Allergists and Immunologists

Diagnose, treat, and help prevent allergic diseases and disease processes affecting the immune system.

Sample of reported job titles: Allergist; Allergist/Immunologist; Allergist/Immunologist, Physician; Allergist/MD; Allergist/Pediatric Pulmonologist; Allergy and Immunology Specialist; Allergy Physician; MD Pediatric Allergist; Physician; Physician, Owner of Independent Medical Practice

Tasks

- Diagnose or treat allergic or immunologic conditions.
- Order or perform diagnostic tests such as skin pricks and intradermal, patch, or delayed hypersensitivity tests.
- Educate patients about diagnoses, prognoses, or treatments.
- Develop individualized treatment plans for patients, considering patient preferences, clinical data, or the risks and benefits of therapies.
- Prescribe medication such as antihistamines, antibiotics, and nasal, oral, topical, or inhaled glucocorticosteroids.
- Document patients' medical histories.
- Conduct physical examinations of patients.
- Assess the risks and benefits of therapies for allergic and immunologic disorders.
- Interpret diagnostic test results to make appropriate differential diagnoses.
- Provide therapies, such as allergen immunotherapy and immunoglobin therapy, to treat immune conditions.
- Coordinate the care of patients with other health care professionals or support staff.
- Engage in self-directed learning and continuing education activities.
- Perform allergen provocation tests such as nasal, conjunctival, bronchial, oral, food, and medication challenges.
- Provide allergy or immunology consultation or education to physicians or other health care providers.
- Conduct laboratory or clinical research on allergy or immunology topics.

Tools & Technology

Tools used in this occupation:

- **Automated external defibrillators AED or hard paddles** — Automated external defibrillators AED
- **Desktop computers**
- **Electrocardiography EKG units** — Electrocardiography EKG machines
- **Electronic medical thermometers** — Digital medical thermometers
- **Immunology analyzers** — Immunoassay analyzers
- **Intravenous infusion pumps for general use** — Intravenous IV infusion pumps
- **Intravenous tubing with catheter administration kits** — Intravenous IV equipment
- **Intubation forceps** — Magill forceps
- **Laryngoscopes or accessories** — Laryngoscopes
- **Medical acoustic stethoscope or accessory** — Mechanical stethoscopes
- **Medical gas cylinders or related devices** — Oxygen cylinders
- **Medical suction or vacuum appliances** — Medical suction pumps
- **Medical syringe with needle** — Hypodermic syringes
- **Medical ultrasound or doppler or pulse echo or echography units for general diagnostic use** — Ultrasound imaging scanners
- **Mercury blood pressure units** — Sphygmomanometers
- **Microbiology analyzers** — Flow cytometry equipment
- **Nebulizer or accessories** — Portable nebulizers
- **Ophthalmoscopes or otoscopes or scope sets** — Ophthalmoscopes; Otoscopes
- **Oxygen concentrators** — Oxygen delivery concentrators
- **Peak flowmeters** — Peak flow meters
- **Pulse oximeter units** — Pulse oximeters
- **Scanning light or spinning disk or laser scanning microscopes** — Laser scanning confocal microscopes
- **Spirometers or its accessories or its supplies** — Digital spirometers
- **Surgical scissors**
- **Tablet computers**
- **Visible light radiator** — Phototherapy units

Technology used in this occupation:

- **Analytical or scientific software** — FlowJo; GraphPad Software GraphPad Prism; Microscope imaging software; Molecular Devices Softmax Pro
- **Electronic mail software** — Email software

- **Medical software** — Bizmatics PrognoCIS EMR; Greenway Medical Technologies PrimeSUITE; Mountainside Software Allergy Lab; Rosch Visionary Systems Visionary Allergy Tracker
- **Office suite software** — Microsoft Office software
- **Presentation software** — Microsoft PowerPoint
- **Spreadsheet software** — Microsoft Excel
- **Word processing software** — Microsoft Word

