

# Index

- AAOS classifications, 206–7
- abduction test, shoulder  
pain, 25
- abductor force (F<sub>Ab</sub>), 483
- abscess  
hand, 300, 349  
osteomyelitis, 388  
post-THA, 191  
spine, 273, 527–8  
wrist (Brodie's), 389
- acetabular component/cup  
(THA)  
cup failure, 198  
design/materials, 187, 188–9,  
200, 204, 478  
loosening, 195–6, 198, 202  
placement, 181–2, 184, 186–7
- acetabular fractures, 412–13  
displaced fragments, 400–1,  
413, 583  
EMA questions, 11  
oral topics, 583–4  
surgical approaches, 519–20
- acetabular screws, 195–216
- acetabulum  
augmentation, 100–1  
bone loss/erosion, 79,  
98, 206  
defects, 206, 207  
femoral impingement,  
211  
in hip dysplasia, 180–2  
*See also* developmental  
dysplasia of the hip  
(DDH)  
preparation for THA, 184  
revision THA, 206  
surgical approaches, 519–20
- acetabulum protrusio, 96–104,  
178–80, 179–215
- Achilles tendon  
gout, 54  
lengthening, 378  
rupture, 60, 412, 584
- achondroplasia, 132, 146–7, 436
- Achterman and Kalamchi  
classification, 140, 392
- acromioclavicular (AC)  
joint, 151  
arthritis, 24, 26, 155–6  
dislocation, 416  
pain, 24
- adamantinoma, 289
- Adams' forward bending test,  
62, 278
- adduction contractures, 145
- adductor canal, 533
- adhesive capsulitis, 28, 160–1
- adverse reactions to metal debris  
(ARMD), 201–5
- Agility arthroplasty, 243–4
- air flow systems, 495
- Akin osteotomy, 252–3, 255
- alar ligament, 563
- Albers–Schonberg disease, 452
- Allen and Fergusson  
classification, 269–70
- Allen's test, 37, 40
- allografts, 222, 442–3  
ACL injury, 223  
meniscal, 29, 219
- ambulation abduction brace, 371
- amelanotic melanoma, 354
- American Joint Committee on  
Cancer (AJCC)  
classification, 284–5
- amputation  
childhood, 393  
finger/thumb, 314–15,  
338–56  
infected THA, 192  
lower limb, 249–50, 393, 582  
mangled extremity, 426  
tumours, 285
- amyoplasia (arthrogryposis  
multiplex congenita),  
386–7
- anaemia, in RA, 39, 57
- anatomical snuffbox, 301–2
- anatomical spaces, 532–5
- anatomy  
exam advice, 532, 567  
oral core topics, 532–67,  
585  
lower leg, 554–62  
nerves, 538, 544  
shoulder muscles, 543–7  
*See also* osteoarthritis  
(below)  
revision materials, 6
- Anderson and D'Alonzo  
classification, 415
- Anderson and Montesano  
classification, 269
- aneurysmal bone cysts, 273,  
289–90
- angiofibroplastic hyperplasia,  
163–4
- angiosarcoma, 291
- angular trochanteric osteotomy,  
175
- ankle  
anatomy, 245  
anterior/anterolateral  
impingement, 241  
arthritis, 242  
arthrodesis, 112, 123, 242, 244  
complications, 245  
arthroplasty, 243–4  
arthroscopy, 241–3  
biomechanics, 241  
cerebral palsy, 145, 378  
Charcot neuropathy, 112–16  
debridement, 243  
distraction, 242–3  
exam advice, 23, 241  
fractures, 250, 408–9  
fusion, 121  
instability (chronic), 245–8  
joint distraction, 243  
kinematics, 486–7  
ligaments, 245–6, 561  
muscles, 554, 560–1  
paralysis, 61  
weakness, 60  
nerve supply, 256–7  
oral core topics, 241–8, 250  
osteoarthritis, 120–1, 242–5  
osteochondral lesions, 241  
paediatric trauma, 360  
pilon fracture, 407, 524–5  
supination external rotation  
injury, 408  
surgical approaches, 524–7
- ankle:brachial index, 249
- ankle-foot orthosis (AFO), 496
- ankylosing hyperostosis, 465
- ankylosing spondylitis (AS),  
59–60, 71–2, 274,  
464–5
- annular ligament, 563
- annulus fibrosus, 263–4, 461–2
- antecubital fossa, 535
- anterior cervical decompression  
and fusion (ACDF),  
267
- anterior cruciate ligament  
(ACL), 558  
injury, 106, 222–4, 582  
reconstruction/repair, 223–4
- anterior drawer test, 29, 246
- anterior interosseous nerve, 540
- anterior interosseous syndrome,  
307–55
- anterior longitudinal ligament, 562
- anterior oblique ligament, 564
- anterior sacroiliac ligament, 562
- anterior talofibular ligament  
(ATFL), 245
- antibiotic cover, open fractures,  
425–6
- antibiotic spacer, 192
- AO classification, 270–1
- AO Cobra technique, 208
- AO screw fixation, 368–9
- apical ligament, 563
- apparent leg shortening, 70
- apprehension test, 29
- arcade of Struthers, 308
- Arcades of Benninghoff, 454
- ARCO (Association Research  
Classification System),  
173
- arm  
blood supply, 564–5  
compartment syndrome, 425  
nerves, 539  
tendons, 549–51  
*See also* forearm;  
upper limb(s)
- arm wrestling position test, 37
- arteries, 564–6 *See also* individual  
arteries
- arthritis  
patellofemoral joint, 229  
post-traumatic, talar, 590  
small joint, 321–2  
*See also* osteoarthritis;  
rheumatoid arthritis
- arthritis mutilans, 327
- arthrodesis  
ankle, 112, 121, 123, 242,  
244–62  
complications, 245

## Index

- arthrodesis (cont.)  
 arthroscopic procedure, 242  
 elbow, 168  
 foot, 115, 125, 251, 253  
   complications, 251  
   MTP joint, 118, 119  
   subtalar, 386  
   triple procedure, 122, 142, 381, 386, 527  
 hand  
   finger, 53, 57, 328  
   thumb, 321, 356  
 hip, 84–6, 181, 207–8  
   AVN, 176  
   complications, 207–8  
   infected THA, 192  
   TB, 84, 86, 98, 208, 213  
   knee, 237  
   MTP joint, 253  
   shoulder, 29–30, 154, 162  
   spine, 265  
   wrist, 55, 317, 323–4, 351–2, 356  
 arthrography  
   hip, 95, 191, 364, 366, 372  
   shoulder, 29  
 arthrogryptic syndromes,  
   145–6, 348, 386–7  
   amyoplasia, 386–7  
   lower limbs, 146, 387  
   neurogenic, 145  
   upper limbs, 36, 130, 145–6, 387  
 arthrokadysis, 178  
 arthrometer (KT2000), 224  
 arthroplasty  
   ankle, 243–4  
   elbow, 168  
   foot, 258, 261  
   toe, 118–20, 253  
   hand  
     finger, 53, 328  
     thumb, 321  
   hip  
     bipolar procedure, 187  
     excision, 98  
     resection, 187, 192  
     surgical approach, 515  
     tuberculous joint, 98, 212–13  
   infection prevention, 193  
   knee, 229  
   materials, 473–4, 585  
   shoulder, 26–7, 29, 155  
     surgical approach, 505–6, 507  
   wrist, 323–4 *See also*  
     hemiarthroplasty;  
     resurfacing  
     arthroplasty; total hip  
     arthroplasty (THA);  
     total knee arthroplasty  
     (TKA)  
 arthroscopic portals, elbow, 163  
 arthroscopic procedures
- arthrodesis, 242  
 debridement, 29, 168, 181,  
   221, 241, 243  
 joint preservation, 211  
 soft-tissue release, 33  
 synovectomy, 237–8  
 arthroscopy  
   ankle, 241–3  
   elbow, 33, 168  
   hip, 181  
   knee, 221, 237–8, 591  
   shoulder, 24, 29, 211  
     instability/dislocation, 29, 156  
     rotator cuff tears, 26  
   wrist, 334  
 Article 14 application, 570–3  
 articular cartilage. *See* cartilage  
   (articular)  
 artificial joints. *See* prostheses  
 aseptic lymphocyte-dominated  
   vasculitis-associated  
   lesions (ALVAL), 202  
 aspirin, DVT prophylaxis,  
   496–7  
 atlanto-axial impaction, 67  
 atlanto-axial rotary subluxation,  
   269  
 atlanto-occipital injury, 269  
 atlas (C1) fractures, 269  
 atlas (C2) fractures, 269  
 autografts, 222–3, 442–3  
 autologous chondrocyte  
   implantation, 222  
 autologous osteochondral  
   transfer, 222  
 avascular necrosis (AVN),  
   466–7  
   asymptomatic, 176  
   basic science, 177–8, 468  
   causative factors, 172, 181  
   femoral epiphysis, 86, 368  
   femoral head, 82–103,  
     172–215  
   femoral head blood supply,  
     170  
   femoral neck, post-traumatic,  
     178–215, 399  
 hip, 90–1, 590  
   basic science, 468  
   post-traumatic, 92, 178–215  
   steroid-induced, 91–104  
 lunate, 36, 53, 316–18  
 oral core topic, 176–215  
 post-MOM resurfacing, 201  
 scaphoid, 331  
 sites, 93  
 talus, 410  
 axilla, radial nerve branches,  
   46, 539  
 axillary artery, 151, 564  
 axillary nerve, 32, 158–9, 534–5,  
   539  
 back pain, 11, 274–8, 577–8,  
   590  
 bacteriology, 494, 586  
 Bado and Speed classification,  
   422  
 Baker's cyst, 522–3  
 Baker's procedure, 378  
 Bankart procedures, 29, 157, 418  
 Barlow's test, 362, 366  
 Barrack and Harris classification,  
   196–216  
 basal cervical osteotomy, 368  
 basic science  
   ankylosing spondylitis, 464–5  
   bone, 436–42, 452–3  
   cartilage, 453–6, 462–3  
   embryology, 434–5  
   exam advice, 433–4  
   free body diagrams, 482–4  
   genetics, 435–6  
   infection control, 501  
   intervertebral discs, 461–2  
   knee meniscus, 460–1  
   ligaments, 457, 459  
   mechanical properties,  
     468–74  
   muscle, 457–9  
   nerves, 459–60  
   oral core topics, 433–502  
     gait cycle, 488  
     kinematics, 487  
     materials, 474–80  
     mobility aids, 496  
     questions, 468, 585–6  
     radiology, 492  
   osteoarthritis/osteoarthritis,  
     462  
   prosthetic materials, 468–74  
   research, 497–502  
   revision materials, 6, 7  
   rheumatoid arthritis, 463–4  
   tendons, 456–7  
 basilar invagination, 67  
 beak ligament (volar-ulnar),  
   319–21  
 Beak triple arthrodesis, 381  
 bearing couples, hip  
   replacements, 477–8  
 Beighton score, 29, 246  
 Belfast rehabilitation, 336–8  
 belly press test, 26  
 bending forces, 481–2  
 Benediction hand, 48, 50, 58  
 benign tumours, 272–3, 281,  
   283  
 tendons. *See also* specific  
   tumours  
 Bennett's fracture, 51, 300, 354  
 Bernhardt–Roth syndrome, 535  
 biceps tendon, 159–61, 164–5,  
   510  
 bilateral pars fracture, 269, 415  
 biomaterials, 189, 444, 468, 472,  
   494–5  
 biomechanics, 468–74, 480–2,  
   586  
 biopsy, 283, 295–6  
   at operation, 191  
 bipolar hemiarthroplasty, 175  
 bisphosphonates, 81–2, 438, 450,  
   452  
   Charcot neuropathy, 113  
   long-term use, 402  
 bite injuries, 349–50, 550  
 Blauth's classification, 346  
 bleeding disorders, 467–8  
 blocking screws, 407  
 blood flow tests, hands/fingers, 40  
 Blount's disease, 137, 140,  
   391–2  
 bone  
   basic science, 436–42  
   biomechanics, 441  
   blood supply, 444, 453  
   fracture healing, 441–2, 452,  
     586  
   growth, 439–41  
   infection, 387–9  
   metabolism, 445–8  
   remodelling, 440–1  
   sarcoma, 81  
   tendon insertion, 456  
 bone age determinants, 374  
 bone banking, 443  
 bone cells, 438  
 bone cement. *See* cement  
   (bone cement)  
 bone grafts/grafting, 179–215,  
   442–3, 453  
   cancellous/cortical, 443  
   femoral head AVN, 175  
   impaction grafting, 197  
   in THA, 182  
   scaphoid fracture, 330  
   scoliosis, 276  
   sources, 265, 442  
   spinal arthrodesis, 265  
   substitutes, 406, 443–4  
   tibial plateau fracture, 406  
   vascularized, 175, 317  
 bone islands, 288  
 bone morphogenetic proteins  
   (BMPs), 444  
 bone pain, Paget's disease, 451  
 bone patellar tendon-bone  
   (BTB/PTB) grafts, 223  
 bone scan, THA pain, 93, 95  
 bone-forming tumours, 288  
 bony exostosis, 147–8  
 book test (Froment's), 44  
 botulinum toxin, 377  
 Bouchard's nodes, 321  
 boutonnière deformity, 38–9, 550  
   management, 327–8, 353  
   pathophysiology, 322, 327  
 Bouvier's test, 38  
 bowed legs. *See* genu varum  
 Boyd and Anderson approach,  
   29  
 Boyd classification, 140, 392  
 Boyd–Sisk procedure, 157

