



ABOS Part I Certification Examination Blueprint

www.abos.org

ABOS Part I Certification Examination Blueprint

Table of Contents

General Principles	12-14%
Biostatistics/epidemiology	1-3%
Legal/ethical	0.5-1%
Basic Science Principles	9-11%
Spine	13-15%
Cervical	4-6%
Thoracic	2-4%
Lumbar	3-5%
Nonspecific site	1-3%
Upper Extremities	28-30%
Clavicle	0.5-1%
Scapula	0.5-1%
Shoulder joint	6-8%
Humerus	3-5%
Elbow joint	3-5%
Radius/ulna	2-4%
Wrist joint (including carpal bones)	3-6%
Hand	4-6%
Other/multiple sites, upper extremities	0.5-1%
Lower Extremities	32-34%
Pelvis (including acetabulum)	0.5-1.5%
Hip joint	5-7%
Femur	3-5%
Knee joint	7-9%
Tibia/fibula	3-5%
Ankle joint	3-5%
Foot (incl Charcot pes planus, pes cavus)	4-6%
Other/multiple sites in the lower extremities	1-3%
Multiple Sites/Systemic/Other	7-9%
Multiple trauma, nonorthopaedic	2-4%
Complications following surgical procedures	0.5-1.5%
Medical Aspects of Sports Medicine	0.5-1%
Arthritis/rheumatologic disease	0.5-1.5%
Other	2-4%
Neoplasms (including staging)	6-8%
Benign	2-4%
Malignant	2-4%
Congenital conditions - upper extremities - assoc. with malignancies	0.5-1%
Other	0.5-1%

ABOS Part I Certification Examination Blueprint

General Principles	12-14%
Biostatistics/epidemiology	1-3%
Interpretation of epidemiologic information	
<ul style="list-style-type: none">• 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	
<ul style="list-style-type: none">• Types of experimental studies (eg, clinical trials)• Types of observational studies (eg, cohort, case-control, etc.)• Sampling and sample size• Subject selection and exposure allocation (eg, randomization, etc.)	
Hypothesis testing and statistical interference	
<ul style="list-style-type: none">• Confidence intervals• Statistical significance and type I error• Statistical power and type II error	
Legal/ethical	0.5-1%
<ul style="list-style-type: none">• Consent and informed consent to treatment• Physician-patient relationship• Death and dying• Research issues• Interactions with other health professionals• Cultural competence	
Basic Science Principles	9-11%
<ul style="list-style-type: none">• Biology• Biomechanics	

Spine	13-15%
Cervical	4-6%
Cervical 1-3	
<ul style="list-style-type: none"> • Fracture/dislocation/instability • Spinal cord injury syndromes • Herniated nucleus pulposus • Arthritis, inflammatory (rheumatoid) • Arthritis, degenerative • Torticollis (acquired, congenital) • Congenital anomalies (eg, Klippel-Feil) 	
Cervical 4-7	
<ul style="list-style-type: none"> • Fracture/dislocation/instability • Spinal cord injury syndromes • Herniated nucleus pulposus • Arthritis, inflammatory • Arthritis, degenerative • Torticollis (acquired, congenital) 	
Thoracic	2-4%
<ul style="list-style-type: none"> • Thoracolumbar • Fracture/dislocation/instability • Spinal cord injury syndromes • Herniated nucleus pulposus • Arthritis, inflammatory • Arthritis, degenerative • Kyphosis/lordosis • Congenital anomalies 	

Lumbar**3-5%**

- Lumbar/sacral (including compression)
- Fracture/dislocation/instability
- Spinal cord injury syndromes
- Herniated nucleus pulposus
- Arthritis, inflammatory
- Arthritis, degenerative
- Congenital anomalies

Nonspecific site**1-3%**

- Spinal cord injury not elsewhere classified
- Infection (osteomyelitis, discitis)
- Primary (any site)
- Postoperative (any site)
- Scoliosis not elsewhere classified
- Congenital
- Idiopathic (infantile, juvenile, adolescent)
- Disseminated idiopathic skeletal hyperostosis
- Spondylitis, ankylosing
- Reiter's syndrome
- Other

