



COLLEGE of AMERICAN
PATHOLOGISTS

Pathology 101

A specialty review for medical students

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What is a pathologist?

A medical doctor who analyzes human tissue, cells, and body fluids to diagnose and treat diseases. Pathologists use microscopic examination and laboratory tests to gather information for accurate diagnosis and treatment.

Pathology

Anatomic Pathology (AP)



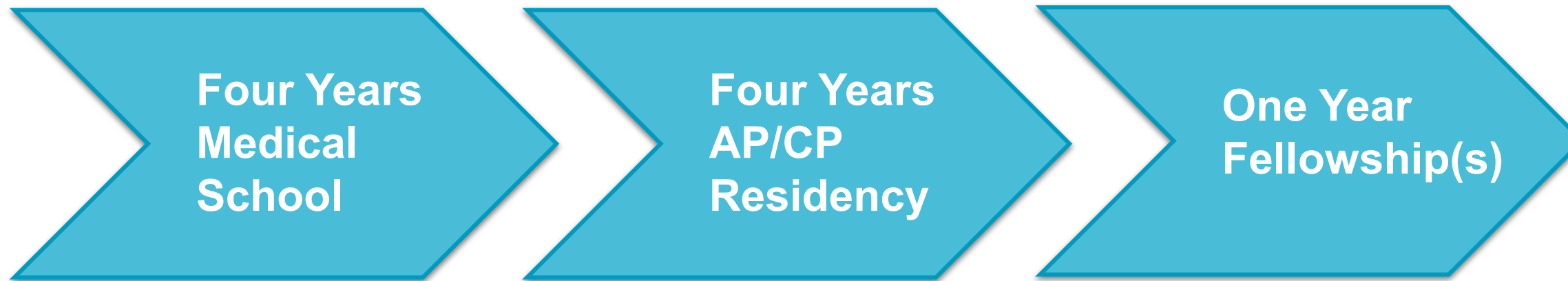
- The analysis of tissues, cells, and organs through gross and microscopic examination.
- AP aids in diagnosing diseases, evaluating treatment effectiveness, and understanding causes of death.

Clinical Pathology (CP)



- The examination of blood and bodily fluids/samples through microscopic analysis and clinical laboratory testing.
- CP helps diagnose and monitor diseases, assess treatment responses, and ensure safe transfusion practices

Timeline for Pathology Training



- **Pathology does not require an intern year.**
- **Three-year AP-only or CP-only residency tracks are also available.**
- **Most fellowships are one year, some are two years.**

Anatomic Pathology Subspecialties

**Cytopathology
Dermatopathology
Forensic Pathology
Hematopathology
Molecular Pathology
Neuropathology
Pediatric Pathology
Surgical Pathology**

Clinical Pathology Subspecialties

**Blood Banking/
Transfusion Medicine
Clinical Chemistry
Clinical Informatics
Molecular Genetics
Medical Microbiology**

ACGME Residency Program Requirements

- **Conduct at least 30 autopsies**
- **Examine and assess at least 2,000 surgical pathology specimens**
- **Perform at least 200 intra-operative consultations**
- **Examine at least 1,500 cytologic specimens**
- **Conduct a quality improvement project or laboratory inspection**
- **Participate in research, evidence-based presentations at journal clubs/national meetings, or preparation of articles for peer-reviewed publication**

