



*Conversation With...*

**MICHELLE MUNDIS, MS, CMD**

Senior Dosimetrist

University of Maryland Medical System—

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Years in field: 5 in dosimetry; ~10 in radiation oncology

**What was your individual career path in terms of education/training, entry-level job, or other significant opportunity?**

My career path was quite lengthy, even if you cut out the portion where I worked retail as I progressed within a field I wanted to pursue.

I began pursuing a Bachelor's in Physics Education, having wanted to be a teacher since I was a small child. My sophomore year of college, my physics advisor challenged me with the fact that I was only going to take a limited amount of physics classes. He knew I was passionate and enjoyed my current physics work. After all, I could always get certified to teach later in life. With that in mind, and not wanting to jump into a new major/career path without doing some research, I began looking at career paths in physics.

My mom, being a nurse in the imaging department at our local hospital, informed me about medical physics. I job-shadowed and fell in love with the idea of combining medicine and physics. Pursuing a career in medical physics, I obtained a Bachelor's in Physics and a Master's in Medical Physics. I landed my first career-related job within six months of graduating, as a field service engineer working for Varian Medical Systems (now known as Varian, a Siemens Healthineers company) at the Maryland Proton Treatment Center (MPTC), which was in the final stages of the commissioning process. Being an engineer was not my career goal, and once the initial commissioning was over, the position became more service-related and less physics-related. Luckily, an open position as a medical physics extender/assistant became available in the same building, with our client, the University of Maryland Medical System, and I took on the role—effectively putting my Master's in Medical Physics to use.

While in the extender/assistant role, I pursued residency, and continued to try to achieve my goal of becoming a physicist. Changes in the requirements to become certified, and the field becoming more research-focused than clinical—as well as other challenges in moving, not getting any younger, possibly resuming schooling—led me to evaluate my persistence in chasing this career.

I guess you could say the medical dosimetrists I came to know and love while completing their plan's quality assurance measurements, converted me. They informed me of a Certificate of Medical Dosimetry program at the main hospital, and the rest is history. I completed the year-long program, and became a dosimetrist working alongside those who had provided support for me to change my career to one I love!

**What are the most important skills and/or qualities for someone in your profession?**

- Attention to detail
- Communication
- Prioritization and time management
- Computer/math/science/anatomy knowledge

**What do you wish you had known going into this profession?**

I wish I would have had a better sense of the actual profession and career steps to take. I honestly am happy about my career journey and the friendships I made along the way, although I do think it might have been less-costly and possibly more educationally beneficial if I had taken a different route. At the same time, I acquired unique knowledge and skills that other dosimetrists don't have, and it can also be a benefit from time to time.

Planning is ever-evolving, and each patient is different, so the job requires you to adapt. Some of the basics may be repetitive, but largely the job requires you to work with your radiation team and continue to advance what you are doing, while still getting the job done. It requires more continual learning/self-learning to stay current with technology and practices, as the advancements are occurring at an exponential rate.

**Are there many job opportunities in your profession? In what specific areas?**

Staff and senior dosimetrist positions are available, depending on experience level.

Assistant chief and chief dosimetrist positions are available, if one is interested in management/supervision positions.

Educator roles are available, some coinciding with the above (i.e. instructors, clinical preceptors), and some as stand-alone positions (i.e. program director of a dosimetry program). These may or may not require additional education/experience.

Vendor positions are also available. These would include sales, customer service, training on equipment, etc.

**How do you see your profession changing in the next five years, how will technology shift, and what skills will be required?**

Computer skills and even scripting skills are becoming more and more valuable. While scripting skills aren't required, you definitely become a huge asset to your team if you have them.

There is an increase in automation of processes, and/or artificial intelligence. This still requires a lot of input from a dosimetrist to create these processes, and then these processes need to be verified routinely.

A job shortage is expected, and thus I believe our jobs will be much more in-demand—some of which we are already seeing.

There are always new treatment regimens, modalities, equipment, and software, which require additional training and often create additional jobs.

**What do you enjoy most about your job? What do you enjoy least about your job?**

I enjoy find ways to treat the patient with the best plan possible. I truly know I'm impacting their cancer care and their quality of life. I like the problem-solving, and that every day is unique.

I don't like the fact that regardless of how much time you have to plan, you could almost always do better with more time. The job is more about making the most of the time you are given and being okay with the fact that there isn't an infinite amount of time. That being said, it's often minor differences, and "better" can be subjective.

**Can you suggest a valuable “try this” for students considering a career in your profession?**

Job-shadow or watch YouTube videos about the job. Prepare yourself in math, physics, anatomy, computer and communication studies. Use some of the free contouring/planning software. Explore the different routes in becoming a dosimetrist and choose the one that works for you as an individual.