



*ABOS Part I  
Examination Blueprint –  
Orthopaedic Surgery  
Subspecialty Version*

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# ABOS Part I Certification Examination Blueprint

## Table of Contents

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<b>General Principles</b>	<b>10-21%</b>
Biostatistics/Epidemiology	0.5-1.5%
Legal/Ethical/Systems-based Practice	0.5-1.5%
Basic Science Principles	3-5%
Anatomy and Surgical Approaches	3-5%
Metabolic Bone Disease	0.5-1.5%
Perioperative Management	1-3%
<b>Adult Spine</b>	<b>6.75-12.25%</b>
Cervical	2.5-5.5%
Thoracic	0.25-0.75%
Lumbar	3-4%
Nonspecific site	1-2%
<b>Shoulder and Elbow</b>	<b>12.75-35.25%</b>
Shoulder joint	3.75-10.25%
Elbow joint	2.25-5.75%
<b>Surgery of the Hand</b>	<b>17.75-46.25%</b>
Wrist	1-2%
Hand	3.25-7.75%
<b>Orthopaedic Sports Medicine</b>	<b>7.75-16.25%</b>
Spine	1-2%
Upper Extremity	1.25-2.75%
Lower Extremity	3-6%
Medical aspects of sports medicine	0.5-1.5%
<b>Adult Reconstruction</b>	<b>3.5-10.5%</b>
Hip	0.5-1.5%
Femur	1-3%
Knee	1-3%
<b>Foot and Ankle</b>	<b>3.5-10.5%</b>
Ankle/Leg	0.5-1.5%
Foot	0.25-0.75%
<b>Adult Trauma</b>	<b>3.5-10.5%</b>
Multiple Trauma	0.5-1.5%
Upper Extremity	1-3%
Lower Extremity	1-3%

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## Table of Contents (continued)

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<b>Pediatrics</b>	<b>3.5-10.5%</b>
Upper Extremity	1-3%
Lower Extremity	1-3%
Spine	0.25-0.75%
Sports	0.5-1.5%
General	0.25-0.75%
Neuromuscular	0.25-0.75%
<b>Orthopaedic Oncology</b>	<b>3.5-10.5%</b>
Malignant Bone	0.5-1.5%
Benign Bone	1-3%
Metastatic Disease, Myeloma, Lymphoma	1-3%
Benign Soft Tissue	0.25-0.75%
Malignant Soft Tissue Tumor	0.5-1.5%
Syndromes	0.25-0.75%

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<b>General Principles</b>	<b>8.5-17.5%</b>
<b>Biostatistics/Epidemiology</b>	<b>0.5-1.5%</b>
Interpretation of epidemiologic information [Disease prevalence and incidence, disease outcomes (eg, fatality rates), associations (eg, risk factors), health impact (eg, risk differences and ratios), sensitivity, specificity, predictive values]	
Study design and interpretation [Types of experimental studies (eg, clinical trials), types of observational studies (eg, cohort, case-control), sampling and sample size, subject selection and exposure allocation (eg, randomization)]	
Hypothesis testing and statistical interference [Confidence intervals, statistical significance and type I error, statistical power and type II error]	
<b>Legal/Ethical/Systems-based Practice</b>	<b>0.5-1.5%</b>
Consent and informed consent to treatment, physician-patient relationship, death and dying, research issues, interactions with other health professionals, cultural competence, physician wellness/burnout, safety, quality, teamwork, cost, value-based care, diversity	
<b>Basic Science Principles</b>	<b>3-5</b>
Biology (fracture healing, biologics, pharmacology), biomechanics (including gait), inflammatory cascades and coagulation	
<b>Anatomy and Surgical Approaches</b>	<b>3-5%</b>
Anatomy, surgical approaches, and soft-tissue coverage	
<b>Metabolic Bone Disease</b>	<b>0.5-1.5%</b>
Acute respiratory distress syndrome, systemic inflammatory response syndrome, fat embolism syndrome, orthopaedic management of polytrauma patient, initial assessment (ABCs, head, spine), open fractures, bone grafts/bone graft substitutes, mangled extremity, host risk factors, shock, hemopneumothorax	

