



CCCCPLS
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Canadian Certification Council of
Pathology Laboratory Specialists

Conseil canadien de certification des
spécialistes en laboratoire de pathologie

Autopsy Technician Certification Exam Guide

January 2025 Version

Contents

Examination Details and Content Breakdown.....	3
Exam Format.....	3
Passing Grade	3
Fundamentals of Pathology.....	4
Anatomy	4
Anatomic Pathology Techniques	4
Autopsy Theory	4
CCCPLS-CCCSLP: Autopsy Technician Knowledge & Experience Guide	5
Practice Exam Questions	7
Answer Key	10
Resources	11
Fundamentals of Pathology.....	11
Autopsy Pathology.....	11
Online Resources	11
Virtual Gross Rounds	11
Examination Eligibility and Venues.....	11
Exam Frequently Asked Questions	Error! Bookmark not defined.
Contact Us	Error! Bookmark not defined.

Examination Details and Content Breakdown

Exam Format

The Autopsy Technician (AT) certification exam is composed of 100 Multiple Choice questions, given in a 2 hour and 30-minute time frame.

Passing Grade

75%

AUTOPSY TECHNICIAN EXAM	DESCRIPTION	MINIMUM %
FUNDAMENTALS OF PATHOLOGY	General Pathology and Systemic Pathology	50%
ANATOMY	Normal Gross Anatomy	15%
ANATOMIC PATHOLOGY	Histological and Autopsy Pathology	20%
TECHNIQUES	Techniques	
AUTOPSY THEORY	Adult, Neonatal/Perinatal, Pediatric, and Medicolegal/Forensic Autopsies	15%

Fundamentals of Pathology

General Pathology –

1. Cell Injury
2. Environmental, Toxic and Nutritional
3. Neoplasia
4. Fluid and Hemodynamic Derangements
5. Genetic and Metabolic Disorders
6. Immunopathology
7. Infectious Diseases

Systemic Pathology –

1. Blood and Lymphoid
2. Bone and Soft Tissue
3. Breast
4. Cardiovascular
5. Endocrine
6. Gastrointestinal
7. Kidney and Urinary Tract
8. Liver and Biliary Tract
9. Nervous System
10. Pediatric
11. Perinatal
12. Reproductive Male/Female
13. Respiratory
14. Skin

Anatomy

1. Normal Anatomy

Anatomic Pathology Techniques

1. Histological Techniques
3. Autopsy Pathology Techniques

Autopsy Theory

1. Adult
2. Neonatal / Perinatal
3. Pediatric
4. Medicolegal / Forensic

Canadian Certification Council of Pathology Laboratory Specialists: Autopsy Technician Knowledge & Experience Guide

The Pathologists' Assistant Autopsy Knowledge and Experience Guide highlights the expectations of Autopsy Technicians and is meant to serve as a reference. We acknowledge that not all sites/institutions are able to offer every autopsy type and that not all Autopsy Technicians will be able to complete each experience item. Note, however, that the autopsy questions on the certification exam will reflect the knowledge and experience outlined below.

Understands and can explain the following:	
Knowledge	The role of Coroner and Medical Examiners systems in Canada; Basic principles of death investigation (scene, circumstance, and autopsy)
	The differences between and the requirements for forensic, non-forensic medicolegal and medical/academic autopsy
	The process of autopsy consent, legal next-of-kin, and how the consent process differs between forensic/medicolegal and medical/academic autopsies
	The role of the justice system related to chain of custody and the handling of forensic evidence and samples
	The process of correct and accurate body identification; Appropriate forms of identification
	The definitions of cause of death, manner of death, and mechanism of death
	The biohazard and safety precautions required in an autopsy environment including but not limited to pathogens of varying risk levels (i.e., CJD, hepatitis C, HIV, meningitis, and covid), emerging diseases, hazardous materials (i.e., hydrogen sulfide, cyanide, sodium azide, combustible material, and radioactive materials), their risk, safe handling, and PPE requirements.
	Ancillary laboratory tests and collection techniques pertaining to the autopsy service (i.e., microbiology, EM, biochemistry/toxicology, flow cytometry, etc.)
	How an external post-mortem exam is performed and what should be documented (i.e., physical features of the body, body measurements, documentation of personal belongings, medical devices, signs of injury or disease, identifying features, etc.)
	Forms of trauma including but not limited to blunt force, sharp force, ballistic, and thermal injury (burns). Forms of external factors/ exposure causing death and their possible features, (i.e., positional, or other asphyxia, hanging, drowning, hypothermia, or hyperthermia)
	Postmortem changes including but not limited to rigor mortis, livor mortis, decomposition (autolysis & putrefaction), eye opacity, and tache noir
	The four main autopsy evisceration techniques and their purpose: Rokitansky, Virchow, Ghon, and Letulle
	Anatomy of body cavities and tissue spaces (i.e., thoracic, abdominal, pelvic)
	Autopsy special organ evisceration techniques including but not limited to layered neck dissections, posterior leg dissections, removal of the spinal cord (anterior and posterior approaches), and removal of auditory canal, eyes, and optical nerves
	Special procedures and ancillary testing used in perinatal and pediatric autopsies
	Autopsy ergonomics and safe body transfer techniques
	Blood and body fluid exposure safety, injury prevention techniques, and steps to take in case of an exposure
	The mental health aspects of dealing with deceased persons; Assistance and mental support programs available to the Autopsy Technician

