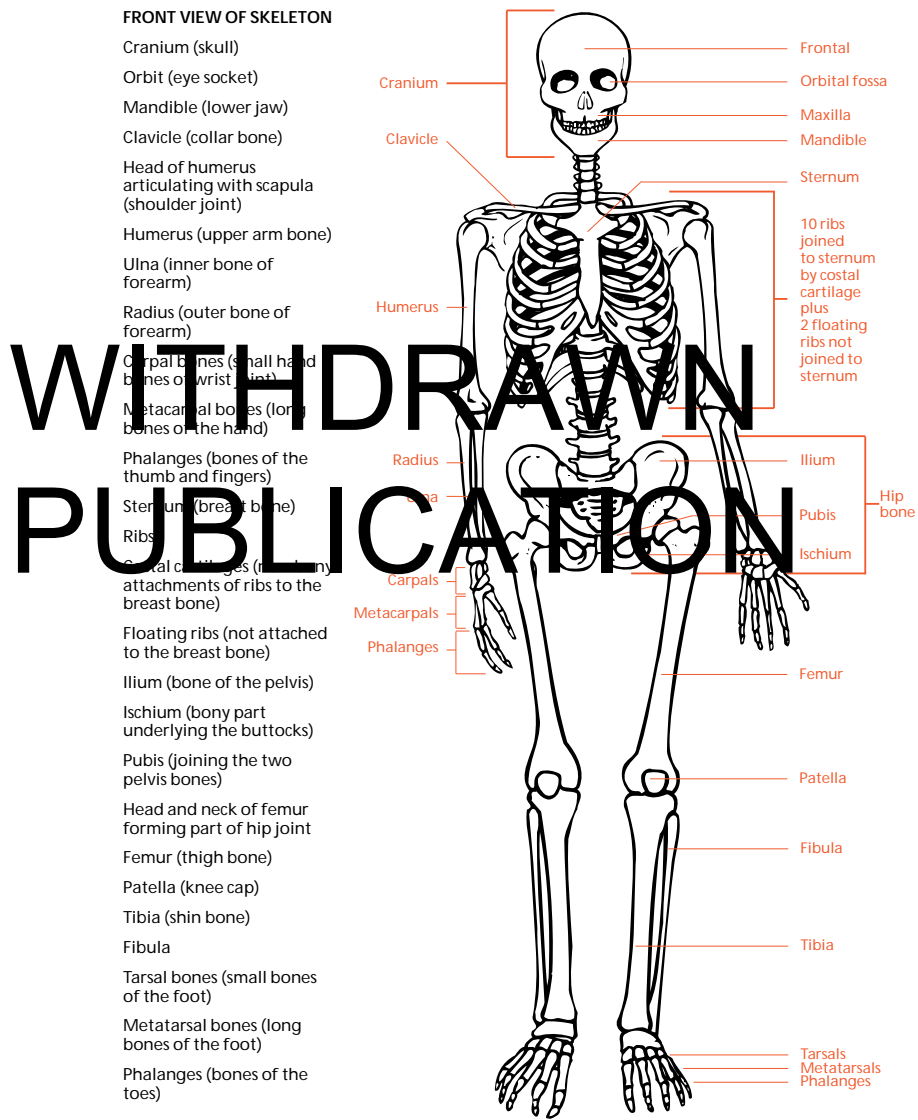


Figure I.1 The skeleton (front)

BACK VIEW OF SKELETON
including

Parietal and occipital
bones (part of cranium)

Vertebral column (spinal
column)

Scapula (shoulder-blade)

Sacrum (base of the spine)

Coccyx (small bones at the
base of the spine – tail
bone)

Os calcis (the heel)

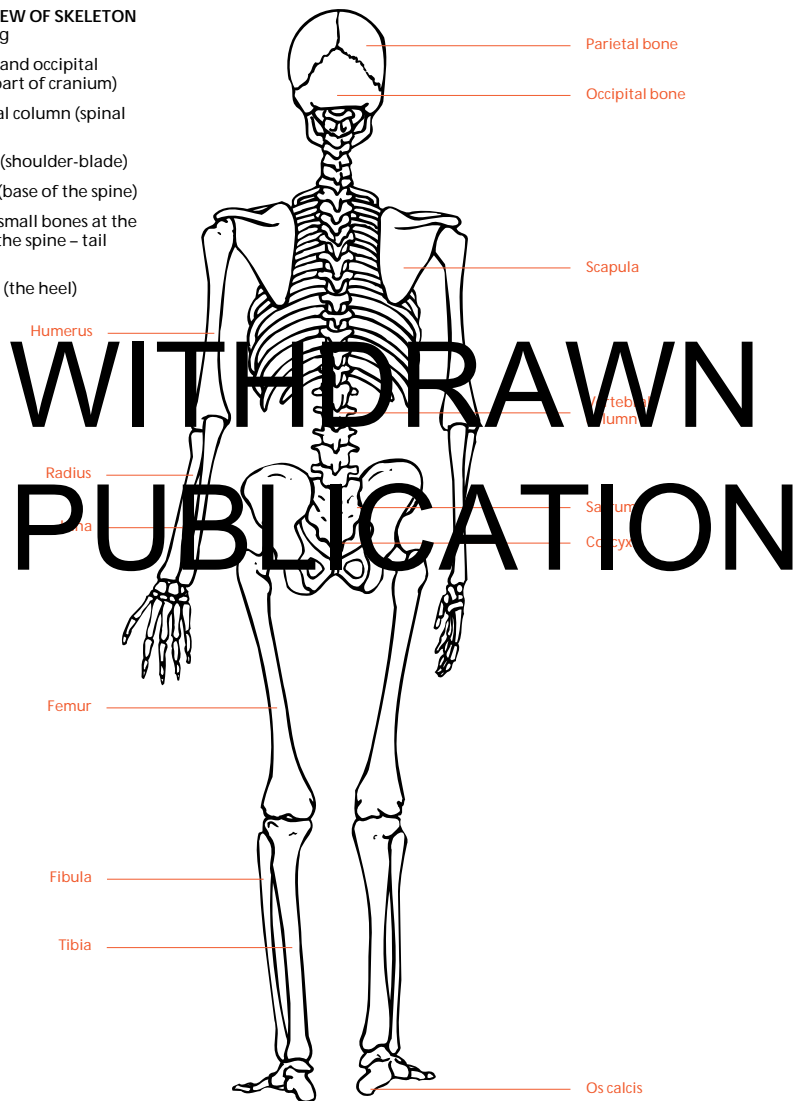


Figure 1.2 The skeleton (rear)

