HOW DO I BECOME A HEALTH PHYSICIST?

Because health physicists often have responsibilities needing skills in several disciplines, a broad background of education and experience is necessary. A basic education in the physical sciences is appropriate, but training is also required in other specialized areas.

Academic programs in health physics, leading to baccalaureate and graduate degrees, are offered at several universities. These comprehensive programs offer specialization in health physics, nuclear engineering, biophysics, medical physics, radioecology, or radiation biology.

Training for health physics technicians is also available. Practical experience in applying radiation protection principles is an essential aspect of any educational program. Cooperative work programs offered at many universities provide experience through collaboration with national laboratories, hospitals, research centers, regulatory agencies, and utilities. An extensive list of academic programs that offer degree programs at various levels and in many different specialty areas is posted on the Health Physics Society Web Site: http://www.hps.org.

HEALTH PHYSICS SOCIETY
FOUNDED 1956

Specialists in Radiation Safety

FOR MORE INFORMATION ABOUT THE PROFESSION OF HEALTH PHYSICS PLEASE CONTACT:

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Visit the Health Physics Society Web Site:
http://www.hps.org.

HEALTH PHYSICS

Information on the Profession of *Radiation Safety* and Career Opportunities in the Field

WHAT IS HEALTH PHYSICS?

"Health physics" is the profession devoted to protecting people and their environment from radiation hazards, while making it possible to enjoy the benefits of the many technologies that use radioactive materials and radiation.

Health Physics is an allied health profession that involves many disciplines. It has common scientific interests with many areas of specialization: physics, biology, biophysics, engineering (nuclear, civil, mechanical, and electrical), chemistry, genetics, ecology, environmental sciences, metallurgy, meteorology, hydrology, medicine, physiology, toxicology, and industrial hygiene. The wide spectrum of knowledge required of the health physicist makes this profession both challenging and rewarding.

There is currently a shortage of health physicists, and this shortage is expected to grow in the coming years. Job prospects are excellent for graduating health physicists at all levels of education and experience.

WHAT DO HEALTH PHYSICISTS DO?

Health Physics Researchers:

- Study and model the transport and interaction of radiation in materials to improve radiation shielding and the understanding of the effects of high-energy particles on advanced materials and biological systems on earth and in space.
- Study environmental levels of radioactive material, and examine the fate and consequences of radiation and radioactive materials in the environment.

Environmental Health Physicists

- Assess the human health and environmental risks associated with nuclear facilities, radioactive waste disposal, and naturally occurring radioactive materials.
- Develop strategies for minimizing the environmental impact of nuclear technologies.

Health Physics Educators:

- Develop and provide educational programs for future radiation safety scientists.
- Conduct training for radiation workers and the general public.

Medical Health Physicists:

- Ensure the safe use of radioactive materials, x-ray machines, and particle accelerators in hospitals, clinics, and major medical centers to diagnose and treat disease.

Industrial and Applied Health Physicists:

- Draw upon their technical knowledge and varied experience to recommend methods and equipment to safely work with radiation, radioactive material, or radiation producing machines.
- Assist in designing facilities, equipment, and administrative programs that optimize radiation protection efforts.
- Analyze both normal and unusual system performances to increase safety.

Radiation Safety Officers:

- Ensure that facilities using radiation sources or radioactive materials are in compliance with state and federal radiation safety regulations.
- Make sure that people working with radiation and radioactive material have a safe working environment.

Health Physics Regulators:

- Work at federal, state, and local levels to establish guidelines that control the use of radiation and radioactive materials so that society may receive the greatest benefits with the least exposure or hazard.