Knowledge

- **Medicine and Dentistry** — Knowledge of the information and techniques needed to diagnose and treat human injuries, diseases, and deformities. This includes symptoms, treatment alternatives, drug properties and interactions, and preventive health-care measures.
- **Biology** — Knowledge of plant and animal organisms, their tissues, cells, functions, interdependencies, and interactions with each other and the environment.
- **Customer and Personal Service** — Knowledge of principles and processes for providing customer and personal services. This includes customer needs assessment, meeting quality standards for services, and evaluation of customer satisfaction.
- **English Language** — Knowledge of the structure and content of the English language including the meaning and spelling of words, rules of composition, and grammar.
- **Psychology** — Knowledge of human behavior and performance; individual differences in ability, personality, and interests; learning and motivation; psychological research methods; and the assessment and treatment of behavioral and affective disorders.
- **Administration and Management** — Knowledge of business and management principles involved in strategic planning, resource allocation, human resources modeling, leadership technique, production methods, and coordination of people and resources.
- **Education and Training** — Knowledge of principles and methods for curriculum and training design, teaching and instruction for individuals and groups, and the measurement of training effects.
- **Therapy and Counseling** — Knowledge of principles, methods, and procedures for diagnosis, treatment, and rehabilitation of physical and mental dysfunctions, and for career counseling and guidance.
- **Personnel and Human Resources** — Knowledge of principles and procedures for personnel recruitment, selection, training, compensation and benefits, labor relations and negotiation, and personnel information systems.
- **Mathematics** — Knowledge of arithmetic, algebra, geometry, calculus, statistics, and their applications.

- **Economics and Accounting** — Knowledge of economic and accounting principles and practices, the financial markets, banking and the analysis and reporting of financial data.
- **Public Safety and Security** — Knowledge of relevant equipment, policies, procedures, and strategies to promote effective local, state, or national security operations for the protection of people, data, property, and institutions.
- **Chemistry** — Knowledge of the chemical composition, structure, and properties of substances and of the chemical processes and transformations that they undergo. This includes uses of chemicals and their interactions, danger signs, production techniques, and disposal methods.
- **Computers and Electronics** — Knowledge of circuit boards, processors, chips, electronic equipment, and computer hardware and software, including applications and programming.
- **Law and Government** — Knowledge of laws, legal codes, court procedures, precedents, government regulations, executive orders, agency rules, and the democratic political process.

Skills

- **Reading Comprehension** — Understanding written sentences and paragraphs in work related documents.
- **Active Listening** — Giving full attention to what other people are saying, taking time to understand the points being made, asking questions as appropriate, and not interrupting at inappropriate times.
- **Speaking** — Talking to others to convey information effectively.
- **Critical Thinking** — Using logic and reasoning to identify the strengths and weaknesses of alternative solutions, conclusions or approaches to problems.
- **Judgment and Decision Making** — Considering the relative costs and benefits of potential actions to choose the most appropriate one.
- **Monitoring** — Monitoring/Assessing performance of yourself, other individuals, or organizations to make improvements or take corrective action.
- **Writing** — Communicating effectively in writing as appropriate for the needs of the audience.
- **Active Learning** — Understanding the implications of new information for both current and future problem-solving and decision-making.
- **Complex Problem Solving** — Identifying complex problems and reviewing related information to develop and evaluate options and implement solutions.
- **Social Perceptiveness** — Being aware of others' reactions and understanding why they react as they do.
- **Instructing** — Teaching others how to do something.
- **Science** — Using scientific rules and methods to solve problems.

- **Time Management** — Managing one's own time and the time of others.
- **Learning Strategies** — Selecting and using training/instructional methods and procedures appropriate for the situation when learning or teaching new things.
- **Service Orientation** — Actively looking for ways to help people.
- **Coordination** — Adjusting actions in relation to others' actions.
- **Systems Evaluation** — Identifying measures or indicators of system performance and the actions needed to improve or correct performance, relative to the goals of the system.
- **Persuasion** — Persuading others to change their minds or behavior.
- **Systems Analysis** — Determining how a system should work and how changes in conditions, operations, and the environment will affect outcomes.

