Pathology 101

A specialty review made by residents for medical students

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What is Pathology?
A medical specialty that involves the laboratory examination of body tissue for diagnostic or forensic purposes.
Pathology

Anatomic Pathology

Clinical Pathology
Timeline for Pathology Training

- Pathology does not require an intern year.
- Most fellowships are 1 year long, rare fellowships are 2 years long.
- 3 year AP-only or CP-only residency tracks are also available.
Anatomic Pathology Specialties

Breast Pathology
Bone & Soft Tissue Pathology
Cardiovascular Pathology
Cytopathology
Dermatopathology
Forensic Pathology
Gastrointestinal Pathology
Genitourinary Pathology
Gynecologic Pathology
Head, Neck, and Endocrine Pathology
Hematopathology
Liver pathology
Molecular Pathology
Neuropathology
Ophthalmic Pathology
Pulmonary & Thoracic Pathology
Pediatric Pathology
Transplant Pathology

Clinical Pathology Specialties

Blood Banking
Clinical Chemistry
Clinical Informatics
Molecular Genetics
Medical Microbiology
Toxicology
Sample 4-Year AP/CP Residency Schedule

<table>
<thead>
<tr>
<th>Month</th>
<th>July</th>
<th>August</th>
<th>Sept.</th>
<th>October</th>
<th>November</th>
<th>December</th>
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<td>LN</td>
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<td>Chemistry</td>
<td>Elect</td>
<td>Tumor Brd</td>
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<td>Molecular</td>
<td>Management/Informatics</td>
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<td>Liver/Trans</td>
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<td>Micro</td>
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Who goes into pathology?

Do pathologists perform procedures?

Do pathologists ever see patients?
How Much Do Pathologists Earn?

- Plastic Surgery: $501K
- Orthopedics: $497K
- Cardiology: $423K
- Gastroenterology: $408K
- Radiology: $401K
- Dermatology: $392K
- Anesthesiology: $386K
- Otolaryngology: $383K
- Urology: $373K
- Oncology: $363K
- Ophthalmology: $357K
- Critical Care: $354K
- Emergency Medicine: $350K
- Surgery, General: $322K
- Pulmonary Medicine: $321K
- Ob/Gyn: $300K
- Nephrology: $294K
- Pathology: $286K
- Psychiatry: $273K
- Allergy & Immunology: $272K
- Physical Medicine & Rehabilitation: $269K
- Rheumatology: $257K
- Neurology: $244K
- Infectious Diseases: $231K
- Internal Medicine: $230K
- Family Medicine: $219K
- Diabetes & Endocrinology: $212K
- Pediatrics: $212K
- Public Health & Preventive Medicine: $199K
Do Pathologists Feel Fairly Compensated?

- Emergency Medicine: 74%
- Pulmonary Medicine: 70%
- Dermatology: 70%
- Public Health & Preventive Medicine: 69%
- Psychiatry: 68%
- Pathology: 67%
- Oncology: 66%
- Radiology: 65%
- Cardiology: 65%
- Anesthesiology: 65%
- Infectious Diseases: 65%
- Rheumatology: 63%
- Otolaryngology: 62%
- Family Medicine: 61%
- Neurology: 60%
- Nephrology: 59%
- Ob/Gyn: 58%
- Gastroenterology: 57%
- Critical Care: 56%
- Ophthalmology: 54%
- Surgery, General: 54%
- Pediatrics: 53%
- Orthopedics: 51%
- Internal Medicine: 51%
- Urology: 51%
- Plastic Surgery: 50%
- Allergy & Immunology: 47%
- Diabetes & Endocrinology: 47%
- Physical Medicine & Rehabilitation: 46%
Would Pathologists Choose the Same Specialty?

- Orthopedics: 98%
- Plastic Surgery: 97%
- Radiology: 96%
- Oncology: 96%
- Dermatology: 95%
- Cardiology: 94%
- Urology: 90%
- Gastroenterology: 90%
- Otolaryngology: 89%
- Allergy & Immunology: 88%
- Ophthalmology: 88%
- Pulmonary Medicine: 87%
- Neurology: 86%
- Anesthesiology: 85%
- Emergency Medicine: 85%
- Pathology: 84%
- Critical Care: 84%
- Psychiatry: 83%
- Physical Medicine & Rehabilitation: 82%
- Infectious Diseases: 82%
- Diabetes & Endocrinology: 82%
- Pediatrics: 80%
- Surgery, General: 76%
- Ob/Gyn: 75%
- Family Medicine: 73%
- Internal Medicine: 72%
- Rheumatology: 72%
- Public Health & Preventive Medicine: 68%
- Nephrology: 52%
Why Choose a Career in Pathology?

Pathology is **central to patient care**. Nearly **70% of hospital decisions are based on pathology**.

Pathology 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**, with ample post-work time for family, friends, and hobbies.

Pathology is a **cerebral and challenging** specialty that is constantly evolving.

Pathology is a specialty that **supports research and education**.
Work-Life Balance in Pathology

A recent AMA survey demonstrated that:

- 92% of physicians aged 35 or young felt that work-life balance is important Second level
- The **average work week** for a practicing pathologist was ~**49.2 hours/week**.
- Pathologists reported the **lowest rates of burnout at 23%**.
- Pathology was one of the **top 4 specialties for workplace happiness**.
Rotations and Medical Student Requirements

- Most pathology programs are ACGME accredited and participate in the National Residency Match Program (NRMP).

- Most candidates do at least 1 rotation in pathology, as it is essential to understand the profession and its responsibilities.

- 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.
Rotations and Medical Student Requirements

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**
How do I apply?

• Almost all programs participate in the NRMP.
• Applications are accepted through the Electronic Residency Application Service (ERAS).
• US graduates are expected to submit a curriculum vitae (CV), personal statement, and at least 3 letters of recommendation.
For more information on pathology as a specialty, please contact the CAP Residents Forum at residentsforum.org and stay tuned for more medical student resources to launch in the Summer of 2019!

Thank you!