

# Contents

<b>THE SKULL</b>	10	<b>Superficial structures of the neck</b>	85
The extracranial appearance of the skull	12	The anterior triangle of the neck	86
The norma verticalis	12	The posterior triangle of the neck	90
The norma occipitalis	13	<b>Deep structures of the neck</b>	93
The norma frontalis	13	The fascia and tissue spaces of the neck	93
The norma lateralis	15	The great vessels and the nerves of the neck	99
The norma basalis	17	The viscera of the neck	118
The intracranial appearance of the skull	21	The musculoskeletal compartment of	
The anterior cranial fossa	21	the neck	120
The middle cranial fossa	22	The root of the neck	128
The posterior cranial fossa	23	The embryology of the neck	134
<b>THE BONES OF THE SKULL</b>	25	<b>Summary sheets – The neck</b>	136
The bones of the vault of the skull	25	<b>CASE HISTORIES 2: THE NECK</b>	139
The bones of the base of the skull	29	<b>THE FACE</b>	147
The bones of the face	35	Surface markings of the face	147
The bones of the jaws	40	<b>Superficial structures of the face</b>	151
<b>SKULL BONE ARTICULATIONS</b>	46	The muscles of facial expression	151
The orbital and nasal apertures	46	The nerves of the face	157
The orbit	46	The arteries of the face	161
The nasal cavity	47	The veins of the face	163
The base of the skull	48	The lymphatics of the face	164
The pterygopalatine fossa	48	The parotid gland	164
Summary sheet – The skull	50	The embryology of the face	168
<b>THE FETAL SKULL</b>	51	<b>Deep structures of the face</b>	171
Summary sheet – The fetal skull	60	The muscles of mastication	171
<b>THE CERVICAL VERTEBRAE</b>	61	The temporomandibular joint	172
The joints of the cervical vertebrae	64	The infratemporal fossa	174
<b>THE HYOID BONE</b>	68	<b>Summary sheets – The face</b>	182
Summary sheets – The bones and joints		<b>THE SCALP</b>	188
of the neck	69	The layers of the scalp	188
<b>CASE HISTORIES 1: THE SKULL</b>		The cutaneous innervation of the scalp	189
<b>AND CERVICAL VERTEBRAE</b>	71	The arteries of the scalp	189
<b>THE NECK</b>	82	The veins of the scalp	189
The general arrangement of structures in		<b>CASE HISTORIES 3: THE FACE AND</b>	
the neck	82	<b>SCALP</b>	190
Surface markings of the neck	83	<b>THE ORBIT</b>	198
The cutaneous innervation of the neck	84	The osteology of the orbit	198
		The contents of the orbit	199
		The eye	200

The eyelids	209	Swallowing	318
The lacrimal apparatus	213	The embryology of the mouth, palate and pharynx	319
The extra-ocular muscles	215	Summary sheets – The mouth and pharynx	326
The nerves within the orbit	221	THE LARYNX	332
The arteries within the orbit	226	The internal anatomy of the larynx	332
The veins within the orbit	228	The skeleton of the larynx	334
The embryology of the eye	228	The mucosa of the larynx	338
Summary sheets – The eye and orbit	230	The muscles of the larynx	338
CASE HISTORIES 4: THE ORBIT	234	The blood supply of the larynx	342
THE NOSE	242	The innervation of the larynx	343
The external nose	242	Speech	343
The nasal cavity	243	The embryology of the larynx	344
The paranasal air sinuses	249	Summary sheet – The larynx	347
The frontal air sinuses	249	CASE HISTORIES 6: THE MOUTH, PALATE, PHARYNX AND LARYNX	348
The ethmoidal air sinuses	250	THE EAR	362
The sphenoidal air sinuses	251	The external ear	362
The maxillary air sinuses	252	The middle ear	366
The pterygopalatine fossa	253	The internal ear	375
The embryology of the nasal cavity and the paranasal air sinuses	258	The embryology of the ear	379
Summary sheets – The nose	261	Summary sheets – The ear	381
CASE HISTORIES 5: THE NOSE	266	CASE HISTORIES 7: THE EAR	384
THE MOUTH, PALATE AND PHARYNX	272	THE CRANIAL CAVITY	390
The mouth and palate	272	The meninges	390
The teeth	277	The contents of the anterior cranial fossa	398
The oral mucosa	288	The contents of the middle cranial fossa	398
The salivary glands	289	The contents of the posterior cranial fossa	401
The oral musculature	291	THE CENTRAL NERVOUS SYSTEM	403
The innervation of the oro-dental tissues	297	The morphology and characteristics of nervous tissue	403
The blood supply of the oro-dental tissues	304	Neurones	403
The blood supply of other oral structures	305	Neuroglia	414
The venous drainage of the oro-dental tissues	306	Introduction to the topography of the central nervous system	417
The lymphatic drainage of the mouth	306	Subdivisions of the central nervous system	417
The tissue spaces around the jaws	307	Gross topography of the central nervous system	418
The pharynx	310	The embryology of the central nervous system	422
The nasopharynx	310	The spinal cord and spinal nerves	427
The oropharynx	311		
The laryngopharynx	312		
The wall of the pharynx	312		
The innervation of the pharynx	318		
The vasculature of the pharynx	318		

The spinal nerves	427	The external topography of the cerebral hemispheres	535
The autonomic nervous system	437	The cerebral cortex	540
The gross anatomy of the spinal cord	444	The internal structure of the cerebral hemispheres	562
The spinal meninges	445	The choroid plexuses and the cerebrospinal fluid	572
The internal structure of the spinal cord	446	The choroid plexuses	572
The brainstem and cranial nerves	459	The circulation of the cerebrospinal fluid	574
The external topography of the brainstem	460	The vasculature of the central nervous system	575
The internal topography of the brainstem	463	The arterial supply to the brain	577
The cranial nerves and their nuclei	464	The arterial supply to the spinal cord	582
Ascending sensory pathways	488	The venous drainage of the brain	582
Motor nuclei and descending pathways	500	The venous drainage of the spinal cord	584
Cerebellar connections and precerebellar nuclei	502	The blood–brain barrier	584
The reticular formation of the brainstem	504	The circumventricular organs	585
The cerebellum	513	The general organisation of sensory and motor pathways	586
The external appearance of the cerebellum	514	Summary sheets – The central nervous system	588
The internal organisation of the cerebellum	517	CASE HISTORIES 8: THE BRAIN AND CRANIAL CAVITY	608
The diencephalon	523		
The gross topography of the diencephalon	523		
The hypothalamus	524		
The subthalamus	528		
The thalamus	529		
The epithalamus	534		
The cerebral hemispheres	535	INDEX	632