

# Medical Dosimetrists

SOC: 29-2036 • Career Profile Report

## ■ Key Facts

<b>\$138,110</b> Median Salary	<b>4,800</b> Employment	<b>+3.0%</b> Growth Rate
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## ■ Requirements & Salary Range

**Education:** Bachelor's degree

## ■ Automation Risk Assessment

**Low Risk** - 8.0% probability of being automated in the next 10-20 years.

This job is relatively safe from automation due to its creative, social, or complex problem-solving requirements.

## ■ Work-Life Balance

**5.1/10** - Fair work-life balance

## ■ Personality Fit (RIASEC)

Higher scores indicate better personality fit for this career type.

<b>Realistic</b>	5.4/10	<b>Investigative</b>	8.6/10
<b>Artistic</b>	4.8/10	<b>Social</b>	9.0/10
<b>Enterprising</b>	5.4/10	<b>Conventional</b>	6.2/10

## ■ Top Skills Required

Communication skills, Critical-thinking skills, Detail oriented, Interpersonal skills, Math skills, Technical skills

### ✓ Strengths

- High Demand
- Flexible Work
- Continuous Learning

### ■ Challenges

- Burnout Risk
- Rapid Technological Change

## ■ What They Do

Medical Dosimetrists develop treatment plans for cancer patients **by calculating and planning the precise dose of radiation**. They work closely with radiation oncologists, physicists, and therapists to ensure safe and effective radiation therapy. Their work is critical in hospitals, cancer centers, and oncology clinics.

This career is well suited for individuals who enjoy healthcare, technology, mathematics, and working as part of a patient-focused team.

## What Do Medical Dosimetrists Do?

Medical dosimetrists design radiation treatment plans that maximize tumor targeting while minimizing exposure to healthy tissues.

Common responsibilities include:

- Reviewing patient medical records and imaging studies
- Collaborating with radiation oncologists to determine treatment goals
- Calculating radiation doses and developing treatment plans
- Using computer software to simulate and optimize radiation delivery
- Monitoring and adjusting treatment plans based on patient response
- Ensuring compliance with safety standards and protocols
- Maintaining detailed treatment documentation and records

## Key Areas of Medical Dosimetry

Dosimetrists may focus on specific treatment or technical areas:

- Treatment Planning: Designing radiation plans tailored to individual patients
- Radiation Calculation: Determining dose distribution and exposure levels
- Quality Assurance: Verifying accuracy and safety of treatment plans
- Patient Consultation: Coordinating with oncologists and therapists regarding treatment
- Technology Integration: Using specialized software and imaging systems

## Skills and Abilities Needed

Medical dosimetrists combine healthcare knowledge with technical and analytical skills.

### ***Core Professional Skills***

### ***Personal Qualities That Matter***

## Education and Career Pathway

This role typically requires formal education and certification:

- Bachelor's Degree: Radiation therapy, medical physics, or related fields
- Clinical Training or Residency: Hands-on experience in radiation oncology
- Certification: Certification from a recognized dosimetry board
- Continuing Education: Keeping up-to-date with oncology practices, software, and safety standards

## Where Do Medical Dosimetrists Work?

They are employed in healthcare environments focused on cancer treatment:

- Hospitals and Medical Centers
- Cancer Treatment and Radiation Therapy Centers
- Outpatient Oncology Clinics
- Research and Academic Institutions
- Healthcare Technology Companies

Work environments include offices, treatment planning labs, and patient care areas.

## Is This Career Difficult?

This career requires precision, technical knowledge, and collaboration. Dosimetrists must carefully plan radiation treatments to maximize effectiveness and safety, often under time-sensitive conditions.

## Who Should Consider This Career?

This career may be a strong fit if you:

- Enjoy healthcare and technology
- Have strong math, physics, and analytical skills
- Are detail-oriented and precise
- Can work collaboratively in medical teams
- Want a career contributing to cancer treatment and patient care

## How to Prepare Early

- Take courses in math, physics, and biology in high school or college
- Explore radiation therapy or medical physics programs
- Gain experience through internships or clinical training
- Develop proficiency with treatment planning software
- Stay informed on oncology research, safety protocols, and technological advances

**Medical dosimetrists ensure safe and effective radiation therapy, using technical expertise to design precise treatment plans that improve patient outcomes.**