Respiratory Therapists

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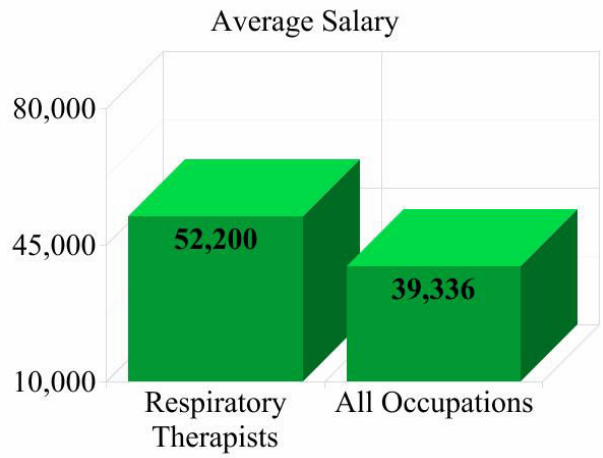
WHAT THEY DO

Respiratory therapists—also known as respiratory care practitioners—evaluate, treat, and care for patients with breathing or other cardiopulmonary disorders. Practicing under the direction of a physician, respiratory therapists assume primary responsibility for all respiratory care therapeutic treatments and diagnostic procedures, including the supervision of respiratory therapy technicians. They consult with physicians and other healthcare staff to help develop and modify patient care plans. Therapists also provide complex therapy requiring considerable independent judgment, such as caring for patients on life support in intensive-care units of hospitals.

Respiratory therapists evaluate and treat all types of patients, ranging from premature infants whose lungs are not fully developed to elderly people whose lungs are diseased. They provide temporary relief to patients with chronic asthma or emphysema and give emergency care to patients who are victims of a heart attack, stroke, drowning, or shock.



Respiratory therapists interview patients, perform limited physical examinations, and conduct diagnostic tests. For example, respiratory therapists test a patient's breathing capacity and determine the concentration of oxygen and other gases in a patient's blood.

They also measure a patient's pH, which indicates the acidity or alkalinity of the blood. To evaluate a patient's lung capacity, respiratory therapists have the patient breathe into an instrument that measures the volume and flow of oxygen during inhalation and exhalation. By comparing the reading with the norm for the patient's age, height, weight, and sex, respiratory therapists can provide information that helps determine whether the patient has any lung deficiencies.

To treat patients, respiratory therapists use oxygen or oxygen mixtures, chest physiotherapy, and aerosol medications—liquid medications suspended in a gas that forms a mist which is inhaled. They teach patients how to inhale the aerosol properly to ensure its effectiveness. When a patient has difficulty getting enough oxygen into his or her blood, therapists increase the patient's concentration of oxygen by placing an oxygen mask or nasal cannula on the patient and setting the oxygen flow at the level prescribed by a physician. Therapists also connect patients who cannot breathe on their own to ventilators that deliver pressurized oxygen into the lungs. The therapists insert a tube into the patient's trachea, or windpipe; connect the tube to the ventilator; and set the rate, volume, and oxygen concentration of the oxygen mixture entering the patient's lungs.

Respiratory therapists perform chest physiotherapy on patients to remove mucus from their lungs and make it easier for them to breathe. Therapists place patients in positions that help drain mucus, and then vibrate the patients' rib cages, often by tapping on the chest, and tell the patients to cough. Chest physiotherapy may be needed after surgery, for example, because anesthesia depresses respiration. As a result, physiotherapy may be prescribed to help get the patient's lungs back to normal and to prevent congestion. Chest physiotherapy also helps patients suffering from lung diseases, such as cystic fibrosis, that cause mucus to collect in the lungs.

EDUCATION REQUIRED

An associate degree is required to become a respiratory therapist. Training is offered at the postsecondary level by colleges and universities, medical schools, vocational-technical institutes, and the Armed Forces. Most programs award associate or bachelor's degree and prepare graduates for jobs as advanced respiratory therapists. A limited number of associate degree programs lead to jobs as entry-level respiratory therapists. According to the Commission on Accreditation of Allied Health Education Programs (CAAHEP), 31 entry-level and 346 advanced respiratory therapy programs were accredited in the United States in 2008.

Among the areas of study in respiratory therapy programs are human anatomy and physiology, pathophysiology, chemistry, physics, microbiology, pharmacology, and mathematics. Other courses deal with therapeutic and diagnostic procedures and tests, equipment, patient assessment, cardiopulmonary resuscitation, the application of clinical practice guidelines, patient care outside of hospitals, cardiac and pulmonary rehabilitation, respiratory health promotion and disease prevention, and medical recordkeeping and reimbursement.

