

CAGS
Resident Handbook
2024-2025



CANADIAN ASSOCIATION OF
General Surgeons

Table of Contents

1. Welcome to General Surgery!
2. About CAGS
3. Useful Reference Materials
4. Wellness Resources
5. Research Funding
6. Conferences
7. Progressing in Residency
8. National Exams
9. Electives
10. Global Surgery
11. Fellowships
12. Finding a Job
13. Professional and Resident Associations



Welcome to General Surgery!

Congratulations on your match! We are excited to welcome you into the Canadian Association of General Surgeons. We look forward to working with you now and throughout your careers.

The CAGS Residents Committee, made up of representatives from all Canadian General Surgery programs, developed this handbook for you. We have pulled together a variety of resources that we hope will help you on our journey as a resident and into your career as a general surgeon. It is our hope that the resident handbook which is updated annually can be a resource for you throughout your years as a general surgery resident. In addition to the handbook, other initiatives from the CAGS resident committee can be found on our social media. Check out the links below for more information.

Follow CAGS Residents via our Twitter account ("[CAGS Residents](#)"), as well as the CAGS Residents Instagram page ([@cags_residents](#))!

About CAGS

The Canadian Association of General Surgeons is the only national organization entirely dedicated to representing the interests of General Surgeons in Canada.

As a general surgery resident in Canada, your membership with the association is paid for by your residency program. We invite you to explore the membership benefits available to you on the website, www.cags-accg.ca.

Highlighted Benefits

- Resident representation on the Board of Directors and several CAGS Committees
- [Annual CAGS Exam resources](#) and [Review Webinar series](#)
- Live webinars on a variety of clinical and non-clinical topics (recordings also available)
- National teaching rounds



- Annual Resident Research Retreat
- Annual Resident Teaching Awards
- [National Events Calendar](#)
- [CGSF 40,000\\$ Operating Grant Competition](#)
- Monthly newsletters
- [Job Board](#) that includes career, locum, and fellowship opportunities
- [Rural Surgery Mentorship program](#)
- [Affinity programs](#) with: Goodlife Fitness, Perkopolis, TD Meloche Monnex
- Discounted submission fees with the Canadian Journal of Surgery
- Advocacy for issues such as national licensure and workforce planning
- Resident content [highlighting research and accomplishments of our fellow peers](#)

The Membership and Communications Manager, Jennifer Scott, is always available to answer any questions you may have about your CAGS membership. She can be reached at jennifer@cags-accg.ca.

CAGS Resident Committee

The Resident Committee is made up of one representative from each of the general surgery residency programs in Canada. The committee meets virtually every other month throughout the year in order to discuss common issues facing surgical residents across the country. Committee members are also assigned to directorships. These are sub-groups within the committee that are tasked with various projects throughout the year. Here are the positions and what our directorships are currently working on:

Resident Committee Co-chairs	Oversees committee meetings and supports directors in fulfilling their responsibilities as needed.	Sarah Mansouri (Sherbrooke)	sarah.mansouri@usherbrooke.ca
		Ashley Robinson (Dalhousie)	ashley.m.robinson@dal.ca
Survey Directors	Responsible for quarterbacking the creation of the National Resident Survey, its	Emily Heath (Calgary)	Emily.heath@ucalgary.ca



distribution to residents, and the eventual presentation of its results at the CSF CAGS Resident Symposium in September.

Gladys Bruyninx
(Saskatchewan)

vih801@mail.usask.ca

Dara Hallock
(Manitoba)

hallockd@myumanitoba.ca

Research Director	Responsible for the promotion of research activities within the Canadian General Surgery resident body. Coordinates the Resident Research Corner program.	Lily Park (McMaster)	lily.park@medportal.ca
Scrub Caps Off Director	Coordinates the monthly resident profiling feature, "Scrub Caps Off".	Dexter Choi (Ottawa)	dchoi@toh.ca
Social Media Director	Coordinates our social media presence, maintaining regular Facebook/ Twitter/ Instagram postings and trying to grow how we reach residents. Responsible for the creation of the Resident Awareness Week poster and its distribution. Helps co-chairs organizing the CAGS CSF Resident Social.	Rachel Peet (Western)	Rpeet@uwo.ca
Resident Handbook Directors	In charge of updating, improving, and distributing the Resident Handbook, the ultimate resource for general surgery	Talal Hijji (McGill)	talal.hijji@mail.mcgill.ca
		Aghiles Abbad	aghiles.abbad@umontreal.ca



residents in Canada
in English and
French. (Montreal)

Mentorship Directors	Develop and maintain the General Surgery mentorship program across Canada. Develop and organize a symposium at the CAGS CSF meeting geared towards medical students.	Zosia Czarnecka (Alberta)	czarnecka@ualberta.ca
		Brynn Aucoin (NOSM)	baucoin@nosm.ca
		Emily Courage (Memorial)	ec2587@mun.ca



Useful Reference Materials

Textbooks

All are available online for free at <http://www.cma.ca> . These books are generally equivalent, so pick one to start your adventure in General Surgery Reading. We suggest you borrow them from the library or peruse online before you buy to find the best fit for you.

MUST HAVE ONE OF THESE:

Schwartz

Advantages: General guide on all general surgical issues. Anatomy, embryology, pathophysiology.

Disadvantages: Not an atlas or surgical technique book. Too detailed at times, difficult to recall all material read in one sitting.

Use for: Outlining presentations, Surgical Foundations, a starting point for junior residents, general overview of all topics.

Sabiston

Advantages: General guide on all general surgical issues. Includes anatomy, embryology, pathophysiology. Some of us think it is the most useful of the three in preparing for oral exams and attendings' quizzes as opposed to Greenfield's being better for preparing for written exams.

Disadvantages: Not an atlas or surgical technique book. Too detailed at times, difficult to recall all material read in one sitting.

Use for: Outlining presentations, Surgical Foundations, acts as starting point for junior residents, general overview of all topics.

Greenfield's

Advantages: Some find it easier to read and remember chapter details.

Disadvantages: Again, no specific operative details.

Use for: Overview for junior and senior residents, good review book.

American College of Surgeons

Advantages: Available online, updated yearly, free with your ACS or CMA membership, review questions at the end of every chapter.

Cameron: Current Surgical Therapy (consider after Surgical Foundations)

Advantages: Clinically relevant, contains algorithms, good preparation for senior years post-Surgical Foundations. Provides a very focused and manageable overview of specific subtopics.

Disadvantages: Minimal anatomical information, minimal pathophysiology, difficult for junior residents due to lack of background knowledge. Different authors for each edition therefore little continuity between editions.

Other Helpful General References

Lange: Current Diagnosis and Treatment - Surgery

Advantages: Brief, concise, portable, introduction to a topic, information on other surgical specialties.

Disadvantages: Not enough detail. Not appropriate for advanced levels.

Use for: Junior residents, medical students, on call issues.

Rush Review of Surgery

Advantages: Pure question and answer format. Mostly only useful for self-assessment as there is only a brief explanation of answers. Very helpful to check knowledge of concepts and identify weak areas.

ABSITE Review

Advantages: Good reference for Surgical Foundations, portable, easy to read, additional subspecialty information.

Disadvantages: Too general for senior years, no surgical techniques.

Operative Dictations in General and Vascular Surgery

Advantages: Helpful for learning to dictate. Great script/starting point.

Top Knife

Well-loved book on emergency general surgery. Easy to read style, fun for all ages. Great tips for surgeons interested in trauma.

Cope's Early Diagnosis of the Acute Abdomen

Advantages: reasoned approach to physical exam. A classic. Latest edition is 2010.

Disadvantages: Not a good quick reference, this is more a cover-to-cover read.

Chassin's Operative Strategy in General Surgery: An Expositive Atlas

Advantages: Excellent approach to most general surgical operations in a concise and practical format. Nice figures and well written. Good description of the steps of an operation, useful for preparing for oral exams.

Disadvantages: May not be the most up to date textbook regarding surgical decision-making.

Shackelford, Surgery of the Alimentary Tract

Advantages: Complete review of pathologies of the GI tract. Used by some programs as THE review book for PGY-5. Especially good for pancreaticobiliary tract. Outstanding figures.

Disadvantages: Does not cover non-GI general surgery.

Acute Care Surgery: Principles and Practices



Advantages: Good for residents interested in acute care surgery/trauma/ICU. Head-to-toe approach to surgical emergencies.

Disadvantages: NOT a review book.

Atlases, Books on Surgical Technique

MUST HAVE ONE OF THESE:

Skandalakis: Surgical Anatomy and Technique: A Pocket Manual

Advantages: Quick reference for surgical anatomy and technique if you have not reviewed the operation beforehand. Good to keep in locker.