Upper Extremities	28-30%
Clavicle	0.5-1%
<ul style="list-style-type: none"> • Fracture 	
Scapula	0.5-1%
<ul style="list-style-type: none"> • Fracture • Neuropathy/nerve injury • Scapulothoracic dissociation 	
Shoulder joint	6-8%
<ul style="list-style-type: none"> • Glenohumeral <ul style="list-style-type: none"> • Dislocations/instability • Fracture • Arthritis, inflammatory • Arthritis, degenerative • Tendon/muscle • Cartilage • Osteonecrosis • Acromioclavicular <ul style="list-style-type: none"> • Dislocations/instability • Arthritis, inflammatory • Arthritis, degenerative • Tendon/muscle • Cartilage • Osteonecrosis 	
Humerus	3-5%
<ul style="list-style-type: none"> • Proximal <ul style="list-style-type: none"> • Proximal, fracture • Shaft <ul style="list-style-type: none"> • Shaft, fracture • Distal <ul style="list-style-type: none"> • Distal, fracture • Nerve injury/compression • Infection 	

Elbow joint**3-5%**

- Dislocations/Instability
 - Anterior
 - Posterior
 - Varus
 - Valgus
- Fracture
- Malunion/nonunion
 - Lateral condyle humerus
 - Olecranon
 - Monteggia
- Arthritis, inflammatory
 - Septic
 - Rheumatoid/nodules
 - Gouty
- Arthritis, degenerative
- Tendon/muscle
 - Tendinitis
 - Tears
- Cartilage
 - Panner disease
 - Osteochondritis dissecans
 - Synovial osteochondromatosis
 - Traumatic injury
- Osteonecrosis
- Nerve injury/compression
- Infection
- Heterotopic ossification

Radius/ulna**2-4%**

- Proximal
 - Proximal, fracture
 - Fracture/dislocation
- Shaft
 - Shaft, fracture
- Distal
 - Distal, fracture
- Nerve injury/compression
- Infection
- Heterotopic ossification

Wrist joint (including carpal bones)**3-6%**

- Dislocations/instability
- Fracture
- Malunion/nonunion
 - Scaphoid (acute and nonunion)
 - Lunate
 - Capitate
 - Hamate
 - Pisiform
 - Septic
- Arthritis, inflammatory
- Arthritis, septic
- Arthritis, degenerative
- Tendon/muscle
 - Tendinitis
 - Tears
- Cartilage
- Osteonecrosis
- Nerve injury/compression
- Synovitis

Hand**4-6%**

- Dislocations/instability
 - Metacarpophalangeal
 - Proximal interphalangeal
 - Distal interphalangeal
- Fractures
- Malunion/nonunion
 - Metacarpal
 - Phalanges
- Arthritis, inflammatory, digits
- Arthritis, degenerative, digits
- Tendon/muscle
 - Tendinitis
 - Tear/laceration
 - Flexor injury
 - Extensor injury
- Cartilage
- Osteonecrosis
- Nerve injury/compression
- Infection
- Contracture
- Pressure injection
- Nailbed injury
- Factitious contracture
- Skin lacerations/wound
- Congenital conditions
- Amputation

Other/multiple sites, upper extremities**0.5-1%**

- Complex regional pain syndrome
- Congenital anomalies
- Other

Lower Extremities	32-34%
Pelvis (including acetabulum)	0.5-1.5%
<ul style="list-style-type: none"> • Fractures • Tendon/muscle • Neuropathy/nerve injury 	
Hip joint	5-7%
<ul style="list-style-type: none"> • Dislocations/instability • Fractures <ul style="list-style-type: none"> • Acetabulum • Femoral neck • Intertrochanteric • Malunion/nonunion • Stress • Arthritis, inflammatory • Arthritis, septic • Arthritis, degenerative • Tendon/tear <ul style="list-style-type: none"> • Rupture • Tendinitis • Cartilage <ul style="list-style-type: none"> • Labral • Articular • Osteonecrosis • Legg-Calve-Perthes disease • Nerve injury/compression • Infection • Heterotopic ossification • Synovitis • Mechanical failure 	

Femur**3-5%**

- Proximal
 - Proximal, fracture
- Shaft
 - Shaft, fracture
- Distal
 - Distal, fracture
- Nerve injury/compression
- Infection
- Amputation, above knee
- Periprosthetic fracture

Knee joint**7-9%**

- Tibiofemoral
 - Dislocation/instability
 - Fracture
 - Arthritis, inflammatory
 - Arthritis, degenerative
 - Tendon/muscle
 - Cartilage
 - Osteonecrosis
- Patellofemoral
 - Dislocation/instability
 - Fracture
 - Arthritis, inflammatory
 - Arthritis, degenerative
 - Tendon/muscle
 - Cartilage
 - Osteonecrosis

Tibia/fibula**3-5%**

- Proximal
 - Proximal, fracture
- Shaft
 - Shaft, fracture
- Distal
 - Distal, fracture
- Tendon/muscle
 - Tendinitis
 - Tears
- Nerve injury/compression
- Infection
- Developmental
- Amputation, below knee