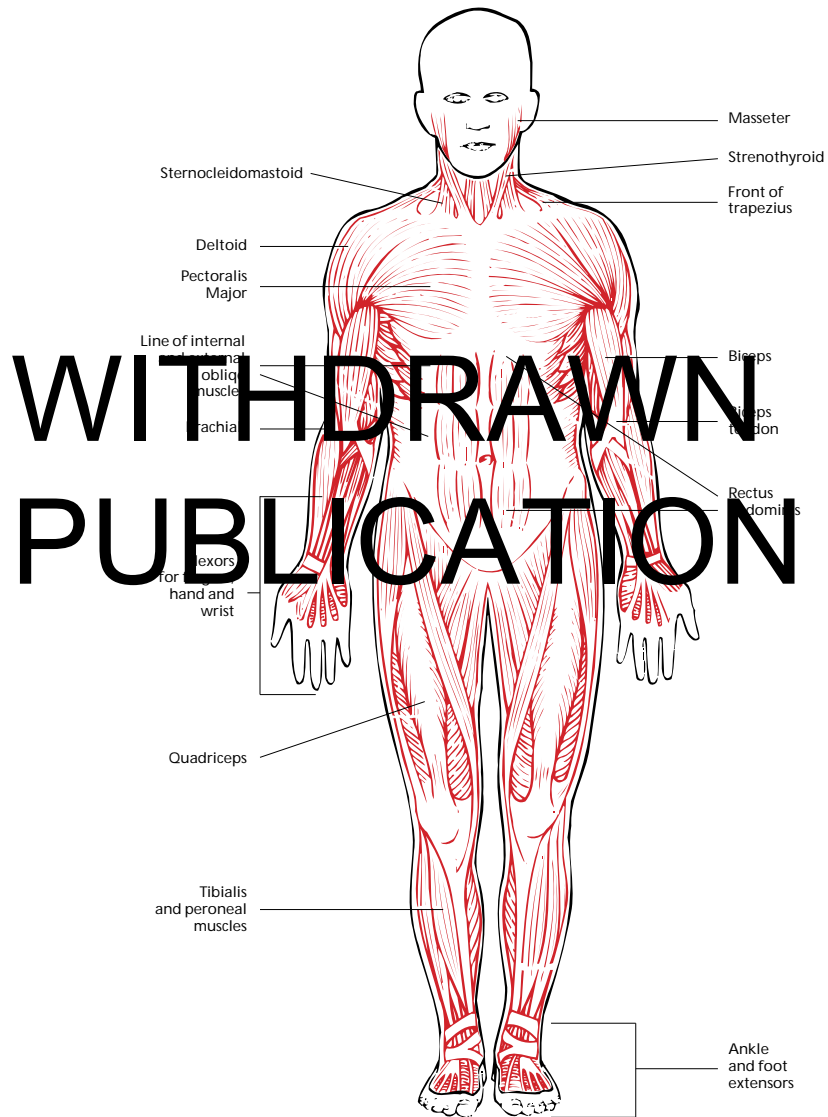


Figure II.3 Main voluntary muscles (front)

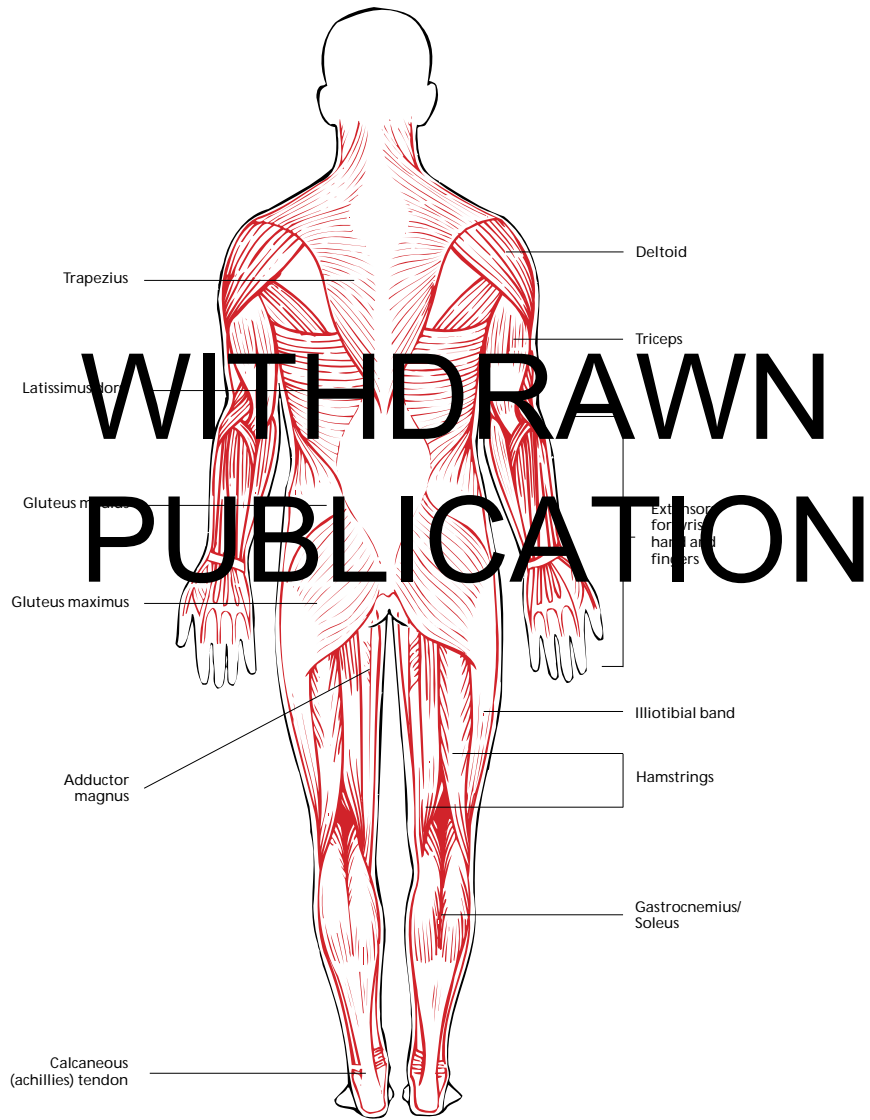


Figure II.4 Main voluntary muscles (rear)

