

| Anatomical Area | Patient Group | Differentiated in Diagnosis | Pathology | Differentiated Conservative Therapy | Differentiated Operative Therapy | Basic Science |
|-----------------|---------------|--------------------------------|---------------------------------|---|----------------------------------|---------------|
| Shoulder | Pediatric | Imaging Methods | Infection | Physical Therapy (Manual Therapy, Ergo Therapy....) | Arthroscopy | Anatomy |
| Elbow | Adolescent | Specialist laboratory medicine | Nerve Pathology | Immobilisation | Reconstructive procedures | Approaches |
| | Adult | Puncture an Biopsy | Tumors | Orthoses, Prostheses etc. | Osteotomies | Biomechanics |
| | Geriatric | Investigation techniques | Sports Injuries | Pain Relief Therapy | Osteosyntheses | Genetics |
| | | | Trauma | Conservative fracture treatment | Resections | Embryology |
| | | | Developmental Disorders | | Arthroplasty | |
| | | | | | Soft Tissues | |
| | | | | | (Tendons/Nerves/Vessels..) | |
| | | | | | Amputations | |
| | | | | | Arthrodesis | |
| | | | Inherent | | | |
| | | | Growth associated | | | |
| | | | Caused by medical interventions | | | |
| | | | Inflammatory | | | |
| | | | Systematic diseases | | | |
| | | | Caused by bone metabolism | | | |
| | | | Degenerative | | | |

| Imaging methods | Specialist laboratory medicine | Puncture an Biopsy | Investigation techniques |
|------------------------|---------------------------------------|---------------------------|---------------------------------|
| Sonographic | Blood parameters | Histology | Arthroscopy |
| Nuclear medicine | Blood cultures | Synovia analysis | Nanoscope |
| Radiological | | Microbiology | Open surgical exploration |
| MRI/ MR Arthrography | | | |
| CT/ CT Arthrography | | | |
| DEXA | | | |
| Szintigraphy | | | |

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| Infection | Nerve Pathology | Tumors | Sports Injuries | Trauma | Developmental Disorders | Inherent/ Growth associated | Caused by medical interventions | Inflammatory/ Systemic diseases/ Bone metabolism | Degenerative |
|-----------------------------|------------------------------|----------------------------|-------------------------|----------------------------|------------------------------|-----------------------------|---------------------------------|--|----------------|
| Primary/Secondary | | | | | | | | | |
| Empyema | Parsonage Turner Syndrome | Osteoidosteoma | Anterior Instability | Proximal Humerus Fractures | Multidirectional Instability | Dysplasia | Cartilage damage | Rheumatoid diseases | Osteoarthritis |
| Prosthetic Infection | Cervical Spine Pathology | Primary malignant Tumors | Posterior instability | Glenoid Fractures | Erb Palsy | Stiffness | Infection | PVNS | Loose bodies |
| Infection of Osteosynthesis | Plexus brachialis lesion | Meatstatic Cancer | SLAP Lesions | Dislocation Fractures | Scapula alata | Osetochondrosis dissecnas | Osteonecrosis | Synovialitis | Stiffness |
| Osteomyitis | Compression N. supraspinatus | Benign Soft Tissue Lesions | Cartilage Damage | Scapula Fractures | Scapula dyskinesia | | Non-Unions | Bursitis | Chondromalazia |
| | Neuralgic Amyotrophy | Enchondroma | Weightlifters Shoulder | Clavicle Fractures | | | | | |
| | Axillary Nerve damage | Osetosarcoma | PSGI | | | | | | |
| | | NOF | Biceps Pathologies | | | | | | |
| | | | AC-Joint Injuries | | | | | | |
| | | | Muscle/ Tendon injuries | | | | | | |
| | | | SC -joint Injuries | | | | | | |

| Infection | Nerve Pathology | Tumors | Sports Injuries | Trauma | Developmental Disorders | Inherent/ Growth associated | Caused by medical interventions | | Inflammatory/ Systemic diseases/ |
|-----------------------------|---------------------------|----------------------------|----------------------------|--|---------------------------------|-----------------------------|---------------------------------|---------------------|----------------------------------|
| | | | | | | | Bone metabolism | Degenerative | |
| Primary/Secondary Empyema | Ulnar Nerve Syndrome | Osteoidosteoma | Ligamentous Dislocation | Radial Head Fracture Isolated Coronoid Fracture / | Chronic Radial Head Dislocation | Dysplasia | Cartilage damage | Rheumatoid diseases | Osteoarthritis |
| Prosthetic Infection | Snapping Ulnaris Syndrome | Primary malignant Tumors | Chronic Valgus Instability | PMRI | Cubitus Varus | Varus/ Valgus malalignment | Infection | PVNS | Loose bodies |
| Infection of Osteosynthesis | Radial Tunnel Syndrome | Meatastatic Cancer | Osteochondral Lesion | Dislocation Fracture | Radioulnar Synostosis | Radioulnar synostosis | Osteonecrosis | Synovialitis | Stiffness |
| Osteomyelitis | Pronator Teres Syndrome | Benign Soft Tissue Lesions | | Monteggia Essex-Lopresti | | Osetochondrosis dissecnas | Non-Unions | Bursitis | Chondromalazia |
| | | | | Distal humerus fractures | | | | | |
| | | | | Radial head/neck fractures | | | | | |
| | | | | Proximal ulna fractures | | | | | |
| | | | | Dislocations and fracture | | | | | |
| | | | | dislocations on the elbow | | | | | |