High school students interested in applying to respiratory therapy programs should take courses in health, biology, mathematics, chemistry, and physics. Respiratory care involves basic mathematical problem solving and an understanding of chemical and physical principles. For example, respiratory care workers must be able to compute dosages of medication and calculate gas concentrations.

Respiratory Therapists - Continued

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OTHER USEFUL SKILLS

Therapists should be sensitive to a patient's physical and psychological needs. Respiratory care practitioners must pay attention to detail, follow instructions, and work as part of a team. In addition, operating advanced equipment requires proficiency with computers.

HOW TO ADVANCE

Respiratory therapists advance in clinical practice by moving from general care to the care of critically ill patients who have significant problems in other organ systems, such as the heart or kidneys. Respiratory therapists, especially those with a bachelor's or master's degree, also may advance to supervisory or managerial positions in a respiratory therapy department. Respiratory therapists in home healthcare and equipment rental firms may become branch managers. Some respiratory therapists advance by moving into teaching positions. Some others use the knowledge gained as a respiratory therapist to work in another industry, such as developing, marketing, or selling pharmaceuticals and medical devices.

WORK ENVIRONMENT

Respiratory therapists generally work between 35 and 40 hours a week. Because hospitals operate around the clock, therapists can work evenings, nights, or weekends. They spend long periods standing and walking between patients' rooms. In an emergency, therapists work under the stress of the situation. Respiratory therapists employed in home healthcare must travel frequently to patients' homes.

Respiratory therapists are trained to work with gases stored under pressure. Adherence to safety precautions and regular maintenance and testing of equipment minimize the risk of injury. As in many other health occupations, respiratory therapists are exposed to infectious diseases, but by carefully following proper procedures, they can minimize these risks.

CERTIFICATION NEEDED

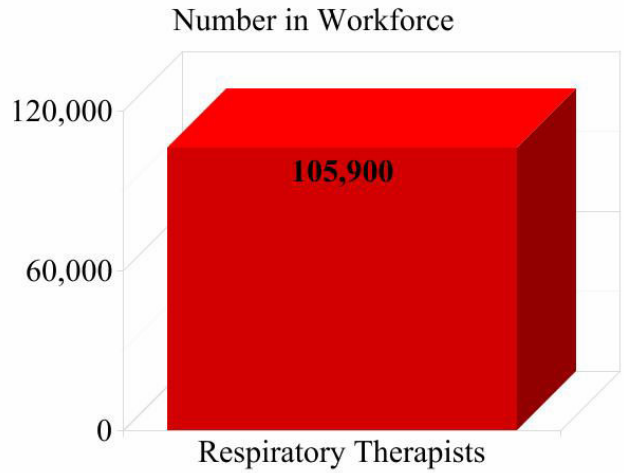
A license is required to practice as a respiratory therapist, except in Alaska and Hawaii. Also, most employers require respiratory therapists to maintain a cardiopulmonary resuscitation certification. Licensure is usually based, in large part, on meeting the requirements for certification from the National Board for Respiratory Care. The board offers the Certified Respiratory Therapist credential to those who graduate from entry-level or advanced programs accredited by CAAHEP or the Committee on Accreditation for Respiratory Care and who also pass an exam.

JOB GROWTH

Employment of respiratory therapists is expected to grow by 21 percent from 2008 to 2018, much faster than the average for all occupations. The increasing demand will come from substantial growth in the middle-aged and elderly population—a development that will heighten the incidence of cardiopulmonary disease. Growth in demand also will result from the expanding role of respiratory therapists in case management, disease prevention, emergency care, and the early detection of pulmonary disorders.

Older Americans suffer most from respiratory ailments and cardiopulmonary diseases, such as pneumonia, chronic bronchitis, emphysema, and heart disease. As the number of older persons increases, the need for respiratory therapists is expected to increase as well.

In addition, advances in inhalable medications and in the treatment of lung transplant patients, heart attack and accident victims, and premature infants—many of whom depend on a ventilator during part of their treatment—will increase the demand for the services of respiratory care practitioners.



Job opportunities are expected to be very good, especially for those with a bachelor's degree and certification, and those with cardiopulmonary care skills or experience working with infants. The vast majority of job openings will continue to be in hospitals.

However, a growing number of openings are expected to be outside of hospitals, especially in home healthcare services, offices of physicians or other health practitioners, consumer-goods rental firms, or in the employment services industry as a temporary worker in various settings.