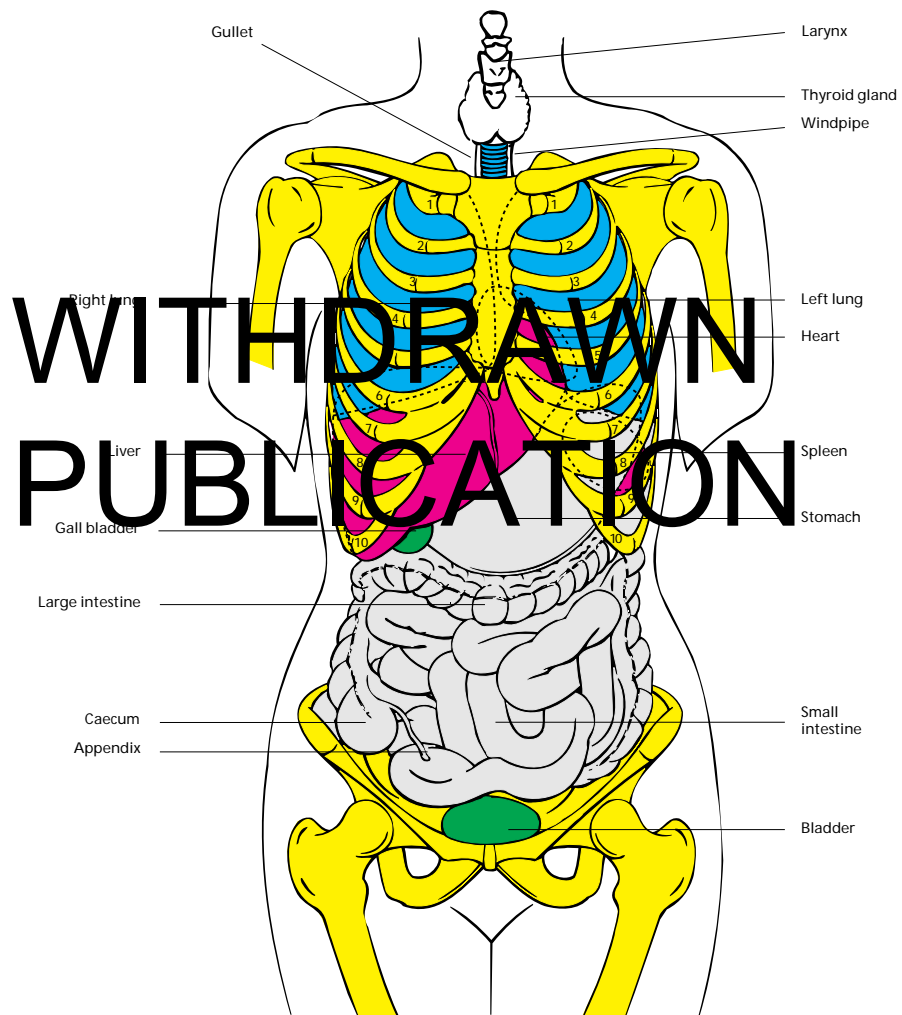


Plate 13 Organs of chest and abdomen (front)

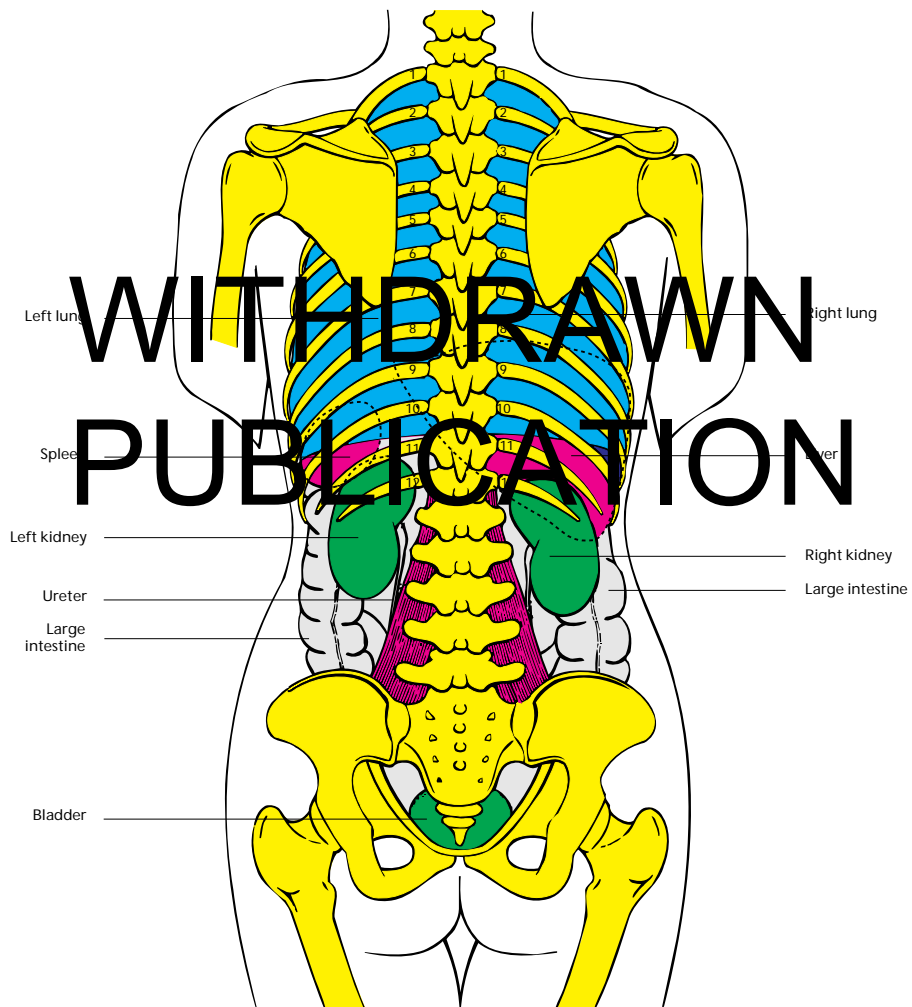


Plate 14 Organs of chest and abdomen (rear)