<b>Perioperative Management</b>	<b>1-3%</b>
Preoperative (infection and medical optimization, including nutrition, smoking cessation, glucose management/diabetes, weight loss, prehabilitation, inflammatory arthritis evaluation and management)	0.25-0.75%
Intraoperative (anesthesia/blocks, blood loss prevention, infection prevention, wound management, complications and safety)	0.25-0.75%
Postoperative (multimodal pain management*, rehabilitation, wound management, blood management, discharge disposition, prosthetics, deep vein thrombosis, pulmonary embolism, delirium, coagulopathy)	0..5-1.5%

\*Must include at least one item

<b>Adult Spine</b>	<b>5.75-12.25%</b>
<b>Cervical</b>	<b>2.5-5.5%</b>
Occiput-C2 [fracture/dislocation/instability, spinal cord injury, herniated nucleus pulposus, arthritis (inflammatory, degenerative), spondylolisthesis (nondegenerative), radiculopathy, myelopathy]	0.5-1.5%
Cervical 3-7 [fracture/dislocation/instability, spinal cord injury, herniated nucleus pulposus, arthritis (inflammatory, degenerative), radiculopathy, myelopathy]	2-4%
<b>Thoracic</b>	<b>0.25-0.75%</b>
Thoracolumbar, fracture/dislocation/instability, spinal cord injury, herniated nucleus pulposus, arthritis (inflammatory, degenerative), deformity	
<b>Lumbar</b>	<b>2-4%</b>
Fracture/dislocation/instability, spinal cord injury, herniated nucleus pulposus, arthritis (inflammatory, degenerative), deformity	
<b>Nonspecific site</b>	<b>1-2%</b>
Spinal cord injury syndromes and management, infection*, deformity not elsewhere classified, disseminated idiopathic skeletal hyperostosis, ankylosing spondylitis, Reiter's syndrome, postoperative sagittal malalignment syndrome, sacroiliac dysfunction*, neurologic monitoring	

\*Must include at least one item

<b>Shoulder and Elbow</b>	<b>4-11%</b>
<b>Shoulder Joint</b>	<b>3-8%</b>
Chronic/acute dislocations/instability, labral injuries	0.25-0.75%
Rotator cuff tendonitis/tendinopathy, rotator cuff tear, proximal biceps tendinopathy/tear	1-2%
Glenohumeral arthritis, arthritis with massive rotator cuff tear, other arthritis (osteonecrosis, post-traumatic, chondrolysis, capsulorrhaphy, inflammatory), infection (postoperative, septic vs aseptic arthritis)	0.5-1.5%
Primary shoulder arthroplasty (total, partial, reverse)	0.5-1.5%
Revision shoulder arthroplasty (infection, instability, loosening, malrotation, periprosthetic fracture)	0.25-0.75%
Other [throwing shoulder (glenohumeral internal rotation deficit, internal impingement), shoulder stiffness (adhesive capsulitis, postoperative, post-traumatic), Other (calcific tendonitis, pectoralis rupture, nerve injury, Charcot shoulder)]	0.5-1.5%
<b>Elbow Joint</b>	<b>1-3%</b>
Arthritis (inflammatory, post-traumatic, joint replacement vs interposition), contracture/heterotopic ossification (osteoarthritis, post-traumatic), infection (postoperative, septic vs aseptic arthritis, periprosthetic)	0.5-1.5%
Acute and chronic Instability (medial collateral ligament injury, posterolateral rotatory instability)	0.25-0.75%
Other [tendinopathy/olecranon bursitis (medial and lateral epicondylitis), cartilage (osteochondritis dissecans/Panner's/ synovial chondromatosis), Other (arthroscopy, loose body, portal placement, posteromedial impingement)]	0.25-0.75%