- brace/bracing, 163, 276, 371, 392, 419
- brachial artery, 510, 535, 564–5
- brachial neuritis, 159
- brachial plexus anatomy, 342, 538–9, 544
- exam advice, 30–2, 356
- nerve cords, 539
- nerve roots, 30, 539
- nerve trunk, 539
- brachial plexus injury
- clinical cases, 30–2, 580
- congenital/neonatal, 132–4
- pre-/post-ganglionic, 42, 342–4
- brachioradialis tendon, 64
- British Orthopaedic Association (BOA) guidelines, 398, 431–2
- Brittain arthrodesis, 213
- Brodie's abscess, 389
- Brooker classification, 209
- Brostrom Gould reconstruction, 246, 248
- Brown-Sequard syndrome, 415
- Brunner incision, 41, 314
- Bryan and Morrey classification, 420
- Buechel–Pappas arthroplasty, 243–4
- bunion. *See* hallux valgus
- Bunnell–Littler test, 38
- Burgess and Young's classification, 412
- bursa, radial/ulnar, 349
- burst fractures, spine, 271
- Butler procedure, 144
- buttress plate, 405, 409, 423
- café-au-lait spots, 62, 379
- Caffey's sign, 370
- Caisson's disease, 92
- calcaneal coalition, 123–4
- calcaneocavus deformity, 122
- calcaneofibular ligament (CFL), 245
- calcaneonavicular coalition, 144, 385–6
- calcaneovalgus, 384
- calcaneus
- deformity, 111
- fractures, 410–11, 526–7
- nerve supply, 257
- osteotomy, 115, 122, 381
- calcar pivot, 195
- calcific tendonitis, 28, 161–2
- calcitonin, 440, 446, 451–2
- calcium, 445–8, 450, 453, 458
- callus formation, 441–2
- cam impingement, 211
- camptodactyly, 346–7
- cancellous bone graft, 443
- cantilever bending, 481
- Capener splint, 353
- capitellum fracture, 420–1
- capsulorrhaphy arthroplasty, 154
- capsulotomy, 116, 399, 518–19
- card test, 43
- Carney's classification, 367
- carpal height ratio, 54
- carpal injury adaptive (CIA), 333–4
- carpal instability, 332–5, 336
- carpal tunnel syndrome, 39, 46–58, 304–55
- decompression/release, 304–55
- Guyon's canal compression and, 310
- rheumatoid arthritis and, 322, 325
- carpal tunnel, anatomy, 303, 549–50
- carpometacarpal (CMC) joint, 52–3, 327
- carpus, anatomy, 332–3
- cartilage, 454
- tidemark in, 454–5, 462
- See also* triangular fibrocartilage complex (TFCC)
- cartilage (articular), 227, 453–6
- degeneration, 455, 462–3, 468
- injury, 221–2, 455
- tumours, 287, 344, 354
- cartilage-forming tumours, 286–8
- Catterall's classification, 370
- Catterall's head-at-risk signs, 370, 372
- cauda equina syndrome, 67, 415, 584
- cavovarus deformity, 114, 122–3, 582
- cavus deformity, 121–3, 589
- cement (bone cement), 473–4, 585
- antibiotic impregnated, 192
- osteopenia/osteoporosis, 90, 179–215
- spinal tumours, 272
- THA revision, 79–103, 194–5
- cement technique grading, 196–216
- central slip extensor tendon, 38
- ceramic implants, 200–16, 251, 471–2
- cerebral palsy (CP), 144–5
- assessment, 62, 376–9
- scoliosis, 276–7
- upper limbs, 379
- certificate of eligibility for specialist registration (CESR), 572–5
- cervical disc replacement, 267
- cervical ligament, 534
- cervical rib, 65, 158
- cervical spine
- degenerative conditions, 266–7
- foramenotomy/laminoplasty, 267
- fracture dislocation, 583
- fractures, 269, 415, 583–4
- fusion, 527–9
- radiculopathy and myelopathy, 63–4
- rheumatoid arthritis, 67, 274
- surgical approaches, 267, 278, 527–9
- trauma, 267–70, 360–1
- uni-bifacetal dislocation, 414–15
- Chamberlain's line, 67
- Charcot foot, 112–16, 257–8
- Charcot–Marie–Tooth (CMT) disease, 113–16, 141
- Charnley approach, 183–5, 187
- Charnley prosthesis, 103, 589
- Charnley's clamps, 112
- cheilectomy, 118, 241, 250
- cheiralgia paraesthetica, 36, 312
- chemotherapy, 285–6
- Chevron carpus, 132
- chevron osteotomy, 252–3
- Chiari osteotomy, 366, 371
- chondroblastoma, 287
- chondrocytes, 222, 453–4
- chondrodiastasis, 375
- chondrolysis, 368
- chondromas, 147
- chondromatosis, 292
- chondromyxoid fibroma, 287
- chondrosarcoma, 147, 273, 286–8
- chordoma, 273, 288
- Chrisman–Snook repair, 246–7
- Christmas disease, 467
- chromosome abnormalities, 435
- Cierny classification, 427
- Cincinnati incision, 386
- circulation tests, hands/fingers, 40
- circumflex femoral arteries, 566
- circumflex humeral arteries, 158–9, 534–5, 564
- classifications, revision materials, 7
- clavicle, 128, 416–17, 430, 584
- claw hand, 42, 50, 308–10
- oral topics, 50, 310, 580
- ulnar nerve lesion, 43, 50–1
- clawed toes, 114, 116, 122
- diabetic foot, 248–9
- cleft hand, 346, 580
- Cleland's ligament, 41, 301, 563–4
- clinical exam, 1–3
- core topics, 577–82
- exam advice, 24
- exam preparation, 574–5
- marking system, 1–3, 573
- revision materials, 6
- top tips, 575
- clinodactyly, 347
- clothing, operating theatre, 495
- clubfoot. *See* talipes equinovarus
- club hand, 345, 347–8
- cobalt chromium, 202–5, 471
- Cobb's angle, 62, 275
- Cobb's repair, 125
- Cobra plate, 84
- Codman classification, 153
- Coleman block test, 114–15, 122, 380
- collagen, 438, 454, 456, 460–1
- collagenase injections, 314
- collar stud abscess, 349
- Colles' fracture, 49
- common peroneal nerve, 534, 537
- compartment syndrome, 14, 340, 424–5, 493, 554–62
- complex regional pain syndrome (CRPS), 236, 352–3
- compression neuropathy, 44
- computed tomography (CT), 268, 283, 296, 375, 489
- congenital coxa vara, 372–3
- congenital discoid menisci, 220
- congenital dislocated hip (CDH), 210
- See also* developmental dysplasia of the hip (DDH)
- congenital hand deformities, 133, 344–8, 580
- congenital limb length discrepancy, 133–5, 373
- congenital pseudoarthrosis, 128, 140
- congenital radial head dislocation, 129–30
- congenital scoliosis, 61, 275, 277
- congenital talipes equinovarus (CTEV), 63, 381–4, 587
- congenital vertical talus (CVT), 384
- congenital/obstetric nerve palsies, 132–4
- connective tissue, around tendon, 456
- consent
- lack of capacity, 502. *See also* informed consent
- constriction bands, 348
- contractures
- brachial plexus injury, 31
- cerebral palsy, 145
- hip adduction/abduction, 70–1
- juvenile RA, 167
- Volkman's contractures, 50–1, 424
- conus medullaris syndrome, 415
- coracoacromial ligament, 563
- coracoclavicular ligament, 563
- coracohumeral ligament, 563
- core decompression therapy, 174–5
- coronoid process fractures, 421, 511
- correlation coefficient, 499

## Index

- corrosion, in prostheses, 479  
cortical bone graft, 443  
Coventry and Johnson  
  classification, 140, 392  
Coventry classification, 189  
coxa plana. *See* Perthes disease  
coxa vara, 136, 140, 372–3  
cranial nerve (XI), 31  
crank test, 320  
C-reactive protein (CRP), 190  
creep deformation, 469  
cross body (horizontal)  
  adduction test, 24  
Crowe classification, 73, 181  
cruciate ligaments  
  deficiency, 135–6,  
  *See also* anterior  
  cruciate ligament  
  (ACL); lateral cruciate  
  ligament (LCL); medial  
  cruciate ligament  
  (MCL); posterior  
  cruciate ligament (PCL)  
crush injury, hand, 354–5  
cubital fossa, 510, 535  
cubital tunnel syndrome, 164,  
  308–9  
cubitus valgus, 33–4, 43, 57  
cubitus varus, 35, 43, 57, 580  
curly toes, 116–17, 384, 587  
cutting cone, 440–1  
cysts  
  aneurysmal bone, 273, 289–90  
  Baker's, 522–3  
  bone, 289–90, 392  
  dermoid, 354  
  epidermal inclusion cyst, 57,  
  344  
  meniscal, 219–20  
  popliteal, 139, 393–4  
  subchondral, 167, 87 *See also*  
  ganglion  
dactylitis, 350  
damage control orthopaedics  
  (DCO), 426–7  
Darrach's procedure, 323, 351  
data analysis, 497–9  
De Bastiani Orthofix, 375  
de Quervain's tenosynovitis,  
  36, 301, 354  
debridement surgery, 191–2  
  arthroscopic, 29, 168, 181, 221,  
  241, 243  
deep vein thrombosis (DVT),  
  496–7, 590  
deformation (of materials),  
  468–9, 481–2  
Dega osteotomy, 365–6  
DeLee and Charnley zones, 196  
Dellon's sign, 312  
delta pressure, 424  
deltoid ligament, 561  
Denis three-column theory,  
  270–1, 415  
dens fractures, 269  
dental treatment, 192  
dermofasciectomy, 314  
dermoid cyst, 354  
developmental dysplasia of the  
  hip (DDH), 72–4, 182,  
  363–4, 590  
  limb length discrepancy, 72–3,  
  362, 366  
  old/untreated, 72–3, 363  
  paediatric patients, 361–6  
  surgical procedures, 182,  
  364–6, 514–15, 518  
DEXA (dual energy X-ray  
  absorptiometry) scan,  
  450, 453  
diabetes, 160, 162  
  foot disorders, 117–26,  
  248–50, 257–8  
  shoulder pain, 28  
  trigger finger, 55, 341  
diaphyseal aclasia, 129–30, 147,  
  287  
diaphyseal fractures, 373  
diaphyseal lengthening, 375  
diaphyseal osteotomy, 375  
diastematomyelia, 63, 122  
diffuse idiopathic skeletal  
  hyperostosis  
  (DISH), 279  
digital tenovaginitis. *See* trigger  
  digits, finger  
discitis, 273, 388–9  
disease-specific outcome  
  questionnaires, 213  
distal interphalangeal (DIP) joints  
  fingers, 38, 53, 325, 337, 353  
  radiology.  
  *See also* boutonnière  
  deformity; mallet  
  finger; swan-neck  
  deformity  
  toes, 116–17  
distal metatarsal articular angle  
  (DMAA), 251–2  
distal radioulnar joint (DRUJ),  
  37, 166, 322, 422–3  
distraction surgery, ankle joint,  
  242–3  
dorsal intercalated segment  
  instability (DISI), 54,  
  334, 563  
dorsal interossei, 43, 552  
dorsal scapular nerve, 31, 539  
dorsalis pedis artery, 566  
Drennan's metaphyseal–  
  diaphyseal angle,  
  138, 391  
drop arm test, 26  
drop foot gait, 60–1, 115  
dropped fingers, 326  
Duchenne's muscular dystrophy,  
  61, 276–7, 436  
Duncan and Masri (Vancouver)  
  classification, 193–4  
Dunn procedure, 368–9  
Dupuytren's diathesis, 313  
Dupuytren's disease (DD),  
  39–42, 292, 312–16  
  exam topic, 40–2, 314–16, 580  
  surgical procedures, 314–15  
dura, saccular dilatation, 380  
Duran rehabilitation, 338  
Durkin's test, 305  
dynamic compression plate  
  (DCP), 585  
dysplasia epiphysealis  
  hemimelica, 147, 287  
dystrophic scoliosis, 380  
dystrophin, 436  
Eastwood and Cole method, 374  
Eaton and Littler classification,  
  51–2, 320, 355  
Effendi's classification, 269  
Ehlers–Danlos syndrome,  
  130, 140  
Eichenholtz classification,  
  257  
elastofibroma, 292  
elbow  
  anatomy, 162, 563  
  antecubital fossa, 535  
  arthrodesis, 168  
  arthrogryposis, 387  
  arthroscopic portals, 163  
  basic science, 163  
  brachial plexus palsy, 132–4  
  cubitus valgus, 33–4, 43, 57  
  deformity valgus/varus, 128–9  
  degenerate, 580  
  dislocation, 48, 129–30, 582  
  exam advice, 24, 36  
  fracture, 583, 587  
  fracture dislocation, 12, 166–7,  
  420–1  
  instability, 35, 165–6  
  median nerve injury, 341, 540  
  oral core topics, 19, 163–9  
  osteoarthritis, 167–8, 590  
  pulled, 360  
  radial nerve palsy causes, 46  
  rheumatoid arthritis, 34, 167,  
  578  
  stiff, 33  
  surgical approaches, 162–3,  
  170, 510–11  
  synovial chromatosis, 169  
  tendinopathies, 163–4  
  tendon ruptures, 164–5  
  tennis elbow, 34–5, 163–4  
  trauma, 129–30, 358–60,  
  420–1, 583, 587  
elderly patients  
  degenerative changes, 462–3  
  cartilage, 455  
  intervertebral discs, 462  
  fractures  
  acetabular, 412–13  
  femoral, 399, 401–2  
  humeral, 419–20  
  tibial shaft, 406–7  
electrical stimulation therapy, 174  
electromyography (EMG), 156,  
  157, 460  
electrosurgery, 493–4  
Elson's test, 38, 327, 356  
embryology, 434–5, 437  
enchondroma, 287, 344, 354  
enchondromatosis, 287  
endoscopic procedures, 306  
  fractures. *See also* arthroscopic  
  procedures  
endurance limit, 470  
Enneking classification, 284  
entrapment syndromes, 46  
fractures. *See also* carpal tunnel  
  syndrome; tarsal  
  tunnel syndrome  
eosinophilic granuloma, 290  
epicondylar fracture, 359  
epicondylectomy, 309  
epicondylitis  
  lateral (tennis elbow), 34–5,  
  163–4  
  medial (golfer's elbow), 164  
epidermal inclusion cyst, 57,  
  344  
epiphyseal dysplasia, 102–4, 132,  
  147  
epiphyseal injuries, 373  
epiphysiodesis, 371, 375, 391  
epithelioid sarcoma, 295  
equinovalgus deformity, 379  
equinovarus deformity, 378  
equinus deformity, 111, 378  
equinus/cavovarus deformity,  
  582  
Erb's palsy, 42, 132–4  
erythrocyte sedimentation rate  
  (ESR), 190  
*Escherichia coli*, 189, 249  
Essex–Lopresti injury, 166–7,  
  420–1  
ethics, 502  
Evans repair, 246–7  
everted foot, 111  
evidence, levels of, 501  
Ewing's sarcoma, 285–6, 290,  
  297  
examination. *See* FRCS  
  (Tr. & Orth)  
  examination  
  examination  
  excision arthroplasty, 98, 261  
  Exeter prosthesis, 103  
  exsanguination, 492  
  extension gap, 233  
  extension osteotomy, 211  
  extensor digitorum tendon, 549  
  extensor tendons, 301, 325–6,  
  513–14, 549–50  
  extensor tenosynovitis, 322  
  external fixators, 112  
  medial (golfer's elbow).  
  *See also* Ilizarov fixator