**WITHDRAWN
PUBLICATION**

- ABC status 76
 Abdomen
 Examination 142
 Organs 224–5
 Abdominal emergencies 142–3
 Abdominal pain or discomfort
 Appendicitis 143–4
 Blast injury 40
 Bleeding, internal 22
 Chemicals, ingestion 46–7
 Cholera 100
 Colicky, causes 144–5
 Cyanide poisoning 48
 Enteric fever 102
 Glandular fever 103
 Minor abdominal conditions 137
 Pelvic inflammatory disease 123
 Peritonitis 150
 Severe 138–9
 Spasmodic 137
 Yellow fever 115
 Abdominal tenderness 139, 141
 Abortion 140–1
 Abrasions 69
 Abscesses 172, 183
 Aching, of foot, generally
 Malaria 107–7
 Poliomyelitis 116
 Acquired immuno deficiency
 syndrome (AIDS) 124
 Acute gastroenteritis 146
 Acute red eye 168–74
 Adhesive splint/casture 71
 Adrenaline 181
 Aedes mosquitoes 106
 Alcohol 46
 abuse 64, 179–80
 Allergy
 Lesser reactions 181
 Major reaction 181
 Alveoli 217
 Amitriptylline 46
 Ammonia vapour 48
 Amoebic dysentery 59, 147
 Anaemia 182
 Anal discomfort
 fissure 143
 itching (pruritus) 143
 Anatomy 215–19
 Drawings 220–5
 Angina pectoris 128, 130–1
 Animal bites 170–1
 Ankle fracture 31
 Anorexia nervosa 193
 Ant sting 172
 Anthrax 98
 Antibiotic treatment
 Barber's rash (sycosis barbae) 174
 Boils, hand 190
 Burns 82
 Chest injuries 39
 Diphtheria 101
 Eye ointment 78–80
 Face/mouth wounds 82
 Hand infection 173
 Impetigo 176
 Internal injuries 74
 Kneecap fracture 30–1
 Lymphangitis 186
 Open fracture, fingers 26
 Paronychia 174
 Rat bites 170
 Wounds 73
 Antihistamines, side effects 181, 184
 Antiseptic 91
 Anusol 143, 147
 Anxiety 159
 Appendicitis 138–9, 142, 173–4
 Pain shifting 152
 Artery 216
 Artificial respiration
 Allergic reactions 181
 Coronary thrombosis 129
 Inhaled poisons 46
 Lung (blast) injury 40
 Overdose 47
 Suffocation 18
 Survivors, after hypothermia 202
 Unconscious patient 15–16
 Asphyxia 17
 Aspiration
 Coronary thrombosis 129
 Overdose 47
 Urtaemia 178
 Astemizole 178
 Allergic reaction 181
 Asthma 54, 133, 181
 Attringent 46
 Athlete's foot 175
 A.V.P.U. score 16–7
 Baby
 Deformity or death 200
 Not breathing after delivery 200
 Presentation, births 200
 Bacillary dysentery 147
 Acute 59
 Backache 94, 168–9
 Dengue fever 101
 Painful period 193
 Plague 109
 Poliomyelitis 114
 Yellow fever 115
 Bacteria 95
 Bacterial vaginosis 122–3
 Balanitis 117
 Balanoposthitis 118
 Bandages 7–11
 Barber's rash 174
 Bed
 Baths 56
 Feeding patients 56
 Sores 57
 Bee sting 172
 Bell's palsy 160
 Benzoic acid 175–6
 Betamethasone 191–2
 Biliary colic 130–1, 138–9, 145
 Bites 69
 Animal 170–1
 Snake 170–7
 Black eye 79
 Bladder/kidney inflammation 155–6
 Blast injuries 39–40
 Abdomen 40
 Head 39
 Lungs 39–40
 Bleaching solutions 48
 Bleeding
 External 20–1
 Internal 22
 Abdomen (blast injuries) 40
 Fractures 27
 High bone shaft fracture 30
 Pelvis fracture 36
 Severe 14
 Wound 71
 Bleeding peptic ulcers 151
 Blisters 83
 Anthrax 98
 Chickenpox (varicella) 99
 Blood 216
 Coughing up 22
 Transfusion 22
 Vomiting 22
 Blood pressure, high 132
 Blood vessel 116
 Boils 172–3
 Hand/fingers 190
 Bone fracture 215
 Boredom 94
 Bovine spongiform encephalopathy
 (BSE) 95
 Bowel
 movement 56
 sound 142–3
 Brain 219
 Compression 64
 Concussion 64
 Breathing difficulties 61
 Breathing systems 217
 Bronchi 217
 Bronchitis 46, 60
 Acute 134–5
 Chronic 135
 Measles 107
 Buboes 109, 119–20, 129
 Burial at sea 207
 Burns
 Chemical 17
 Eye 80
 Classification 82
 Electrical 17
 Fluid loss 82
 Heat 17
 Rule of nines 82–3
 Special 83
 Treatment 82–3
 Calamine lotion 99, 101, 107, 177
 Shingles (herpes zoster) 178
 Cap 195
 Capillaries 216
 Carbolic acid 48
 Carbon dioxide poisoning 46
 Carbon monoxide poisoning 46, 48
 Carbonic acid gas 48
 Carbuncles 172–3
 Caries 165
 Carrier 96