Experience	Review requests for autopsy consultation and ensure the correct legal next-of-kin has provided consent for medical/academic autopsies. For autopsies under the responsibility of a medical examiner or coroner, ensure that the appropriate person, as defined by the province, has signed the permit. Note any restrictions, limitations, and infectious precautions required. Review consent for procurement of tissues for teaching and research, if applicable.
	Correctly and accurately identify the deceased by comparing appropriate forms of body identification against the autopsy authorization documents.
	Create and assign a unique autopsy identification number within a digital laboratory, hospital, or organizational informatics system. Ensure all specimen containers, worksheets, and tissue cassettes are correctly labelled.
	Use universal precautions in the autopsy room and don the appropriate PPE for the case, based on the level of infectious precautions required.
	Assist the Pathologist or Pathologists' Assistant in the performance of the external autopsy exam: accurately document identifying features, medical interventions, post-mortem changes, and signs of injury or disease
	Collect samples for toxicology (blood, urine, vitreous, liver, gastric contents) and ancillary studies (Nasopharyngeal swabs, CSF, cultures, etc.). Ensure microbiological samples are collected using aseptic techniques. Complete the appropriate paper test requisitions and/or digitally order tests.
	For forensic autopsy service: Assist the attending pathologist in the collection of forensic samples (e.g., nail clippings, swabs, blood spot DNA cards, and sexual assault kits)
	For forensic autopsy service: Assist with post-mortem dental and/or x-ray examinations
	Assist in post-mortem examinations on decedents in various stages of decomposition
	Lift, move, adjust, position, and transfer bodies (if applicable) between the autopsy table and transport trolley using safe and appropriate ergonomic techniques
	Safely open the body by means of Y-incision or other minimally disfiguring techniques. Remove rib cage using bone shears, oscillating saw, or scalpel. Measure and document body fluid volumes and appearances.
	Perform organ evisceration using the method (Letulle, Gohn, Virchow, Rokitansky, or combination) requested by the Pathologist
	Reflect the scalp and remove the skull cap using minimally disfiguring techniques. Perform brain and pituitary gland removal. Perform spinal cord removal (if required)
	Perform special procedures (eye removal, inner ear removal, posterior leg dissection, back dissection, posterior spinal cord removal, neck dissection)
	Obtain samples of bones, bone marrow, peripheral nerve, and striated muscle.
	Weigh and document the weights of organs
	Assist in the performance of a pediatric and/or perinatal autopsy
	Sutures body/torso/scalp after post-mortem examination and prepares the decedent for release to funeral home
	Communicate effectively with the attending Pathologist
	Clean and maintain the autopsy suite, instruments, and equipment
	Perform proper decalcification of bony sections
	Properly dispose of contaminated items
	Use scalpels, knives, shears, and oscillating saws safely
	Perform quality assurance procedures such as temperatures and daily/weekly/monthly checklists
	Competently liaise with professionals health, law enforcement and funeral home staff
	Demonstrate effective oral and written communication skills
	Follow oral and written instructions precisely
	Maintain confidentiality
	Treat decedents with respect

Practice Exam Questions

1. Which of the following chemicals is most commonly used as a clearing agent?
 - A. Benzene
 - B. 100% Alcohol
 - C. Acetic acid
 - D. Xylene

2. Which of the following is the autopsy technique in which the organs are removed en masse?
 - A. Letulle
 - B. Ghon
 - C. Virchow
 - D. Rokitansky

3. At autopsy, all of the following scenarios may show foam cone (also known as “snow cone”) on the nose and/or mouth **except**:
 - A. Drowning
 - B. Narcotic overdose
 - C. Congestive heart failure
 - D. Hanging

4. The physiological derangement that results in death is known as:
 - A. The cause of death
 - B. The manner of death
 - C. The mechanism of death
 - D. The intervening cause of death
 - E. The terminal event

5. Which of the following type of necrosis is characteristic of tuberculosis infections?
 - A. Fat necrosis
 - B. Caseous necrosis
 - C. Liquefactive necrosis
 - D. Coagulative necrosis
 - E. Gangrenous necrosis