- external rotation lag sign, 26  
extracapsular arterial ring, 170–214  
extradural tumours, 271–2  
eye disorders. *See* Horner's syndrome
- Fairbank's triangle, 372  
Fanconi's syndrome, 345  
fascia release, 122, 381  
fasciectomy, 40–1, 314  
fasciitis, nodular, 292  
fasciotomy, 314, 493, 554–62  
fat cell changes, 104, 173  
fat embolism syndrome, 185  
felon, 349  
femoral acetabular impingement, 211  
femoral anteversion, 143, 394  
femoral artery, 533, 565  
femoral component (THA)  
  loosening, 198, 199–216  
  *See also* femoral head (THA component); femoral stem (THA component)  
femoral condyle, 405, 520–1, 584  
femoral epiphysis  
  avascular necrosis, 86, 368  
  dysplasia, 102  
  ischaemia, 369. *See also* slipped upper femoral epiphysis (SUFE)  
femoral fractures, 404  
  distal, 582  
  intra-articular, 404  
  malunion, 590  
  non-union, 582, 589  
  open, 582  
  pathological, 402  
  periprosthetic, 86, 193–4, 402–3  
  proximal, 427  
  spiral, 582  
femoral head  
  avascular necrosis, 82–103, 172–215  
  tibial shaft. *See also* Perthes disease  
  blood supply, 170–214, 566  
  dislocation, 98  
  fracture, 82–103  
  osteonecrosis, 215  
  preparation for THA, 184, 186–7  
femoral head (THA component), 199, 202  
femoral locking plate, 403  
femoral neck fractures, 399–400, 428–9, 583  
  capsulotomy, 399  
  extracapsular, 401–2  
  intracapsular, 583–4  
  post-MOM resurfacing, 202–3  
  reverse oblique, 401  
  subcapital, 398–9  
  surgical approach, 515  
femoral nerve, 533, 536–7  
  injuries, THA risk, 183, 185  
  surgical exploration, 514–15  
femoral osteotomy, 73–4, 175, 209–11, 231, 365, 371  
femoral roll-back, 232  
femoral shaft fractures, 399–400, 428–9, 431–2, 584  
femoral stem (THA component)  
  design, 196–200  
  failure, 79, 206  
  loosening, 194–6  
femoral triangle, 532–3  
femoral vein, 533  
femur  
  abnormalities, 207  
  hip dysplasia, 180  
  osteomyelitis, 587  
  preparation for TKA, 233  
  revision THA, 207  
  sclerotic lesion, 584  
Ferguson procedure, 365  
fibrinolytic disorders, 370  
fibrocartilage, 456  
fibroma, 57, 289, 292  
fibromatosis, 292  
fibrosarcoma, 289, 294  
fibrous ankylosis, 86  
fibrous dysplasia, 289  
fibrous lesions, 289, 292  
fibula, 60, 406–7, 523–4, 584  
fibular (lateral) collateral ligament, 558  
fibular grafts, free vascularized, 175  
fibular hemimelia, 140, 392–3  
Ficat and Arlet staging, 466–7  
Ficat classification, 173, 176  
Fielding and Hawkins' classification, 269  
fight bite injuries, human, 349–50  
finger pointing sign, 48, 58  
finger(s)  
  anatomy, 300–2, 313  
  congenital deformities, 346–7  
  dropped, 38, 57  
  flexion deformities, 341–2, 346–7, 379  
  flexion, nerve tests, 42  
  flexor pulleys, 300, 550–1  
  flexor tendon injuries, 336–8  
  ganglion, 319  
  high-pressure injection injuries, 339–40  
  interosseous syndrome, 307–55  
  lumps/swellings (topics), 354, 579  
  pollicization, 346  
  rheumatoid arthritis, 38–9, 315–16, 325, 328  
  ring avulsion injuries, 339  
  rigger jersey, 355, 550  
  syndactyly, 346  
  TB dactylitis, 350  
  tenosynovitis, 325  
  tumours, 344  
  ulnar nerve compression, 308.  
  *See also* boutonnière deformity;  
  Dupuytren's disease (DD); mallet finger;  
  nail(s); swan-neck deformity; trigger digits; fingers  
finger nail(s). *See* nail(s)  
fingertip injuries, 339, 354  
Fish and Cuneiform procedure, 368–9  
Fisk (interposition) graft, 330  
Fitzgerald classification, 189  
fixation  
  ankle arthrodesis, 112  
  floating knee trauma, 404  
  tibial plateau fracture, 405  
fixation systems, 585  
  K-wires, 359, 395, 423  
  stiffness of constructs, 484–5  
  *See also* Ilizarov fixator; ORIF (open reduction with internal fixation); plate fixation; screws  
flat foot (pes planus), 111, 143–4, 385–6, 581  
flexion contractures  
  fingers, 39–42, 341–2  
  hip, 145  
flexion deformity  
  fingers (congenital), 346–7  
  fixed (valgus knee), 234  
flexion distraction injuries, spine, 271  
flexion gap, in TKA, 233  
flexion osteotomy, hip, 211  
flexor pulley system, 300, 550–1  
flexor retinaculum, 303, 549  
flexor sheath(s)  
  ganglion, 56–7, 319  
  infection, 300, 349  
flexor tendons (hands), 37–8, 549  
  injuries, 336–8, 550  
  repair/reconstruction, 336–7  
  rheumatoid, 325–6  
  tenosynovitis, 322, 325–6  
  *See also* trigger digits; fingers  
floating knee, 403–4  
floating shoulder, 416–17  
foot  
  anatomical spaces, 533–4  
  anatomy, 554, 565–6  
  arch, 140–2, 144  
  cerebral palsy, 145, 378  
  Charcot foot, 112–16, 257–8  
  Charcot–Marie–Tooth disease, 114, 116  
  compartment syndrome, 425  
  deformities, 111  
  tibial shaft. *See also* individual deformities  
  diabetic, 117–26, 248–50  
  exam advice, 241, 251  
  fibula hemimelia, 392–3  
  fractures, 410–12, 583  
  hallux rigidus, 119, 120, 250–1  
  interdigital neuroma, 255–7  
  in-toeing/out-toeing, 143–4  
  inverted, 111  
  ligaments, 564  
  metatarsus adductus, 384  
  muscle testing, 260  
  muscular imbalance, 144  
  nerve supply, 256–7, 538  
  neuromuscular deformity, 582  
  oral topics, 20  
  post-traumatic arthritis, 590  
  rheumatoid arthritis, 258–62  
  surgical approaches, 383, 386, 524–7  
  tarsal coalition, 123–4  
  tarsal tunnel syndrome, 261  
  trauma, 583, 410–12 *See also* drop foot gait; hallux valgus; paediatrics; pes cavus; talipes equinovarus  
foot progression angle (FPA), 143, 394  
foot–thigh angle (FTA), 143, 394  
foramenotomy, 267  
forearm  
  compartment syndrome, 425  
  ischaemic muscle contraction, 50–1  
  Madelung's deformity, 54–6  
  open fracture (oral topic), 584  
  rotation difficulty, 130–2  
  surgical approaches, 512–13  
  tendons and ligaments, 549  
forefoot deformities, 114  
  metatarsus adductus, 384  
  rheumatoid, 123, 258  
  tibialis posterior tendon dysfunction, 124–5.  
  *See also* cavovarus deformity  
forefoot position, 111  
Forestier's disease, 279, 465  
fractures, 398  
  healing, 441–2, 444  
  malunion, 245, 590  
  non-union, 427–8, 453, 589  
  open, 425–6, 431–2, 582  
  paralysis. *See also* ORIF (open reduction with internal fixation)  
  spiral, 398, 403, 582, 584  
Frankel grading system, 268, 414

## Index

- FRCS (Tr & Orth) examination, 4–5  
 candidates' accounts, 576–91  
 computer-based paper, 15  
 eligibility for attempts, 15–16, 593  
 exam advice, 572–5  
 candidates' views, 576–7  
 SAS doctors, 568–71  
 top tips, 574–5  
 failure, 571, 593–4  
 format, 1–3  
 general advice, 1–7  
 pass rates, 592  
 preparation for, 3–5  
 recommended reading, 5–7  
 regulations, 592–3  
 staff grade doctors, 568–71  
 UKITE and, 13. *See also* oral exam; short cases; written papers  
 free body diagrams, 433, 482–5  
 free vascularized fibular grafts, 175  
 French paradox, 196  
 friction, 474–5  
 frog-lateral view (radiology), 368  
 Froment's sign, 541  
 Froment's test, 44, 308  
 frozen shoulder, 25, 28, 160–2  
 Fulkerson procedure, 229
- Gage test, 143  
 Gage's sign, 370, 372  
 gait, 145  
 antalgic, 72, 74, 373–4  
 drop foot (steppage), 60–1, 115  
 foot progression angle (FPA), 394  
 limp or waddling, 362  
 long stance phase, 64  
 spastic crouch, 378  
 stiff hip, 92  
 Trendelenburg, 61  
 gait cycle, 487–8  
 Galeazzi's sign, 74, 366  
 Galeazzi's test, 73–5, 97, 362, 374  
 Galeazzi fracture dislocation, 422–3  
 gallium-67 citrate scan, 190, 491  
 gallows traction, 587  
 gamekeeper's thumb, 327  
 ganglion, 56–7, 294  
 digital, 319  
 shoulder, 157–8  
 wrist, 56–7, 318–19  
 Ganz osteotomy, 366, 518  
 Garden Alignment Index, 399  
 Garden's classification, 398–9  
 Garrod's pads, 40, 57, 313  
 Gartland classification, 359  
 gastrocnemius muscle, 553  
 Gaucher's disease, 214  
 Gauvain's sign, 97, 104
- genetic disorders, types, 379–80, 385  
 genetics, 435–6  
 bone grafting, 442  
 genu valgum, 61, 68, 136–8, 390  
 normal limits, 390  
 paediatrics, 136–8, 390, 587  
 genu varum, 136–8, 390–1  
 Gerber's lift-off test, 26  
 giant cell tumour(s), 57, 290, 292, 297, 344  
 Girdlestone arthroplasty, hip, 103, 188, 378, 578  
 Girdlestone transfer, foot, 116–17, 384  
 glenohumeral joint (GHJ), 151, 160–2  
 arthritis, 28–9, 154–5  
 arthrodesis, 162  
 stability, 156  
 glenohumeral ligaments, 151, 563  
 glenoid fractures, 416  
 glomus tumour, 344, 354  
 glucocorticoids, 440  
 gluteal compartment syndrome, 424–5  
 glycoalyx, 189  
 glycosaminoglycans, 454–6, 460–1  
 golfer's elbow (medial epicondylitis), 164  
 goniometer, 36, 41, 53  
 gout, 54–5, 321, 465–6  
 Goutallier staging, 153  
 Graf ultrasound classification, 362–3  
 grafts, 223 *See also* bone grafts  
 granuloma, 57, 202  
 granulomatous infection, 273  
 hamstring. *See also* tuberculosis (TB)  
 Grayson's ligament, 301, 563–4  
 greater trochanter, 136, 187  
 Green–Anderson tables, 374  
 Greulich and Pyle atlas, 374  
 grey matter, spinal cord, 414  
 grind test, 320  
 groove of Ranvier, 439  
 gross motor function classification system (GMFCS), 377  
 group study, 3, 357, 569, 574  
 growth plate, 439–41, 453  
 disorders, 54–6, 373–4, 439–40  
 surgery, 55, 375, 391  
 Gruen zones (femoral loosening), 194–6  
 Guhl arthroscopic classification, 221  
 gunstock deformity (elbow), 128–9  
 Gustilo and Anderson classification, 425, 431
- Guyon's canal, 44, 308–10, 533, 541
- haemangioma, 272, 290, 293, 374  
 haemarthrosis, 223  
 haematomas, 185  
 haemachromatosis, 322  
 haemophilia, 467  
 haemorrhage, 185  
 hallux rigidus, 117–19, 250–1  
 hallux valgus, 251–3  
 angle values, 261  
 clawed toes, 251  
 exam topic, 119–20, 581, 590  
 juvenile, 385, 582  
 rheumatoid foot, 259  
 surgical procedures, 250–62, 253–5
- Halo vest, 415  
 hamartomatous tumours, 286–8, 289–90, 379  
 hammer toe, 117–20  
 hamstring graft, 223  
 hand, 38–57, 322–5  
 anatomy, 300–4, 349  
 anterior interosseous syndrome, 307–55  
 arthrogryposis, 387  
 bands/cords, 40, 41  
 basic science, 299–300, 308  
 blood supply, 302, 565–6  
 brachial plexus lesion, 342–4  
 compartment syndrome, 14, 340, 425  
 congenital deformities, 133, 344–8, 580  
 core topics, 19–20, 37, 299–300, 304–54, 588–9  
 cubital tunnel syndrome, 309  
 exam advice, 36, 299–300  
 examination of, 37–8, 40  
 extensor compartments, 549  
 fight bite injuries, 350  
 ganglion, 56–7, 319  
 grip, 37  
 ligaments, 41, 301, 322, 563–4  
 median nerve entrapment, 306–55  
 muscle wasting, 50  
 nerve supply, 303–55  
 neurology, 37  
 osteoarthritis, 52–3, 319–56, 580  
 posterior interosseous compression, 311  
 pronator syndrome, 306–55  
 radial nerve compression, 311–55  
 radial tunnel syndrome, 311–12  
 revision courses, 7  
 revision materials, 7
- rheumatoid arthritis, 38–9, 299, 322–5  
 candidates' account, 580  
 oral questions, 39, 324, 327–9  
 splinting, 353  
 swellings, 353–4  
 tendon injuries, flexors, 336–8  
 tendon transfers, 340–1  
 tendons, 303, 337–8  
 tenosynovitis, 325–6, 354  
 trauma, 339–40, 355–4  
 compartment syndrome, 340  
 fingertip injuries, 339  
 fractures, 330, 354  
 tumours, 37, 344, 353–4  
 ulnar nerve, 307–8  
 compression, 308–9  
 ulnar tunnel syndrome, 309–10. *See also* carpal tunnel syndrome; claw hand; compartment syndrome; Dupuytren's disease (DD); finger(s); scaphoid; thumb; wrist
- handwashing, 495  
 hangman's fracture, 269, 415  
 Hardinge surgical approach, 183, 515–16  
 Hartofilakidis classification, 181, 189, 215  
 Hauser procedure, 229  
 Haversian canal system, 437, 441, 452  
 Hawkins' classification, 409  
 Hawkins' sign, 25, 153  
 Heberden's nodes, 51–2, 321, 462  
 heel raise test, 123–4  
 Heikel classification, 345  
 hemiarthroplasty  
 hip, 175, 515–16  
 humeral fracture, 419  
 shoulder, 27, 29  
 ulnar head, 323  
 uncemented, 399  
 Hemi-Cap implants, 222  
 hemimelia  
 fibular, 140, 392–3  
 radial, 345  
 tibial, 393  
 Henry's approach  
 elbow, 29, 163  
 forearm, 425, 512, 548  
 humerus, 508, 539  
 heparins, DVT prophylaxis, 496, 497  
 Herbert classification, 329, 331  
 Herbert screw fixation, 330–1  
 hereditary motor sensory neuropathies (HMSN), 113–16, 141  
 hereditary multiple exostoses, 147, 287  
 herniated nucleus pulposus (HNP), 85, 527–30