WITHDRAWN
PUBLICATION

- Catering staff, personal hygiene 90
 Catheterisation, male 156–8
 Cellulitis 99, 172–3
 Centipedes 172
 Cerebro-spinal fluid, leakage 75
 Chalazion 163
 Chancre 120
 Chancroid 117, 119–20
 Chaps 175
 Charcoal, oral 47
 Chemical splashes 17
 Chest compression 16
 Allergic reaction 181
 Baby not breathing after delivery 200
 Coronary thrombosis 129
 Chest injuries 38–9
 Chest organs 224–5
 Chest pain 128, 135
 Associated signs 130–1
 Chickenpox 99
 Chilblains 175
 Child inside womb 197
 Childbirth 197–200
 Chlamydia 17
 Chlamydial proctocoloma 117, 118
 Chlorhexidine gluconate 209
 (HIBIS/UB) 119
 Chlorinated lime 86–7
 Chlorine 45
 Compound 86
 Chloroquine 106–7
 Chlorpromazine 158–9
 Delirium tremens 180
 Choking 18
 Cholecystitis 130, 141–6
 Cholera 59, 88, 100, 146
 Chostochondritis 136
 Cimetidine 150
 Ciprofloxacin 102
 After delivery 199
 Bacillary dysentery 147
 Bronchitis 135
 Cholecystitis 146
 Genital ulcers 119
 Otitis media 162
 Urethritis 118
 Circulatory collapse 19–20
 Circulatory system 216
 Cleanliness 69
 On board ships 90
 Clove oil 165–6
 Codeine phosphate
 Backache 168
 Boil in the ear 162
 Coronary thrombosis 129
 Gout 168–9
 Head injury 77
 Meningitis 108
 Twisted testicle 154
 Urticaria 178
 Coil 195
 Cold in the chest 134
 Colds 95
 Collapsed lung 137
 Collar bone fracture 28
 Common cold 182
 Virus 85
 Communicability period 96
 Communicable diseases 95–115
 Infectious agents 95
 Management, general rules 97
 Symptoms and signs 96
 Terms used 96
 Transmission modes 95–6
 Composite temperature 94
 Compression of brain 75
 Compression test, pelvis fracture 36
 Concussion 77
 Condom 126, 195
 Conjunctivitis 160, 163–4
 Consciousness level 74
 Constipation 204
 Contact 96
 Contraception 195
 Contraceptive pill 195
 Convulsions 19, 48
 Head injury 76
 Corneal abrasion 79
 Coronary arteries 128
 Coronary thrombosis 128–31
 Creeping 191
 Cresset 48
 Crutch bandage 10
 Curly weed rash 192
 Cyanide 48
 Cystitis 141–1, 151–6
 Death
 Cause of 206
 Disposal of the body 207
 Mistaken 205
 Procedure after 206–7
 Signs 205
 Dehydration 61–2
 Alcoholic 179–80
 Cholera 100
 Survivors 204
 Delirium tremens 180
 Deltoid muscle, intramuscular
 injection 66
 Dengue fever 101
 Dental abscess 160
 Dental injuries 81–2
 Dental pain 165
 Deodorant 91
 Depression 158–9
 Dermatitis 175, 181
 Dhobie itch 175–6
 Diabetes mellitus 118, 173
 Treatment 182–3
 Diabetic coma 64, 182–3
 Diaphragm 126, 217
 Diarrhoea 61, 138, 140, 142, 146
 Acute gastroenteritis 146
 Anthrax 98
 Cholera 100
 Diazepam 19, 46
 Angina pectoris 128
 Anxiety without depression 159
 Burns 82
 Hernia rupture 148
 High blood pressure 132
 Paroxysmal tachycardia 129
 Prickly heat 177
 Rectal 76
 Snake bites 170
 Diet, balanced *see also* Food 89
 Diclofenac 133, 191
 Rheumatic fever 169
 Digestion 218
 Digestive system 218
 Diphtheria 101
 Diseases
 Causes and prevention 85
 Communicable 95–115
 Disinfectant poisoning 48
 Disinfection at the end of illness 91–2
 Disinfestation 91
 Dislocations 37, 84
 Doctor(s)
 Communication 214
 Ship-to-ship transfer 213
 Dogger Bank itch 192
 Doxycycline 100, 10, 114
 Dranoil 120
 Granuloma inguinale 121
 Genital ulcers 119
 Granuloma inguinale 122
 Pelvic inflammatory disease 123
 Sinusitis 165
 Syphilis 121
 Twisted testicle 154
 Urethritis 118
 Vaginal discharge 9
 Vessels
 Drug abuse 183–4
 Drunkenness 179
 Duodenal ulcer 150–1
 Perforated 144
 Duodenum 218
 Dying, care of 205
 Dysentery 90
 Ear(s)
 Boil 162
 Examination 161
 Foreign bodies 81
 Infection
 Middle 162–3
 Outer 161–2
 Internal 81
 Parts 161
 Wax 161
 Ectopic pregnancy 123, 140–1, 145,
 194
 Eczema 181
 Elbow fractures 28
 Electrocutation 17
 Enteric fever 95, 102, 146
 Epilepsy 64
 Fits 19
 Ergometrine 194, 198–9
 Erysipelas 99
 Erythromycin 114
 After delivery 199
 Appendicitis 144
 Bronchitis 195

