

Orthopedic Surgery Training Experiences

2020 VERSION 1.0

These training requirements apply to those who begin training on or after July 1, 2020.

The following training experiences are required, recommended, or optional, as indicated:

TRANSITION TO DISCIPLINE (TTD)

The focus of this stage is orientation of new trainees to the Orthopedic Surgery program and institution, as well as relevant resources and facilities. During this stage, residents assess and diagnose patients with orthopedic conditions in inpatient, outpatient, and emergency settings.

Required training experiences (TTD stage):

- 1. Clinical training experiences:
 - 1.1. Any surgical service which is able to provide the following clinical experiences
 - 1.1.1. Inpatient service
 - 1.1.2. Consultation to other inpatient services and the emergency department
 - 1.1.3. Outpatient clinics and/or office
 - 1.1.4. Operative experience
 - 1.1.5. After-hours coverage
 - 1.2. Any Orthopedic Surgery experience
- 2. Other training experiences:
 - 2.1. Orientation to the hospital(s), including the medical record and imaging system
 - 2.2. Orientation to the operating room suite and procedures
 - 2.3. Orientation to the program and university, including policies, resident resources, and learning resources
 - 2.4. Orientation to Competence by Design and the expectations for training and assessment, including the documentation of activities in a portfolio

Recommended training experiences (TTD stage):

- 3. Other training experiences:
 - 3.1. Orientation to and initiation of a logbook of surgical procedures

Optional training experiences (TTD stage):

- 4. Other training experiences:
 - 4.1. Focused experience providing early clinical and technical skills training (e.g., boot camp)

FOUNDATIONS OF DISCIPLINE (F)

The focus of this stage is development of foundational competencies required to initiate management plans for patients with urgent and non-urgent orthopedic conditions, including trauma, as well as fractures in children and adolescents, and musculoskeletal infections. During this stage, residents perform common non-operative orthopedic procedures, surgical management of fractures, basic elective arthroplasty, and diagnostic arthroscopy.

Required training experiences (Foundations stage):

- 1. Clinical training experiences:
 - 1.1. Orthopedic Surgery, which must include experience in arthroplasty, trauma, and pediatric orthopedics
 - 1.1.1. Inpatient service
 - 1.1.2. Consultation to other inpatient services and the emergency department
 - 1.1.3. Outpatient clinics and/or office
 - 1.1.4. Operative experience
 - 1.1.5. After-hours coverage
 - 1.2. Intensive care unit
- 2. Other training experiences:
 - 2.1. Formal instruction in the curriculum of Orthopedic Surgery, including trauma, arthroplasty, pediatrics, and sports medicine
 - Formal instruction in research methodology, critical appraisal, and literature review
 - 2.3. Attendance at teaching rounds and grand rounds
 - 2.4. Participation in quality improvement activities, such as mortality and morbidity rounds
 - 2.5. Journal club, or other critical appraisal activity

ORTHOPEDIC SURGERY TRAINING EXPERIENCES (2020)

- 2.6. Orientation to workplace safety, including radiation safety and personal protection
- 2.7. Orientation to resources for physician burn out and wellness

Recommended training experiences (Foundations stage):

- 3. Clinical training experiences:
 - 3.1. Arthroscopy
- 4. Other training experiences:
 - 4.1. Review of resident logbook of surgical cases with academic supervisor
 - 4.2. Basic fracture course, such as that offered by the AO Foundation or the Orthopedic Trauma Association (OTA)

Optional training experiences (Foundations stage):

- 5. Clinical training experiences:
 - 5.1. One or more of the following:

Surgical

- 5.1.1. Neurosurgery
- 5.1.2. Orthopedic subspecialty area
- 5.1.3. Plastic surgery and/or hand surgery
- 5.1.4. Vascular surgery

Medical

- 5.1.5. Consultation service in Internal Medicine
- 5.1.6. Infectious diseases
- 5.1.7. Metabolic bone clinic
- 5.1.8. Neurology
- 5.1.9. Rheumatology
- 5.1.10. Emergency Medicine
- 5.1.11. Physical Medicine and Rehabilitation
- 5.1.12. Medical imaging
- 6. Other training experiences:
 - 6.1. Focused experience providing early clinical and technical skills training (e.g., boot camp)

CORE OF DISCIPLINE (C)

This stage builds on the skills and knowledge of the Foundations stage to add medical and surgical management for adult and pediatric patients across the spectrum of orthopedic conditions and complications of surgery. This includes performing surgical management and procedures relevant to trauma, oncology, foot and ankle, hip and knee, spine, upper limb and hand, sports medicine, and pediatrics. At this stage, residents take on a leadership role in managing an orthopedic service, teach medical students, implement the principles of quality improvement and patient safety, and conduct scholarly projects.