- Herring lateral pillar classification, 370
- Herring's treatment guidelines (Perthes disease), 371
- heterotopic ossification (HO), 185, 208–17
- Heuter–Volkman law, 439, 452
- high tibial osteotomy (HTO), 109, 230–1
- high-pressure injection injuries, 339–40
- Hilgenreiner's horizontal line, 363
- Hilgenreiner's epiphyseal angle (HEA), 136, 373
- Hill model, 458
- Hill–Sachs lesion, 29, 157, 418
- hindfoot, 111, 527
- deformities, 124–5, 246
- rheumatoid arthritis, 258.
- See also* pes cavus; talipes equinovarus
- hip
- adduction/abduction contractures, 70–1
- anatomy, 170–2, 562, 566
- ankylosing spondylitis, 71–2
- arthritis, 98, 186
- arthrodesed, 84–6, 85–6
- aspiration, 93, 95, 191
- blood supply, 566
- cerebral palsy, 145, 377–8
- clinical cases, 71–104
- dislocation, 63, 172, 387, 400–1, 589
- dysplasia, 180–2, 189, 387, 587, 590
- See also* developmental dysplasia of the hip (DDH)
- fractures, 412–13, 514–15, 583–4
- pathological, 589
- free body diagram, 483–4
- fused, 85, 579
- osteoarthritis, 82–103, 178, 427
- clinical cases, 88–9, 103, 215, 578
- paediatrics, 99, 136, 362, 394, 587
- painful, 96, 102, 581
- post-THA, 77–8, 80, 93–4, 100, 102, 104
- referred, 87
- piriformis syndrome, 76
- pseudoarthrosis, 84
- rheumatoid arthritis, 89
- rotation deformity, 61, 68
- subluxation, 377
- surgical approaches, 172, 514–31
- synovitis, 98 *See also* arthrodesis; avascular necrosis (AVN); developmental dysplasia of the hip (DDH); Paget's disease; Perthes disease; slipped upper femoral epiphysis (SUFE); total hip arthroplasty (THA); tuberculosis (TB)
- hip registers, 88
- hip replacements, 175–6
- synovitis. *See also* total hip arthroplasty (THA)
- hip resurfacing, 72
- metal-on-metal, 95–104, 201–16
- Hippocratic method, 157, 417
- Hirst classification, 178, 180
- histiocytoma, malignant
- fibrous, 294
- history-taking, 574
- Hodgkin's disease, 291
- Hoffa's fracture, 584
- Hoffer classification, 376
- Hoffman arthroplasty, 261
- Hoffman's reflex, 64
- Holstein–Lewis fracture, 419–20
- hook plate, 416–17
- hook test, 409
- hoop stress, 200, 224, 461
- hormone replacement therapy, 450
- hormones, affecting growth plate, 440
- Hornblower's sign, 26
- Horner's syndrome, 30, 42, 132, 343
- horseshoe abscess, 349
- Hounsfield units (HU), 489
- Howship's lacuna, 438, 440
- Hueston's tabletop test, 40–1
- human bite injuries, 349–50
- humerus
- dislocated, 582
- fractures, 508–10
- condylar, 359, 368, 420, 511, 587
- distal, 509–11, 584
- non-union, 509, 511
- proximal, 418–19, 505–6, 583
- shaft, 46, 419–20, 510, 583–4
- surgical approaches, 505–11
- tumours, 14
- Hunter's canal, 533
- hydrostatic pressure theory, Perthes disease, 369
- hyperbaric oxygen therapy, 174
- hypercalcaemia, 446
- hyperparathyroidism, 447
- hypocalcaemia, 446
- hysteresis, 469–70
- hystiocytoma, 289
- iliofemoral arthrodesis, 213
- iliofemoral ligament, 561
- iliolumbar ligament, 562
- iliotibial band (ITB), 106
- Ilizarov fixator, 121, 243, 383
- Ilizarov frame, 375
- Ilizarov technique, ankle fusion, 245
- image intensifiers, 489
- immunohaematopoietic tumours, 286, 290–1
- impaction bone grafting, 197
- impingement, 25
- anterior/anterolateral ankle, 241
- femoral acetabular, 211
- internal (shoulder), 153
- impingement syndrome, 25, 152–3
- impingement tests, 25
- implants, 477–8, 585–6
- loosening (osteolysis), 194, 198, 201, 206
- incisions. *See* surgical approaches
- indium-111-labelled white cell scan, 191, 491
- infection (bone and joint), 230, 249, 348–50, 387–9
- differentiation from tumour, 297
- fracture non-union, 427–8
- limb length discrepancy, 374
- See also* total hip arthroplasty (THA), infected
- infection control/prevention, 189–90, 193–216, 494–5, 501, 586
- inflammatory theory, RANK-L expression, 113
- informed consent, 502
- DD surgery, 40–1, 315
- hip arthrodesis, 208
- interdigital neurectomy, 256
- THA surgery, 183, 185–6
- inguinal ligament, 533
- injury severity score, 426
- injury, pathophysiology, 426–7
- inlay (Russe) graft, 330
- innominate osteotomy, 371
- instability, terminology, 333
- instrument sterilization, 495
- intercondylar fractures, 420
- interdigital neuroma, 255–7
- interleukin-6 (IL-6), 190
- intermediate cases
- advice for, 21–2
- candidates' views, 577–9
- list of common cases, 22–3
- intermetatarsal angle (IMA), 252
- intermittent claudication, 66–5
- internal rotation lag sign, 26
- interosseous nerve lesion, 42
- interosseous talocalcaneal ligament, 534
- interphalangeal (IP) joints, 37–8, 52–3, 114–15, 326
- interphalangeal angle, 252
- interposition (Fisk) graft, 330
- interspinous ligaments, 563
- intertransverse ligaments, 563
- intertrochanteric fracture, 427
- intertrochanteric osteotomy, 136, 179, 368
- intervertebral discs, 263–4, 461–2
- herniation in children, 275
- injury, 462
- prolapse, 267, 279
- replacement, 267, 279 *See also* clawed toes; hallux valgus
- structure, 263–4
- vascularization, 273
- in-toeing, 142–4, 394–5
- intradural tumours, 273
- intraoperative culture/frozen section, 191
- ischaemic ulcers, foot, 249–50
- ischiofemoral ligament, 561
- isografts, 442
- isotope bone scan, 283
- Jakob classification, 359
- Jeanne's sign, 308
- Jefferson's fracture, 269, 415, 584
- Jobe's empty can test, 26
- Jobe's relocation test, 29
- Johansson classification, 193
- Johnson and Strom classification, 125
- joint infections, 230, 387–9, 505–6
- periprosthetic, 78, 80, 236
- joint levelling procedures, 317
- joint preservation procedures, 211
- joint registry data, 91, 150, 201–2
- joint replacement
- ankle, 243–4
- elbow, 168
- thumb, 321. *See also* total hip arthroplasty (THA); total knee arthroplasty (TKA)
- Jones classification, 393
- Jones procedure, 122, 381
- Jones tendon transfer, 46, 115–16
- Judet radiographic views, 412
- Kalamchi classification, 393
- Kanavel's signs, 349
- Kapandji technique, 423
- Kaplan–Meier analysis, 501
- Kaplan's line, 302, 304
- KAPPA analysis, 499
- Keller's arthroplasty, 253
- Keller's procedure, 250, 261
- Kerboul necrotic angle, 174
- Kienböck's disease, 36, 53, 316–18
- kinematics, 481, 485–7
- Kirk–Watson's test, 37, 53–4, 333, 356
- Kirner's deformity, 347
- kite's radiographic view, 382

## Index

- Kleinert and Verdan classification, 336
- Kleinert rehabilitation, 336–8
- Kleinman shear test, 333
- Kline's line, 368
- Klippel–Feil syndrome, 127
- Klumpke's palsy, 42
- knee, 230
- arthrodesis, 237
  - basic science, 224
  - cerebral palsy contractures, 145, 378
  - clinical cases, 22–3, 85, 106–10
  - dislocation, 405
  - effusion, 105
  - exam advice, 105–6
  - flexion deformity, 61, 68
  - floating, 403–4
  - free body diagram, 484–5
  - infection in, 230
  - kinematics, 486
  - ligaments, 106, 222–7, 558–61
    - shaft. *See also* anterior cruciate ligament (ACL); lateral cruciate ligament (LCL); posterior cruciate ligament (PCL)
  - meniscus, 218–20, 460–1
  - nail–patella syndrome, 130, 139–40, 580
  - osteoarthritis, 85, 106–8, 229–36, 581, 589–90
    - clinical cases, 108–10
  - osteotomy, 109
  - outcome measures, 238
  - paediatrics, 136–40, 393–4
  - painful, 227–30, 578, 581
    - post-arthroplasty, 236–7
  - popliteal cyst, 139, 393–4
  - replacement,
    - unicompartmental, 235–6
  - rheumatoid arthritis, 106–10
  - surgical approaches, 235, 520–3
  - synovial disorders, 109, 237–8, 590
  - trauma, 231–2, 403–5, 584
  - unstable, 578–9. *See also* meniscus; patella; total knee arthroplasty (TKA); valgus deformity; varus deformity
- knee extensors, 553, 556–7
- knock knees. *See* genu valgum
- Kocher–Langenbeck approach, 413, 519–20
- Kocher's approach, 157, 163, 418, 510–11
- Kocher's criteria, 388
- K-wires, 359, 395, 423
- kyphosis, 275
- Kysholm score, 238
- labrum, 160
- Lachman test, 222
- lag sign tests, 26
- lambda value, 475
- lamellae (bone), 437
- laminoplasty, 267
- Langenskiöld's classification, 391
- Lapidus fusion, 252–3
- Latarjet procedure, 157
- lateral circumflex femoral artery (LCFA), 170–214
- lateral collateral ligament (LCL), 162
- lateral condylar fracture, 359
- lateral cruciate ligament (LCL), 226–7
- lateral epicondylitis (tennis elbow), 34–5, 163–4
- lateral ligament, ankle, 561
- lateral malleolus, 408–9, 525–6
- lateral patellar compression syndrome, 229
- lateral ulnar collateral ligament (LUCL), 166
- Lauenstein view (radiology), 368
- Leadbetter technique, 398
- Leddy classification, 337
- Leffert classification, 343, 350
- leg lengthening procedures, 147, 375
- Letournel and Judet classification, 412
- leukaemia, 291
- leukocyte scan, 191
- Levine and Edwards classification, 269
- Lhermitte's sign, 64
- Lichtman classification, 316–17
- ligament(s), 457, 558–64
  - ankle, 245–6, 561
  - carpal, 332
  - contractures (CTEV), 382
  - elbow, instability, 167
  - forearm, 549
  - hand, 41, 301, 322, 563–4
  - hip, 562
  - knee, 106, 222–7, 558–61
  - shoulder, 151, 563. *See also* individual ligaments
- ligamenta flava, 563
- ligamentum nuchae, 563
- ligamentum teres, 562
- limb deformities
  - complex, 133, 582
  - hypoplasia (diastematomyelia), 63, 122
  - short (achondroplasia), 132, 147, 436
- limb embryology, 435
- limb length discrepancy (LLD)
  - arthrodesed hip, 84
  - epiphyseal dysplasia, 102–4
  - evaluation/measurement, 69–71, 97, 134–5, 374
  - hip AVN, 91
  - hip dysplasia, 181
  - management, 137
  - paediatric, 133–6, 373
  - Perthes disease, 74–5
  - polio, 61
  - post-THA, 78, 183, 185
  - post-trauma, 373. *See also* coxa vara; developmental dysplasia of the hip (DDH)
- lipoma, 293
  - forearm, 312
  - hand, 57, 344
  - intraspinous, 63
- liposarcoma, 294
- Lisch nodules, 379
- Lisfranc fracture dislocation, 411–12
- Little procedure, 328
- Loder classification, 367
- long cases, candidates' views, 577–8
- long head of biceps (LHB), 159–61
- long thoracic nerve, 158, 539
- lower leg
  - fracture, 584
  - motor testing, 62–3
  - pain, 65–6
  - sensory testing, 63
  - surgical approaches, 523–4. *See also* fibula; tibia
- lower limb(s)
  - anatomical compartments, 553–9
  - angular deformities, 390–2
  - arthrogryposis, 146
  - blood supply, 565–6
  - compartment syndrome, 424–5
  - leg pain
    - nerve root tension, 66
    - with back pain, 577–8
  - nerves, 535–8
  - paediatrics, 140, 587
  - polio effects, 579
  - short, 146–7
  - trauma, 398–407
- lubrication, 475–6, 479, 586
- Luck's staging, 313
- Ludloff osteotomy, 252
- Ludloff's approach, 365
- lumbar disc prolapse, 66–7
- lumbar lordosis, loss of, 72
- lumbar spinal stenosis, 65–6, 265–6
- lumbar spine
  - burst fracture, 583
  - radiculopathy, 589
  - spinal fusion, 529–30
  - surgical approaches, 279, 529–30
- lunate dislocation, 335
- lunate, avascular necrosis. *See* Kienböck's disease
- lunotriquetral interosseous ligament, 563
- lunotriquetral ligament (LTL), 37, 334–5
- lupus erythematosus, 92–3
- lymphoma, 273
- Madelung's deformity, 54–6, 131–2, 348
- Maffucci's syndrome, 287, 587
- magnetic resonance imaging (MRI), 176, 489–92
  - AVN classification, 173–4, 176
  - bone tumours, 282, 296
  - spinal trauma, 268
- Magnuson–Stack repair, 157, 418
- main-en-griffe. *See* claw hand malignant tumours, 281
  - adjuvant therapy, 285
  - bone-forming, 288
  - fibrous, 289
  - imaging, 282–3
  - margins, 284
  - metastatic, 271–2, 584, 589
  - non-matrix-producing, 290
  - pathological fracture, 402, 589
  - primary, 286
  - soft-tissue, 294–5
  - spine, 273
  - staging, 283–5
  - surgery, 285
  - tumour markers, 282. *See also* vascular neoplasms
- mallet finger, 339, 353, 550
- mangled extremity, 426
- Mannerfelt lesion, 38–9
- Mannerfelt–Norman syndrome, 307, 326
- marble bone disease, 452
- Marfan syndrome, 277, 581
- Marie–Tooth–Charcot disease, 115
- Martin Gruber anastomosis, 45, 540–1
- Mason's classification, 420
- materials, basic science, 585–6
- maternal hormone-induced DDH theory, 362
- Matev procedure, 328
- matrix (bone), 437–8
- McCash open technique, 314
- McDaniel's rule of thirds, 223
- McGregor's line, 67
- McKenzie surgical approach, 507
- McRae's line, 67
- medial circumflex femoral artery (MCFA), 170–214
- medial collateral ligament (MCL), 106, 162, 166
  - repair, 511, 521
- medial cruciate ligament (MCL), 226
- medial cutaneous nerve of arm, 540