Disadvantages: Not very detailed, no thorough anatomy, all pictures in black and white.

Use for: Reviewing operation and techniques pre-op.

Zollinger: Atlas of Surgical Operations

Advantages: Lots of pictures, the classic atlas.

Disadvantages: Minimal written detail, cumbersome and not portable.

Mastery of Surgery

Advantages: Covers a lot of laparoscopic and open surgery, information on pre-operative and post-operative care, thorough review of anatomy, excellent colour pictures. Available online.

Disadvantages: Not a quick reference, not always up to date.

Use for: Learning operative steps.

Operative anatomy: Scott-Connor, Dawson

Advantages: Focuses on important anatomy for surgical procedure, good written details on how to perform operations.

Disadvantages: Could use more pictures, not a lot of information on pre-and post-operative management and complications.

Use for: Learning operations

Maingot's Abdominal Operations, Volume I and II

Advantages: Good mix of text and atlas. Great technical details. Clear illustrations and good literature review. Benefits both senior resident and general surgeon.

Disadvantages: Not portable (except newest edition)

Atlas of Laparoscopic Surgery

Advantages: Atlas of laparoscopic procedures, both basic and advanced. Includes commentaries and illustrations.

Pocket references

The Mont Reid Surgical Handbook

Good for R1 and preparing right before a case or consult, point form and brief.

On Call: Principles and Protocols, and On Call: Surgery

Excellent reference for ward management, junior resident level.




MD Anderson





Concise review on all cancers, including epidemiology, diagnostic tests and treatment algorithms. Good references. Only draw-back: very specific to MD Anderson protocols.




University of Toronto Surgical Oncology Manual



A concise and practical guide to nearly all cancers general surgeons have to deal with.

Useful Phone Apps

App Name	Description	Pros	Cons
<p>TNM Cancer Staging Calculator</p> 	<p>Generates TNM staging criteria and uses HER2, ER, PR status to generate prognostic score</p>	<p>Simple to use Free of charge Definitions based on 8th edition of AJCC Cancer Staging Manual</p>	
<p>Chirurgie 39.99\$ once</p> 	<p>Practical diagnosis-based guide to common General Surgery conditions including epidemiology, clinical presentation, investigation and treatment/management</p>	<p>Compiled from notes from ULaval study guide for the Royal College exam Easy search function Allows for personal note taking in-app</p>	<p>Available only in French Moderate one-time fee</p>
<p>Lanthier 24.99\$ once</p> 	<p>Internal medicine information and guidelines based on the 7th edition of the Lanthier pocketbook. Organized by diagnosis/clinical presentation</p>	<p>Free download and 7 day trial Allows for personal note taking in-app</p>	<p>Free 7-day trial 24.99 for full features In-App purchases</p>

<p>INESSS</p> 	<p>The Institute national d'excellence en santé et en services sociaux (INESSS) developed this guideline to antibiotic treatment of common medical and surgical pathologies</p>	<p>Free of charge Bilingual</p>	<p>English updates are less frequent Improvements needed for user interface</p>
App Name	Description	Pros	Cons
<p>MedCaIX 6.99\$ once</p> 	<p>Easy to use tool to determine medical condition scores, classifications and use of formulas in areas such as ICU, cardiology, anesthesiology, pediatrics and more</p>	<p>Free download Access to small number of formulas for free, 300 when purchased Formulas and uses explained Allows adding personal notes</p>	<p>In-App purchases Free version does not allow for unit conversion</p>
<p>MDOncall 13.99\$ once</p> 	<p>Useful tool for common issues and calls for inpatients and emergency consultations, organized by clinical presentation</p>	<p>Lists of appropriate investigations provided Well elaborated treatment algorithms</p>	<p>English only</p>
<p>IR Hemo Guide 2.99\$ once</p> 	<p>Tool for managing anticoagulation peri-interventionally (when to hold and resume), considering creatinine clearance, INR and procedure risks among other factors</p>	<p>Easy to use interface and decision trees Bilingual</p>	<p>Specific to interventional radiology procedures</p>

<p>UpToDate</p> 	<p>UpToDate is the leading clinical decision support resource with evidence-based clinical information – including drug topics and recommendations that clinicians rely on at the point of care.</p>	<p>Easy to use app version of website, stores continuing medical education credits, and saves page bookmarks and highlights</p>	<p>If not covered by Medical School, expensive annual fee</p>
<p>Guide AOD Free</p> 	<p>Guide for direct oral anticoagulation use, indications, doses, interactions, contraindications, peri and postoperative management and necessary follow up</p>	<p>Free off charge</p>	<p>French only</p>
<p>App Name</p>	<p>Description</p>	<p>Pros</p>	<p>Cons</p>
<p>RX Critique 14.99\$ annual</p> 	<p>This is an Intravenous Critical Drugs Guide intended as a reference for 60 of the most commonly used IV drugs on dosages, stability, precautions with use etc.</p>	<p>Now on 11th edition Free to download, restricted access</p>	<p>Annual fee of 14.99 for full access</p>
<p>RX Vigilance 260\$ annual</p> 	<p>A reference tool that features information on drugs and health. Provides relevant and up to date information from several dozen leading reference sources. Drug monographs, pharmacological profile analysis, and information on natural products and travel</p>	<p>Large library of medications, their indications, interactions and safety profiles Travel immunization requirements</p>	<p>Requires account, and annual fee for full access</p>

<p>Evernote 129.99\$ annual</p> 	<p>Allows writing and capturing ideas as searchable notes, checklists, to-do lists and compiles as notebooks Storage capacity for downloaded documents</p>	<p>Includes free trial to monthly personal planner Compatible with multiple devices Search function within saved notes Calendar syncing</p>	<p>Pricing for premium subscription Password protected, low security</p>
<p>Touch surgery free</p> 	<p>Surgical steps and animation for most common general surgery cases to help prepare for OR</p>	<p>Free and user friendly through mobile device with good animations</p>	<p>May not include every surgical procedure you will encounter</p>

Online Resources

Name	Description	Where to find
SAGES Surgical Fundamentals	Free access to didactic content for the SAGES' FLS, FES, FUSE, and Safe Cholecystectomy programs.	https://fesdidactic.org/
SAGES Online Video Library	Videos from SAGES annual meeting and some donated from members/surgeons to help educate their colleagues.	https://www.sages.org/video-search/
National Comprehensive Cancer Network	Up to date guidelines of management of cancer patients from screening and diagnosis, to treatment.	https://www.nccn.org/
TVAsurg	The Toronto Video Atlas of Surgery is a 3D-animation enhanced surgical video atlas.	https://pie.med.utoronto.ca/TVASurg/about/atlas/
Journal of Medical Insights (JOMI)	The Journal of Medical Insight (JOMI) publishes peer-reviewed videos with incision to closure instruction, key animations, and expert insight.	https://jomi.com/
Surgical Council on Resident Education	Provides high-quality educational materials and a structured program for self-learning on a wide variety of general surgery and subspecialty topics.	https://www.surgicalcore.org/
Behind the Knife (BTK)	Behind the Knife's mission is to revolutionize surgical education by creating timely, relevant, and engaging content delivered through an easily accessible multimodal educational platform.	https://app.behindtheknife.org/home



Wellness Resources

Need help now?

Crisis Hotline and local resources: 1.833.456.4566,
<https://www.crisisservicescanada.ca/en/>

School Resources

Each school has resident wellness resources available. To find what is available at your program check out below:

UBC	https://postgrad.med.ubc.ca/resident-wellness/
Alberta	https://www.ualberta.ca/medicine/resources/faculty-and-staff/support-wellness/postgraduate/committee.html
Calgary	https://cumming.ucalgary.ca/pgme/wellness/residents
Saskatchewan	https://medicine.usask.ca/residents/wellness.php
Manitoba	https://umanitoba.ca/faculties/health_sciences/medicine/wellness/index.html
NOSM	https://www.nosm.ca/residency-programs/resident-wellness/
Western	https://www.schulich.uwo.ca/medicine/postgraduate/current_learners/support_and_counselling.html
McMaster	https://pgme.mcmaster.ca/traineeaffairs/
Toronto	https://studentlife.utoronto.ca/department/health-wellness/
Queen's	https://meds.queensu.ca/academics/postgraduate/prospective/wellness
Ottawa	https://med.uottawa.ca/postgraduate/tools-and-resources/well-being-program-physicians-training
McGill	https://www.mcgill.ca/wellness-hub/
Montreal	https://medpostdoc.umontreal.ca/ressources-daide/
Laval	https://www.ulaval.ca/etudiants-actuels/ressources-daide
Sherbrooke	https://www.usherbrooke.ca/etudiants/sante-et-aide-a-la-personne/aide-a-la-vie-etudiante/



Dalhousie	https://medicine.dal.ca/departments/core-units/resident-affairs.html
Memorial	https://www.mun.ca/medicine/administrative-departments/learner-well-being-and-success/

In addition to resources offered through your school or program, you can also check out your provincial physicians association, provincial resident associations (see professional and resident associations section at the end of this document for links), RDOCs (<https://residentdoctors.ca/areas-of-focus/wellness/>), or the CMPA (<https://www.cmpa-acpm.ca/en/advice-publications/physician-wellness>).