- Chlamydial lymphogranuloma 121
 Otitis media 162
 Sinusitis 165
 Syphilis 121
 Exercise 94
 Eye 163
 Anatomy 78
 Bandage 11
 Chemical contact 47
 Deep inflammation 164
 Diagram 78
 Examination 78–9
 Fire extinguisher powder, damage 17
 Injuries 78–81
 Arc eyes (Welder's flash) 80
 Chemical burns 80
 Corneal abrasions 79
 Eyeball wounds 80
 Eyelid wounds 80
 Foreign bodies 79
- Facial paralysis 100
 Faeces
 Examination 78–9
 Abnormalities 57–9
 Certain diseases' effects 59
 Testing 1
 Fainting 64
 Fansidar 106–7
 Female sexual organs 193
 Femidom 105
 Fenol oils 18
 Fever 53
 Anthrax 98
 Chickenpox (varicella) 9
 Malaria 106
 Meningitis 107
 Scarlet fever 112
 Fibrositis 169–70
 Filariasis 95
 Finger
 Dislocation 84
 Fractures 29
 Infections 189–90
 First aid
 General assessment 6
 General principles 5
 Kit 14
 Priorities 5
 Fish hook, removal 192
 Fish poisoning (erysipeloid) skin disease 192
 Fishermen's conjunctivitis 191
 Fishermen's tenosynovitis 191
 Fits, head injury 76
see also Convulsions
 Flies 85
 Fluconazole 118, 123
 Fluid balance 61–2
 Fluid retention 187
 Fluids by rectum 22, 62, 150
 Fluorescein 80
 Food
 Bacteria 89–90
 Canned 89
 Contamination 89
 Fruit 89
 Poisoning 146
 Vegetables 89
 Foot
 Bandage 10
 Fractures 32
 Forearm fractures 29
 Fractures 26–36
 Circulation 27
 Closed 26
 Immobilisation 27
 Open 26
 Stress 26
 Treatment
 General 27
 Principles 26–7
 Freon 49
 Frostbite 94, 203
 Frusemide
 Coronary thrombosis 129
 Heart disease, oedema 187
 Fungi 95
 Gallstone 138–9
 Colic 139
 Gastric ulcer 15
 Genital
 herpes 117, 120
 itching 119
 ulcers 119
 warts 117, 123
 Germaliode 147
 German measles 103
 Gingivitis 160, 165
 Glandular fever 103, 167
 Glycerol Coma salt 74
 Glyceryl trinitrate 128
 Gonorrhoea 85, 95, 117, 122
 Complication 153
 Gout 168–9
 Gouty arthritis 168–9
 Grand mal 19
 Gullet 218, 224
 Gum(s) ulcers 166
 Haddock rash 191
 Haematoma 22
 Haemiplegia 160
 Haemoglobin 216
 Oxygen carrying capacity 217
 Haemorrhoids *see also* Piles 58, 143, 147–8
 Bleeding 148
 Hand
 Cuts 191
 Infections 173, 189–90
 Tendons 189
 Hand bones, fractures 29
 Hangover 180
 Hay fever 184
 Head injuries 37
 Assessment of the patient 74–5
 Communication 76–7
 Minor 77
 Pain relief 77
 Serious 75–6
 Signs 75–6
 Head and scalp bandage 11
 Headache
 Cellulitis 173
 Hangover 180
 Head injuries 76
 Sea sickness 188
 Tension 164
 Heart 216, 224
 Pain 128
 Heartburn 130–1, 150
 Heat illness, prevention 93–4
 Heel bone fracture 31
 Heimlich sign (choking) 18
 Helicopters 211–13
 Hematoma scalp 77
 Hepatitis 97, 104
 B 117
 Hernia
 Inguinal 148
 Rupture 148
 Strangulation 148–1, 155
 Herpes zoster 9, 11, 155
 Shingles 178
 High-potassium dichlorite 87
 Hippocampus 10
 Hookworm 95
 Hornet sting 172
 Human immunodeficiency virus (HIV) 117, 124, 5
 Hydrocortisone 153
 Hydrocortisone (1%) ointment 175, 192
 Hydrogen 46
 Hydroxine hydrochloride 11
 Hyperbaric oxygen therapy 48
 Hyperpyrexia 52, 184–5
 Hypertension 132
 Hypothermia 17, 53, 94, 201–2
 Causes 201
 Diagnosis 201–2
 Treatment 202
 Ibuprofen 191
 Immersion foot 203
 Immunisation 98
 Enteric fever-typhoid 102
 Poliomyelitis 110
 Tetanus 112
 Impetigo 176
 Incontinence 58
 Incubation period 96
 Indigestion 137
 Acute 138–9
 Infectious mononucleosis
see Communicable diseases 103
 Influenza 95, 104
 Inguinal hernia 118
 Inhaled poisons 45–6
 Injections
 Filling a syringe 66–7
 Intramuscular 66
 Subcutaneous 66
 Insecticides 91
 Insulin 183
 coma 182–3
 Internal injuries 74

- Intestinal colic 138–9, 149
 Intestinal obstruction 140–1, 149
 Intestine 218, 224–5
 Intra-uterine (coil) device 123
 Involuntary muscles 215
 Isolation 92
 Period 46
- Jarisch-Herxheimer reaction 119, 121
- Jaundice 149
 Gallstone colic 145
 Glandular fever 103
 Hepatitis 104
 Yellow fever 115
- Jaw fracture 32, 81–2
 Muscle spasm 92
- Jellyfish 171
- Jumbo wrist 191
- Kidney(s) 219, 225
 Stones 138–9
- Kneecap
 Bandage 171
 Fracture 30, 171
- Kuru 95
- Labour
 After delivery 199
 Birth 198–9
 Onset 194, 198
 Preparation 198
 Problems during 200
 Stages 197
 Subsequent management 179
- Lacerations 69
- Laerdal Pocket Mask 46
- Laryngitis 167
- Laxative, after delivery 199
- Legionnaires' disease 85
- Legs, fractures 32
- Lice
 Head 177
 Pubic 177
- Lignocaine hydrochloride 71
 Fish hook removal 192
 Gel 147
 Injection, pattern 171
 Pulp space infection 190
 Sea urchins 172
- Lindane (1%) cream 124, 177
- Liver 218, 224
- Local anaesthetic 71
- Lumbago 94
- Lungs 217
- Lymph node
 Location 186
 Swelling 122
- Lymphadenitis 186–7
- Lymphangitis 185–6
 Septic finger 190
- Lymphatic inflammation 185–6
- Lymphoid fever 90
- Madness 158
- Magnesium trisilicate compound 137, 146, 150
- Malaria 85, 95, 146
 Areas 105
 Guidelines 106
 Mosquito bites, avoidance 105
 Prevention 105–6
 Treatment 106–7
- Malnutrition 204
- Maloprim 106
- Mastoid cells, infection 163
- Mattress suture 72–3
- Measles 95, 107, 134
- Med Alert Bracelet 181
- Medivac service by helicopter 211–13
- Mefloquine 106–7
- Melaena 58
- Meningitis 107–8
 Headache 163
 Knee straightening test 108
 Neck bending test 108
- Meningococcal sepsis 97
- Menstrual cycle 193
- Mental illness 158–9
 Serious 62–3
- Metatarsal bones 171
- Metatarsia 95
- Methylchloride 171
- Metrnidazole
 Amoebic dysentery 177
 Appendicitis 144
 Gingivitis 166
 Pelvic inflammatory infection 123
 Peritonitis 150
 Vaginal discharge 138, 145
- Miconazole cream 171
- Mitroses (green) 85
- Migraine 164
- Miscarriage 140–1
 Inevitable 194
 Threatened 194
- Morning-after pill 195
- Morning sickness 193
- Morphine 20, 22
 Anxiety relief 205
 Backache 168
 Biliary colic 145
 Bleeding peptic ulcers 151
 Contraindications
 Chest injury 24, 38, 40
 Head injury 24, 77
 Coronary thrombosis 129
 Crush Injuries, hand 30
 Eye, chemical contact 47
 Fractures 27
 Gallstone colic 145
 Internal bleeding 22
 Internal injuries 74
 Pelvis fracture 36
 Perforated ulcer 152
 Renal colic 155
 Retention of urine 156
 Shoulder dislocation 84
 Strangulated hernia 148
 Thigh bone shaft fracture 30
 Vaginal bleeding 194
- Mouth
 Care 36
 Injuries 81–2
 Ulcers 160
- Mumps 109, 118
 Complications 153
 Muscular rheumatism 130–1, 136, 168
- Nail bed inflammation 174
- Nail fold infections 190
- Neck injuries 35
- Neil Robertson stretcher 33, 42–4
- Neomycin 191–2
- Nerves 159
- Nervous system 219
- Nettle rash 178, 181
- Neuralgia 159
- Nitrazepam 46
- Non-freezing cold injury 203
- Nose bleeding 132
- Nose injuries
 Foreign bodies 81
 Inside 81
- Nurses 51
- Nursing
 Care of the injured 52
 General 11–2
 Recumbent
 Caused by head disease 187
 Generalised 187
 Localised 187
- Oesophagus 218
- Oil, contamination with 204
- Onchocerciasis (river blindness) 95
- Otitis 109
- Osteoarthritis 170
- Otitis media 16, 13
- Overdoses 46–7
- Oxygen
 Coronary thrombosis 129
 Haemoglobin carrying capacity 217
 Pleural effusion 136
 Pneumothorax 137
 Requirements, head injury 37
 Suffocation 18
- Oxyhaemoglobin 217
- Palmar space infection 190
- Panda eyes 75
- Paracetamol
 Abscesses 173
 Anal fissure 143
 Boils 162, 173
 Bronchitis 135
 Carbuncles 173
 Cellulitis 99
 Chostochondritis 136
 Common cold 182
 Dengue fever 101
 Fibrositis 169–70
 Glandular fever 103
 Hangover 180
 Head injuries 77
 Influenza 104
 Measles 107
 Minor abdominal conditions 137
 Mumps 181
 Overdose 47
 Painful periods 193
 Pleurodynia 136