- medial malleolus, 408, 410, 525  
 medial patellofemoral ligament (MPFL), 228, 561  
 medial pivot mechanism, knee, 486  
 medial stem pivot, femoral stem, 195  
 median nerve, 162, 302–55, 535, 540–1, 549  
   anomalies, 540–1  
   branches, 303, 540  
   compression, 46–9, 305–55  
   injury, 166–7, 540  
   tendon transfer, 340–1  
   repair, 510, *See also* carpal tunnel syndrome  
 medication and surgery, 324, 356  
 melanoma, amelanotic, 354  
 Melone classification, 423  
 Mendelian inheritance, 435–6  
 meniscal allograft, 29, 219  
 meniscal cyst, 219–20  
 meniscectomy, 218–20, 225, 520–1  
 meniscus, 218–19, 460–1  
   discoid, 220  
   injuries, 218–19, 224, 406, 591  
 meralgia paresthetica, 535  
 mesenchymal stem cell therapy, 174  
 metabolic disease, femoral fracture, 402  
 metacarpophalangeal (MCP) joints  
   dislocated, 38  
   flexion tests, 37–8  
   gamekeeper's thumb, 327  
   hyperextension, 327  
   replacement, 324  
   rheumatoid, 322  
   splinting, 353  
   *See also* boutonnière deformity; claw hand  
 metal debris, reactions to, 201–2  
 metal materials, 470–1  
 metal-on-metal (MOM) hip, 76–7, 175, 201–16  
   complications, 202–3, 205  
   in AVN, 176–7  
   loosening, 202  
   painful, 95–104, 204–16  
   revision surgery, 203  
 metaphyseal blanch sign of Steel, 368  
 metaphyseal infection, 388  
 metaphyseal–diaphyseal angle, 138, 391  
 metaphyseal–epiphyseal blood supply, 444  
 metastatic bone disease, 281, 291–2, 589  
   finger, 344  
   imaging, 296  
   pathological fracture, 295  
   spine, 271–2  
   work-up question, 296  
 metatarsal heads, diabetic foot, 248–9  
 metatarsal osteotomy, 116, 251–62  
 metatarsals, fracture dislocation, 411–12  
 metatarsophalangeal (MTP) joints, 114, 589  
   arthrodesis, 118–19, 253  
   fusion, non-union, 590  
   osteotomy, 116, 118, 250, 252–62  
   overriding toe, 144  
   paediatrics, 144, 385  
   replacement, 251  
   *See also* clawed toes; hallux valgus  
 metatarsus adductus, 384  
 methotrexate, 90  
 metocarpophalangeal (MCP) joints, 316, 355  
 Meyerding classification, 65, 275  
 Meyers and McKeever classification, 224  
 midcarpal instability, 37  
 middle finger extension test, 34, 311  
 midtarsal joint, 487  
 Milch type II fracture, 33  
 Mirel's score, 291, 402  
 Mitchell MRI staging classification, 173–4  
 Mitchell's osteotomy, 252  
 Mobility arthroplasty, 243–4  
 moment arm, 481–4  
 moment of inertia, 482  
 Monteggia fracture dislocations, 422  
 Morton's neuroma, 293  
 Moseley straight line method, 374  
 motor and sensory loss  
   brachial plexus anatomy, 30–2  
   diabetic foot, 248–9  
 motor evoked potentials (MEPs), 265  
 motor nerve testing, 42, 62–3  
 movement disorders, 145  
 MRSA infection, 494  
 mucin, 56  
 mucous cyst, digital ganglion, 319  
 Mulder's click, 256, 293  
 multiple choice questions (MCQs), 9–16  
   revision materials, 15–16  
   terminology, 16  
 multiple hereditary exostoses, 147, 287  
 multiple myeloma, 273, 290–1, 295, 589  
 Murphy rings, 353  
 muscle fibres, 458  
 muscle patterning disorder, 157  
 muscle pedicle bone grafts, 175  
 muscle power tests, 31–2, 42  
 muscle(s)  
   contraction, 458–9  
   imbalance in foot deformities, 140, 143–4  
   tourniquet-induced ischaemia, 492–3  
   transfer, 154, 344  
 muscles  
   of arms, 544–8  
   anconeus epitrochlearis muscle, 308–9  
   biceps muscle  
     instability test, 160  
     power testing, 32  
     rupture, 26, 29  
   brachialis muscle, 544  
   brachioradialis muscle, 45  
   supraspinatus muscle, 31  
   triceps muscle, 32, 45, 57, 544–5  
   of back  
     deltoid muscle, 32, 543  
     latissimus dorsi muscles, 542  
     paraspinal muscles, 530  
     psoas muscle, 518  
   of buttocks  
     gluteal muscles, 552–6  
   of chest  
     pectoral muscles, 542  
     serratus anterior muscle, 158, 542  
   of finger  
     extensor muscles, 45  
     flexor digitorum profundus (FDP), 303, 549  
     avulsion injuries, 337  
     quadriga effect, 49–50  
     tendon transfer, 48  
     test, 37, 43  
     flexor digitorum superficialis (FDS), 303, 549  
     absence, 301  
     tendon transfer, 48  
     tenodesis, 329  
     test, 37, 48  
   of foot, 554, 560–1  
     abductor hallucis, 560  
     adductor hallucis, 560  
     extensor hallucis longus (EHL), 260  
     extensor retinaculum, inferior, 534  
     flexor accessorius muscles, 560  
     flexor hallucis brevis, 560  
     paralysis, 61  
     plantar muscles, 561  
     quadratus plantae muscles, 560  
   of forearm, 546–7  
   abductor pollicis brevis (APB), 47–8, 58, 301  
   anterior compartment muscles, 545  
   extensor carpi radialis brevis (ECRB), 34–5, 163–4, 301  
   extensor carpi radialis longus (ECRL), 32, 301  
   extensor carpi ulnaris (ECU), 301  
   extensor digiti minimi (EDM), 301–2  
   extensor digitorum brevis, 534, 560  
   extensor digitorum communis (EDC), 32, 163–4, 301  
   extensor digitorum longus (EDL), 144, 260  
   extensor indicis proprius (EIP), 49, 301  
   extensor pollicis brevis (EPB), 301  
   extensor pollicis longus (EPL), 45, 49, 301  
   flexor carpi radialis (FCR), 164, 303, 546, 549  
   flexor carpi ulnaris (FCU), 44, 549  
   flexor digiti minimi brevis, 552, 561  
   flexor pollicis longus (FPL), 37, 48, 58, 303, 549  
   palmaris longus, 306, 355  
   pronator teres (PT), 48, 58, 164  
   supinator muscle, 32, 45  
 of hand, 301–2, 551–2  
 abductor digiti minimi (ADM), 41, 43, 551, 560  
 adductor pollicis, 44, 541  
 extensor muscles, 45  
 extrinsic muscles, 301–2  
 flexor pollicis brevis (FPB), 47  
 interosseous muscles, 37–8, 43, 301, 552, 561  
 intrinsic, 50–1, 300–1  
 lumbrical muscles, 37–8, 301, 552  
 opponens digiti minimi, 552  
 palmar interossei, 43, 552  
 of hip  
   gemellus muscles, 552, 555  
   hip abductors, 552–6  
   hip adductors, 554  
   hip external rotators, 552–6  
   hip flexors, 551  
   obturator internus, 552, 555  
   nerve to, 537  
   pectineus muscle, 551–3

## Index

- muscles (cont.)  
 piriformis muscle, 552–6  
 quadratus femoris, 552, 555  
 nerve to, 537
- of knee  
 extensor muscles, 553
- of leg, 557–9  
 wasting, 61  
 adductor brevis, 551–3  
 adductor longus, 551–3  
 adductor magnus, 551–3  
 flexor digitorum longus (FDL), 125, 534, 560  
 flexor hallucis longus (FHL), 386, 534  
 gracilis, 551–3  
 hamstring muscles, 553  
 peroneal muscles, wastage, 60  
 peroneus brevis muscle, 245–7, 260  
 peroneus longus muscle, 260, 561  
 peroneus tertius, 557  
 popliteus, 554  
 quadriceps muscle, 553  
 nerve to. *See also* vastus muscles
- soleus, 553  
 tibial muscles, wastage, 60  
 tibialis anterior, 260  
 tibialis posterior, 260, 534, 561  
 vastus muscles, 227, 533, 556–7
- of neck  
 paracervical muscles, 529
- of shoulder, 26, 28, 30–1  
 infraspinatus muscle, 26, 31  
 rotator cuff muscles, 151, 543  
 scapulohumeral muscles, 543
- muscle spindle, 458  
 muscle–tendon junction, 457–9  
 musculocutaneous nerve, 32, 539  
 Musculoskeletal Tumour Society (MSTS) system, 284  
 myelopathy, 63–4, 266–7  
 Myerson classification, 125  
 myoneuropathic metabolic syndrome, 492  
 myosin filaments, 457–8  
 myositis ossificans  
 circumscripta/  
 progressiva, 293–4
- nail bed injuries, 13, 339, 354  
 nail fold infections, 349–50  
 nail–patella syndrome, 130, 139–40, 580  
 nail(s), 302, 354  
 Nalebuff and Millender classification, 328  
 Nalebuff classification, 326–8, 356  
 natatory ligaments, 41, 564  
 neck stiffness, 59–60
- Neer classification, 417–18  
 Neer's sign, 25, 152  
 Neer's test, 25, 153  
 neocapsule tissue reaction, 202  
 neonates, bone and joint infection, 389  
 neoplasia. *See* tumours  
 nerve conduction studies (NCS), 249, 305, 460  
 nerve roots  
 brachial plexus anatomy, 30–2  
 surgical approach, 528–30  
 tension signs for leg pain, 66  
 nerve sheath tumour, 294  
 nerves, 459–60  
 anatomy, 459, 535–44  
 injuries, 183, 185, 343, 459–60.  
*See also* individual nerves  
 tendon transfer.  
*See also* brachial plexus injury; ulnar nerve; compression
- neurectomy, interdigital, 256  
 neurilemmoma, 344  
 neurofibroma, 293  
 neurofibromatosis, 293, 379–80  
 gait (short leg), 62  
 limb length discrepancy, 374  
 scoliosis, 61–2, 277  
 tibia in, 140, 392  
 neurogenic claudication, 65–6, 265  
 neurogenic shock, 414  
 neuroma, 255–7, 293  
 neuromuscular foot deformity, 582  
 neuromuscular scoliosis, 275, 276–7  
 neuropathic arthritis, 154, 168  
 neuropathic foot, 112–26  
 diabetic, 248–50  
 neuropathy, 460  
 compression, 44  
 diabetic ankle fracture, 250  
 neurophysiological tests, 460  
 Newton's laws, 480–1  
 NICE guidelines, 88, 177, 574  
 ninhydrin sweat test, 31  
 nodular fasciitis, 292  
 non-Hodgkin's lymphoma, 291  
 non-matrix-producing tumours, 289–90  
 non-ossifying fibroma, 289  
 nuclear medicine bone scans, 491  
 nucleus pulposus, 263–4  
 herniated (HNP), 85, 527–30  
 nutrient artery system, 444
- oblique retinacular ligament (ORL), 301, 549  
 obstetric brachial plexus palsy, 132–4  
 obturator artery, 566  
 obturator nerve, 518, 535
- occipital condyle fractures, 269  
 odontoid fracture, 415  
 odontoid peg fractures, 269  
 O'Driscoll's pivot shift test, 35  
 oestrogen therapy, 450  
 olecranon bursa, 54, 164–5  
 olecranon fractures, 359, 421  
 Ollier's disease, 132, 287, 587  
 Ollier's surgical approach, 386, 527
- oncology  
 further reading, 297  
 oral core topics, 281–95.  
*See also* tumours
- operating theatres, 495  
 oral exam, 1–3  
 advice, 177, 397–8, 582  
 guidance, 149–50  
 marking system, 1–3, 573  
 preparation advice, 570  
 top tips, 575
- ORIF (open reduction with internal fixation)  
 acetabular fractures, 400–1  
 calcaneal fractures, 526–7  
 carpal instability, 356  
 clavicle, 417  
 coronoid process, 511  
 femoral fractures, 184, 400–1  
 hip, anterior column, 514–15  
 humeral condyle, 511  
 lateral malleolus, 525–6  
 medial malleolus, 525  
 posterior malleolus, 526  
 radius, 512–13  
 scaphoid, 330  
 supracondylar fracture, 194  
 tibia, 523  
 tibial plateau, 520  
 wrist, 334, 513–14
- Orthopaedic Data evaluation panel (ODEP), 88, 103
- orthoroentgenogram, 374  
 orthotics, 495–6  
 Ortolani's test, 362, 366  
 Osgood–Schlatter disease, 138–9  
 osteoarthritis (OA)  
 ankle, 120–1, 242–5  
 basic science, 462  
 cartilage degeneration, 455  
 elbow, 167–8, 590  
 hand, 52–3, 319–56, 580  
 small joints, 319–56  
 hip, 82–103, 178, 427  
 knee, 85, 106–8, 229–36, 581, 589–90  
 outcome measure, 238  
 post-traumatic, 82–103, 120–1, 167  
 rheumatoid compared, 463  
 wrist, 331–2, 335–6, 352
- osteoarthritis, 462  
 osteoblastoma, 273, 288  
 osteoblasts, 438  
 osteocalcin, 438
- osteochondral allografting, 222  
 osteochondral autograft transfer (OAT), 222  
 osteochondral lesions, debridement, 241  
 osteochondritis dissecans (OCD), 220–1, 520–1  
 osteochondromas, 147–8, 273, 286–7, 296–7, 590  
 osteochondromatosis, hereditary multiple, 129–30, 132  
 osteoclasts, 438  
 osteocytes, 438  
 osteofibrous dysplasia, 289  
 osteogenesis imperfecta, 277  
 osteogenic graft properties, 442  
 osteoid osteoma, 273, 288, 297  
 osteoligamentous injury, spinal trauma, 268  
 osteolysis, implant loosening, 194, 198, 201, 206  
 osteomalacia, 447–8, 453  
 osteomyelitis, 134, 387  
 chronic recurrent multifocal, 389  
 differential diagnosis, 388  
 femur, 587  
 hand, 349  
 humerus, 508  
 limb length discrepancy, 374  
 spine, 273, 527–8  
 tibia, 582  
 wrist, 388–9
- osteonecrosis, 215, 466–7, 589  
 osteopenia, 89–90  
 osteoperiostitis, 82  
 osteopetrosis, 452  
 osteophytes, 87, 121, 527–8, 590  
 osteopoikilosis, 288  
 osteoporosis, 90, 279, 449–51, 453, 586  
 juvenile RA, 99–100
- osteosarcoma, 273, 288, 297  
 incidence, 286  
 oral topic, 295  
 soft-tissue, 295  
 treatment, 285
- osteotomy  
 basal cervical, 368  
 calcaneal, 115, 122, 381  
 chevron, 252–3  
 Chiari, 366, 371  
 closing wedge, 118, 122, 142, 250  
 crescentic, 115, 253  
 diaphyseal, in LLD, 375  
 femoral, 73–4, 210–11, 365  
 distal, 231  
 for SUFE, 368  
 proximal, 175, 209–11, 371  
 forearm, rotational, 131  
 hallux valgus, 252–3, 255  
 hip, dysplastic, 181, 365–6  
 intertrochanteric, 136, 179, 368  
 knee, 109, 138

