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Christopher Stone
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Plastic Surgery: Facts (Second Edition)

This text has been designed specifically to help senior plastic surgery trainees to prepare for and pass their postgraduate examinations in plastic surgery. It will also appeal to trainees with less experience who may use it as a core text during their training. The first edition of this text was written by the author in preparation for the FRCS(Plast) examination. It is a collection of notes that addresses the whole curriculum of plastic surgery providing information on clinical anatomy, points of technique and the fundamental principles relevant to each subject area. There are self-assessment sections and hundreds of reviews of published articles. This text has become essential reading for all trainees and the second edition has sought to update the text, mainly with regard to material published over the past 5 years. There is no other textbook of plastic surgery of this kind available to trainees in plastic surgery.

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Abbreviations

A	
AA	amyloid A
ABGs	arterial blood gases
ACE	angiotensin converting enzyme
ACTH	adrenocorticotrophic hormone
AD	autosomal dominant
ADH	anti-diuretic hormone
ADM	abductor digiti minimi
AER	apical ectodermal ridge
AIDS	acquired immunodeficiency syndrome
AKA	above knee amputation
AK	actinic keratosis
AL	amyloid L
ALM	acral lentiginous melanoma
Ab	antibody
AP	antero-posterior, abductor pollicis
APB	abductor pollicis brevis
APL	abductor pollicis longus
AR	autosomal recessive
ARDS	adult respiratory distress syndrome
ASA	American Society of Anesthesiologists
ASD	arterial septal defect
ASIS	anterior superior iliac spine
ATLS	advanced trauma life support
AV	arteriovenous
AVM	arteriovenous malformation
AVN	avascular necrosis
B	
BAPS	British Association of Plastic Surgeons
BBA	British Burn Association
BBR	bilateral breast reduction
BCC	basal cell carcinoma
BEAM	bulbar elongation and anastomotic meatoplasty
bFGF	basic fibroblast growth factor

BJPS	British Journal of Plastic and Reconstructive Surgery
BKA	below knee amputation
BMP	bone morphogenetic protein
BOA	British Orthopaedic Association
BP	blood pressure
BPB	brachial plexus block
BSA	body surface area
BXO	balanitis xerotica obliterans

C

CAH	congenital adrenal hyperplasia
CCF	congestive cardiac failure
CEA	cultured epithelial autografts
CF	craniofacial
CGRP	calcitonin gene related peptide
CJD	Creutzfeldt-Jakob disease
CL/P	cleft lip/palate
CMC	carpo-metacarpal
CMF	cisplatin, melphalan, 5-fluorouracil
CNS	central nervous system
CO	carbon monoxide
COHb	carboxyhaemoglobin
CPAP	continuous positive airways pressure
CP	cleft palate
CRP	C reactive protein
CRPS	complex regional pain syndromes
CSAG	Clinical Standards Advisory Group
CSF	cerebrospinal fluid
CT	computed tomography
CTR	carpal tunnel release
CTS	carpal tunnel syndrome
CURA	comprehensive urgent reconstruction alternative
CVA	cardiovascular accident
CXR	chest X-ray

D

DCIA	Deep circumflex iliac artery
DCIS	ductal carcinoma in situ
DD	Dupuytren’s disease
DIC	disseminated intravascular coagulation
DIEA	deep inferior epigastric artery
DIEP	deep inferior epigastric perforator (flap)
DIPJ	distal interphalangeal joint
DISI	dorsal intercalated segment instability
DMCA	dorsal metacarpal artery (flap)
DNA	deoxyribonucleic acid

List of abbreviations

DoH	Department of Health
DP	distal phalanx
DPA	deep peroneal artery
DPT	dental panoramic tomogram
DRUJ	distal radioulnar joint
DSA	digital subtraction angiogram
DTIC	dimethyltriaxeno imidazole carboxamide
DVT	deep venous thrombosis

E

EC	extensor communis
ECG	electrocardiograph
ECMO	extracorporeal membrane oxygenation
ECRB	extensor carpi radialis brevis
ECRL	extensor carpi radialis longus
ECU	extensor carpi ulnaris
EDC	extensor digitorum communis
EDL	extensor digitorum longus
EDM	extensor digiti minimi
EGF	epidermal growth factor
EGFR	epidermal growth factor receptor
EHL	extensor hallucis longus
EI	extensor indicis
ELND	elective lymph node dissection
EM	electron microscopy
EMG	electromyograph
ENT	ear, nose and throat
EPB	extensor pollicis brevis
EPL	extensor pollicis longus
ESR	erythrocyte sedimentation rate
ET	endotracheal
EUA	examination under anaesthetic