Abilities

- **Oral Expression** — The ability to communicate information and ideas in speaking so others will understand.
- **Problem Sensitivity** — The ability to tell when something is wrong or is likely to go wrong. It does not involve solving the problem, only recognizing there is a problem.
- **Inductive Reasoning** — The ability to combine pieces of information to form general rules or conclusions (includes finding a relationship among seemingly unrelated events).
- **Oral Comprehension** — The ability to listen to and understand information and ideas presented through spoken words and sentences.
- **Deductive Reasoning** — The ability to apply general rules to specific problems to produce answers that make sense.
- **Written Comprehension** — The ability to read and understand information and ideas presented in writing.
- **Speech Clarity** — The ability to speak clearly so others can understand you.
- **Written Expression** — The ability to communicate information and ideas in writing so others will understand.
- **Fluency of Ideas** — The ability to come up with a number of ideas about a topic (the number of ideas is important, not their quality, correctness, or creativity).
- **Near Vision** — The ability to see details at close range (within a few feet of the observer).
- **Speech Recognition** — The ability to identify and understand the speech of another person.
- **Originality** — The ability to come up with unusual or clever ideas about a given topic or situation, or to develop creative ways to solve a problem.
- **Selective Attention** — The ability to concentrate on a task over a period of time without being distracted.

- **Category Flexibility** — The ability to generate or use different sets of rules for combining or grouping things in different ways.
- **Flexibility of Closure** — The ability to identify or detect a known pattern (a figure, object, word, or sound) that is hidden in other distracting material.
- **Information Ordering** — The ability to arrange things or actions in a certain order or pattern according to a specific rule or set of rules (e.g., patterns of numbers, letters, words, pictures, mathematical operations).
- **Speed of Closure** — The ability to quickly make sense of, combine, and organize information into meaningful patterns.
- **Memorization** — The ability to remember information such as words, numbers, pictures, and procedures.
- **Far Vision** — The ability to see details at a distance.
- **Mathematical Reasoning** — The ability to choose the right mathematical methods or formulas to solve a problem.
- **Time Sharing** — The ability to shift back and forth between two or more activities or sources of information (such as speech, sounds, touch, or other sources).
- **Visualization** — The ability to imagine how something will look after it is moved around or when its parts are moved or rearranged.

Work Activities

- **Assisting and Caring for Others** — Providing personal assistance, medical attention, emotional support, or other personal care to others such as coworkers, customers, or patients.
- **Getting Information** — Observing, receiving, and otherwise obtaining information from all relevant sources.
- **Updating and Using Relevant Knowledge** — Keeping up-to-date technically and applying new knowledge to your job.
- **Documenting/Recording Information** — Entering, transcribing, recording, storing, or maintaining information in written or electronic/magnetic form.
- **Making Decisions and Solving Problems** — Analyzing information and evaluating results to choose the best solution and solve problems.
- **Establishing and Maintaining Interpersonal Relationships** — Developing constructive and cooperative working relationships with others, and maintaining them over time.
- **Processing Information** — Compiling, coding, categorizing, calculating, tabulating, auditing, or verifying information or data.
- **Interpreting the Meaning of Information for Others** — Translating or explaining what information means and how it can be used.
- **Communicating with Supervisors, Peers, or Subordinates** — Providing information to supervisors, co-workers, and subordinates by telephone, in written form, e-mail, or in person.