6. The caudate lobe of the liver is in which of the following segments?
- A. I
 - B. II
 - C. III
 - D. IV
 - E. V
7. Sural nerve biopsies are usually performed to evaluate peripheral neuropathy. You can sample this nerve in which of the following anatomical locations?
- A. Anterior to the medial malleolus
 - B. Posterior to the medial malleolus
 - C. Anterior to the lateral malleolus
 - D. Posterior to the lateral malleolus
 - E. Medial to the distal head of the palmaris longus
8. A 16-year-old male takes up smoking while in high school. In order to stand up to the constant exposure to cigarette smoke, his lungs adapt at the cellular level by changing from one cell type to another. This form of adaptation is called:
- A. Dysplasia
 - B. Atrophy
 - C. Hyperplasia
 - D. Metaplasia
9. Following oxygenation at the lungs, blood flows via which vessel(s) into which chamber of the heart?
- A. Pulmonary artery → right atrium
 - B. Pulmonary artery → left atrium
 - C. Pulmonary veins → right atrium
 - D. Pulmonary veins → left atrium
10. Which of the following is an example of a transmissible spongiform encephalopathy (TSE)?
- A. Tuberculosis
 - B. Meningitis
 - C. Creutzfeldt-Jakob Disease
 - D. Hepatitis B
 - E. Mpox

11. Which of the following is least likely to be documented during an autopsy?
- A. Rigor Mortis
 - B. Livor Mortis
 - C. Algor Mortis
 - D. Height
 - E. Pupillary Diameters
12. You remove the skull cap and notice a 10 x 10 cm blood clot overlying the external surface of the dura mater. Which of the following options most accurately describes the anatomical location of this hematoma?
- A. Subdural
 - B. Epidural
 - C. Subarachnoid
 - D. Intracerebral
 - E. Intraventricular
13. Which cranial nerve is the optical nerve?
- A. 1
 - B. 2
 - C. 3
 - D. 4
 - E. 5
14. Which of the following statements about autopsy safety is *false*?
- A. The use of double gloves decreases barrier protection
 - B. You should be fit tested for an N95 mask
 - C. Cut injuries are most likely to occur on the nondominant hand
 - D. Cut-resistant gloves provide increased protection against cut injuries
 - E. Cut-resistant gloves do not protect against needle punctures
15. Which of the following additives is in a purple-topped vacutainer blood collection tube?
- A. Sodium heparin
 - B. Lithium heparin
 - C. Sodium fluoride potassium oxalate
 - D. Sodium citrate
 - E. EDTA

Answer Key

1. D
2. A
3. D
4. C
5. B
6. A
7. D
8. D
9. D
10. C
11. C
12. B
13. B
14. A
15. E

Resources

You are currently doing this work, and your job is an amazing resource. Stay curious in your role and ask questions (to yourself, certified PAs, and pathologists). Example: you are doing a case, and your patient had poorly controlled diabetes – ask yourself: What is diabetes and what types of diabetes are there? Are there findings on an external exam that are consistent with poorly controlled diabetes, if so, what are they? Are there tests that can tell if diabetes contributed to the cause of death? Are there internal findings associated with poorly controlled diabetes, if so, what are they?

Remember, a pathologist or certified PA has recognized your skill and recommended you. You belong here.

Fundamentals of Pathology

- Carson FL, Hladik C. (2020). [Histotechnology: A Self-Instructional Text 5th edition](#). ASCP Press.
- Kumar V, Abbas AK, Aster JC. (2020). [Robbins & Cotran Pathologic Basis of Disease, 10th edition](#). Elsevier Inc.
- Lester SC. (2022). [Manual of Surgical Pathology, 4th Edition](#). Elsevier Inc.
- Sattar HA. (2020). [Fundamentals of Pathology: Medical Course and Step 1 Review, 2020 edition](#). Pathoma LLC.

Autopsy Pathology

- Collins KA, Hutchins GM. (2006). [An Introduction to Autopsy Technique, 2nd Edition](#). College of American Pathologists.
- Connolly A, Finkbeiner W, Ursell P, Davis R. (2016). [Autopsy Pathology: A Manual and Atlas, 3rd edition](#). Elsevier Inc.
- DiMaio VJM, Molina DK. (2021). [Handbook of Forensic Pathology \(3rd edition\)](#). CRC Press.
- Gilbert-Barness E, Debich-Spicer DE. (2016). [Handbook of Pediatric Autopsy Pathology, second edition](#). Springer.
- Sens MA, Hughes R. (2020). [Diagnostic Pathology: Forensic Autopsy](#). Elsevier.

Online Resources

- [The Internet Pathology Laboratory for Medical Education](#)
- [Osmosis by Elsevier](#)
- [Mypathologyreport.ca](#)
- [Introduction: Coroner Canadian Medical Examiner Database: Annual Report](#) (archived but valuable)
- [Medical Examiner in Canada | Job requirements](#)
- Services associated with Coroner's/Medical examiner's death investigations or inquests/inquiries

Virtual Gross Rounds

* These rounds are geared towards pathology residents and PAs but the educators are fabulous and are excellent at explaining complex anatomy and the associated pathology.

[Mount Sinai Hospital Virtual Gross Rounds](#) – Fridays at 0900 EST

Examination Eligibility and Venues

Please visit the [CCCPLS-CCCSLP Website](#) for the most up to date information regarding exam eligibility and venue requirements.

Exam Frequently Asked Questions

[Exam FAQ](#)

Contact Us

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