F

FBC	full blood count
FC	fasciocutaneous (flap)
FCR	flexor carpi radialis
FCU	flexor carpi ulnaris
FDA	Food and Drug Administration
FDL	flexor digitorum longus
FDM	flexor digiti minimi
FDP	flexor digitorum profundus
FDS	flexor digitorum superficialis
FGF	fibroblast growth factor
FGFR	fibroblast growth factor receptor
FHL	flexor hallucis longus

FNA	final needle aspiration
FPL	flexor pollicis longus
FT	full thickness
FTSG	full thickness skin graft
G	
GA	general anaesthesia
GAG	glycosaminoglycan
GFR	glomerular filtration rate
GGF	glial growth factor
GI	gastrointestinal
GM-CSF	granulocyte-macrophage colony stimulating factor
Gp&S	(blood) group and save
GRAP	glanular reconstruction and prepucioplasty
GRH	gonadotrophin releasing hormone
GRO	growth related gene
GTN	glyceryl trinitrate
GU	genitourinary
H	
Hb	haemoglobin
HBV	hepatitis B virus
HCG	human chorionic gonadotrophin
HCL	hydrogen chloride
HCV	hepatitis C virus
HF	hydrofluoric acid
HIV	human immunodeficiency virus
HLA	human leukocyte antigen
HPV	human papilloma virus
HR	heart rate
HSV	herpes simplex virus
I	
ICD	idiopathic cervical dystonia
ICP	intracranial pressure
IDDM	insulin-dependent diabetes mellitus
IEA	inferior epigastric artery
IF	interferon
IGF	insulin-like growth factor
IL	interleukin
ILP	isolated limb perfusion
IM	intramuscular
IM	intramedullary
IMF	intermaxillary fixation
IP	interphalangeal (joint)
ITU	intensive therapy unit
IV	intravenous

K

- KCI Kinetic Concepts Inc.
- KTP Potassium, Titanyl, Phosphate (laser)

L

- La Latin
- LA local anaesthetic
- LAK lymphokine-activated killer
- LASER light amplification by stimulated emission of radiation
- LB leukotriene (B)
- LCIS lobular carcinoma in situ
- LC Langerhans cell
- LD50 lethal dose (50%)
- LD latissimus dorsi
- LFTs liver function tests
- LH luteinising hormone
- LHRH luteinising hormone releasing hormone
- LIMA left internal mammary artery
- LM lentigo maligna
- LMM lentigo maligna melanoma
- LND lymph node dissection

M

- MAGPI meatal advancement and glanulopasty incorporated
- MASER microwave amplification by stimulation emission of radiation
- MGSA melanocyte growth-stimulating activity
- MM malignant melanoma
- MND motor neurone disease
- MP metacarpophalangeal (joint)
- MRI magnetic resonance imaging
- mRNA messenger RNA
- MRSA methicillin-resistant Staphylococcus aureus
- MSG Melanoma Study Group
- MTP metatarsophalangeal (joint)
- MUA manipulation under anaesthetic

N

- NAI non-accidental injury
- NCS nerve conduction studies
- Nd: YAG neodymium:yttrium aluminium garnet
- NF-2 neurofibromatosis-2
- NGF nerve growth factor
- NGT nasogastric tube
- NK natural killer (cell)
- NL nasolabial
- NMDA N-methyl-D-aspartate

NO	nitrous oxide
NSAID	non-steroidal anti-inflammatory drug
NV	neurovascular

O

OA	osteoarthritis
OI	osteogenesis imperfecta
OM	occipitomenal
OPT	orthopantomogram
ORIF	open reduction and internal fixation
OT	occupational therapist

P

PA	postero-anterior
PAWG	posterior auricular Wolff graft
PB	peroneus brevis
PBCM	particulate bone and cancellous marrow
PBS	phosphate buffered saline
PCR	polymerase chain reaction
PD	proximo-distal
PDA	patent ductus arteriosus
PDG	(glucose-6-) phosphate dehydrogenase
PDGF	platelet derived growth factor
PDS	polydioxanone
PE	pulmonary embolus
PG	prostaglandin
PIPJ	proximal interphalangeal joint
PL	peroneus longus
PMA	pectoralis major advancement (flap)
PMSH	past medical and surgical history
PNS	peripheral nervous system
POP	plaster of Paris
PP	proximal phalanx
PRCA	posterior radial collateral artery
PRS	<i>Plastic and Reconstructive Surgery</i> (journal)
PSA	pleomorphic salivary adenoma
PSIS	posterior superior iliac spine
PT	peroneus tertius
PTFE	polytetrafluoroethylene
PWS	plagiocephaly without synostosis
PWS	port wine stain
PZ	progress zone