- **Identifying Objects, Actions, and Events** — Identifying information by categorizing, estimating, recognizing differences or similarities, and detecting changes in circumstances or events.
- **Performing for or Working Directly with the Public** — Performing for people or dealing directly with the public. This includes serving customers in restaurants and stores, and receiving clients or guests.
- **Organizing, Planning, and Prioritizing Work** — Developing specific goals and plans to prioritize, organize, and accomplish your work.
- **Communicating with Persons Outside Organization** — Communicating with people outside the organization, representing the organization to customers, the public, government, and other external sources. This information can be exchanged in person, in writing, or by telephone or e-mail.
- **Monitor Processes, Materials, or Surroundings** — Monitoring and reviewing information from materials, events, or the environment, to detect or assess problems.
- **Analyzing Data or Information** — Identifying the underlying principles, reasons, or facts of information by breaking down information or data into separate parts.
- **Evaluating Information to Determine Compliance with Standards** — Using relevant information and individual judgment to determine whether events or processes comply with laws, regulations, or standards.
- **Developing Objectives and Strategies** — Establishing long-range objectives and specifying the strategies and actions to achieve them.
- **Interacting With Computers** — Using computers and computer systems (including hardware and software) to program, write software, set up functions, enter data, or process information.
- **Scheduling Work and Activities** — Scheduling events, programs, and activities, as well as the work of others.
- **Provide Consultation and Advice to Others** — Providing guidance and expert advice to management or other groups on technical, systems-, or process-related topics.
- **Resolving Conflicts and Negotiating with Others** — Handling complaints, settling disputes, and resolving grievances and conflicts, or otherwise negotiating with others.
- **Training and Teaching Others** — Identifying the educational needs of others, developing formal educational or training programs or classes, and teaching or instructing others.
- **Developing and Building Teams** — Encouraging and building mutual trust, respect, and cooperation among team members.
- **Judging the Qualities of Things, Services, or People** — Assessing the value, importance, or quality of things or people.
- **Thinking Creatively** — Developing, designing, or creating new applications, ideas, relationships, systems, or products, including artistic contributions.

- **Estimating the Quantifiable Characteristics of Products, Events, or Information** — Estimating sizes, distances, and quantities; or determining time, costs, resources, or materials needed to perform a work activity.
- **Guiding, Directing, and Motivating Subordinates** — Providing guidance and direction to subordinates, including setting performance standards and monitoring performance.
- **Monitoring and Controlling Resources** — Monitoring and controlling resources and overseeing the spending of money.
- **Coordinating the Work and Activities of Others** — Getting members of a group to work together to accomplish tasks.
- **Coaching and Developing Others** — Identifying the developmental needs of others and coaching, mentoring, or otherwise helping others to improve their knowledge or skills.
- **Inspecting Equipment, Structures, or Material** — Inspecting equipment, structures, or materials to identify the cause of errors or other problems or defects.
- **Performing Administrative Activities** — Performing day-to-day administrative tasks such as maintaining information files and processing paperwork.
- **Selling or Influencing Others** — Convincing others to buy merchandise/goods or to otherwise change their minds or actions.

Detailed Work Activities

- Treat chronic diseases or disorders.
- Record patient medical histories.
- Diagnose medical conditions.
- Prescribe medications.
- Analyze test data or images to inform diagnosis or treatment.
- Examine patients to assess general physical condition.
- Develop medical treatment plans.
- Explain medical procedures or test results to patients or family members.
- Order medical diagnostic or clinical tests.
- Collaborate with healthcare professionals to plan or provide treatment.
- Train medical providers.
- Evaluate treatment options to guide medical decisions.
- Maintain medical or professional knowledge.
- Advise medical personnel regarding healthcare issues.
- Conduct research to increase knowledge about medical issues.
- Present medical research reports.

Work Context

- **Contact With Others** — 98% responded "Constant contact with others."
- **Telephone** — 100% responded "Every day."
- **Frequency of Decision Making** — 98% responded "Every day."
- **Freedom to Make Decisions** — 94% responded "A lot of freedom."
- **Impact of Decisions on Co-workers or Company Results** — 82% responded "Very important results."
- **Importance of Being Exact or Accurate** — 84% responded "Extremely important."
- **Exposed to Disease or Infections** — 81% responded "Every day."
- **Indoors, Environmentally Controlled** — 95% responded "Every day."
- **Work With Work Group or Team** — 65% responded "Extremely important."
- **Face-to-Face Discussions** — 78% responded "Every day."
- **Structured versus Unstructured Work** — 64% responded "A lot of freedom."
- **Electronic Mail** — 72% responded "Every day."
- **Physical Proximity** — 63% responded "Very close (near touching)."
- **Deal With External Customers** — 51% responded "Very important."
- **Responsibility for Outcomes and Results** — 50% responded "High responsibility."
- **Letters and Memos** — 63% responded "Every day."
- **Coordinate or Lead Others** — 48% responded "Very important."
- **Responsible for Others' Health and Safety** — 14% responded "Limited responsibility."
- **Consequence of Error** — 62% responded "Serious."
- **Importance of Repeating Same Tasks** — 34% responded "Extremely important."
- **Time Pressure** — 25% responded "Once a week or more but not every day."
- **Duration of Typical Work Week** — 36% responded "More than 40 hours."
- **Level of Competition** — 36% responded "Slightly competitive."
- **Spend Time Sitting** — 38% responded "About half the time."
- **Frequency of Conflict Situations** — 49% responded "Once a month or more but not every week."
- **Spend Time Standing** — 57% responded "About half the time."