Required training experiences (Core stage):

- 1. Clinical training experiences:
 - 1.1. Orthopedic Surgery in the breadth of the discipline, including musculoskeletal trauma, musculoskeletal oncology, foot and ankle, hip and knee, spine, upper limb and hand, sports medicine, and pediatric orthopedics
 - 1.1.1. Inpatient service
 - 1.1.2. Consultation to other inpatient services and the emergency department
 - 1.1.3. Outpatient clinics and/or office
 - 1.1.4. Operative experience
 - 1.1.5. After-hours coverage
 - 1.2. Orthopedic Surgery in the community setting
- 2. Other training experiences:
 - 2.1. Formal instruction in the curriculum of Orthopedic Surgery
 - 2.2. Attendance at teaching rounds and grand rounds
 - Participation in quality improvement activities, such as mortality and morbidity rounds
 - 2.4. Completion of a scholarly project
 - 2.5. Supervision, teaching, and assessment of junior learners

Recommended training experiences (Core stage):

- 3. Clinical training experiences:
 - 3.1. Specific and/or enhanced skills acquisition related to individual interest, career plan, or community needs
- 4. Other training experiences:
 - 4.1. Review of resident logbook of surgical cases with academic supervisor

ORTHOPEDIC SURGERY TRAINING EXPERIENCES (2020)

- 4.2. Supplementary courses, such as a basic science course or subspecialty review course
- 4.3. Simulation training for surgical skills relevant to Orthopedic Surgery

Optional training experiences (Core stage):

- 5. Clinical training experiences:
 - 5.1. Global health experience
- 6. Other training experiences:
 - 6.1. Supplementary online modules, such as those offered by the Canadian Medical Protective Association (CMPA) and postgraduate medical offices (PGME)

TRANSITION TO PRACTICE (TTP)

The focus of this stage is consolidation of the clinical, surgical, and administrative skills required to manage an orthopedic practice, including the management of outpatient clinics, the coordination and execution of operative procedures, and the provision of on-call coverage.

Required training experiences (TTP stage):

- 1. Clinical training experiences:
 - 1.1. Orthopedic Surgery
 - 1.1.1. Inpatient service
 - 1.1.2. Consultation to other inpatient services and the emergency department
 - 1.1.3. Outpatient clinics and/or office
 - 1.1.4. Operative experience
 - 1.1.5. After-hours coverage
- 2. Other training experiences:
 - 2.1. Attendance and/or participation in teaching at
 - 2.1.1. Teaching rounds
 - 2.1.2. Formal academic curriculum sessions
 - 2.1.3. Grand rounds

Recommended training experiences (TTP stage):

- 3. Other training experiences:
 - 3.1. Summary of logbook for presentation and review with academic supervisor and for future continuing professional development
 - 3.2. Participation in clinical administration, such as schedule and rotation management

Optional training experiences (TTP stage):

- 4. Other training experiences:
 - 4.1. Formal instruction in practice management, such as those courses offered by the Canadian Medical Association (CMA)

CERTIFICATION REQUIREMENTS

Royal College certification in Orthopedic Surgery requires all of the following:

- 1. Successful completion of the Royal College examination in Surgical Foundations;
- 2. Successful completion of all elements of the Royal College Surgical Foundations Portfolio;
- 3. Successful completion of the Royal College examination in Orthopedic Surgery; and
- 4. Successful completion of the Royal College Orthopedic Surgery Portfolio.

NOTES

The Orthopedic Surgery Portfolio refers to the list of entrustable professional activities across all four stages of the residency Competence Continuum, and associated national standards for assessment and achievement.

MODEL DURATION OF TRAINING

Progress in training occurs through demonstration of competence and advancement through the stages of the Competence Continuum. Orthopedic Surgery is planned as a five-year residency program. There is no mandated period of training in each stage. Individual duration of training may be influenced by many factors, which may include the resident's singular progression through the stages, the availability of teaching and learning resources, and/or differences in program implementation. Duration of training in each stage is therefore at the discretion of the faculty of medicine, the competence committee, and the program director.

ORTHOPEDIC SURGERY TRAINING EXPERIENCES (2020)

Guidance for programs:

The Royal College Specialty Committee in Orthopedic Surgery's suggested course of training, for the purposes of planning learning experiences and schedules, is as follows:

- 2-3 blocks in Transition to Discipline
- 21-22 blocks in Foundations of Discipline
- 27-33 blocks in Core of Discipline
- 2-9 blocks in Transition to Practice

Guidance for postgraduate medical education offices:

The stages of the Competence Continuum in Orthopedic Surgery are generally no longer than:

- 3 blocks for Transition to Discipline
- 22 blocks for Foundations of Discipline
- 33 blocks for Core of Discipline
- 9 blocks for Transition to Practice
- Total duration of training five years

This document is to be reviewed by the Specialty Committee in Orthopedic Surgery by December 2021.

APPROVED – Specialty Standards Review Committee – August 2019

^{*}One block is equal to four weeks