| Physical Therapy | Immobilisation/ Orthoses, Prostheses etc. | Pain Relief Therapy | Conservative fracture treatment |
|-------------------------|--|-------------------------------------|--|
| Physiotherapy | Splints | Systemic pain therapy (oral) | Immobilization |
| Ergo therapy | Orthoses | Systemic pain therapy (intravenous) | Physiotherapy |
| Massage | Casts | Injections | |
| Manual therapy | Braces | Pain catheters | |
| Lymph drainage | | | |

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| Arthroscopy | Reconstructive procedures | Osteotomies | Osteosyntheses | Resections | Endoprosthetics | Soft Tissues (Tendons/Nerves/Vessels..) | Amputations | Arthrodesis |
|----------------------------|----------------------------------|---|-------------------------------|---|---|--|-------------------------|-----------------------------|
| | | Correlative Osteotomie prox. humerus | Proximal humerus fractures | AC-Joint resection | Anatomic Total shoulder arthroplasty | Direct ligament repair | Arm amputation | Glenohumeral arthrodesis |
| Diagnostic arthroscopy | Open fracture treatment | Correlative Osteotomie dist. humerus | Glenoid fractures | SC-Joint resection Humeral Head resection | Hemiarthroplasty | Tendon Repair | Shoulder exarticulation | |
| Ligament repair | Open ligament repair | | | | | | | |
| Tendon repair | Open tendon repair | Corrective osteotomie Glenoid | Scapula fractures | | Reverse shoulder arthroplasty | Bankart repair | | |
| Removal of loose bodies | Open stabilization procedures | | Clavicle fractures | | Resurfacing arthroplasty Partial resurfacing arthroplasty | Capsular shift | | |
| Cartilage treatment | Open arthrolysis | | Dislocation fractures | | | Tendon transfer | | |
| Removal of osteophytes | | | | | | | | |
| Arthrolysis | | | | | | | | |
| Synovectomy | | | | | | | | |
| Fracture treatment | | | | | | | | |

| Arthroscopy | Reconstructive procedures | Osteotomies | Osteosyntheses | Resections | Endoprosthetics | Soft Tissues (Tendons/Nerves/Vessels..) | Amputations | Arthrodesis |
|-------------------------|-------------------------------|--|--|-----------------------|----------------------------|--|---------------------------|-------------------|
| | | | Distal humerus | | | | | |
| Diagnostic arthroscopy | Open fracture treatment | Correlative Osteotomie humerus fractures | | Joint resection | Total elbow arthroplasty | Direct ligament repair | Forearm amputatuiion | Elbow arthrodesis |
| Ligament repair | Open ligament repair | Corrective osteotomie ulna | Ulnar fractures | Radial head resection | Hemiarthroplasty | Ligment transfer | Elbow exarticulation | |
| Tendon repair | Open tendon repair | Corrective osteotomie radius | Radius fractures Complex elbow fractures Dislocation fractures | | Radial head replaement | Internal bracing | Distal humerus amputation | |
| Removal of loose bodies | Open stabilization procedures | | | | Interposition arthropoasty | Direct tendon repair Tendon transfer | | |
| Cartilage treatment | Open arthrolysis | | | | | | | |
| Removal of osteophytes | | | | | | | | |
| Arthrolysis | | | | | | | | |
| Synovectomy | | | | | | | | |
| Fracture treatment | | | | | | | | |

| Anatomy | Surgical approaches | Shoulder Biomechanics | Embryology/ Growth | Genetic |
|--|------------------------------------|------------------------------|---------------------------|-------------------|
| Functional anatomy of the glenohumeral joint | Arthoscopic portals and approaches | Basic biomechanics | Glenohumeral embryology | Clinical genetics |
| Functional anatomy of the rotator cuff and LHB | Deltpectoral approach | Shoulder kinematics | | |
| Functional anatomy of the subacromial space | Supero-lateral approach | Glenohumeral stability | | |
| Functional anatomy of the clavicle and AC & SC joint | Posterior approach | | | |
| Anatomy of the proximal humerus | Combined approaches | | | |
| Anatomy of the scapula | | | | |

| Anatomy | Surgical approaches | Elbow Biomechanics | Embryology/ Growth | Genetic |
|--|-------------------------------------|---------------------------|---------------------------|-------------------|
| Functional anatomy of the elbow joint | Arthroscopic portals and approaches | Basic biomechanics | Elbow embryology | Clinical genetics |
| Functional anatomy of the elbow stabilisatos | Lateral approach | Elbow kinematics | | |
| Functional anatomy of the Forearm | Medial approach | Elbow stability | | |