Financial Wellness

The state of our finances also contributes to our sense of well-being. In a time of new commitments and responsibilities, don't hesitate to seek out support and guidance when it comes to managing your income and expenses. Here are some financial resources we've found to be helpful:

- Disability Insurance options for Canadian Medical Residents Youtube video
 - [Disability Insurance Simplified](#) by Dr. Stephanie Zhou MD, MSc, University of Toronto
- Financial Management: [Intro to Personal Finance: Residents & Medical Students](#) by Drs. Jane and Paul Healey, University of Toronto

Some schools also provide tailored financial services to their residents so we encourage you to check them out!

UBC	https://postgrad.med.ubc.ca/current-trainees/transition-into-practice/financial-management/
Alberta	https://www.ualberta.ca/anesthesiology-pain-medicine/programs/postgraduate-program/wellness-resources/financial.html
Calgary	https://www.ucalgary.ca/registrar/finances
Saskatchewan	https://medicine.usask.ca/students/undergraduate/student-affairs.php#iconbulletsFinancialResources
Manitoba	https://umanitoba.ca/faculties/health_sciences/medicine/wellness/mpas_financial.html
Western	https://iwellness.uwo.ca/financial/index.html
McMaster	https://studentsuccess.mcmaster.ca/category/financial-wellness/



Toronto	https://people.utoronto.ca/wellness-domain/financial-well-being/
McGill	https://www.mcgill.ca/schoolofmedicine-learneraffairs/ugme/financial-wellness



Research Funding

To obtain dedicated research time it is important to figure out who will pay your salary. As soon as you leave your regular residency for more than six months most provinces will consider that you are no longer providing a service that is worth being remunerated.

Many programs in Canada have internal funds to allow residents to pursue dedicated research. However, these funds can be limited. It is therefore important to apply for external funding. It is also a great way to validate the importance of your project and begin building your academic capital.

It will be worthwhile to discuss research with a research chair in your program. Some programs have a Surgeon Scientist Program, which may fund you as a resident to complete a M.Sc. or Ph.D. This is tied in with the accredited [Royal College of Physicians and Surgeons Clinician Investigator Program](#) at some schools.

Below are a few key sources of external funding. Keep in mind that there may be other specialty specific funding agencies not listed.

National and International Funding Sources

Canadian Institute of Health Research (CIHR)

- Masters and doctoral awards. Application deadline changes annually.
- Fellowship award. Application deadline changes annually.

Candidates must choose one or the other. Those with a strong research background and/or previous graduate work may be competitive for the Fellowship award. Those with little or no research experience are probably best suited to the Masters award.

Royal College of Physicians and Surgeons of Canada

Medical Education Research Grant

- Value = \$50,000 over a maximum of 3 years, maximum of \$25,000/year
- Up to \$10,000 in salary support
- Application deadline: March each year

Surgical Society Sources of Research Funding

Canadian Association of General Surgeons

Canadian General Surgery Foundation Operating Grant

- Value = Two grants of \$40,000 each for 1-2 years
- Application deadline: April each year

American College of Surgeons

Resident Research Scholarships

- Value = \$30,000 for 2 years limited to projects in Surgery or surgical specialties
- Applicants who hold a research award from another professional society are not eligible to apply

Association of Academic Surgeons

Research Trainee Research Fellowship Award

Society of University Surgeons

SUS Surgical Research Fellowship Award

For residents who have completed a minimum of two years of residency training and who plan on spending minimum of one year in research

- Value = \$30,000 award for 1 year
- Application deadline: May each year

Society of Gastrointestinal and Endoscopic Surgeons (SAGES)

[SAGES research grant](#)

- Value = up to \$30,000 x 1 year
- To encourage new ideas in endoscopic and gastrointestinal surgery
- Application deadline November each year

Canadian Society of Colon and Rectal Surgeons

[Research Operating Grant](#)

- Value = varies by year, up to 10 000\$ annually
- Application deadline: June each year

Provincial grant sources

There are many provincial grants available, however for the most accurate and timely information you may wish to seek out your Research/Program Director.

Online Resources for Grants and Proposal Writing

Canadian Institutes of Health Research: [Guidebook for New Principal Investigators](#)

National Institutes of Health [Grant Writing Tip Sheets](#)

McMaster University: [Elements of a Successful Proposal](#)

Western University: [Grant Writing Resources](#)

Other Funding Resources

Canada Grant Watch

<https://canada.grantwatch.com/cat/30/science-grants.html>

Physicians' Services Incorporated, for Ontario Residents

<https://www.psifoundation.org/funding-programs/>

Canadian Society for Clinical Investigation

<https://csci-scrc.ca/awards/csci-resident-research-awards/>

NSERC- Natural Sciences and Engineering Research Council of Canada

https://www.nserc-crsng.gc.ca/NSERC-CRSNG/Eligibility-Admissibilite/students-etudiants_eng.asp

Conferences

Conferences are a great opportunity to present research, gather information on the latest technology and guidelines, and of course meet up with friends from medical school and network with surgical colleagues across Canada and internationally.

Here are a variety of conferences to check out. Be sure to ask for your conference leaves early!

CAGS: Canadian Surgical Forum (September 25-28th 2024, Winnipeg, MB)

CAPS: Canadian Association of Paediatric Surgeons (September 12-14th 2024, Halifax, NS)

ACS: American College of Surgeons Clinical Congress (October 19-22th, 2024, San Francisco, CA)

Critical Care Canada Forum (November 17-20th 2024, Toronto, ON)

STS: Society of Thoracic Surgeon 60th Annual Meeting (January 27-29, 2024, San Antonio, TX)

AHPBA: Americas Hepatico-Pancreatico-Biliary Association (March 20-23th 2025, Miami, FL)

SSO: Society of Surgical Oncology (March 27-29th, 2025, Tampa, FL)

Trauma, Critical Care & Acute Care Surgery (April 14-16th 2025, Las Vegas, Nevada)

SAGES: Society of Gastrointestinal and Endoscopic Surgeons (March 12-15th 2025, Long Beach, CA)

AAES: American Association Endocrine Surgeons (2025, Dates TBD, Milwaukee, WI)

APSA: American Pediatric Surgery Association (May 7-10th, 2025, Montreal, QC)

ASCRS: American Society of Colon & Rectal Surgeons (May 10-13th 2025, San Diego, CA)

CAGS maintains an [event calendar](#) which includes these events and more.

Progressing in Residency

General surgery programs in Canada transitioned to a Competence by Design (CBD) model in July 2020.

This model for education is based on specialty training being broken down into distinct stages with clear learning objectives for each, called [Entrustable Professional Activities](#) (EPAs). This is a combination of time-based and outcomes-based learning. During each stage residents are observed as they work towards achieving their EPAs and receive targeted feedback. A committee for your program is responsible for reviewing resident progress at multiple points throughout the year and they give recommendations on resident progression to subsequent stages as well as address any areas that may require additional attention from the resident or support from the program in order to achieve.

As a junior resident, you will work on two sets of EPAs set out by the Royal College - General Surgery and Surgical Foundations programs. These years focus on EPAs under the *Transition to Disciple* and *Foundations of Disciple* stages. In upper years, the *Core* EPAs make up the vast majority of general surgery training. In the final year, *Transition to Practice* EPAs aim to prepare residents for their transition to staff positions. EPA guides are updated by the Royal College as programs work through this transition period to CBD learning. Year to year the EPAs residents are expected to achieve may differ due to these changes so ensure you know which version of EPAs you are expected to complete. Here is an [EPA tracker](#) that reflects the Surgical Foundations Version 2.0 (2021) and General Surgery Version 1.0 (2020) EPAs.

For more information on CBD learning: <https://www.royalcollege.ca/rcsite/cbd/competence-by-design-cbd-e>.

