

Dr. Neil Isaac

Cardiovascular Radiology

Overview

1. **Profile:** Division Head, Cardiac Imaging (North York General); Associate Lecturer (Toronto); Cardiovascular Imaging Fellowship (UPenn), Diagnostic Radiology Residency (Dalhousie), MD (Dalhousie)
2. **Projects:** Black Physicians Association of Ontario, Anti-Black Racism Committee, Adjunct Lecturer
3. **Pitch:** A “Doctor’s Doctor.” Expert diagnostician and ability to see many more cases than other doctors
4. **Path:** Despite an initial interest in Cardiology and Cardiac Surgery, fell in love with radiology during clerkship and never looked back.
5. **Philosophy:** All medical careers can be tailored to fit your goals and expectations within medicine - find what makes you excited to go to work and build around that.

Elevator Pitch

(1:58)

- The “**Doctor’s Doctor**,” expert diagnostician consulted by every type of physician
- Radiology is an exciting field, with every case being a new discovery to crack
- No continuity of care, and seldom get recognition from patients

Personality

(3:17)

- “Chipmunk on Crack” touch of ADHD - looking at thousands of images, brain is always on
- 2 types of Radiologists - extroverts & introverts
 - **Introverts** are the stereotype - spend most of their time in the radiology suite and report their scans.
 - **Extroverts** have the opportunity to **talk** to the doctors about the case and enjoy the small levels of patient interaction during **biopsies** and other **procedures**
 - When there is patient interaction, it is typically in the form of **short bursts**

Stereotypes

(5:00)

- A Western University, 2015 showed that medical students thought of Radiologists as **isolated** and **sedentary**, although they acknowledge that their lack of first-hand experience leaves them unsure.
 - Response: Sedentary is somewhat true as there is a large component of reading scans, but you can **make of your career what you want** - both interventional and diagnostic radiologists perform a **variety of procedures**.
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Referenced Material: APA format

Path

(8:30)

Medical School

- Started with interest in cardiac surgery, really enjoyed cardiac physiology
- Several factors led him to switch:
 - During his pediatrics rotation, he **discovered** an excitement for reviewing imaging with the **radiologist** every day.
 - As his interest began to move from Cardiology and Cardiac Surgery towards Interventional Cardiology, Dr. Isaac decided to do an elective in Interventional Cardiology. At the cath lab he met **IRs that also do catheterization** for diagnostic purposes.
 - During surgical rotation he spent a lot of the time in the interventional suite, which was OR-adjacent.
 - Feeling that he kept getting drawn back to radiology, he decided to explore it further and his interest was confirmed in further electives
- **“It’s like a box of chocolates. You never know what you’re going to get”**
- Wasn’t a physics fan, but notes that learning physics as an undergrad student is different than learning as a physician. Still, physics is not as required as in radiation oncology.

Day-to-Day Life

(17:03)

- Usually divided into Whole Days or Half-Days of:
 - Reading U/S and X-Rays

- Reading CTs and MRIs
- Procedures
- Clinic (All NYGH Radiologists participate in the York Radiology clinic for outpatients, comprising about 10% of total workload)
- Patient populations can include ER, Outpatients and Inpatients
- Arrive at 8; Leave at 5, usually eat on the job
 - If 2 half-days, you must switch over at 12:01, or cases will start piling up
- Weekends and Weeknights are divided among staff:
 - 2 people on each weekend day, usually requiring 3-4 days/month.
 - Weeknights have evening shifts and night call, usually requiring 2-3 nights/month.

Specialization: NYGH is a general radiology practice, meaning all staff have specific fellowships, but are still expected to be competent in each field. Still, most cardiac cases go to Dr. Isaac, while IR and Breast Imaging go to others. However, it is not specialized to the point of pigeon-holing, e.g. at teaching centres.

Diagnostics vs. Interventional: Same residency but different fellowships - Interventional Radiologists have more complex procedures, e.g. tumor ablation, vascular abscess drainage, hickman lines, drainage catheters and stenting of vascular claudications. All radiologists are responsible for minor procedures, such as biopsies of thyroid, breast, liver and pancreatic tissue. Neuro-interventionalists perform interventional procedures within carotid and cerebral arteries.

Personal Takeaways

(23:20)

Personal Story 1:

*“There are many cases that stick in my mind over my career. There’s the **young mothers** that come in and they’re breastfeeding and they feel a **breast lump**. **Everyone’s hoping** that it’s something **benign** like a cyst or galactoceles, and you do the imaging and you say, “Oh no.” And you think, “**What about this kid? What about this family?** This is devastating news you have to tell this person.”*

Personal Story 2:

*“Other things that stick with me throughout my training: **Anti-Black Racism**. During training, people would come up to me and **ask me where I’m from**, and I’d say Toronto, and they’d say, “Where are your **parents** from?” and I’d say Toronto. (And they weren’t but I knew where this person was coming from.) And they’d say “Where are your **grandparents** from?” and I’d say Toronto, and they’d say, “Where are your **great-grandparents** from?” and I’d say, oh, Barbados. And they’d say, “**Ah, I thought I heard an accent.**” They’re **four generations away, how am I going to have their accent?** I don’t think I talk with a big thick accent, maybe I do, but it’s just **one of those things** that people see and experience during their medical training that maybe **shapes them a little bit**. There’s people that said, “Oh, are you here **learning** medicine to **take back to where you came from?**” And I’d reply, “Ya, the people of Toronto need to learn about medicine, so that’s why I’m here.” These are **microaggressions** and they’re **not all that I’m about**, but it’s all about trying to **overcome** those to get to where you want to be, and **not lose sight** of the final prize of where you want to be and **not let this take you down.**”*

Note: While we tried to keep these transcriptions as true to the speaker as possible, some dialogue is paraphrased and/or edited for easier reading.

Final Comments

(26:08)

1. There is both **patient interaction** and **collaboration** in Radiology. Like most specialties, the residency **exists as a tent** - you can **tailor your career** to what you want to do the most, be it very **broad** in the community, or **super-subspecialized** in an academic centre.
2. It is **difficult to get a true sense** of what Radiology is like, even with an elective. Explore as much as you can to try and get the sense of the responsibility and fulfillment of challenging puzzle-solving.
3. **AI will not replace** radiologists - there is an **art to Radiology** that most people do not understand. While it will certainly **change the basic role**, AI is more akin to the **expanding role** of the Physician Assistant or Nurse Practitioner - just another part of the team!
4. Figure out what speaks to you and what motivated you to enter medicine and try to fit your career to fill that out.