- medial malleolus, 410  
 metatarsal, 116, 251–62  
 MTP joints, 116, 118, 252–62  
 Pauwel's Y-shaped, 136, 373  
 pelvic, 209–11, 365–6, 371, 514–15  
 Pemberton, 365–6  
 Scarf, 253, 255  
 shoulder, 157  
 Southwick's, 368–9  
 subtrochanteric, 73–4, 136, 182, 368  
 thumb, 321  
 tibial, 109, 230–1, 391, 523  
 trochanteric, 84, 100, 183, 371  
   rotational (Sugioka), 175, 215  
   slide (Ganz), 366, 518  
 vertebral, 60  
 Weils, 116  
 wrist, radial, 317  
 Otto's pelvis, 178, 180  
 outcome measures, 238, 498–9  
   questionnaires, 213–14  
 out-toeing, 142–4, 394–5  
 overriding fifth toe, 144  
 Oxford hip score, 214  
 Oxford knee score, 238  
 paediatrics  
   ankle fractures, 360  
   arthrogryptic syndromes, 145–6, 386–7  
   back pain, 274–8  
   basic science, 467  
   bone and joint infections, 387–9  
   brachial plexus palsy, 127–32  
   developmental milestones, 358  
   dysplasia epiphysealis hemimelica, 141–8  
   elbow, 128–9  
     fractures, 359, 583, 587  
     radial head dislocation, 129–30  
     radioulnar synostosis, 131  
   exam advice, 4, 55, 127, 357–8  
     revision courses, 7, 357  
   femoral fractures, 582, 584  
   femoral head blood supply, 566  
   fingertip injuries, 339  
   foot  
     in-toeing/out-toeing, 142–3  
     progression angle (FPA), 394–5  
     rotational profile, 394  
   foot deformities, 140–2  
     clubfoot, 384, 587  
     congenital talipes equinovarus, 381–4  
     congenital vertical talus, 384  
     curly toes, 116–17, 384, 587  
     hallux valgus, 385  
     metatarsus adductus, 384  
     neuromuscular, 582  
     overriding toe, 144  
     pes cavus, 132–42, 380–1, 587  
     pes planus, 385  
     tarsal coalition, 143–4, 385–6  
   foot–thigh angle, 394  
   forearm, 130–2  
   growth charts, 374  
   hand deformities, 133, 344–8, 587  
   hip, 136  
     avascular necrosis, 92  
     fracture, 83  
     juvenile RA, 99–104  
     range of rotation, 394  
     SUFE, 367–9.  
       *See also* developmental dysplasia of the hip (DDH)  
   intermediate case topics, 23  
   juvenile RA, 99–104, 134, 167  
   knee, 136–40  
     arthritis, 229–30  
     discoid menisci (congenital), 220  
     nail–patella syndrome, 139–40  
     popliteal cyst, 393–4  
   limb anomalies (congenital), 133, 146–7  
     lower limbs, 135–6, 392–3  
   limb anomalies (oral topics), 586–7  
   lower limb disorders  
     coxa vara, 133–6  
     genu valgum, 390  
     genu varum, 391–2  
     limb length discrepancy, 133–6, 373–5  
   neurofibromatosis, 293, 380  
   neurological examination advice, 62  
   osteochondritis dissecans, 220–1  
   osteopetrosis, 452  
   osteosarcoma, 288  
   Perthes disease, 75, 103, 369–72  
   rickets, 447–8  
   short case topics, 20  
   shoulder, pseudoarthrosis of clavicle, 128  
   spine  
     intervertebral discitis, 273  
     malignant tumours, 273  
     scoliosis, 61, 275–7, 380  
   trauma, 269, 358–61, 583  
   tumours, 147–8, 273, 286, 589  
     *See also under* congenital  
 Paget's disease, 80–2, 297, 451–2, 589, 591  
   hip, 80–2  
   long bones, 402, 451  
   sarcoma, 288  
     spine, 279  
 pain sensations, 460  
 palmar aponeurosis pulley, 551  
 palmar arches, 302  
 palmar erythema, 39, 57  
 palmar space infection, 349  
 palmaris longus tendon, 549  
 pan-carpal rheumatoid disease, 322  
 Pappas classification, 221  
 Paprosky classification, 206  
 paralysis syndrome, tourniquet-induced, 492  
 parametric tests, 498–9  
 paratenon, 456  
 parathyroid hormone (PTH), 440–1, 445–6, 448–9  
   recombinant, 451  
 paronychia, 349–50  
 pars interarticularis, 269, 274–5, 415  
 Parsonage–Turner syndrome, 159, 307  
 patella  
   articular cartilage, 227  
   assessment, 105–6  
   fractures, 404–5, 585  
   instability, 228–9  
   lateral compression syndrome, 229  
   realignment procedures, 229  
   resurfacing, 234.  
     *See also* nail–patella syndrome  
 patella baja, 234–5  
 patellectomy, 229, 520  
 patellofemoral joint, 106  
   arthroplasty, 229  
   disorders, 227–9, 581  
   maltracking, 234  
 patellofemoral ligament, medial, 228, 561  
 pathology topics, 589–91  
 patient-specific outcome questionnaires, 214  
 Pauwel's Y-shaped osteotomy, 136, 373  
 Pavlik harness, 364  
 pectoral nerves, 539–40  
 pelvic obliquity, 61, 68  
 pelvis  
   fractures, 11, 412–13, 430–1, 583–4  
   ligaments, 562  
   osteotomy, 209–11, 365–6, 371, 514–15  
   Paget's disease, 451  
   surgical approaches, 519  
 Pemberton osteotomy, 365–6  
 pen test, 58  
 pencil-in-cup deformity, 465  
 pentasaccharides, 497  
 perichondral ring of Lacroix, 439  
 perilunate dislocation, 334–56  
 periosteal 'desmoid' tumours, 289  
 periosteal blood supply, 444  
 periosteal release, 375  
 peripheral nerve lesions, 42–3, 293  
 peripheral nerve sheath tumour, malignant, 294  
 peripheral neuropathy, 60, 117–26  
 periprosthetic fracture  
   femoral, 86, 193–4, 402–3  
   post-TKA, 403  
 peri-scapoid rheumatoid disease, 322  
 Perkin's vertical line, 363  
 peroneal nerves, 257, 534, 537  
   injury, 60  
 Perthes disease, 74–103  
   classification systems, 370  
   differential diagnosis, 370  
   oral topic, 587  
   paediatrics, 369–72  
   prognostic factors, 371–2  
   surgical procedures, 371–2  
 pertrochanteric fractures, 401  
 pes cavus, 111, 121–3, 140–2, 380–1  
 pes plano valgus, 581  
 pes planus, 111, 143–4, 385–6, 581  
 Peyronie's disease, 40, 57, 313  
 Phalen's test, 47, 305, 307  
 physeal 8-plate, 138  
 physeal distraction, 375  
 physeal injuries, 358–9, 439  
 physeal–metaphyseal junction, 439  
 physis, 439–41, 444, 447  
 piano key sign/test, 37, 322, 356  
 pigmented villonodular synovitis (PVNS), 292  
   hand, 344, 353–4  
   hip, 211–12  
   knee, 109, 237–8  
   wrist, 57  
 pillar pain, 306  
 pilon fracture, 407, 524–5  
 pincer impingement, 211  
 Pirani scoring system, 382  
 piriformis syndrome, 76  
 Pisani's sign, 220  
 pisotriquetral joint, 37  
 pistoning behaviour, 194–5  
 pivot shift analysis/test, 35, 106, 222  
 plantar fascia release, 122, 381  
 plantar nerves, 256–7, 538  
 plasmacytoma, 273, 290–1  
 plate fixation, 208, 583  
   buttress plate, 405, 409, 423  
   clavicle, 417  
   Cobra plate, 84  
   dynamic compression plate, 585  
   hook plate, 416–17  
   stiffness of constructs, 484–5

## Index

- Poland's syndrome, 127, 346  
 poliomyelitis (deformities),  
   61, 134, 141, 374, 579,  
   581  
 Pollock's test, 43, 308  
 polydactyly, 345–6  
 polyethylene (PE) prostheses,  
   194, 198, 237  
 polymers, 472–4  
 polymethylmethacrylate  
   (PMMA), 272, 473–4  
 polytrauma, 360, 426–7, 584  
 Ponseti casting technique, 382–3  
 Popeye sign, 26, 29, 160–1  
 popliteal artery, 533, 565  
 popliteal cyst, 139, 393–4  
 popliteal fossa, 522–3, 533–4  
 popliteal vein, 533  
 porous tantalum rod implant, 175  
 positron emission tomography  
   (PET), 283, 491  
 posterior cruciate ligament  
   (PCL), 558  
   injury, 108–9, 225–6  
   PCL–quadriceps active test, 106  
   substitution/sacrifice, 232  
 posterior interosseous nerve  
   (PIN), 32, 535, 540  
   compression, 38–9, 46, 311  
   surgical exploration, 513  
 posterior lip augmentation  
   device (PLAD), 187  
 posterior longitudinal  
   ligament, 563  
 posterior malleolus, fractures,  
   409, 526  
 posterior sacroiliac ligaments, 562  
 posterior talofibular ligament  
   (PTFL), 245  
 posterolateral corner (PLC),  
   knee, 106, 225–7  
 post-tourniquet syndrome, 60, 492  
 power analysis, 498  
 Powers' ratio, 269  
 pre-ganglionic injury, 342–4  
 princeps pollicis artery, 302  
 profunda femoris artery, 565  
 pronator entrapment  
   syndrome, 49  
 pronator syndrome, 306–55  
 pronator teres (PT) syndrome, 49  
 PROSTALAC, 192  
 prostheses, 496, 225–7  
   design features, 468–74, 477–8  
   lubrication, 475–6  
   wear in, 476–7  
 proteoglycans, 453–4  
   in meniscus, 460–1  
   in tendons, 456  
 protrusion acetabuli, 96–104,  
   178–215  
 proximal interphalangeal (PIP)  
   joints  
   claw toes, 116  
   curly toes, 117, 384, 587  
 fingers  
   arthrodesis, 53  
   arthroplasty, 53  
   Dupuytren's disease,  
     312–16  
   hammer toe, 120  
   splinting, 353.  
   *See also* boutonnière  
   deformity; swan-neck  
   deformity  
 pseudoarthrosis, 84, 128, 140, 392  
 pseudoparalysis, shoulder, 26  
 pseudotumour, 202, 205  
 psoriasis, 321  
 psoriatic arthropathy, 57, 91–2,  
   465  
 pubic diastasis, 413  
 published paper question,  
   11, 16  
 pubofemoral ligament, 561  
 pulmonary embolism, femoral  
   fracture, 428–9  
 pulses  
   hands, 37, 39  
   neuropathic foot, 117, 126  
 Punnett squares, 436  
 Putti–Platt procedures, 157  
 Q angle, 106, 227  
 quadrangular space, 534–5  
 quadrangular space syndrome  
   (QSS), 535  
 quadriceps active test, 106, 225  
 quadriceps tendon, 227, 553  
   graft from, 224  
 quadriga effect, 49–50  
 quadrilateral space, 152  
 quadrilateral space syndrome,  
   158–9  
 questionnaires, outcome  
   measurement, 213–14  
 radial (lateral) collateral  
   ligament, 563  
 radial artery, 302, 565–6  
   surgical exploration, 512  
 radial bursa, infections, 349  
 radial club hand, 347–8, 587  
 radial epiphysis, premature  
   fusion, 54–6  
 radial head  
   dislocation, 129–30, 582  
   fractures, 166–7, 420–1, 585  
 radial hemimelia, 345  
 radial ligaments, 563  
 radial nerve, 32, 162, 535, 539–40  
   compression, 311–55  
   palsy, 45–6, 419–20, 510  
   repair/compensation, 341, 510  
   surgical approaches, 509–10  
 radial osteotomy, 317  
 radial side wrist pain (RSWP), 36  
 radial tunnel syndrome, 164,  
   311–12, 540  
 radiation sarcoma, 288  
 radiation therapy, PVNS hip, 212  
 radiculopathy, 63–4, 265–6, 279  
 radiocapitellar joint, 162, 164  
 radiographs, 3, 397, 488–9  
 radiolabelled immunoglobulin  
   G indium, 191  
 radiolabelled monoclonal  
   antibodies, 491  
 radiology, 488–92, 586  
 radiolunate fusion, 324  
 radionuclide imaging, 190–1  
 radiostereometric analysis  
   (RSA), 200  
 radiotherapy, 209, 272, 285–6,  
   374  
 radioulnar joint, 130–2, 162, 422  
 radioulnar synostosis, 130–1, 580  
 radius  
   fractures, 359, 422–3  
   deformity/malunion,  
     333–4, 579  
   ORIF, 512–13  
   surgical approaches, 512–13  
 Ranawat's line/classification, 67  
 randomized controlled trial  
   (RCT), 500  
 Rang's tripod theory (feet), 140–1  
 RANK-L expression, 113  
 Reagan's ballottement, 37, 333  
 reconstruction surgery, viva  
   topics, 589–91  
 reflex sympathetic dystrophy  
   (RSD), 236, 352–3  
 regression (statistical), 499  
 renal disease, 447–8, 453  
 renal osteodystrophy, 448–9  
 reperfusion injury, 424  
 research papers, 574  
   appraisal, 501  
 research projects, 497–502  
 research study design, 586  
 resisted active supination test, 311  
 resurfacing arthroplasty  
   design/materials, 478–9  
   elbow, 168  
   shoulder, 29. *See also* metal-  
   on-metal (MOM) hip  
 retinacular arteries, 214  
 revision courses, 7, 573–4  
   MCQ practice, 15–16  
   paediatrics, 357  
   SAS doctors, 569, 573  
   viva practice, 149  
 revision surgery, hip. *See* total  
   hip arthroplasty  
   (THA), revision  
   surgery  
 rhabdomyosarcoma, 294  
 rheumatoid arthritis (RA),  
   258–61  
   basic science, 463–4  
   cervical spine, 67  
   elbow, 34, 165, 167, 578  
   fingers, 38–9, 55, 315–16, 325,  
     328  
 foot, 123, 258–62  
 hand, 38–9, 322–5  
 hip, 89–104  
   juvenile, 99–104, 134, 167  
   knee, 109–10  
   osteoarthritis compared, 463  
   osteopenia, 89–90  
   thumb, 328  
   wrist, 38–9, 49, 322  
 rhomboid function tests, 31, 42  
 rhomboid muscles, 542  
 rib hump, 63  
 Riche–Cannieu anastomosis, 541  
 rickets, 81, 140, 373, 390, 447–8  
 Riggs and Melton classification,  
   450  
 rigid four-bar mechanism,  
   knee, 486  
 ring avulsion injuries, 339  
 rockers, in gait cycle, 488  
 Rockwood classification, 416  
 rotational trochanteric  
   osteotomy, 175  
 rotator cuff tear arthropathy,  
   154, 579, 589  
 rotator cuff tears, 25–7, 152–4,  
   507  
 Roy–Camille classification, 271  
 rugger jersey finger, 355, 550  
 rule of thirds, ACL deficiency,  
   223  
 Russe (inlay) graft, 330  
 Ryder test, 394  
 sabre tibia, 82  
 sacral fractures, 271, 414  
 sacroiliac joint, 413, 464  
 sacrospinous ligament, 562  
 sacrotuberous ligament, 562  
 sagging rope sign, 75–6  
 sagittal band, 301, 549  
 Salter and Harris classification,  
   358  
 Salter innominate osteotomy,  
   365  
 Salter–Thompson classification,  
   370  
 saphenous nerve, 257, 533, 536,  
   538  
 sarcoma, 281, 286, 344  
   bone, 81  
   soft-tissue, 294–5  
 sarcomeres, 458  
 sartorius ligament, 533  
 SAS doctors  
   Article 14 application, 572  
   exam advice, 568–71, 573  
 Sauve–Kapandji procedure, 324  
 scalars, 480  
 scalenus muscle, 158  
 scanograms, 375  
 scans, 3  
 scaphoid, 566  
   fractures, 329–32  
   non-union, 36