For EPA guides in general surgery and surgical foundations: <https://www.royalcollege.ca/rcsite/documents/cbd/epa-observation-templates-e>

Below is a flexible guideline of expectations for residents throughout the years. Please note the level of responsibility for each operation is extremely rotation/hospital/university dependent. By your PGY 5 year, you would be expected to be the main surgeon in most general surgery cases with staff assistance as needed. This would not be the expectation however for subspecialty and fellowship-level cases.

OPERATION	PGY 1-2	PGY 3-4	OPERATION	PGY 1-2	PGY 3-4
Exploratory Laparotomy	Assist/ Surgeon	Surgeon	Axillary LN dissection	Assist/ Surgeon	Surgeon
Exploratory Laparoscopy	Assist/ Surgeon	Surgeon	Thoracotomy	Surgeon	Surgeon
Laparoscopic Appendectomy	Surgeon	Surgeon	Lung resection	Assist/ Surgeon	Assist/ Surgeon
Open Appendectomy	Assist/ Surgeon	Surgeon	Vascular reconstruction	Assist	Assist/ Surgeon
Laparoscopic Cholecystectomy	Surgeon	Surgeon	Pelvic exenteration	Assist	Assist/ Surgeon
Open Cholecystectomy	Assist/ Surgeon	Surgeon	Low Anterior Resection	Assist/ Surgeon	Surgeon
Umbilical Hernia Repair	Surgeon	Surgeon	Abdominoperineal resection	Assist/ Surgeon	Assist/ Surgeon
Laparoscopic inguinal hernia repair	Assist/ Surgeon	Surgeon	Liver resection	Assist/ Surgeon	Assist/ Surgeon
Open inguinal hernia repair	Surgeon	Surgeon	Whipple Procedure	Assist/ Surgeon	Assist/ Surgeon
Lysis of Adhesions	Surgeon	Surgeon	Common Bile Duct Exploration	Assist	Assist/ Surgeon
Small bowel resection/ reanastomosis	Assist/ Surgeon	Surgeon	Thyroidectomy	Assist/ Surgeon	Surgeon
Colectomy (hemi/STC)	Assist/ Surgeon	Surgeon	Parathyroidectomy	Assist	Assist/ Surgeon
Breast Lumpectomy	Surgeon	Surgeon	Parotidectomy	Assist	Assist/ Surgeon
Mastectomy	Assist/ Surgeon	Surgeon	Transplant	Assist	Assist/ Surgeon

National Exams

LMCC II

The Medical Council of Canada no longer administers the LMCC Part II exam as it was removed as a requirement after the COVID-19 pandemic.

Surgical Foundations

Surgical Foundations is a program that provides a common curriculum in the fundamental skills of surgery for residents in the majority of surgical specialties, concurrent with training in their surgical specialty. At most schools this takes the form of a weekly academic half day throughout PGY1 and into PGY2 leading up to the Surgical Foundations exam.

Exam information and content: The is administered by the Royal College and is in written-only format. The content of the exam is based on a [blueprint](#) that reflects the competencies in surgical foundation. A score of 70% is required to pass, The format of the exam consists of 2 multiple choice papers with 125-150 questions each, written in 3 hours for each paper. Surgical residents must successfully complete this exam in order to sit for the surgical specialty exam.

Exam timing: Typically written in the Fall of your PGY2 year (approximately 12-15 months after starting residency). To sit this exam in your PGY2 year you must apply to the Royal College more than 12 months in advance you will be sent instructions on how to apply. You first apply to confirm your eligibility (Deadline: August 31 for the following Fall exam; Fee: \$730). You will then receive an email in March of your exam year confirming your eligibility with the Royal College and with instructions on registering for the exam (Deadline: April 15 2024 for the Fall exam; Fee: \$825). There are significant late fees to be sure not to miss the deadlines (timings are subject to change, follow instructions sent to you by email)

Areas of knowledge assessed by the exam:

Medical problems in the surgical patient, and pre-OP preparation	10-15%
Conduct of a surgical procedure	10-15%
Postoperative care	5-10%
Wound healing and management	5-10%

Hemostasis and use of blood products	5-10%
Fluid management and acid-base problems	5-10%
Hemodynamics, oxygen transport, shock	5-10%
Metabolic and nutritional care	0-5%
Legal and ethical responsibilities	0-5%
Biostatistics, epidemiology and critical appraisal	5-10%
Trauma and burns	5-10%
Sepsis and surgical infections	5-10%
Transplantation and implantation	0-5%
Cancer	0-10%
Safety principles - patients and practitioners	0-5%
Patient evaluations, imaging and lab tests	0-5%

Officially recommended study resources:

- Sabiston textbook of surgery
- Schwarts text book of surgery
- ATLS = student course manual (10th edition or later)
- Canadian blood services professional guided

Most residents chose between Sabiston’s and Schwart’s. “The absite Review: Fiser” is another favorite for relevant topics due to its concise nature.

It is recommended to Form a study group and review practice questions together. Many upper year residents will have practice questions available for you to use.

[CanadaQBank](#) is another option for practice questions for a fee.

Additional information about the format of the exam can be found on the [Royal College website](#).

CAGS Practice Exam

The CAGS practice exam is an annual national practice exam taken by all General Surgery residents. It is a multiple-choice exam to help prepare for the written portion of the Royal College exam in PGY5. The exam also acts as a tool to measure resident progress throughout training. Your own marks may be compared to your cohort within your program and nationally or compared year to year as you progress.

<https://cags-accg.ca/education/cags-exam-preparation/>

Every year CAGS arranges a webinar series to go over the previous exam with a panel of experts to discuss answers. This is good way to prepare and learn from the exam, can be found in learning and resource centre, under [CAGS resident corner](#).

Royal College Exam

This is the final examination prior to becoming a fully qualified general surgeon in Canada. This exam includes two parts: a written exam and an applied (oral) exam. Follow updates on the Royal College website as scheduling is set to change in upcoming years.

The written exam is a multiple-choice test. There are two three-hour sections with 100-110 questions in each. The applied exam is an oral exam. A total of eight fifteen-minute stations will be set up in which you will be given a clinical scenario and examiners will ask questions related to this scenario. They will not provide feedback as you go and may interrupt you to move the scenario along or gain a better understanding of your answer. You must pass the written exam in order to sit the oral exam (pass mark 70%).

To apply for continued training assessment:

<https://www.royalcollege.ca/rcsite/credentials-exams-e>

To register for the exam: Details on registration will be sent out via email in the Fall prior to the exam.

Preparation: This exam covers all knowledge that is expected of a general surgeon practicing in Canada. A Competencies document (previously called Objectives of Training) and Training Experiences document can be found on the [Royal College website](#).

Electives

Below you will find helpful information about how to arrange electives at schools across the country. Many residents take this time as a way to try out possible job opportunities for after graduation or to put their best foot forward prior to fellowships applications.

When planning for your electives, it is important to remember that you will need to apply for a license with the college of physicians and surgeons in the province you will be practicing in for the elective. Give yourself enough time to arrange this prior to the start of your elective.

University of British Columbia

- Program Directors: Dr. Tracy Scott, Dr. Ahmer Karimuddin
- Program administrator: Luiza Shamkulova (luiza.shamkulova@ubc.ca)
- Website: <https://surgery.med.ubc.ca/divisions/general-surgery/>
- Fellowship information: <https://surgery.med.ubc.ca/education/postgraduate-education/general-surgery/>
- How to arrange an elective: <https://postgrad.med.ubc.ca/prospective-trainees/postgraduate-visiting-electives/>

University of Alberta

- Program Directors: Dr Michael McCall
- Program Administrator: (gsurgpg@ualberta.ca)
- Website: <https://www.ualberta.ca/surgery/divisions/general-surgery/index.html>
- Fellowship information: <https://www.ualberta.ca/surgery/divisions/general-surgery/fellowship.html>
- How to arrange an elective: All electives must go through the PGME office. [athttps://www.ualberta.ca/surgery/programs/residency/electives.html](https://www.ualberta.ca/surgery/programs/residency/electives.html)

University of Calgary

- [Program Director: Dr. Ryan Rochon](#)
- [Program Administrator: Erin Layton \(Erin.Layton@albertahealthservices.ca\)](#)
- [Website: https://cumming.ucalgary.ca/departments/surgery/sections/general-surgery/education](https://cumming.ucalgary.ca/departments/surgery/sections/general-surgery/education)

- Fellowship Additional information: <https://cumming.ucalgary.ca/departments/surgery/education/graduate-education/fellowship-programs>
- How to arrange an elective: <https://cumming.ucalgary.ca/pgme/canadian/visiting-electives>

University of Saskatchewan

- Program Director: Dr. Gavin Beck
- Program Administrator: Karen Bader (karen.bader@usask.ca)
- Website: <https://medicine.usask.ca/department/clinical/surgery-divisions/general.php>
- How to arrange an elective: <https://medicine.usask.ca/contacts/incoming-pgme-electives.php>