\*Must include at least one item

<b>Surgery of the Hand</b>	<b>5.5-18.75%</b>
<b>Wrist</b>	<b>3-8%</b>
Fracture (distal radius and ulna fracture, carpus, malunion, nonunion)	1-2%
Dislocation/Instability (distal radioulnar, radiocarpal, intracarpal)	0.25-0.75%
Arthritis/arthropathy (degenerative, post-traumatic, rheumatoid, septic, crystalline)	0.5-1.5%
Nerve (acute and chronic nerve injuries/compression, repair, tendon transfers)	0.5-1.5%
Tendon (tendonitis, lacerations, tears)	0.25-0.75%
Other [tendon (tendonitis, tears), osteonecrosis, triangular fibrocartilage complex, infection, Madelung deformity]	0.5-1.5%
<b>Hand</b>	<b>2.5-7.5%</b>
Fracture (metacarpals, phalanges, malunion/nonunion)	0.5-1.5%
Dislocation/instability (carpometacarpal, metacarpophalangeal, interphalangeal, Gamekeeper's thumb)	0.25-0.75%
Arthritis/arthropathy (degenerative, inflammatory, traumatic, septic)	0.25-0.75%
Nerve (acute and chronic nerve injuries, neuroma, nerve repair/grafting, tendon transfers)	0.25-0.75%
Tendon (flexor and extensor, laceration, tendonitis, repair, reconstruction)	0.5-1.5%
Contracture (Dupuytren, Volkmann, intrinsic, factitious)	0.25-0.75%
Skin (lacerations, infection, lesions)	0.25-0.75%
Other (amputations, nailbed injuries, pressure injection injuries, carpal coalition, complex regional pain syndrome)	0.25-0.75%

\*Must include at least one item



<b>Orthopaedic Sports Medicine</b>	<b>10-21%</b>
<b>Spine</b>	<b>0.25-0.75%</b>
Cervical 3-7 spinal cord injury, herniated nucleus pulposus, radiculopathy, myelopathy]	
Spinal stenosis and congenital fusion—Klippel-Fiel syndrome	
Herniated nucleus pulposus, Spondylolisthesis	
<b>Upper Extremities</b>	<b>0.75-2.25%</b>
<b>Shoulder Joint</b>	<b>0.5-1.5%</b>
Chronic/acute dislocations/instability, labral injuries	
Rotator cuff tendonitis/tendinopathy, rotator cuff tear, proximal biceps tendinopathy/tear	
Other [Throwing shoulder (glenohumeral internal rotation deficit, internal impingement), shoulder stiffness (adhesive capsulitis, postoperative, post-traumatic), Other (calcific tendonitis, pectoralis rupture, nerve injury, Charcot shoulder)]	
<b>Elbow Joint</b>	<b>0.25-0.75%</b>
Acute and chronic Instability (medial collateral ligament injury, posterolateral rotatory instability)	
Other [Tendinopathy/olecranon bursitis (medial and lateral epicondylitis), cartilage (osteochondritis dissecans/Panner’s/ synovial chondromatosis), Other (arthroscopy, loose body, portal placement, posteromedial impingement)]	
<b>Lower Extremities</b>	<b>8.5-16.5%</b>
<b>Hip</b>	<b>0.25-0.75%</b>
Femoral acetabular impingement/labral tear	
<b>Knee</b>	<b>5-7%</b>
Dislocations/instability/ligament (ACL, PCL, MCL, LCL, PLC)	1-3%
Cartilage/meniscus	1-2%
Extensor mechanism injury, patellofemoral joint (dislocation/instability, fracture, arthritis)	1-3%
Other [osteochondral injuries, tendon, muscle, osteonecrosis, nerve injury, infection, heterotopic ossification, Baker’s cyst, tibial spine fracture	0.25-0.75%
<b>Medical aspects of sports medicine</b>	<b>0.5-1.5%</b>
Concussion*, cardiology, pulmonary, environmental exposure, infectious disease, endocrine (including female athlete triad, anabolic steroids, diabetes), gastrointestinal, genitourinary, return to play, skin conditions, facial/oral trauma, nutrition	

\*Must include at least one item

<b>Adult Reconstruction</b>	<b>4.25-11.75%</b>
<b>Hip</b>	<b>2-5%</b>
Primary hip arthroplasty (total, partial)	1-2%
Revision hip arthroplasty (diagnostic evaluation, infection, instability, loosening, malrotation, periprosthetic acetabular fracture)	0.5-1.5%
Arthritis (inflammatory, degenerative)	0.25-0.75%
Other (tendon/tear, cartilage, osteonecrosis, nerve injury/compression, infection, heterotopic ossification)	0.25-0.75%
<b>Femur</b>	<b>0.25-0.75%</b>
Periprosthetic fracture (hip and knee)	
<b>Knee</b>	<b>2-6%</b>
Arthritis (inflammatory, degenerative)	0.25-0.75%
Primary knee arthroplasty (total, partial)	1-3%
Revision knee arthroplasty (infection, instability, loosening, malrotation, periprosthetic fracture)	0.5-1.5%
Other [osteochondral injuries, tendon, muscle, osteonecrosis, nerve injury, infection, heterotopic ossification, Baker's cyst, tibial spine fracture, amputation (above, through, and below knee)]	0.25-0.75%

