

ANTHONY KASHOU, MD '18

Demystifying the EKG

Growing up as the son of an interventional cardiologist in Binghamton, New York, Anthony Kashou, MD '18, dreamed of following his father's career path. But as a third-year medical student, Dr. Kashou found learning to read EKGs a challenge during his internal medicine rotation.

The problem, he says, was the learning materials were either too basic or too advanced and didn't always do a good job explaining clinical relevance. He turned to textbooks and medical literature to fill the gap. "I was constantly asking my father and the cardiologist I was working with, 'what does all this mean?'"

Kashou invested time learning and mastering the material. As a fourth-year medical student, he worked with a cardiologist to recreate and teach a curriculum to third-year students. He did an away-rotation at the Cleveland Clinic, where he was charged with providing education to medical students. As a video learner himself, Kashou began making videos about reading EKGs that he posted to YouTube. By the end of the year, he had created hundreds. "Learning in medical school is kind of like drinking from a fire hose with all the information we're expected to know," he says. "So learning what makes content 'click' is essential."

Flash forward four years. Kashou is now in his first year of a National Institutes of Health-funded research and cardiology fellowship at Mayo Clinic in Rochester, Minnesota, where he also completed his internal medicine residency training. But he's also known far and wide as The EKG Guy. His social media channels have garnered more than 1-million followers and he's produced well over 500 video lessons. He's also created a comprehensive course that he claims can take someone with no EKG experience to advanced interpreter level, as well as EKG coding and pacemaker courses, intended for cardiology fellows and more advanced trainees. He offers multiple courses accredited by the American Medical Association and Accreditation Council for Continuing Medical Education that are available on his website, theekggy.com, for practitioners at all levels.

"Every person who enters an emergency department with chest pain or shortness of breath gets an EKG—it's one of the most simple, non-invasive cost-effective diagnostic tools in medicine," says Kashou. "EKG interpretation skills are critical for patient care, yet many providers feel unequipped to achieve EKG proficiency; oftentimes, they don't understand *why* they see *what* they see on an



Anthony Kashou, MD '18, has recorded more than 500 EKG video lessons, available online.

EKG and simply memorize patterns they need to know to pass exams."

Kashou's "Ultimate EKG Breakdown" now serves as the primary EKG course for the electrophysiology technician and physician assistant programs at the Mayo Clinic. Kashou also leads seminars for medical professionals at Mayo who want to improve their EKG proficiency. He's even developed an EKG course for cardiology fellows, in part to prepare them for their board exam. "One section of the exam is about coding EKGs and is the section that's most commonly failed," he says.

While Kashou is passionate about advancing EKG knowledge among non-cardiac specialists for the benefit of patient care, he's equally committed to innovation in the field. His research focuses on the development of automated algorithms to aid in wide complex tachycardia differentiation, the application of artificial intelligence-enabled electrocardiography in clinical practice, and the creation of educational solutions to improve EKG literacy among medical providers.

"This work is exciting, and the leaps we're making are incredible," says Kashou, who anticipates a career in academic medicine. "We have a chance to truly transform the way we address clinical problems and deliver patient care."

—Renée Gearhart Levy