University of Manitoba

- Program director: Dr. Justin Rivard
- Program Administrator: Cathay Hamilton (gen.surg@umanitoba.ca)
- Website: https://umanitoba.ca/faculties/health_sciences/medicine/units/surgery/
- Fellowship information: <https://umanitoba.ca/medicine/postgraduate-medical-education/pgme-fellowships>
- How to arrange an elective: email surg.fellowships@umanitoba.ca for more information

Northern Ontario School of Medicine

- Program Director: Dr. Andrew Smith
- Program administrator: Hailey Masiero (hmasiero@nosm.ca)
- Website: <https://www.nosm.ca/generalsurgery/>
- How to arrange an elective: Contact program coordinator. <https://www.nosm.ca/education/medical-electives/>

University of Western Ontario

- Program Director: Dr. Julie Ann Van Koughnett
- Program administrator: Rachel Liston (Rachel.Liston@lhsc.on.ca)
- Website: <https://www.schulich.uwo.ca/generalsurgery/>

- Fellowship information: <https://www.schulich.uwo.ca/generalsurgery/education/fellowship/index.html>
- How to arrange an elective: https://www.schulich.uwo.ca/medicine/postgraduate/future_learners/visiting_resident_electives/index.html

McMaster University

- Program director: Dr. Ilun Yang
- Program administrator: Katie Niblock (niblock@mcmaster.ca)
- Website: <https://surgery.mcmaster.ca/divisions/general-surgery>
- Fellowship information: <https://surgery.mcmaster.ca/divisions/general-surgery/education/fellowship>
- How to arrange an elective: <https://pgme.mcmaster.ca/apply/electives-application/>

University of Toronto

- Program director: Dr. Savtaj Brar
- Program Administrator: Madeline Ng (ensurg.residency@utoronto.ca)
- Website: <https://surgery.utoronto.ca/residency-division-general-surgery>
- Fellowship information: <https://surgery.utoronto.ca/fellowship-program>
- How to arrange an elective: Contact the PGME electives program at <https://electives.pgme.utoronto.ca/pgme/electives/>

Queen's University

- Program Director: Dr. Sarah Jones and Dr. David Robertson
- Program administrator: Sierra Slegtenhorst (sierra.slegtenhorst@kingstonhsc.ca)
- Website: <https://surgery.queensu.ca/postgraduate/general-surgery>
- Fellowship information: <https://surgery.queensu.ca/postgraduate/fellowship-opportunities>
- How to arrange an elective: <https://meds.queensu.ca/academics/postgraduate/prospective/admission/postgraduate-electives>

University of Ottawa

- Program Director: Dr Maher Mater
- Program administrator: Abby Salman absalman@toh.ca
- Website: <https://www.uottawagensurg.com/>
- Fellowship information: <https://med.uottawa.ca/surgery/divisions/general-surgery/fellowships>
- How to arrange an elective: <https://med.uottawa.ca/postgraduate/electives>

McGill University

- Program Director: Dr. Sender Liberman; Assistant PD: Dr. Kate McKendy
- Program administrator: Rita Piccioni at (rita.piccioni@muhc.mcgill.ca)
- Website: <https://www.mcgill.ca/generalsurgery/about>
- Fellowship information: <https://www.mcgill.ca/generalsurgery/education/fellowships>
- How to arrange an elective: <https://www.mcgill.ca/pgme/electives>

University of Montreal

- Program Director: Dr Frank Vandembroucke
- Program administrator: Yamina Bachi (ybachi.hmr@ssss.gouv.qc.ca)
- Website: <https://chirurgie.umontreal.ca/etudes/>
 - Fellowship information: <https://chirurgie.umontreal.ca/etudes/d-e-s/>
 - Fellowship conditions: https://deptmed.umontreal.ca/wp-content/uploads/sites/7/2011/08/demarches_statut_moniteur_clinique.pdf
- How to arrange an elective: contact the program administrator or department for more information

University of Sherbrooke

- Program director: Dr Émilie Comeau
- Program administrator: Lise Gaudy (chirurgieprogramme-fmss@usherbrooke.ca)
- Website: <https://www.usherbrooke.ca/dep-chirurgie/>
- How to arrange an elective: contact the program administrator or department for more information

Laval University

- Program director: Dr Mony Chhiv
- Program administrator: (programmesdeptchirurgie@fmed.ulaval.ca)
- Website: <https://www.fmed.ulaval.ca/programmes-detudes/etudes-en-medicine/residences-etudes-medicales-postdoctorales/residence-en-chirurgie-generale/>
- Fellowship information: <https://www.fmed.ulaval.ca/programmes-detudes/etudes-en-medicine/fellowships-formations-complementaires/>
- How to arrange an elective: contact the program administrator or department for more information

Dalhousie University

- Program Director: Dr. Lucy Helyer
- Program Administrator: Chantelle Brown (ChantelleM.Brown@nshealth.ca)
- Website: <https://medicine.dal.ca/departments/department-sites/surgery/divisions/general-surgery/education/residency.html>
- Fellowship information: <https://fellowshipcouncil.org/fellowship-programs/>
- How to arrange an elective: <https://medicine.dal.ca/departments/core-units/postgraduate/visiting-doctor-electives.html>

Memorial University of Newfoundland

- Program director: Dr. Alex Mathieson
- Program Administrator: Stacy Hicks (stacy.hicks@med.mun.ca)
- Website: <https://www.mun.ca/medicine/surgery/programs/postgraduate/general-surgery-residency-program/>
- How to arrange an elective: <https://www.med.mun.ca/PGME/Visiting-Residents-Electives-Observerships/Electives.aspx>

Global Surgery

Many universities have established international or global surgery offices with the goal of strengthening and empowering health care systems in low-resource settings in Canada and around the world. Resident involvement in these areas may take on a variety of forms including research projects, electives, and more. Below are some online resources available to help you achieve those goals.

Key Websites

- CAGS Global Surgery Committee <https://cags-accg.ca/about/cags-committees/committee/international-surgery-committee/>
 - Global Surgery Offices: <https://cags-accg.ca/global-surgery/>
 - Additional resources can be found here about global surgery offices at universities across the country
- Canadian Global Surgery Trainees Alliance
 - <https://www.cgsta.org/>
- [Bethune Roundtable in Global Surgery Conference](#)
 - An annual interdisciplinary meeting by the Canadian Network of International Surgery aimed at addressing the challenges of providing accessible, high-quality surgical care to marginalized patients in low-resource settings
- Canadian Conference on Global Health (October 16-18, 2023, Ottawa, ON)
 - <https://cagh-acsm.org/en/events/2023-canadian-conference-global-health>

Additional resources

- ACS Operation Giving Back: <https://www.facs.org/oqb>
 - Provides information to help surgeons and surgical residents find and organize volunteer opportunities abroad.
- Canadian Network for International Surgery (CNIS): <https://www.cnis.ca/>
 - CNIS believes in sharing knowledge, expertise and experience to promote lasting and sustainable improvements in health and safety in the developing world.
 - Runs programs in eight African countries that focus on surgical skills teaching, injury prevention, and safety promotion
 - to develop stronger networks for collaboration, education and advocacy across Canada

Fellowships

General Surgery residency can be the first step towards a variety of fellowship opportunities.

General Surgery fellowship programs in Canada and the US can be accredited through a variety of bodies including: Royal College of Physicians and Surgeons of Canada (RCPSC), Accreditation Council for Graduate Medical Education (ACGME), subspecialty organizations, or from post-secondary institutions.

Fellowship areas that general surgeons may choose pursue following residency include, but are not limited to:

- Acute Care Emergency Surgery
- Bariatric Surgery
- Breast Surgery
- Colorectal Surgery
- Critical Care/ Intensive Care
- Endocrine Surgery
- Endoscopy (advanced and therapeutic techniques)
- Head and Neck Surgical Oncology
- Hepatopancreaticobiliary (HPB)
- Minimally Invasive Surgery
- Pediatric Surgery
- Surgical Oncology
- Thoracic Surgery
- Transplant Surgery
- Trauma Surgery
- Vascular Surgery

The application process for fellowship programs can vary significantly between and within subspecialties. It is important to start looking into programs you are interested in well in advance to ensure that you are aware of the application process and timeline. Applications may be run through a match service such as the Canadian Residency Matching System (CaRMS), National Resident Matching Program (NRMP), or The Fellowship Council, or they may be submitted directly to individual programs.