WITHDRAWN
 PUBLICATION

- Paradoxical chest movements 39
 Paraffin gauze dressing 24, 83, 174
 Paralysis
 Aids for 57
 Effects on limbs 57
 Patient supported in bed 57
 Signs 75
 Paraphimosis 153
 Paraplegia 160
 Paronychia 174
 Paroxysmal tachycardia 129
 Pediculosis 177
 Pelvic inflammatory disease 123, 124
 Pelvis fracture(s) 36
 Penetrating wound, chest 220
 Penicillin 76
 Abscesses 173
 Allergy 181
 Anthrax 98
 Appendicitis 144
 Boils 173
 Carbuncles 173
 Cellulitis 99, 173
 Genital ulcers 119
 Lymphadenitis 186
 Meningitis 108
 Otitis media 162
 Perforated ulcer 152
 Peritonitis 150
 Pulp infection 174
 Quinsy 168
 Sinusitis 165
 Skull fractures 176
 Sore throat 167
 Syphilis 121
 Urethritis 118
 Urticaria 178
 Penile swelling 153
 Peptic ulcer 130–1, 137, 150–1
 Perforated ulcer 140–2, 151–2
 Periodontal disease 166
 Period problems 193
 Peritoneum 218
 Peritonitis 138–9, 142, 150
 Peritonsillar abscess 167–8
 Permethrin cream 177
 Perspiration *see also* Sweat 93
 Unseen perspiration 61
 Pertussis 114
 Petit mal 19
 Petroleum products 48
 Phenol 48
 Phlebitis 133
 Photophobia 108
 Physiology 215–19
 Pigeons (salt water boils) 186
 Piles *see also* Haemorrhoids 58, 132,
 143, 147–8
 Pinworms 152–3
 Pips (salt water boils) 191
 Placenta 197
 Delivery 199
 Plague 85, 109, 109–10
 Plasma 216
 Loss 82
 Platelet cells 216
 Pleura 217
 Pleural effusion 136
 Pleurisy 130–1, 135
 Pleurodynia 130–1, 136
 Pneumonia 135
 Anthrax 98
 Bacteria caused 95
 Influenza 104
 Inhaled poisons 46
 Lobar 136–7
 Measles 107
 Pulse rate: respiration rate 54
 Sputum examination 60
 Pneumothorax 130–1, 137
 Poisonous fish 171
 Poliomyelitis 110, 114
 Port health clearance 93
 Post-herpetic neuralgia 160
 Post-mortem examination 207
 Posthitis 117–18
 Potable water 85–9
 Potassium permanganate 175–6
 Pre-menstrual tension 193
 Pregnancy 193–4
 Bleeding 194
 Pressure: breasts 194
 Preeclampsia 177
 Prolonged 194
 Prochlorperazine 188
 Proctitis 125
 Progauil 106
 Promethazine 198
 Prostate gland enlargement 156
 Protozoa 195
 Pruritus vulvae 195
 Pruritic 48
 Pubic lice 117, 123–4
 Pulmonary oedema 46, 60
 Pulp infection 173–4, 190
 Pulse rate
 Chart 55
 Normal 54
 Pupil response 75
 Pyelitis 155–6
 Pyorrhoea 166
 Pyrimethamine 106

 Quadriplegia 160
 Quarantine period 96
 Quinine 107
 Quinsy 167–8

 Rabies 95, 111, 170
 Radio medical advice 209
 Information to have ready 210–11
 Rashes 97
 Recovery position 181
 Rectum 218
 Red cells 216
 Refrigerated gases, poisoning 49
 Renal colic 138–9, 155
 Respiration rate 54, 217
 Chart 55
 Normal 54
 Respiratory burns 83
 Restlessness 74
 Rewarming 202
 Frostbite 203
 Rheumatic fever 169
 Rheumatism
 Acute 169
 Chronic 170
 Muscular 169–70
 Rib fractures 38, 130–1, 136
 Rice water motion 59
 Ring pad 11
 Ringworm 85, 95, 176
 Roundworms 153
 Rubella 103