<b>Foot and Ankle</b>	<b>5-15%</b>
<b>Ankle/Leg</b>	<b>3-9%</b>
Fracture (ankle, pilon, stress), fracture/dislocation (syndesmosis injuries)	1-3%
Acute and chronic sprain, instability (medial and lateral collateral ligament)	0.5-1.5%
Arthritis (inflammatory, degenerative, total ankle arthroplasty, arthrodesis, osteotomy)	0.5-1.5%
Tendon/muscle (Achilles rupture acute or chronic, Achilles tendinopathy, peroneal tendon dislocation/rupture, gastrocnemius tear/contracture)	0.5-1.5%
Other [osteochondral injuries, nerve injury/entrapment (peroneal, superficial peroneal, footdrop), infection, ankle impingement syndrome, ankle deformity, Charcot arthropathy]	0.5-1.5%
<b>Foot</b>	<b>2-6%</b>
Hindfoot [fracture (navicular, cuboid, calcaneus, talus), dislocation, tarsal tunnel syndrome, heel pain (plantar fasciitis, calcaneal stress fracture), posterior tibial dysfunction, adult acquired flatfoot deformity, Charcot-Marie-Tooth disease, cavovarus, spasticity, arthritis, accessory navicular]	1-3%
Midfoot (Lisfranc, midfoot sprain, arthritis, Charcot arthropathy)	0.25-0.75%
Forefoot [metatarsophalangeal/sesamoid fracture (stress fracture, acute fracture, jones fracture), hallus valgus/metatarsus primus varus, hallus varus, hallus rigidus, lesser toe deformities including arthritis, Freiberg disease, bunionette, interdigital neuroma, metatarsalgia, metatarsophalangeal instability including turf toe]	0.5-1.5%
Other (infection/puncture, amputation, compartment syndrome, gout, rehabilitation, complex regional pain syndrome, orthotics/bracing, diabetic foot, inflammatory arthropathy)	0.25-0.75%

\*Must include at least one item

<b>Adult Trauma</b>	<b>8.25-18.75%</b>
<b>Multiple Trauma</b>	<b>1-2%</b>
Acute respiratory distress syndrome, systemic inflammatory response syndrome, fat embolism syndrome, orthopaedic management of polytrauma patient, initial assessment (ABCs, head, spine), open fractures, bone grafts/bone graft substitutes, mangled extremity, host risk factors, shock, hemopneumothorax	
<b>Upper Extremity</b>	<b>2.25-6.75%</b>
<b>Scapula/Clavicle/Acromioclavicular/Sternoclavicular</b>	<b>0.5-1.5%</b>
Fracture/dislocation/instability, reconstruction, malunion nonunion, neuropathy/nerve injury, os acromiale, brachial plexus injuries	
<b>Shoulder Joint</b>	<b>0.5-1.5%</b>
Proximal humerus fractures	
<b>Humerus</b>	<b>0.25-0.75%</b>
Shaft fracture, malunion/nonunion, nerve injury*	
<b>Elbow Joint</b>	<b>0.5-1.5%</b>
Distal humerus fracture/dislocation*, proximal radius and ulnar fracture (radial head, Monteggia, coronoid, olecranon)	
<b>Forearm</b>	<b>0.5-1.5%</b>
Mid-shaft fracture, malunion/nonunion, longitudinal instability	
Other (compartment syndrome, nerve compression)	
<b>Lower Extremity</b>	<b>5-10%</b>
<b>Pelvis</b>	<b>1-2%</b>
Pelvic and acetabular fractures, tendon/muscle, neuropathy/nerve injury, insufficiency fractures	
<b>Hip</b>	<b>1-2%</b>
Femoral head and neck and intertrochanteric fracture, dislocations/instability	
<b>Femur</b>	<b>1-2%</b>
Subtrochanteric, shaft, distal fracture	
<b>Tibia/Fibula</b>	<b>2-4%</b>
Proximal tibial fracture, plateau fracture and fracture/dislocations, proximal fibular fracture, shaft, distal tibia/fibula, stress injury, compartment syndrome*, proximal tibial osteotomy	