Below you will find information about fellowship training opportunities available within Canada. We have attempted to compile the most up to date information possible but

realize this list is likely incomplete and information may change more frequently than this list is updated.

Fellowships by Subspecialty

NOTE: Most dates listed below are taken from either the 2023-2024 application cycle and may vary year to year. Please check program pages regularly for up to date information.

Breast/ Breast Surgical Oncology

- Application: Varies by program. Some are directed to individual programs while others are through the Society of Surgical Oncology (www.surgonc.org)

School	Program Length	Application deadline	Program Information
Western	1 year	April 1	https://www.schulich.uwo.ca/generalsurgery/education/fellowship/breast_fellowship.html
McMaster	1 year	August 8th	Contact Administrative Assistant: Dr. Elyse Cornele - cornele@mcmaster.ca
Toronto	1 year	Jan 20th	https://surgery.utoronto.ca/breast-surgical-oncology-fellowship-program
Ottawa	1 year		Oncoplastic and research breast surgical oncology https://med.uottawa.ca/surgery/divisions/general-surgery/clinical-programs/breast-surgical-oncology
Albera	1 year	Sep 1	Oncoplastic breast surgical oncology https://www.ualberta.ca/surgery/divisions/general-surgery/edmonton-breast-fellowship-call-for-application-2025-26.pdf

Colorectal

- Application: Transitioning to become through CARMs in Canada. Through NRMP in the US (www.nrmp.org)
- Additional information:
 - American Society of Colon & Rectal Surgeons (www.fascrs.org)
 - Canadian Society of Colon and Rectal Surgeons (www.cscrs.ca)

School	Program Length	Application deadline	Program Information
UBC	2 years		https://surgery.med.ubc.ca/education/postgraduate-education/colorectal-sph/
Calgary	2 years		https://cumming.ucalgary.ca/departments/surgery/sections/general-surgery/education/colorectal-surgery-residency
Manitoba	2 years		https://umanitoba.ca/medicine/department-surgery/colorectal-surgery-residency#:~:text=The%20training%20program%20for%20Colorectal,and%20one%20dedicated%20research%20year.
Western	1 year		https://www.schulich.uwo.ca/generalsurgery/education/fellowship/colorectal_fellowship.html
Toronto	2 years		https://surgery.utoronto.ca/colorectal-surgery-program
Ottawa	2 year		https://www.uottawa.ca/faculty-medicine/surgery/divisions/general-surgery
McGill	2 years		https://www.mcgill.ca/colorectal/
Montreal	1-2 years		https://chirurgie.umontreal.ca/etudes/d-e-s/d-e-s-en-chirurgie-colorectale/
Queen's	1 year		Advanced MIS colorectal surgery (must have completed prior colorectal or surgical oncology fellowship) https://surgery.queensu.ca/sites/surgery/files/inline-files/Advanced%20MIS%20Colorectal%20Fellowship%202024%202025.pdf

Critical Care

- Application: CaRMS (www.carms.ca)
- Additional information: Canadian Critical Care Society (<https://canadiancriticalcare.org/Residency-Programs>)

School	Program Length	Application deadline	Program Information



UBC	2 years	August 22	https://ubccriticalcaremedicine.ca/critical-care-fellowship-program/
Alberta			https://www.ualberta.ca/critical-care/education/fellowship-training.html
Calgary			https://cumming.ucalgary.ca/departments/critical-care/education/critical-care-fellows
Manitoba			https://umanitoba.ca/medicine/department-internal-medicine/critical-care-medicine-residency
Western			https://www.schulich.uwo.ca/criticalcare/education/Critical%20Care%20Western%20Training%20Program.html
McMaster			https://anesthesia.healthsci.mcmaster.ca/education/critical-care-program/
Toronto			https://criticalcare.utoronto.ca/about-program-0
Queen's			https://criticalcare.queensu.ca/academics/residency
Ottawa			https://www.critcaremed-ottawa.org/
McGill			https://www.mcgill.ca/criticalcare/fellows
Montreal			https://deptmed.umontreal.ca/etudes/enseignement-medical-post-doctoral/medecine-de-soins-intensifs-adultes/
Laval			https://www.fmed.ulaval.ca/programmes-detudes/etudes-en-medecine/residences-etudes-medicales-postdoctorales/residence-en-medecine-de-soins-intensifs-chez-ladulte/presentation/
Sherbrooke			https://www.usherbrooke.ca/dep-medecine/programmes/les-programmes-de-fellowship/programme-de-fellowship-soins-intensifs-a-visee-communautaire
Dalhousie	https://medicine.dal.ca/departments/department-sites/critical-care/education/subspecialty-training.html		



Endocrine Surgery

- Application and additional information: American Association of Endocrine Surgeons match (www.endocrinesurgery.org)

School	Program Length	Application deadline	Program Information
Calgary	1 year	April 22	https://cumming.ucalgary.ca/sites/default/files/teams/276/general-surgery-endocrine.pdf
Toronto	1 year		https://surgery.utoronto.ca/endocrine-surgery-fellowship-program

Endoscopy

- Application: Directed to individual programs in Canada.
- Most advanced/therapeutic endoscopy programs are run by the department of gastroenterology, however some programs are open to both GI and general surgery residents, others require a completed GI fellowship
- Additional endoscopic training courses: SEE Program (<https://www.cag-acg.org/education/see-program>)

School	Program Length	Application deadline	Program Information
Calgary	1-2 years	March 31st	http://www.calgarygi.com/index.php?mode=webpage&id=595
Western	1 year	August 31 st	https://www.schulich.uwo.ca/gastroenterology/education/advanced_luminal_endoscopy_fellowship.html
McMaster	1 year	Oct 1st	https://medicine.healthsci.mcmaster.ca/divisions/gastroenterology/gastroenterology-education/gastroenterology-advanced-endoscopy-fellowship/#:~:text=The%20one%2Dyear%20Advanced%20Endoscopy,in%20biliary%20and%20pancreatic%20disorders.

Head and Neck Oncology

- Application: Varies by program. Some are directed to individual programs while others are through the American Head and Neck Society match (www.ahns.info)

- Note: Most H+N surgery programs are run by ENT departments but may accept applicants from general surgery programs.

School	Program Length	Application deadline	Program Information
Alberta	1 year	March 1	https://www.ualberta.ca/surgery/divisions/otolaryngology-head-and-neck-surgery/otolaryngology-head-and-neck-surgery-fellowship.html
Manitoba	1 year	May 31	https://umanitoba.ca/medicine/department-surgery/head-and-neck-surgical-oncology-fellowship
Toronto	1-2 years	March 1	https://otolaryngology.utoronto.ca/head-neck-surgical-oncology-fellowship

Hepatopancreatobiliary

- Application: Varies by program. Some are directed to individual programs others are through The Fellowship Council (www.fellowshipcouncil.org)
- There may be some overlap between this section and the Transplant Surgery section.
- Additional information:
 - Americas HepatoPancreato Biliary Association (www.ahpba.org)
 - International Hepato-Pancreato-Biliary Association (www.ihpba.org)
 - Canadian Hepato-pancreato-biliary association (<https://www.chpba.ca/education>)

School	Program Length	Application deadline	Program Information
UBC	2 years	Feb 8	<i>HBP and liver transplant fellowship.</i> https://surgery.med.ubc.ca/fellowships/hepatopancreato-biliary-fellowship/our-program-in-numbers/ Abdominal organ transplant fellowship; https://surgery.med.ubc.ca/fellowships/ubc-abdominal-transplant-fellowship/abdominal-transplant-fellowship-program-information/
Alberta	2 year		<i>Hepatobiliary (HPB) Surgery and Transplantation</i> https://www.ualberta.ca/surgery/divisions/general-surgery/fellowship.html https://www.ualberta.ca/alberta-transplant-institute/index.html
Calgary	2 year	Feb 8	https://cumming.ucalgary.ca/departments/surgery/education/graduate-education/fellowship-programs



Western	2 years	Feb 8	<i>HBP and transplant (kidney and liver) fellowship</i> https://www.schulich.uwo.ca/generalsurgery/education/fellowship/hpb.html
Toronto.	2 years	Feb 8	<i>Separate HBP, HPB/Surg Onc and transplant streams.</i> https://www.torontohpbfellowship.com/
Ottawa	2 years	Feb 8	https://www.fellowshipcouncil.org/directory-of-fellowships/display-listing/?match=1&pid=1527
McGill	2 years	Feb 8	<i>HPB + Transplant (liver, pancreas, and kidney)</i> https://www.mcgill.ca/generalsurgery/education/fellowships/transplantation-hepatobiliary-pancreatic-surgery-fellowship
Mcgill	1 year		Advanced MIS HPB surgery https://www.mcgill.ca/generalsurgery/files/generalsurgery/general_surgery_fellowship.pdf
Montreal	1-2 years		https://chirurgie.umontreal.ca/etudes/d-e-s/d-e-s-en-chirurgie-hepatobiliaire-et-pancreatique/
Dalhousie	2 years	Feb 8	<i>HBP and transplant (liver and pancreas)</i> https://www.fellowshipcouncil.org/directory-of-fellowships/display-listing/?match=1&pid=1337