 Salbutamol inhaler 134
 Salpingitis 123, 140–1, 145
 Salt water boils 191
 Scabies 117, 124, 178
 Scalds *see also* burns 17
 Scalp lacerations 77
 Scarlet fever 97, 112
 Sciatica 94, 160, 168
 Scorpions 172
 Scrotum swelling 118, 154–5
 Sea sickness 188
 Sea urchins 177
 Sensation, loss of 33
 Sepsicaemia 117–20
 Sexually transmitted disease 117–26
 Instructions
 Medical attendants 125
 Patients 125–6
 Prevention 126
 Treatment centres, reports 125
 Vaginal discharge 145–5
 Shingles, alcohol withdrawal 180
 Shingles 120–1, 136, 178
 Ship-to-ship transfer 213
 Shock
 Abdominal wounds 24
 Causes 19
 Signs 19
 Symptoms 19
 Treatment 20
 Shoulder
 Blade fracture 28
 Dislocation 84
 Fractures 28
 Sick quarters 51
 Sinusitis 165
 Frontal 165
 Maxillary 165
 Skeleton 220–1
 Skin 219
 chemical contact 47
 Skull fractures 75–6
 Sleeping tablets, overdose 46
 Slings 12–13, 28
 Slipped disk 94
 Snake bites 170–1
 Sodium bicarbonate, stings 172
 Sodium chloride
 Acute gastroenteritis 146
 Bacillary dysentery 146
 Sodium hypochlorite solution 48, 87
 Solvents 48
 Sore throat 167
 Spencer Wells forceps 70–2
 Spiders 172

- Spinal cord 219
Injury 160
- Spine fractures 33–5
- Splints 13–14
Inflatable 14
- Sprains 84
- Sputum, examination 60
- Stab wounds 25–6
Abdomen 26
Chest 25
Limbs 26
- Sterilisation 69, 91
- Steristrips 70–1
- Stings 171–2
- Stomach ulcer 150–1
- Stove-in chest injury 38–9
- Stretcher *see* Neil Robertson stretcher
- Strains 84
- Strangulated hernia 140–1
- Strangulation 18
- Stroke 64, 132, 160
Headache 164
- Styes 163
- Suffocation 8, 13
Carbon dioxide 48
- Suicide, accidental 155
- Sunburn 3, 9
- Surgeon's knot 72–3
- Survivors 201–4
- Sutures 72
- Swallowed poisons 46–7
- Sweat *see also* Respiration 19
- Swollen legs 204
- Syphilis 85, 117, 120–1
- Tapeworm 95
- Temazepam 46
- Temperature
Chart 55
During cold water emersion 201
- High
Delirium tremens 180
Malaria 106
Treatment 185
Typhoid 102
Typhus fever 114
Yellow fever 115
- Normal 53
- Rectal 53
- Taking 53
- Tendon injuries 191
- Tepid sponging 185
- Testicle(s)
Injury 154
Pain 153–4
Torsion 118, 153–4
- Tetanus 73
Lockjaw 112
Protection 180
- Tetracycline ointment (1%) 118
- Thigh bone shaft fractures 30
- Threadworms 152–3
- Thrush 195
- Tic Douloureux 159
- Tinea 176
- Tinea pedis (athlete's foot) 95
- Tingling 33
- Tit juice conjunctivitis 191
- Tonsillitis 167
- Toothache 165–6
- Toxic hazards 45
- Transient ischaemic attack (TIA) 160
- Transport of casualties 40–4
- Triangular sling 12–13, 28
- Trichlorethylene (trilene, trike) 49
- Trichomoniasis 122–3
- Trigeminal neuralgia 159
- Trike *see* Trichlorethylene 49
- Trilene 49
- Trimethoprim
Bronchitis 135
Cystitis 156
Pyelitis 156
- Tubal infection 145
- Tubal pregnancy *see also* Ectopic pregnancy 145
- Tuberculosis 95, 113
- Typhoid fever 81
- Typhoid 59, 102
- Typhus fever 111
- Ueters 130–2
- Umbilical cord, tie and cut 199
- Unconscious patient
Chest injuries 39
Choking 18
General management 6
Head injury, care of 19
Hanging 19
3 MUSTS 63
Treatment 15–16
- Unconsciousness, diagnosis 64
- Upper arm fractures 28
- Upper eyelid eversion 79
- Urethra 219
- Urethral discharge 117–18
- Urethritis 117–18
Complications 153
- Urinary infection 144
- Urinary system 219, 224–5
- Urination difficulty 204
- Urine 219
Blood-stained 36
Examination 143
Retention 156–8
Testing 59–60
Glucose 173, 195
Protein 132, 187
- Urticaria 178, 181
- Vaginal bleeding 196
- Vaginal candidiasis 122
- Vaginal discharge 122–3, 123, 194–5
- Valium 46
- Varicella 95, 97, 99
- Varicose ulcer 133
- Varicose veins 132
- Vein 216
- Venom, sucking 171
- Ventilation 93
- Viruses 95
- Visual disturbances 132
Migraine 164
- Voluntary muscles 215
Front 222
Rear 223
- Vomited matter, examination of 60
- Vomiting
Cholecystitis 145–6
Cholera 100
Coronary thrombosis 128–9
Dehydration 61
Drunkennes 179
Head injury 76
Inhalation 179
Lifeboat, in 204
Meningitis 107–8
Migraine 164
Peritonitis 150
Pregnancy induced 193
Sea sickness 188
Severe abdominal pain 138–41
Snake bites 171
- Waiposting 12
- Water, fresh
Distribution system by super-chlorination 86
Hoses 87–8
Taking water on board 88
Treatment by chlorine 88–9
- Storage tanks 15–6
Disinfection 86
Water retention *see also* Oedema 132
- Welder's flash 80
- White cells 216
- Whitlows 172, 174
- Whooping cough 114
- Wind 137
- Worms 59, 152–3
- Wound(s)
Abdominal 24
Bullet 23
Chest 24
Classification 69
Face and jaw 25
Head 24
Healing 70
Infection 73
Metal fragments 23
Palm 25
Stitches, removal of 73
Treatment 70–3
- Wrist fractures 28
- Yellow fever 85, 115
- Zinc oxide
Ointment 143, 175
Powder 166