Sample Four-Year AP/CP Residency Schedule

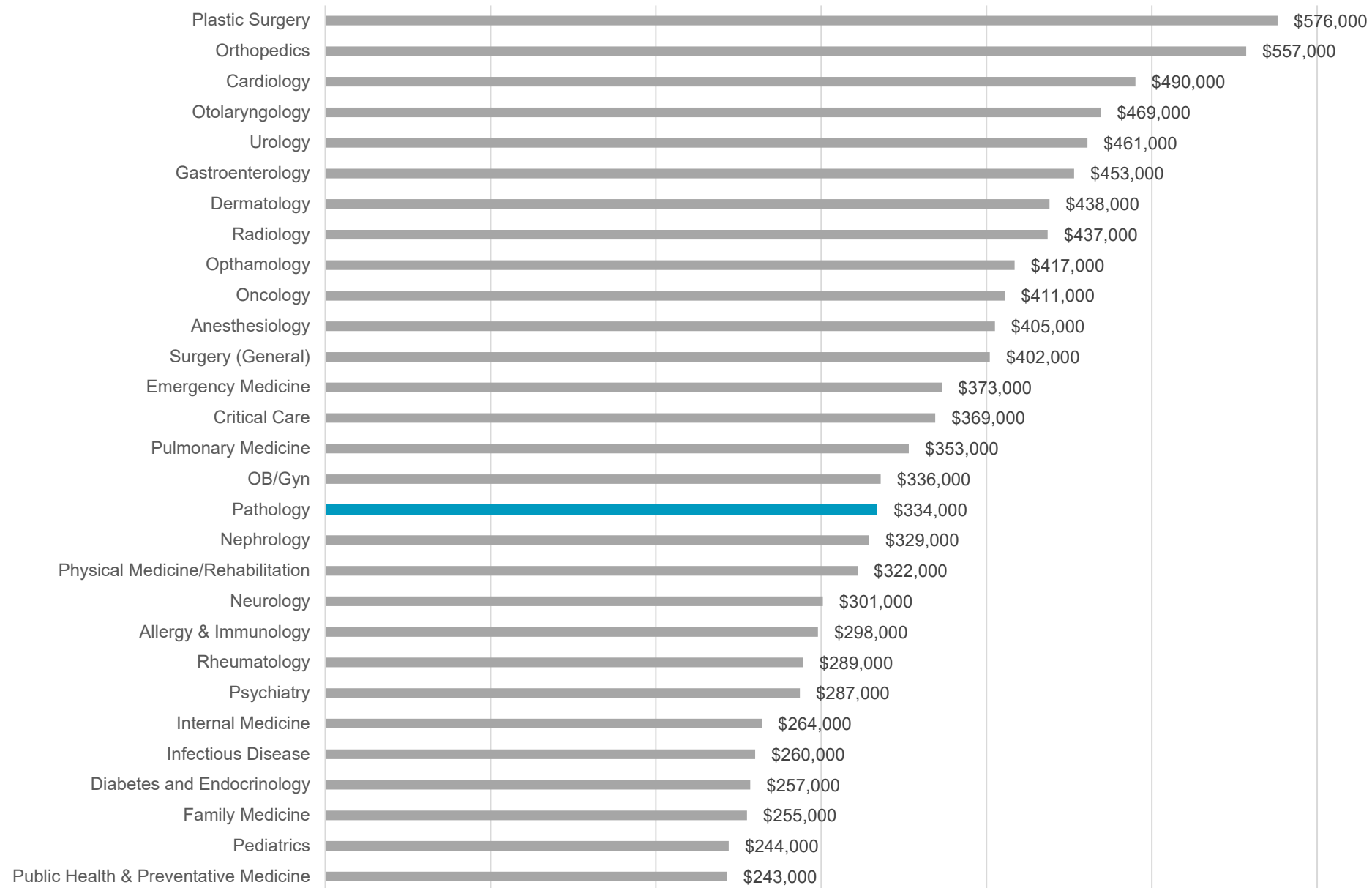
Loyola Residency Core Curriculum Template

PGY1	PGY2	PGY3	PGY4
Surgical Pathology Five months	Surgical Pathology Five months	Surgical Pathology Five months	Surgical Pathology Five months
Autopsy Three months	Dermatopathology One month	Dermatopathology One month	Dermatopathology One month
Microbiology One month	Cytopathology One month	Blood Bank One month	Lab Directorship One month
Chemistry One month	Chemistry One month	Chemistry One month	Forensics One month
Blood Bank One month	Microbiology One month	Molecular/HLA One month	Cytopathology One month
Hematopathology/Coagulation One month	Hematopathology One month	Cytopathology One month	Hematopathology One month
	Blood Bank One month	Hematopathology One month	Blood Bank One month
	General Sign-Out One month	Pediatric Pathology One month	Microbiology One month
		General Sign-Out One month	General Sign-Out One month
			Electives Three months

Why Choose a Career in Pathology?