Minimally Invasive Surgery/Bariatric

- Application: Varies by program. Some are directed to individual programs while others are through The Fellowship Council (www.fellowshipcouncil.org)
- Note: Some programs have a bariatric focus while others are general MIS approaches to a wide variety of surgical conditions. Some programs also allow for the option to incorporate advanced endoscopic skills into fellowship training.
- Additional information: Society of American Gastrointestinal and Endoscopic Surgeons (www.sages.org)

School	Program Length	Application deadline	Program Information
UBC	1 year	Jan 15	Advanced MIS (RGH) https://surgery.med.ubc.ca/advanced-mis-fellowship/ Advanced MIS + Endoscopic (RCH) https://sls.org/sls-fellowship-programs/sls-fellowship-in-advanced-minimally-invasive-and-endoscopic-techniques-in-general-and-colorectal-surgery/



Alberta	1 year	Jan 15	Application: https://www.ualberta.ca/surgery/media-library/divisions/gensurg/education/camis-fellowship-guidelines-march-2013-lm.pdf Curriculum: https://www.ualberta.ca/surgery/media-library/divisions/gensurg/education/advanced-mis-baritric-curriculum-aug-16-2010-lm.pdf
Calgary	1 year	Sept 1	https://cumming.ucalgary.ca/departments/surgery/education/graduate-education/fellowship-programs
Manitoba	1 year		https://umanitoba.ca/medicine/department-surgery/minimally-invasive-surgery-mis-fellowship
Western	1 year	Jan 15	https://www.schulich.uwo.ca/generalsurgery/education/fellowship/advanced_gi_minimally_invasive_robotic_and_bariatric_surgery.html
McMaster	1 year	Jan 15	CMAS Fellowship https://www.cmas.ca/education/fellowships
Toronto	1-2 years	Jan 15	https://surgery.utoronto.ca/minimally-invasive-surgery-program
Queen's	1 year	Jan 15	Bariatrics focus, some UGI https://surgery.queensu.ca/postgraduate/fellowship-opportunities
Ottawa	1 years	Jan 15	Bariatrics focus, some UGI https://www.fellowshipcouncil.org/directory-of-fellowships/display-listing/?match=1&pid=1144
McGill	1 year	Jan 15	Separate MIS and Bariatric streams. https://www.mcgill.ca/generalsurgery/education/fellowships/minimally-invasive-surgery-fellowship https://www.mcgill.ca/generalsurgery/education/fellowships/minimally-invasive-bariatric-surgery-fellowship
Montreal	1-2 years		https://chirurgie.umontreal.ca/etudes/d-e-s/d-e-s-en-chirurgie-bariatrique-laparoscopique-et-robotique/
Laval	1-2 years	Jan 15	https://www.fmed.ulaval.ca/programmes-detudes/etudes-en-medecine/fellowships-formations-complementaires/fellowship-en-chirurgie-bariatrique-et-metabolique/presentation/



Dalhousie	1 year	Jan 15	Endoscopy, Bariatrics and MIS https://www.fellowshipcouncil.org/directory-of-fellowships/display-listing/?match=1&pid=1263
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Pediatric Surgery

- Application: National Residency Matching Program for North American fellowships (<https://www.nrmp.org/fellowship-applicants/participating-fellowships/pediatric-surgery-match/>)
- Additional information:
 - Canadian Association of Paediatric Surgeons (www.caps.ca)
 - American Pediatric Surgical Association (<https://apsaped surg.org/>)

School	Program Length	Application deadline	Program Information
UBC	2 years	Dec 1	https://surgery.med.ubc.ca/education/postgraduate-education/pediatric-surgery/
Calgary			https://cumming.ucalgary.ca/departments/surgery/sections/pediatric-surgery/education
Manitoba			https://umanitoba.ca/medicine/department-surgery/pediatric-surgery-fellowship
McMaster			https://surgery.healthsci.mcmaster.ca/divisions/pediatric-surgery/education/fellowship/
Toronto			http://www.sickkids.ca/GeneralSurgery/Education-and-training/index.html
Ottawa			https://med.uottawa.ca/surgery/divisions/paediatric-surgery
McGill			https://www.mcgill.ca/pgme/files/pgme/pediatric_surgery_resprogram.pdf
Montreal			https://enseignement.chusj.org/fr/Etudiants-en-stage/Stages-en-medecine/Moniteurs-cliniques/Fellowship-en-chirurgie-pediatrique



Dalhousie			https://medicine.dal.ca/departments/department-sites/surgery/divisions/pediatric-surgery/education/pediatric-surgery-fellowships.html
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Surgical Oncology

- Applications: National Residency Matching Program (NMRP) match (<https://www.nrmp.org/>)
- Additional information: Society of Surgical Oncology match (www.surgonc.org)

School	Program Length	Application deadline	Program Information
UBC	2 years	Jan 17	https://surgery.med.ubc.ca/fellowships/complex-general-surgical-oncology/
Calgary	2 years		https://www.surgonc.org/fellows/surgical-oncology-fellowships/program-list/university-of-calgary/
Toronto	2 years		<i>Surgical Oncology and Surgical Oncology/HBP streams</i> https://surgery.utoronto.ca/complex-general-surgical-oncology-program
Ottawa	2 years		https://www.surgonc.org/fellows/surgical-oncology-fellowships/program-list/university-of-ottawa/
McGill	2 years		https://www.mcgill.ca/oncology/education-training/postgraduate-medical-education/surgical-oncology
Dalhousie	1 year	Feb 19	Peritoneal oncology program https://medicine.dal.ca/departments/department-sites/surgery/divisions/general-surgery/education/PeritonealOncologyFellowship.html

Thoracics

- Applications: Directed to individual programs.
- Additional information:
 - Canadian Association of Thoracic Surgeons (www.canadianthoracicsurgeons.ca)
 - American Association of Thoracic Surgeons (www.aats.org)

School	Program Length	Application deadline	Program Information
UBC	2 years	Jan 1	https://surgery.med.ubc.ca/education/postgraduate-education/thoracic-surgery/
Calgary	2 years	Dec 30	https://cumming.ucalgary.ca/departments/surgery/sections/thoracic-surgery/education
Manitoba	2 years	Jan 1	https://umanitoba.ca/medicine/department-surgery/thoracic-surgery-fellowship
Western	2 years	Jan 1	https://www.lhsc.on.ca/thoracic-surgery/thoracic-surgery-training-research
McMaster	2 years	Jan 1	https://surgery.healthsci.mcmaster.ca/divisions/thoracic-surgery/#tab-content-education
Toronto	6 months - 2 years	Jan 1	<i>Thoracic transplant fellowship also available.</i> https://surgery.utoronto.ca/fellowships-division-thoracic-surgery
Ottawa	2 years	Jan 1	https://med.uottawa.ca/surgery/divisions/thoracic-surgery
McGill	1-2 years	Sept 1	<i>Thoracic and upper GI surgical oncology</i> https://www.mcgill.ca/thoracic/fellowship
Montreal	1-2 years		https://medpostdoc.umontreal.ca/programmes/chirurgie-thoracique/
Dalhousie	1-2 years		https://medicine.dal.ca/departments/department-sites/surgery/divisions/thoracic-surgery/education.html
Queens			Newly established 2023 https://surgery.queensu.ca/postgraduate/fellowship-opportunities
Alberta			https://www.ualberta.ca/surgery/divisions/thoracic-surgery/thoracic-surgery-residency-program.html



Transplant

- Application: Varies by program. Some are directed to individual programs while others are through the SF Match (<https://www.sfmatch.org/>) or the Fellowship Council (www.fellowshipcouncil.org).
- Programs may offer training in single or multi-organ transplant. These programs are delivered under various surgical departments including the department of general surgery (multi-organ), thoracic surgery (lung), or urology (kidney). There may be some overlap between this section and the HPB Surgery section.
- Additional information:
 - American Society of Transplant Surgeons (www.astso.org)
 - Canadian Society of Transplantation (<https://www.cst-transplant.ca/Fellowships.html>)