\*Must include at least one item

<b>Pediatrics</b>	<b>7.75-16.25%</b>
<b>Upper Extremity</b>	<b>1.25-2.75%</b>
Developmental: Limb deficiencies/deformities, brachial plexus birth injury, congenital hand and forearm, trigger thumb	0.25-0.75%
Trauma: Shoulder/clavicle (including instability), elbow (including supracondylar, medial epicondylar, lateral condyle, radial head), dislocations, transphyseal humerus, olecranon, instability), wrist/forearm (including Monteggia, scaphoid), hand	1-2%
<b>Lower Extremity</b>	<b>3-6%</b>
Developmental: Hip (including Legg-Calve-Perthes disease, developmental dysplasia of the hip, FAI, slipped capital femoral epiphysis, osteonecrosis, coxa vara), limb deficiency (including proximal femoral focal deficiency, tibial and fibular hemimelia, amputation), foot (including club foot, congenital vertical talus, flatfoot, coalitions, accessory navicular, bunions, cavus, polydactyly), torsional and angular deformity (including Blount’s disease and tibial bowing), limb-length discrepancy	2-3%
Trauma: Pelvic fractures, hip dislocations/fractures, pelvic avulsion injuries, femoral shaft, knee (including physeal injuries and vascular injuries), tibia, foot/ankle (including Tillaux fractures, triplane fractures, talus, ankle sprain, Lisfranc injuries, penetrating injuries)	1-3%
<b>Spine</b>	<b>1-2%</b>
Idiopathic/congenital scoliosis, thoracic insufficiency syndrome, kyphosis, cervical spine, torticollis, instability, congenital fusions, spondylolysis, spondylolisthesis, back pain, disk disease, spine trauma (including cervical, thoracolumbar, and spinal cord)	
<b>Sports</b>	<b>1-2%</b>
Osteochondritis dissecans, Little Leaguer’s shoulder/elbow, Panner’s disease, knee (including anterior cruciate ligament, discoid meniscus, meniscus tear, tibial spine, patellar instability), overuse injuries (including stress fractures, Osgood-Schlatter’s disease, Sever’s disease, patellar tendonitis)	

\*Must include at least one item

<b>General</b>	<b>1-2%</b>
Child abuse*, syndromes and dysplasias (metabolic syndromes, osteogenesis imperfecta, connective tissue disorders (including Marfan’s syndrome, Ehlers-Danlos syndrome), Down syndrome, achondroplasia, neurofibromatosis, rickets, fibrous dysplasia), growth and development including physis, infection/inflammatory* (including juvenile rheumatoid arthritis, lyme disease, septic arthritis, discitis, chronic multifocal osteomyelitis, pyomyositis)	
<b>Neuromuscular</b>	<b>0.5-1.5%</b>
Cerebral palsy (including gait), spina bifida, spinal muscular atrophy/ muscular dystrophy, Charcot-Marie-Tooth disease, peripheral neuropathy, arthrogyrosis	

\*Must include at least one item

<b>Orthopaedic Oncology</b>	<b>3.5-10.5%</b>
<b>Malignant Bone</b>	<b>0.5-1.5%</b>
Imaging, staging, biopsy, systemic therapy, local therapy, osteosarcoma, chondrosarcoma, Ewing sarcoma, chordoma	
<b>Benign Bone</b>	<b>1-3%</b>
Imaging, biopsy, operative and nonoperative treatment, nonossifying fibromas, cysts, giant cell tumors, osteoid osteoma, osteoblastoma, metabolic bone disease, Langerhans cell histiocytosis	
<b>Metastatic Disease, Myeloma, Lymphoma</b>	<b>1-3%</b>
Pathologic fractures, prophylactic fixation, spine, radiation, bisphosphonates, Denosumab, imaging, evaluation, biopsy	
<b>Benign Soft Tissue</b>	<b>0.25-0.75%</b>
Imaging, biopsy, pigmented villonodular synovitis, arteriovenous malformation, myositis, myxoma, lipoma, nerve sheath tumors	
<b>Malignant Soft Tissue Tumor</b>	<b>0.5-1.5%</b>
Imaging, biopsy, staging, operative treatment, radiation, sarcoma	
<b>Syndromes</b>	<b>0.25-0.75%</b>
Li Fraumeni, multiple hereditary exostoses, Ollier disease, Maffucci syndrome, McCune-Albright syndrome, neurofibromatosis	