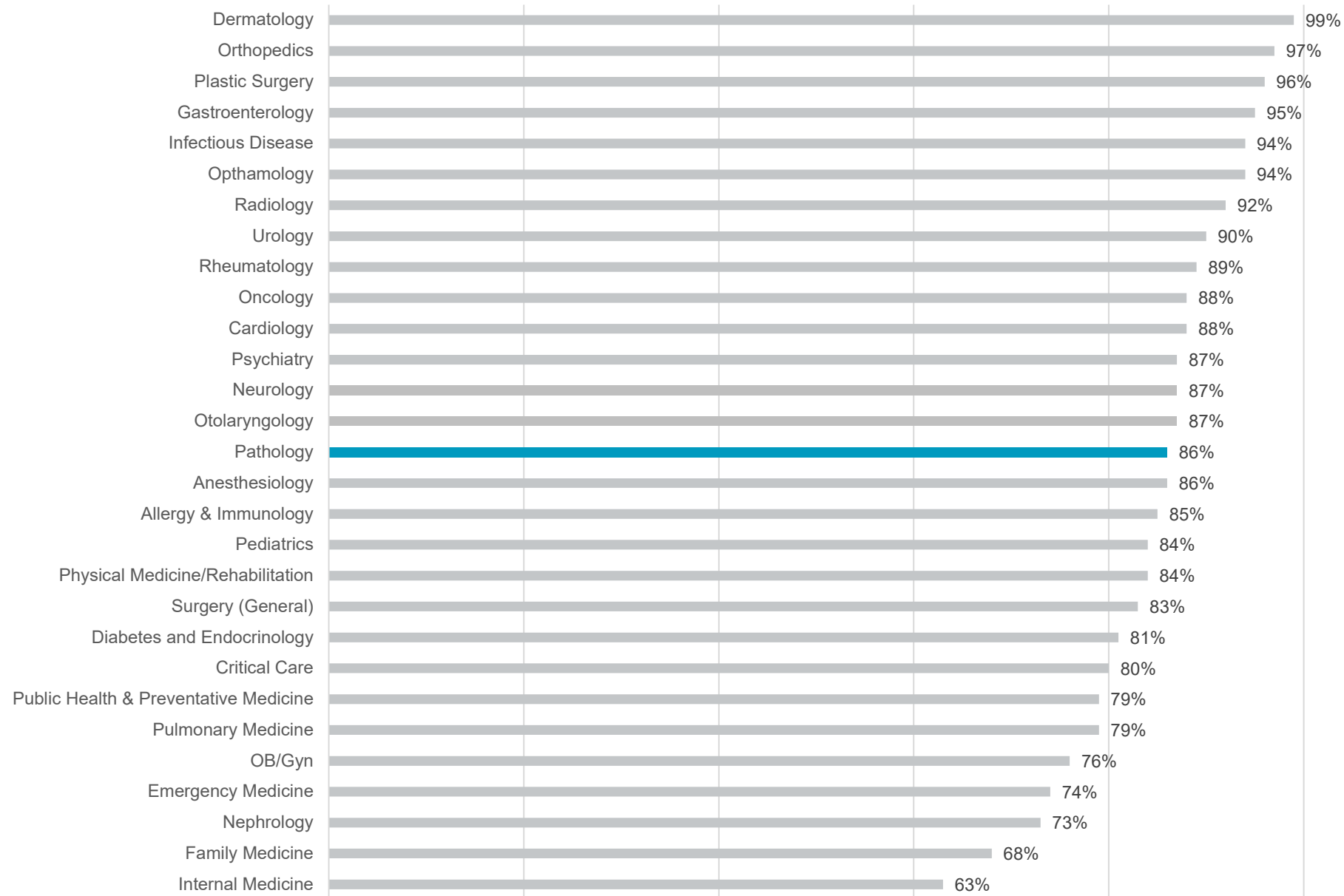
- Pathology is **central to patient care**. Nearly **70% of hospital decisions are based on pathology or laboratory results**.
- Pathologists participate in **direct patient care** through fine needle aspirations, therapeutic apheresis, and pathology review.
- Pathologists are at the forefront of medical research and discovery, and are **specialists in molecular studies, cytogenetics, and personalized medicine**.
- A career in pathology allows a **healthy work-life balance**.
- Pathology is a **cerebral and challenging** specialty that is constantly evolving.
- Pathology is a specialty that **supports research and education**.

How Much Do Pathologists Earn?