- scaphoid non-union advanced collapse (SNAC), 54, 331–2
- scapholunate advanced collapse (SLAC) wrist, 53–4, 335–6
- scapholunate dissociation, 336
- scapholunate instability, 333, 356
- scapholunate interosseous ligament, 563
- scapholunate ligament (SLL), 37, 334
- scaphotrapeziotrapezoid (STT) joint, 36, 317
- scapula, 127–8, 151, 416
- scapular arteries, 535, 564
- scapular nerve, dorsal, 31, 539
- scapulohumeral reflex, 64
- Scarf osteotomy, 253, 255
- Scarpa's femoral triangle, 532–3
- Schatzker classification, 405–6
- Schbor sign, 72
- Scheuermann's disease, 275
- schwannoma, benign, 293
- sciatic nerve, 86, 183, 185, 537
- sciatica, 66–7, 76
- sclerotic lesions, 584, 589
- scoliosis, 61–8
  - adolescent, 275–6, 581
  - arthrogryposis, 387
  - cerebral palsy, 145, 377
  - childhood, 61, 275–7, 380
  - dystrophic, 380
  - hip dysplasia and, 72–4
  - idiopathic, 581
  - neurofibromatosis, 380
  - spina bifida and, 63
  - surgery, 530
- Scottish Executive Home Office guidelines, 177
- screening tests, 499
- screws, 585
  - blocking screws, 407
  - coracoclavicular screw, 417
  - femoral neck fractures, 399–401
  - small fragment/locking, 583
  - talus fractures, 409–10
  - transarticular sliding hip, 84, 208
- scurvy, 467
- Sectorial sign, 91, 104
- Seddon classification, 459
- selective oestrogen receptor modulators, 451
- Semmes Weinstein test, 248–9
- sensation/sensory tests
  - brachial plexus lesion, 42
  - hand, 37
  - hand/fingers, 40–1
  - hand/wrist, 42–3
  - lower leg, 63
  - radial nerve lesions, 46, 57
  - shoulder, 31
- sensory and motor loss, brachial plexus anatomy, 30–2
- sensory neuropathy, diabetic foot, 248
- septic arthritis
  - ankle, 242
  - childhood, 387–8, 587
  - elbow, 165
- septic loosening, hip, 78, 80
- serratus anterior palsy, 151
- Sharpey's fibres, 457, 461
- shear injuries, spine, 271
- shear stress, 480
- shelf arthroplasty, 371
- Shenton's line, break in, 27, 364, 366
- short cases, 4
  - advice for, 17–19, 58
  - candidates' accounts, 579
  - common cases (list of), 19–20
  - lower limbs, 581–2
  - upper limbs, 579–80
- shoulder
  - adhesion release (manipulation), 161
  - anatomical spaces, 534–5
  - anatomy, 151–2
  - arthrodesis, 30, 152–62
  - arthroplasty, 507
  - arthroscopic surgery, 25, 152
  - basic science, 152
  - blood supply, 564
  - brachial plexus palsy, 132–4
  - clinical case topics, 32
  - congenital deformities, 127–8
  - dislocation, 156, 417–18, 583, 590
    - reduction techniques, 157
  - exam advice, 36
  - floating, 416–17
  - free body diagram, 484
  - frozen, 25, 28, 160–2
  - instability, 29, 156–7
  - ligaments, 151, 563
  - muscle wasting, 26, 28, 30–1
  - neurological problems, 157–9
  - oral core topics, 152–62
  - osteoarthritis, 28, 154–6
  - osteonecrosis, 589
  - pain, 11, 24–5, 28, 580
  - sensation tests, 31
  - short case topics, 19
  - surgical approaches, 152, 505–8
  - trauma, 416–18, 583, 584
  - tuberculosis, 155. *See also* rotator cuff
- shoulder abduction relief sign, 64
- shoulder sign, 320–1
- sickle cell disease, 80, 350, 467
- Silastic implants, 118, 251, 323–4
- Silenius' curve of coronal alignment, 137
- single photon emission computed tomography (SPECT), 491
- sinus tarsi, 534
- skeletal dysplasia syndromes, 374
- skeletal muscle ischaemia, 492
- skewfoot, 384
- skin traction, 212
- skull, anomalies, 81, 146, 451
- slipped upper femoral epiphysis (SUFE), 83, 86, 88–9, 211
  - classifications, 367
  - paediatrics, 367–9, 587
  - review papers, 369
- Smith–Petersen approach, 208, 365–6, 514–15
- Smith–Robinson approach, 278
- snapping knee syndrome, 220
- Snyder classification, 160
- soft-tissue
  - damage, 407
  - release, 33, 115, 235
  - tension, 186–7, 233
- soft-tissue tumours, 292–5
  - adjuvant treatment, 286
  - benign, 292–4
  - malignant, 294–5
  - margins, 285
  - staging, 284–5
  - surgery, 285. *See also* haemangioma; myositis ossificans; sarcoma
- somatosensory evoked potentials (SSEPs), 265, 460
- Sommerfeld number, 476
- Southwick angle, 367–8
- Southwick's osteotomy, 368–9
- space of Poirier, 332
- spacer devices, 266, 279, 323
- Spaso technique, 157
- spastic crouch contracture, 378
- spastic hemiplegia, 134
- spica cast, 364
- spilled teacup sign, 335
- spina bifida, 63, 141, 587
- spinal accessory nerve, 31, 158–9, 538
- spinal claudication, 66
- spinal cord
  - anatomy, 414–15
  - incomplete, syndromes, 414–15
  - injury, cervical, 414
  - intradural tumours, 273
  - monitoring, 265
  - tethered, 63. *See also* spina bifida
- spinal dysraphism, 62, 374
- spinal shock, 268, 414
- spinal stenosis, 65–6, 267
  - age-related, 264
  - lumbar, 65–6, 265–6
  - Paget's disease, 279
- spinal surgery
  - for compressive lesions, 265–6
  - fusion, 266, 528–30
  - interspinous spacer devices, 266
- spinal tumours, 271–3
- spine, 127, 274
  - achondroplasia, 146–7
  - age-related changes, 263–4
  - arthrogryposis, 387
  - basic science, 264
  - biomechanics, 265
  - bone graft sources, 265
  - cerebral palsy, 377
  - clinical cases, 59–67, 72
  - degenerative conditions, 265–7
  - embryology, 434–5
  - exam advice, 59, 263
  - infections, 213, 273, 388–9, 591
  - inflammatory disorders, 274
  - intermediate case topics, 23
  - kinematics, 486
  - ligaments, 562–3
  - neurological examination, 268, 414
  - paediatric diseases, 274–8, 379–80
  - Paget's disease, 452
  - rheumatoid arthritis, 274
  - stiffness, 72
  - surgical approaches, 267, 278–9
  - trauma, 267–71, 414–16
    - atlanto-axial rotary subluxation, 269
    - cervical spine fractures, 269, 415, 583–4
    - dislocation/rotational injuries, 271
    - lumbar spine burst fracture, 583
    - neurological injury, 268
  - tuberculosis, 213, 273, 591. *See also* ankylosing spondylitis; cervical spine; intervertebral discs; lumbar spine; scoliosis; spondylolisthesis; thoracic spine; thoracolumbar spine
- splints
  - hand and wrist, 49, 339, 353
  - nerve injury caused by, 60
  - TB hip, 212
- spondylitic myelopathy, 63–4
- spondylolisthesis, 64–5, 267, 590
  - degenerative, 264
  - paediatric, 274–5
  - surgical outcomes, 265–6
  - traumatic, 269, 415
- spondylolysis, 267, 274–5
- spondylosis, cervical, 266

## Index

- sports injuries  
 KOOS outcome measure, 238  
 medial collateral ligament (MCL), 166.  
*See also* golfer's elbow; rigger jersey finger; tennis elbow
- Sprengel's shoulder deformity, 127–8
- Spurling's sign, 64
- squamous cell carcinoma, 344
- Stack splint, 353
- Staff Grade and Associate Specialists. *See* SAS doctors
- Staheli's range of hip rotation test, 394
- Staheli's shelf procedure, 366
- stainless steel, 471
- Stanmore classification, 156, 418
- Staphylococcus aureus* infections, 165, 189, 387  
 diabetic foot, 249  
 fight bite injuries, 349  
 hand, 348–9
- Staphylococcus epidermidis*, 189
- STAR arthroplasty, 243–4
- statistics, 6, 497–9, 586
- Steel triple innominate osteotomy, 366
- Steel's metaphyseal blanch sign, 368
- Steinberg (University of Pennsylvania) classification, 173, 214
- Steindler flexorplasty, 344
- Steinmann pin fixation, 352
- stenosing tenosynovitis.  
*See* trigger digits, finger
- steppage (drop foot) gait, 60–1, 115
- sternoclavicular joint (SCJ), 151
- sternocleidomastoid muscle, 158
- steroids  
 AVN induced by, 92–3, 172  
 injection therapy, 25, 26, 163, 230, 268
- stiffness, of constructs, 484–5
- Stimson method, 157, 418
- Strayer's procedure, 378
- Streeter's dysplasia, 348
- Streptococcus* spp, 189, 348, 387  
 diabetic foot, 249  
 fight bite, 349
- stress–strain curve, 468–9
- stress–strain, mechanical (tendons), 456–7, 459
- study types (research), 499–501
- Stulberg's classification, 75–6
- Stulberg's rating system, 371
- Suave–Kapandji procedure, 351
- subacromial decompression, 153
- subacromial impingement, 25, 152–3
- subcapital osteotomy, 368
- subchondral cysts, 87, 167
- subclavian artery compression, 65
- subclavius, nerve to, 539
- subcoracoid impingement, 153
- subsartorial canal, 533
- subscapular nerves, 539
- subscapularis tendon, 26, 151
- subtalar joint, 122, 386, 487
- subtrochanteric fractures, 368, 401
- subtrochanteric osteotomies, 73–4, 136, 182, 368
- subungual exostosis, 288, 354
- Sugioka trochanteric rotational osteotomy, 175, 215
- Sunderland classification, 459
- superficial branch radial nerve, 540
- superficial peroneal nerve, 257, 537
- superior labral anterior posterior (SLAP) lesions, 160
- supination external rotation (SER) injury, 408
- supinator tunnel, 46
- supracondylar fractures  
 femur, 194, 404  
 humerus, 359–95, 420, 587
- suprascapular nerve, 31, 157–8, 539
- supraspinatus tendon, 26, 151, 161
- supraspinous ligament, 563
- sural nerves, 257, 538
- surgery planning, 323
- surgical approaches  
 exam advice, 505–31  
 oral core topics, 505–30, 585  
 revision materials, 6
- surgical reconstruction, oral topic, 589–91
- survival analysis, 500–1
- swan-neck deformity, 322, 327–9
- Swanson's classification, 345
- Syme's amputation, 393
- syndactyly, 346–7
- syndesmosis injury, 408–9
- synostosis, resection, 131
- synovectomy  
 elbow, 168  
 hand, 326  
 hip, 90  
 knee, 237–8, 520  
 wrist, 323–4, 513–14
- synovial biopsy, 514–15
- synovial disorders, 230, 237–8  
 chondromatosis, 169, 237–8, 590  
 lesions, 292, 294.  
*See also* pigmented villonodular synovitis (PVNS)
- synovial fluid, 454, 475–6, 479
- synovial tendon sheath, 456
- synovitis, 98, 322
- lesions. *See also* pigmented villonodular synovitis (PVNS)
- synthetic grafts, 223–4
- syphilitic bone disease, 82, 168, 350
- systemic lupus erythematosus (SLE), 321, 465
- tabiotalar joint, 247–8
- Talar Tilt test, 246
- talipes equinovarus, 382
- congenital (CTEV), 63, 381–4, 587  
 treatment, 382–3
- talocalcaneal angle, 125, 382
- talocalcaneal coalition, 123–4, 144, 385–6
- talonavicular fusion, 258
- talus, 566–7  
 blood supply, 410, 566  
 dislocation, 410  
 fractures, 409–10, 583
- tarsal canal, 534
- tarsal canal artery, 566
- tarsal coalition, 123–4, 143–4, 385–6, 581
- tarsal tunnel, 534
- tarsal tunnel syndrome, 256, 261
- tarsometatarsal joints  
 fracture dislocation, 411–12  
 fusion, 252–3
- t-condylar fracture, 359
- technetium-99m scan, 190, 491–2
- teleroentgenogram (grid films), 374
- tendinopathy, elbow, 163–4
- tendinosis, 159–60
- tendo Achilles. *See* Achilles tendon
- tendonitis, 161  
 calcific, 28, 161–2
- tendon sheath, lesions, 57, 292, 295, 344
- tendon transfers, 340–1  
 Achilles tendon repair, 412  
 Charcot neuropathy, 115  
 EPL rupture (wrist), 49  
 median nerve lesions, 48, 340–1  
 pes cavus, 142, 381  
 radial nerve lesions, 46, 341  
 subscapularis, 154
- tibialis posterior dysfunction, 125  
 ulnar nerve lesions, 44, 341
- tendon zones of injury, 550
- tendons, 456–7  
 contractures, 382  
 healing, 457  
 mechanical stress/strain, 456–7, 459  
 muscle–tendon junction, 459  
 neurovascular supply, 456
- release/reconstruction, 328, 343  
 rupture, 124–5, 164–5, 326, 343
- tennis elbow (lateral epicondylitis), 34–5, 163–4
- tenodesis, 246–5, 329
- tenodesis test, 37
- tenosynovitis, 38, 325–6
- tensor fascia lata, 552
- teriparatide (recombinant PTH), 451
- terrible triad, 166, 582
- Terry Thomas sign, 54, 333, 336
- tetanus cover, 425
- textbooks, 5  
 anatomy atlas, 170  
 hand surgery, 13–14  
 written paper revision, 15–16
- thenar branch of median nerve, 540
- thigh  
 anatomical spaces, 532–3  
 compartment syndrome, 424  
 cutaneous nerves, 535
- Thomas and Matsen classification, 156
- Thomas splint, 212
- Thomas test, 72, 374
- Thompson and Epstein classification, 400
- Thompson's approach, 513
- Thompson's test, 412
- thoracic nerve, long, 158, 539
- thoracic outlet syndrome, 158
- thoracic spine, 278–9
- thoracodorsal nerve, 539
- thoracolumbar spine, 59–60, 270–1, 278, 415–16
- three-column theory, of Denis, 270–1, 415
- thromboprophylaxis, 496–7, 590
- thumb  
 amputation, 338–56  
 deformities, 345–7, 379  
 flexor pulleys, 300, 336–8, 551  
 nerve supply, 541  
 osteoarthritis, 36, 51–8, 319–56  
 rheumatoid, 326–8  
 ulnar collateral ligament, 355, 564
- thyroxine, 440
- tibia  
 arthrodesis, complications, 112  
 bowing, 81–2, 140  
 congenital pseudoarthrosis, 140, 392  
 fracture, open, 583  
 fractures, 406–7, 429–30, 584  
 malunited, 590  
 non-union, 523–4, 583  
 ORIF, 425–6, 523–4, 583  
 osteoarthritis, 121  
 osteomyelitis, 582  
 osteotomies, 109, 230–1, 391, 523