Ankle joint**3-5%**

- Dislocation/instability
- Sprain
- Fracture
- Arthritis, inflammatory
- Arthritis, degenerative
- Tendon/muscle
 - Achilles
 - Peroneal
 - Posterior tibial
- Cartilage
 - Osteochondritis dissecans
 - Osteonecrosis
- Nerve injury/compression
- Infection
- Charcot arthropathy
- Mechanical failure

Foot (including Charcot, pes planus, pes cavus)**4-6%**

- Dislocation/instability
 - Hindfoot
 - Midfoot
 - Forefoot
- Fracture
 - Talus
 - Calcaneus
 - Navicular and midtarsal
 - Metatarsal
- Arthritis, inflammatory
- Arthritis, degenerative
- Tendon/muscle
 - Tendinitis
 - Tears
- Forefoot
 - Hallux valgus
 - Hallux rigidus
 - Hammertoes
 - MTP joint problems
- Plantar fasciitis
- Cartilage
- Osteonecrosis
- Nerve injury/compression
- Infection
- Developmental
- Flatfoot
- Sesamoid
- Puncture wounds
- Charcot arthropathy
- Diabetic/decubitus ulcers
- Talipes, acquired

Other/multiple sites in the lower extremities

1-3%

- Cerebral palsy
- Congenital anomalies, not elsewhere specified
- Multiple epiphyseal dysplasia
- Myelomeningocele (spine, hip, knee, ankle, foot)
- Neuromuscular disease
- Duchenne muscular dystrophy
- Charcot-Marie-Tooth
- Spinal muscular atrophy
- Polio
- Normal growth and development
- Leg-length discrepancy
- Infection, soft tissue
- Complex regional pain syndrome NEC
- Other

Multiple Sites/Systemic/Other	7-9%
Multiple trauma, nonorthopaedic	2-4%
<ul style="list-style-type: none"> • Pulmonary emboli • Concussion/head injury • Delirium • Blood loss • Airway obstruction • Hemothorax • Shock • Pneumothorax • Adult respiratory distress syndrome 	
Complications following surgical procedures	0.5-1.5%
<ul style="list-style-type: none"> • Thromboembolus • Deep venous thrombosis • Coagulopathy 	
Medical Aspects of Sports Medicine	0.5-1%
<ul style="list-style-type: none"> • Cardiology • Pulmonary • Head and face • Gastrointestinal • Genitourinary • Endocrine • Skin 	
Arthritis/rheumatologic disease	0.5-1.5%
<ul style="list-style-type: none"> • Juvenile • Rheumatoid • Septic • Lyme disease/erythema chronicum migrans 	

Other**2-4%**

- Injuries
- Athletic, not elsewhere specified
- Child abuse
- Lawnmower
- Multiple
- Overuse
- Cartilage
- Soft tissue, not elsewhere classified
- Arthrogyrosis
- Osteogenesis imperfecta
- Osteomyelitis, long bone
- Pathological fractures
- Physeal injuries and growth arrest
- Metabolic bone disease
- Osteomalacia and rickets
- Osteoporosis
- Marfan syndrome
- Muscular dystrophy (any site)
- Complex regional pain syndrome
- Multiple sites/systemic/other
- Chronic pain
- Sequelae of traumatic brain injury (contractures, etc.)
- Other

Neoplasms (including staging)	6-8%
Benign	2-4%
<ul style="list-style-type: none"> • Bone dysplasias (fibrous dysplasia) • Chondroblastoma • Enchondroma / osteochondroma • Lipoma • Nonossifying fibroma • Osteoid osteoma • Schwannoma • Ganglion • Giant cell tumor • Glomus tumor • Unicameral bone cyst • Aneurysmal bone cyst • Myositis ossificans • Myxoma • Brown tumor • Langerhans cell histiocytosis • Pigmented villonodular synovitis • Paget’s disease • Hemangioma • Osteoblastoma 	
Malignant	2-4%
<ul style="list-style-type: none"> • Chondrosarcoma • Ewing sarcoma / peripheral neuroectodermal tumor • Malignant fibrous histiocytoma (bone) • Metastatic carcinoma • Multiple myeloma • Osteosarcoma • Soft-tissue sarcoma • Malignant Peripheral Nerve Sheath Tumor • Lymphoma • Chordoma 	

Congenital conditions - upper extremities - assoc. with malignancies	0.5-1%
<ul style="list-style-type: none">• Ollier disease• Maffucci syndrome• Neurofibromatosis	
Other	0.5-1%