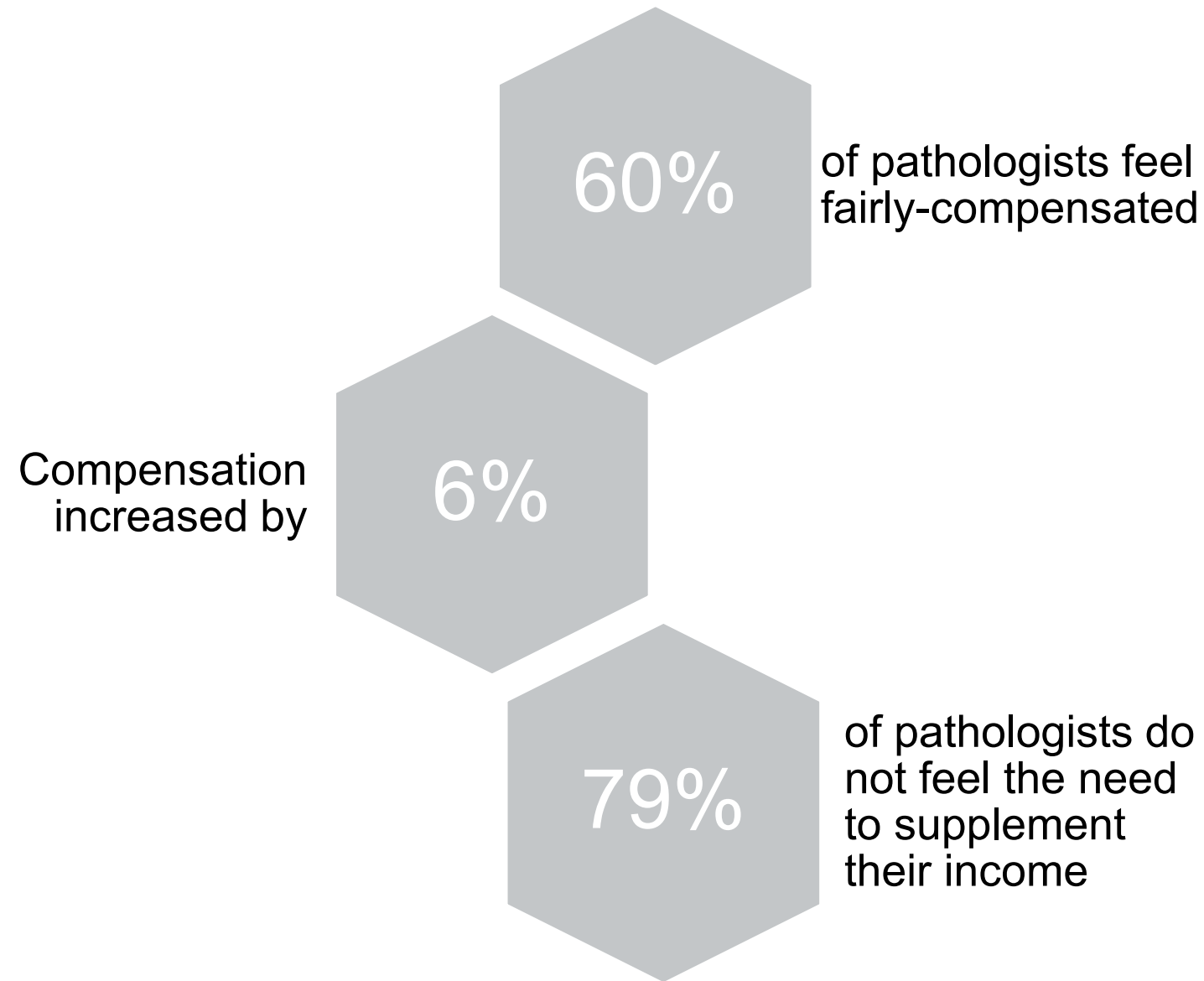
Source: Medscape Pathologist Compensation Report 2022

Would Pathologists Choose the Same Specialty?



Source: Medscape Pathologist Compensation Report 2022

Do Pathologists Feel Fairly-Compensated?



Source: Medscape Pathologist Compensation Report 2022

Work-Life Balance in Pathology

A recent AMA survey demonstrated that work-life balance is one of the top five things MS4s consider when applying to residency.

- The **average work week** for a practicing pathologist was **~48.2 hours/week**.
- Pathologists reported the **third-lowest rate of burnout at 35%**.
- Pathology was one of the **top four specialties for workplace happiness**.

Pathology Exposure in Medical School

- Residency candidates should try to do **at least one rotation in pathology**, as it is essential to understand the profession and its responsibilities. Often pathology is not part of the core medical school curriculum, so students should **seek out rotations and shadowing opportunities**.
- Many medical students also choose to do rotations in specialties that frequently interact with pathology, such as **surgery, radiology, hematology/oncology, infectious disease, and others**.

Pathology Rotations

Medical student rotations vary depending on program, but typically share the following components:

- **Grossing** surgical specimens
- **Signing out cases** in a general or sub-specialty model
- Participation in **clinical laboratory tasks and management**
- **Autopsy** with clinicopathologic follow-up
- **Fine needle aspirations** with cytologic interpretation
- **Bone marrow aspirations and biopsies**

Getting Exposure to Pathology

- **Follow the specimen**
- **Introduce yourself to a pathologist**
- **Join the CAP as a Medical Student Member**
- **Attend a CAP Residents Forum meeting**
- **Find a pathologist mentor in the MyCAP app**

Getting Exposure to Pathology: Virtual

- Virtual PathSIG
- #PathTwitter
- Pathology podcasts
- Kurt's Notes (reference guides)
- Read *CAP TODAY* and *Archives of Pathology & Laboratory Medicine*
- PathologyOutlines.com
- Participate in away rotations, etc
- r/pathology
- Attend a CAP meeting virtually
- Participate in CAP webinars & roundtables



Are You Ready for Pathology?

1. Join the CAP as a Medical Student Member.
2. Read articles for medical students and watch previous webinars (links to Path to Match following 8/9 session).

For more information on pathology as a specialty, please contact medicalstudent@cap.org.

Q&A

What's a common misconception people have about pathologists?

What does a typical day look like for a pathology resident?

What did you do to prepare yourself to learn more about pathology?



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