- short cases, 20  
sprains, 245–6  
surgical approaches, 523–7  
torsion/version, 143, 394  
total knee arthroplasty, 232–3  
trauma. *See also* high tibial osteotomy (HTO); total ankle arthroplasty (TAR)
- tibia vara, 391–2  
tibial (medial) collateral ligament, 558  
tibial arteries, 534, 565  
tibial bowing, 140–1, 380  
oral topic, 587, 589  
tibial eminence fractures, 224–5  
tibial hemimelia, 393  
tibial nerve, 256, 534, 537–8  
tibial pilon fractures, 407, 524–5  
tibial plate fixation, 405–6, 589  
tibial plateau fractures, 405–6, 581, 584  
ORIF, 520  
split depression, 583  
surgical approaches, 520–2  
tibial step-off sign, 225  
tibial tubercle (TT) transfer, 229  
tibial tuberosity, fragmentation, 138–9  
tibial vein, 534  
tibialis posterior tendon, 124–5, 378  
tibiofemoral joint, 229  
tibiofibular joint, 408–9  
tibiotalar joint, 246  
Tile's classification, 412  
Tinel's test, 43, 47, 49, 305, 307  
Tip Apex Distance (TAD), 401  
titanium alloys, 471  
toe(s)  
arthritis, 251  
clawed, 114, 116, 122, 251, 259  
curly, 116–17, 384, 587  
gout, 54  
hammer toe, 117–20  
oral core topics, 261  
overriding, 144, 581  
rheumatoid arthritis, 259  
transfer, 338–56.  
*See also* hallux rigidus; hallux valgus; pes cavus
- Tokuhashi scoring system, 272  
Tom Smith disease, 374  
torque forces, 482  
total ankle arthroplasty (TAR), 243–4  
total hip arthroplasty (THA), 182–4  
basic science oral, 184–5, 189–216  
bone cement in, 473–4  
cement technique grading, 196–216  
cemented implants, 93, 175–6, 196–200, 215  
revision, 79  
complications, 73, 185–6  
contraindications, 182–3  
design features, 196–200, 200–16, 477–8  
dysplastic hip, 181–2  
DDH, 73–4  
effective joint space, 201  
exam advice, 215  
failure, 77–9, 590  
broken femoral prosthesis, 198  
dislocation, 186–215.  
*See also* loosening (below)  
heterotopic ossification, 208–17  
hybrid (cemented/cementless), 200  
in AVN, 91, 175–7  
infected, 93–4, 189–216  
infection prevention, 189–90, 193–216  
informed consent, 88–103  
loosening, 198–216  
aseptic, 77–8, 94, 185, 194–216  
septic, 78, 80  
oral topics, 185–6  
outcomes, 72, 171, 185–6, 214  
Paget's disease, 452  
painful (post surgery), 94–6, 104  
periprosthetic fracture, 193–4, 402–3  
Perthes disease, 75–7  
post-arthrodesis, 207  
post-osteotomy, 211  
prosthesis position, 182, 186–7  
prosthesis wear, 198, 476–7  
protrusio acetabuli, 179–215  
resurfacing compared, 175  
revision surgery, 183, 186–215, 589  
failure rates, 207  
oral topic, 77–80, 578  
surgical approach, 516–31  
rheumatoid arthritis, 89–104  
risks of surgery, 102–4, 183  
SUFE and, 89  
surgical approaches, 183–4, 186, 514–31  
TB hips, 98  
trauma in the elderly, 399  
uncemented, 175–6, 196–201, 585
- total knee arthroplasty (TKA)  
clinical case, 85  
loosening, 585  
periprosthetic fracture, 403  
periprosthetic infections, 236  
rheumatoid arthritis, 89  
surgical approaches, 520  
technique, 233–5  
tourniquet injury, 60, 492–3  
toxic chemicals, high-pressure injection injuries, 339–40  
trabecular bone, 437  
traction  
gallows, 587  
spinal injury, 269, 415  
traction tables, 428  
traction-countertraction method, 157  
transarticular sliding hip screw, 84, 208  
transcondylar fractures, 420  
transepicondylar axis, 486  
transepiphyseal fractures, 83  
transmalleolar–thigh angle (TMA), 143, 394  
transverse humeral ligament, 563  
transverse metacarpal ligaments, 564  
transverse retinacular ligament, 301, 549  
trapdoor procedure, 175  
trapeziectomy, 52, 320–1, 321–56  
trapeziometacarpal joint, 326  
trapezius muscle, 31, 158  
trapezius palsy, 151  
trauma, 358–61  
damage control care, 398–428  
exam advice, 4, 397–8  
revision materials, 7  
injury pathophysiology, 426–7  
injury severity score, 426  
oral topics, 166–7, 582–5  
scenarios, 172, 428–32  
traumatic neuroma, 293  
Trendelenburg gait, 61  
Trendelenburg test, 75  
Trethowan's line, 368  
Trevor's disease, 287  
triangular fibrocartilage complex (TFCC), 37, 350–1, 563  
lesions, 350–1  
triangular interval/space, 152, 535  
triangular ligament, 301, 549  
tribology, 474–6, 586  
triceps tendons, 164–5  
trigger digits, 39  
fingers, 55–6, 341–2  
de Quervain's tenosynovitis, 55  
locked, 38  
thumbs, 133, 348  
trochanteric anastomosis, 170–214  
trochanteric non-union, 185  
trochanteric osteotomy, 84, 100, 183, 371  
rotational (Sugioka), 175, 215  
slide (Ganz), 366, 518  
T-score, osteoporosis, 450  
Tsuge's classification, 51–8  
tuberculosis (TB)  
drug treatment, 213  
finger (dactylitis), 350  
hip, 97–9, 212–13  
arthrodesed, 84, 86, 98, 213  
fused, 579  
shoulder, 155  
spine, 213, 273, 591  
tumours, 281, 288–90, 295–6, 379  
basic science oral, 295, 297  
benign, 272–3, 281, 283  
benign/malignant differentiation, 297  
biopsy, 295–6, 508, 512  
bone-forming, 288  
cartilage-forming, 286–8  
differentiation from infection, 297  
EMI questions, 14  
excision, 508, 512, 527–30  
extradural, 271–2  
fear of MOM resurfacing, 202  
fibrous, 289, 292, 294  
immunohaematopoietic, 286, 290–1  
intradural, 273  
nerve sheath, 294  
non-matrix-producing, 289–90  
oral core topics, 281–97  
periosteal 'desmoid', 289  
post-traumatic, 288–90  
skin, 344  
spinal, 271–3  
staging, 284–5, 296  
tendon sheath, 57, 292, 295, 344. *See also* hamartomatous tumours; malignant tumours; soft-tissue tumours; individual tumours (by name)  
Turco's radiographic view, 382  
UHMWPE polymer, 472–3  
UK in Training Exam (UKITE), 12–14, 573  
ulcers, foot, 117, 249–50  
ulna  
fractures, 422  
in Madelung's deformity, 54–6  
radial hemimelia, 345  
short, congenital, 130  
shortening surgery, 55  
TCC lesions, 350–1  
ulnar artery, 302, 565  
ulnar bursa, infections, 349  
ulnar claw hand, 43–5, 341  
ulnar club hand, 345

## Index

- ulnar collateral ligament (UCL), 327, 355, 563–4
- ulnar head, 131–2, 323
- ulnar nerve, 162, 301, 307–8, 535, 549, 541
- compression, 44, 308–9, 541
- surgical transposition, 309
- ulnar nerve decompression, 511
- ulnar nerve palsy, 33–4, 44, 578
- ulnar neuritis, 164
- ulnar paradox, 45, 308
- ulnar side wrist pain (USWP), 36
- ulnar styloid fracture, 423
- ulnar subluxed extensor tendons, 38, 39
- ulnar tunnel syndrome, 44, 309–10
- ulnohumeral joint, 162, 164, 168
- ultroscopic procedures, wafer resection, 351
- ultrasound, 362–3, 491
- unicameral bone cyst, 289
- unicompartmental knee replacement (UKR), 235–6
- Universal classification, 423
- upper limb(s)
- arthrogryposis, 146, 387
- congenital deformities, 133, 146–7
- exam advice, 36
- intermediate cases, 23
- nerves, 538–44
- trauma, 418–23.
- See also* brachial plexus
- oral topics, 582–4
- Urbaniak classification, 339
- urinary tract complications, in THA surgery, 185
- Urist classification, 443
- valgus deformity
- elbow, 128–9
- foot, 111
- knee, 103, 109–10, 235, 589
- oral topics. *See also* genu valgum
- valgus osteotomy, 179, 210, 371
- Vancouver classification, 193, 195, 402
- varus deformity
- ankle, 589
- elbow, 128–9
- foot, 111
- knee, 108, 234, 589
- varus osteotomy, 210
- vascular disease, diabetic foot, 249
- vascular injuries
- fibular head fracture, 406
- floating knee trauma, 403–4
- in THA surgery, 185
- with brachial plexus injuries, 343
- vascular neoplasms, 291–2
- vascular status, testing, 249
- vascular symptoms, cervical rib, 65
- vascularized bone graft, 330–1
- vasculopathy, diabetic ankle fracture, 250
- VATER syndrome, 127, 345
- Vaughan–Jackson syndrome, 38, 322, 326, 356
- vectors, 480, 482–5
- venous thromboembolism, 496–7
- Verdan's zones of injury, 550
- vertebrae
- congenital anomalies, 277
- embryology, 435
- fractures, 37, 450
- fused (Klippel–Feil syndrome), 127
- Paget's disease, 452
- sandwich deformity, 452
- scoliosis deviations, 62, 380
- trauma, 268
- vertebroplasty, 272, 279
- vertical talus, 144, 384, 387
- vinculae, 300
- viscoelastic materials, 469–70
- vitamin C deficiency, 467
- vitamin D, 440, 445–6, 448–50
- viva. *See* oral exam
- volar intercalated segment instability (VISI), 37, 334–5, 563
- volar ligaments, 563
- volar plate, 327
- volar radial ganglion, 56–7, 319
- Volkman's ischaemic contractures, 50–1, 424
- von Recklinghausen's disease, 379
- Von Willebrand's disease, 467
- Wagner classification, 249
- Waldenstrom's radiographic staging, 370
- Wallerian nerve degeneration, 459
- warfarin, DVT prophylaxis, 497
- Wartenberg's sign, 44, 308
- Wartenberg's syndrome, 36, 312
- Wassel classification, 346
- Watanabe classification, 220
- water, in cartilage, 454
- Watson–Jones approach, 184, 515
- wear, mechanism, 476–7
- web space infection, 349
- Weber classification, 408
- Weber–Cech classification, 427
- wedge compression injuries, 271
- Weil's osteotomy, 116
- Weinstein classification, 373
- wheelchairs, 496
- whiplash injury, 270
- white matter, spinal cord, 414
- White–Menelaus rule
- of thumb, 374
- White's slide technique, 378
- Wilson classification, 367
- Wilson's sign, 221
- windswept hips, 378
- Wolff's law, 87, 441
- Wrisberg's variant classification, 220
- wrist
- arthrodesis, 317, 351–2
- arthrogryposis, 387
- blood supply, 566
- clinical cases, 38–57
- dorsal extensor compartments, 47
- examination, 36–7
- fractures, ORIF, 513–14
- fusion, 317, 336, 513–14
- ganglion, 56–7, 318–19
- Kienböck's disease, 36, 316–18
- kinematics, 485–6
- ligaments, 563
- Madelung's deformity, 54–6
- median nerve injuries, 340, 540
- oral topics, 355
- osteoarthritis, 331–2, 335–6, 352
- painful, 317–18, 350–2
- rheumatoid arthritis, 38–9, 322–5
- pan-carpal, 322
- tenosynovitis, 324–6
- scaphoid fractures, 329–32
- short cases, 19–20
- splinting, 353
- surgical approaches, 513–14
- tendons, 47
- TFCC lesions, 351
- trauma, 354, 420–1
- ulnar club hand, 345
- wrist extension test, 34, 42, 45
- written papers, 1
- advice, 14–15
- candidates' views, 577
- computer-based, 15
- marking, 9
- MCQ and EMI guidance, 9–16
- revision materials, 9
- xanthoma, hand, 344
- xenograft, 442
- X-rays. *See* radiographs
- Y ligament of Bigelow, 561
- Yamamoto's test, 148
- Zancolli capsulodesis, 44
- zirconium oxide, 473
- Z-lengthening Achilles tendon, 378
- Z-plasty, after midline incision, 315
- Z-score, osteoporosis, 450