Q

QDS	four times daily
-----	------------------

R	
RA	radial artery
RA	retinoic acid
RA	rheumatoid arthritis
RAFF	radial artery forearm flap
RBBB	right bundle branch block
RCL	radial collateral ligament
RF	rheumatoid factor
RFF	radial forearm flap
RhPDGF	recombinant human PDGF
ROM	range of movement
RSD	reflex sympathetic dystrophy
RSS	rotatory subluxation of the scaphoid
RTA	road traffic accident
S	
S-GAP	superior gluteal perforator (flap)
S-QUATTRO	Stockport serpentine spring system
SC	subcutaneous, subcuticular
SCC	squamous cell carcinoma
SCI	superficial circumflex iliac
SCIA	superficial circumflex iliac artery
SCM	sternocleidomastoid
SDD	selective digestive tract decontamination
SL	scapholunate
SLAC	scapholunate advanced collapse
SLE	systemic lupus erythematosus
SMAS	superficial musculo-aponeurotic system
SMR	submucous resection
SNS	sympathetic nervous system
SSD	silver sulfadiazine
SSG	split skin graft
SSM	superficial spreading melanoma
SSM	skin sparing mastectomy
SVR	systemic vascular resistance
T	
TAP	tunica albuginea plication
TBSA	total body surface area
Tc	cytotoxic T cell
TC	Treacher Collins (syndrome)
TCA	trichloroacetic acid
TCC	transitional cell carcinoma
TENS	Transcutaneous Electric Nerve Stimulation
TE	tissue expansion
TFCC	triangular fibrocartilaginous complex

TFL	tensor fascia lata
TGF	transforming growth factor
TICAS	trauma-induced cold-associated symptoms
TLND	therapeutic lymph node dissection
TMJ	temporomandibular joint
TMN	tumour, metastases, nodes (classification)
TMT	tarsometatarsal (joint)
TNF	tumour necrosis factor
TPN	total parenteral nutrition
TRAM	transverse rectus abdominis muscle (flap)
TXA2	thromboxane A2

U

U&Es	urea & electrolytes
UAL	ultrasonic assisted liposuction
UCL	ulnar collateral ligament
UC	ulcerative colitis
UMN	upper motor neurone
URTI	upper respiratory tract infection
USS	ultrasound scan
UTI	urinary tract infection
UV	ultraviolet

V

VAC	vacuum assisted closure
VCF	velocardiofacial
VCs	venae commitantes
VEGF	vascular endothelial growth factor
VF	ventricular fibrillation
VISI	volar intercalated segment instability
VPI	velopharyngeal incompetence
VRAM	vertical rectus abdominis muscle (flap)
VSD	ventricular septal defect

W

WLE	wide local excision
-----	---------------------

X

XFNG	cross facial nerve graft
XP	xeroderma pigmentosa

Z

ZPA	zone of polarizing activity
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Preface

Five years have elapsed since the publication of the first edition of *Plastic Surgery: Facts*, a text that essentially consolidated my preparation for the FRCS(Plast) examination in 1999. Since then I have been gratified and encouraged by the feedback that I have received from many trainees in plastic surgery who have found the book useful as part of their own structured revision for examinations or simply as a source of information in their training.

The second edition of *Plastic Surgery: Facts* updates much of the plastic surgery and related literature over the past 5 years. Some areas have developed rapidly, while others have changed little. Plastic surgery encompasses many different disciplines under one umbrella and at times it would seem that future disintegration into a number of factions allied to other surgical specialties is inevitable. However, it is precisely this broad spectrum of principles and techniques that is fundamental to our cohesion and versatility as plastic surgeons and this remains our greatest strength.

In each chapter there are new citations that have been selected either for their educational value or scientific importance but, perhaps predictably, my own sub-specialty interests have received particular attention. Consequently, the sections on malignant melanoma and soft tissue sarcoma have expanded to reflect my own greater understanding of these areas.

Future editions of the book are likely to increasingly rely upon contributions from other authors and my intention is that *Plastic Surgery: Facts* will propagate as a text written by trainees for trainees. This transition begins with the second edition and I am enormously indebted to my friend and colleague David Oliver, who, despite busy family and clinical commitments in Australia over the past year, has managed to make significant contributions to the manuscript, co-editing chapters on cleft surgery, hypospadias, hand and breast surgery.

I hope that this text continues to provide a useful overview of the plastic surgery curriculum for all aspiring plastic surgeons, as well as for those of us charged with the responsibility for educating them.