School	Program Length	Application deadline	Program Information
Alberta	2 years	Jan 1	Liver and Hepatopancreatobiliary transplant https://www.cst-transplant.ca/Fellowships.html#Surgical-Alberta Kidney transplant https://www.ualberta.ca/surgery/divisions/urology/fellowship-programs/transplant.html#:~:text=The%20University%20of%20Alberta%20surgical,available%20to%20the%20suitable%20candidate
Western	1-2 years	Jan 1	Liver, and Hepatopancreatobiliary transplant https://www.lhsc.on.ca/multi-organ-transplant-program/abdominal-organ-transplant-hepatopancreaticobiliary-surgery
Toronto	2 years	Jan 1	Kidney, Liver, and Pancreas transplant https://www.torontoaotransplantfellowship.com/
Ottawa	1-2 years	June 1	Kidney transplant https://www.cst-transplant.ca/Fellowships.html#Surgical-Ottawa
McGill	2 years	Feb 8	HPB transplant https://www.mcgill.ca/generalsurgery/education/fellowships/transplantation-hepatobiliary-pancreatic-surgery-fellowship



Trauma and Acute care

- Application: Directed to individual programs in Canada.
- Additional information: <https://canucs.ca/fellowships/>

School	Program Length	Application deadline	Program Information
UBC	1 year	June 30	https://vghtrauma.vch.ca/fellowship/
Alberta	1 year	Aug 15	https://www.ualberta.ca/surgery/divisions/general-surgery/aces-website-fellowship-letter.jpg
Calgary	1 year	Sept 1	https://cumming.ucalgary.ca/sites/default/files/teams/276/GS%20Trauma%20Fellowship%20Summary_08Oct2020.pdf
USask	1 year		ACS and community surgery fellowship. Contact Karen Bader for more information: karen.bader@usask.ca
Western	1 year		Interested candidates should feel free to contact Dr. Neil Parry at Neil.Parry@lhsc.on.ca
McMaster	1 year	Late Sept	https://surgery.healthsci.mcmaster.ca/divisions/general-surgery/education/fellowship/
Toronto	1 year	June 1	https://surgery.utoronto.ca/trauma-and-acute-care-surgery-fellowship-0
Ottawa	1 year	Sept 30	https://www.ottawahospital.on.ca/en/clinical-services/deptpgmcs/departments/trauma-services/trauma-fellowship/
McGill	1 year	Sept 1	Trauma surgery https://www.mcgill.ca/generalsurgery/education/fellowships/trauma-surgery-fellowship
Montreal	1-2 years		https://chirurgie.umontreal.ca/etudes/d-e-s/d-e-s-en-traumatologie-et-soins-aigus/

Vascular

- Application: Directed to individual programs in Canada or through the NRMP in the US. (www.nrmp.org).
- Note: Many programs are moving away from offering vascular surgery 5+2 fellowships in favour of 0+5 direct entry programs. The programs listed in the table below do offer 5+2 training programs.



- The following programs do not offer 5+2 training programs: Calgary, Western, and McMaster.
- For all other schools, please reach out to the programs for additional information on the training pathways they offer.
- Additional information:
 - Canadian Society of Vascular Surgery (www.canadianvascular.ca)
 - Society of Vascular Surgeons (www.vascularweb.org)

School	Program Length	Application deadline	Program Information
Calgary	2 years		https://cumming.ucalgary.ca/departments/surgery/sections/vascular-surgery/vascular-surgery-education
Ottawa	2 years	April 15	https://med.uottawa.ca/surgery/divisions/vascular-surgery/education
McGill	2 years		https://www.mcgill.ca/vascularsurgery/residency-information Requires inquiring directly to Program Director as number of positions vary annually
Montreal	2 years		https://medpostdoc.umontreal.ca/programmes/chirurgie-vasculaire/

Other Fellowships

School	Topic	Program information
Queen's	Clinical Research Fellowship in Population Health and Colorectal/Gastrointestinal Cancer Outcomes	https://surgery.queensu.ca/sites/surgery/files/inline-files/Advert%20for%20Clinical%20Research%20Fellow_0.pdf



Finding a Job

It is never too early to begin thinking about what you want to do at the end of residency and to begin to make contacts for your future career. In this section we have tried to assemble some useful resources to help get you started in the right direction as you begin navigating through this process.

Tips to get started:

- Start thinking about your career plans early - it's okay if your plan changes as you learn more about different career paths in general surgery but it's important to at least start thinking about it.
- Keep your CV updated - Keep track of the extracurricular activities, committees you sit on, research, and conferences. It's much easier to do this as you go than to try to think back 4+ years while stressing about application deadlines.
- Get involved in research - Research is a big part of many careers in surgery especially if you plan to work in an academic center. Publications and presentations look great on applications. Try to get involved in projects you are genuinely interested in.
- Find a mentor - mentors can help you to learn about what path their career has taken, to learn about different opportunities you may not have considered or known about, and to make connections for electives, fellowships, and job opportunities.
- Think about your elective options - Take the opportunity during your electives to consider where you would like to work or train. Many fellowship programs recommend taking an elective at their center prior to applying.

Resident resources:

- RDOCS: <https://residentdoctors.ca/areas-of-focus/career-planning/>
- Provincial resident associations

Job Boards and provincial recruitment departments:

- CAGS: <https://cags-accg.ca/career-opportunities/>
- British Columbia: <https://www.healthmatchbc.org/>
- Alberta: <https://www.doctorjobsalberta.com/searchresults.aspx>
- Saskatchewan: <https://www.saskdocs.ca/work/opportunities/>
- Manitoba: <https://healthcareersmanitoba.ca/opportunities/>
- Ontario: <http://www.oags.org/joblisting.html>
- Quebec: <https://www.msss.gouv.qc.ca/professionnels/medecine-au-quebec/plans-d-effectifs-medicaux-pem-en-specialite/>
- New Brunswick: <https://nbhealthjobs.com/current-openings/>
- Prince Edward Island: <https://www.princeedwardisland.ca/en/topic/jobs-in-health-care>
- Nova Scotia: <https://recruitment.nshealth.ca/about>

- Newfoundland and Labrador: <https://www.practicenl.ca/?/jobs/default.asp>
- Yukon: <https://yukondoctors.ca/>
- Northwest Territories: <https://www.practicenwt.ca/en/physician-careers>
- Nunavut: <https://nuphysicians.ca/practice/opportunities-available>
- Additional information on job opportunities may be available through the provincial doctors association (see links in the next section)

Professional and Resident Associations

Resident associations:

- Resident Doctors of Canada: <https://residentdoctors.ca/>
- British Columbia: <https://residentdoctorsbc.ca/>
- Alberta: <https://www.para-ab.ca/>
- Saskatchewan: <http://www.residentdoctors.sk.ca/>
- Manitoba: <https://www.parim.org/>
- Ontario: <https://myparo.ca/>
- Quebec: <https://www.fmrq.qc.ca/en>
- Maritimes: <https://www.maritimeresidentdoctors.ca/>
- Newfoundland and Labrador: <https://parnl.ca/>

General Surgery Associations:

- CAGS: <https://cags-accg.ca/>
- British Columbia Surgical Society: [British Columbia Surgical Society](#).
- Alberta Association of General Surgeons: [Alberta Association of General Surgeons](#).
- Ontario Association of General Surgeons: <http://www.oags.org/>
- Quebec: <https://chirurgiequebec.ca>

Professional Associations:

- CMA: <https://www.cma.ca/>
- Doctors of British Columbia: <https://www.doctorsofbc.ca/>
- Alberta Medical Association: <https://www.albertadoctors.org/>
- Saskatchewan Medical Association: <https://www.sma.sk.ca/>
- Doctors Manitoba: <https://doctorsmanitoba.ca/>
- Ontario Medical Association: <https://www.oma.org/>
- Quebec: <http://www.cmq.org/home.aspx>
- New Brunswick Medical Society: <https://www.nbms.nb.ca/>
- Medical Society of Prince Edward Island: <https://www.mspei.org/>
- Doctors Nova Scotia: <https://doctorsns.com/>
- Newfoundland and Labrador Medical Association: <https://www.nlma.nl.ca/>
- Yukon Medical Association: <https://www.yukondoctors.ca/>
- Northwest Territories Medical Association: <https://www.facebook.com/NWTMA/>
- Nunavut: <https://nuphysicians.ca/>

Other general surgery organizations and resources:

- American College of Surgeons: <https://www.facs.org/>

- Resident and Associate Society: <https://www.facs.org/member-services/ras>
- Society of American Gastrointestinal and Endoscopic Surgeons: <https://www.sages.org/>
- Society of Surgical Oncology: <https://www.surgonc.org/>
- National Comprehensive Cancer Network (NCCN): <https://www.nccn.org/>