Job Zone

Title	Job Zone Five: Extensive Preparation Needed
Education	Most of these occupations require graduate school. For example, they may require a master's degree, and some require a Ph.D., M.D., or J.D. (law degree).
Related Experience	Extensive skill, knowledge, and experience are needed for these occupations. Many require more than five years of experience. For example, surgeons must complete four years of college and an additional five to seven years of specialized medical training to be able to do their job.
Job Training	Employees may need some on-the-job training, but most of these occupations assume that the person will already have the required skills, knowledge, work-related experience, and/or training.
Job Zone Examples	These occupations often involve coordinating, training, supervising, or managing the activities of others to accomplish goals. Very advanced communication and organizational skills are required. Examples include librarians, lawyers, sports medicine physicians, wildlife biologists, school psychologists, surgeons, treasurers, and controllers.

Interests

Interest code: **ISR**

- **Investigative** — Investigative occupations frequently involve working with ideas, and require an extensive amount of thinking. These occupations can involve searching for facts and figuring out problems mentally.

- **Social** — Social occupations frequently involve working with, communicating with, and teaching people. These occupations often involve helping or providing service to others.

- **Realistic** — Realistic occupations frequently involve work activities that include practical, hands-on problems and solutions. They often deal with plants, animals, and real-world materials like wood, tools, and machinery. Many of the occupations require working outside, and do not involve a lot of paperwork or working closely with others.

Work Styles

- **Concern for Others** — Job requires being sensitive to others' needs and feelings and being understanding and helpful on the job.

- **Attention to Detail** — Job requires being careful about detail and thorough in completing work tasks.

- **Integrity** — Job requires being honest and ethical.

- **Dependability** — Job requires being reliable, responsible, and dependable, and fulfilling obligations.
- **Analytical Thinking** — Job requires analyzing information and using logic to address work-related issues and problems.
- **Achievement/Effort** — Job requires establishing and maintaining personally challenging achievement goals and exerting effort toward mastering tasks.
- **Independence** — Job requires developing one's own ways of doing things, guiding oneself with little or no supervision, and depending on oneself to get things done.
- **Self Control** — Job requires maintaining composure, keeping emotions in check, controlling anger, and avoiding aggressive behavior, even in very difficult situations.
- **Social Orientation** — Job requires preferring to work with others rather than alone, and being personally connected with others on the job.
- **Adaptability/Flexibility** — Job requires being open to change (positive or negative) and to considerable variety in the workplace.
- **Stress Tolerance** — Job requires accepting criticism and dealing calmly and effectively with high stress situations.
- **Cooperation** — Job requires being pleasant with others on the job and displaying a good-natured, cooperative attitude.
- **Persistence** — Job requires persistence in the face of obstacles.
- **Leadership** — Job requires a willingness to lead, take charge, and offer opinions and direction.
- **Initiative** — Job requires a willingness to take on responsibilities and challenges.
- **Innovation** — Job requires creativity and alternative thinking to develop new ideas for and answers to work-related problems.

Work Values

- **Recognition** — Occupations that satisfy this work value offer advancement, potential for leadership, and are often considered prestigious. Corresponding needs are Advancement, Authority, Recognition and Social Status.
- **Independence** — Occupations that satisfy this work value allow employees to work on their own and make decisions. Corresponding needs are Creativity, Responsibility and Autonomy.
- **Achievement** — Occupations that satisfy this work value are results oriented and allow employees to use their strongest abilities, giving them a feeling of accomplishment. Corresponding needs are Ability Utilization and Achievement.