Kinesiotherapy: Overview

The American Kinesiotherapy Association

Improvement Through Movement Since 1946
THE AMERICAN KINESIOThERAPy ASSOCIATION

DEFINITION

Kinesiotherapy is the application of scientifically based exercise principles adapted to enhance the strength, endurance, and mobility of individuals with functional limitations or those requiring extended physical conditioning. A registered Kinesiotherapist can administer treatment only upon receipt of a prescription from qualified physicians, nurse practitioners, and/or physician’s assistants who have been privileged to make such referrals.

MISSION

The mission of the American Kinesiotherapy Association, Inc. (AKTA) is to serve the interest of its members and will represent the profession to the public. The organization will work to enhance the standard of care provided by Kinesiotherapists through the promotion and provision of educational opportunities.
A BRIEF HISTORY

Kinesiotherapy (formerly Corrective Therapy) is an allied health profession that has been in existence since 1946. The roots of this profession began during WWII. With the increased survival of troops suffering from illness or injury as a result of new medicines and surgical techniques, there was a great demand to return soldiers to active duty. Corrective physical reconditioning units were established to enhance this process.

Early pioneers in the emerging field of rehabilitation medicine were U.S. Surgeon General Major Norman T. Kirk and Dr. Howard Rusk. By 1946, they had overseen the training of physical reconditioning specialists for the armed forces with funding and support from the federal government. Employing exercise and mobility programs, these “Corrective Therapists” in the military provided a program of treatment for convalescing troops, increasing the demand for this specialty in the Armed Forces. The early leaders in rehabilitation saw the need to organize and accredit these new specialists accordingly.

In 1953, the American Corrective Therapy Association (the predecessor of the AKTA), realized the need for a credentialing process and formally adopted a certification examination to establish a consistent level of competency. The process of credentialing and establishing academic programs has evolved throughout its history. In 1980, the clinical training requirements increased from 400 to 1,000 clock hours.

In 1982, the Council on Professional Standards (COPS-KT) was established. In 1986, mandatory continuing education requirements were set to maintain registration; and in 1987, the Professional Evaluation Service (PES), a national testing service was contracted to standardize and administer the national certification examination.

Following completion of a baccalaureate program, therapists who successfully pass the certification examination become Registered Kinesiotherapists (RKT). RKT’s who meet continuing education requirements set by COPS-KT qualify for listing on its national registry.

The name Corrective Therapy was formally changed to Kinesiotherapy in 1987 and the national organization became known as the American Kinesiotherapy Association.

In the continuing effort to meet and maintain the highest standards for rehabilitation, Kinesiotherapy was formally recognized as an allied health profession by a national accrediting body, the Commission on Accreditation of Allied Health Education Programs (CAAHEP), in April 1995. This attainment culminated many years of moving forward in health care excellence.

Adapted from “Kinesiotherapy -Then and Now, by Warren Smith, RKT, March 1994. Synopsis by Susan Raich, RKT and Lorie Hansen. MST, RKT
Education & Training

LENGTH OF PROGRAM
Minimum standards for curriculum common to the occupation of Kinesiotherapy have been established by the Committee on Accreditation of Education Programs for Kinesiotherapy (CoA-KT), which reviews programs and based on the findings, submits a recommendation to CAAHEP regarding accreditation.

DIDACTIC COURSE REQUIREMENTS
While the preponderance of the course work in the first two years is of classroom theory, many courses have laboratory or practical type “hands on” experiences that are supervised. For example, anatomy and physiology courses generally have laboratory experiences, some of which involves work with cadavers or other human materials. The same is true in years three and four as it relates to courses taken on the various university campuses. Again for illustrative proposes, most biomechanics and exercise physiology courses require supervised laboratory experience. These experiences range from cinematographic analysis of human performance to the administration of stress tests with sophisticated EKG monitoring.

GENERAL EDUCATIONAL REQUIREMENTS
- English
- Psychology (General)
- Communications
- Mathematics

SCIENCE REQUIREMENTS
- Biology
- Physics
- Physiology
- Chemistry
- Anatomy
Education & Training

SUGGESTED INSTITUTIONAL ELECTIVES

- Ethics
- Sociology
- Swimming (Life Saving)
- First Aid
- Developmental Games
- Personal and Community Health
- Individual Exercise Activities
- Theory of Kinesiotherapy

SUGGESTED PRE-PROFESSIONAL CORE COURSES

The professional curriculum for years three and four are as follows.

- Medical Terminology
- Sports Medicine
- Swimming (Life Saving)
- First Aid
- Developmental Games
- Personal and Community Health
- Individual Exercise Activities
- Theory of Kinesiotherapy

SCIENCE REQUIREMENTS

- Anatomy
- Physiology
- Growth and Development
- Abnormal Psychology
- Exercise Physiology
- Biomechanics
- Physiological Psychology
- Neurology/Pathology
- Statistics
Education & Training

SUGGESTED PROFESSIONAL CORE COURSES

- Motor Learning
- Safety/Wellness/Fitness/First Aid
- Problems of Aging
- Cardiac Fitness/Rehabilitation
- Nutrition
- Senior Research Project

CLINICAL INTERNSHIP

After the scientific and professional components of the curriculum have been completed, the qualified student will have the opportunity to apply his or her knowledge in the clinical internship working with patients referred for medically prescribed exercise. The clinical internship is supervised by registered Kinesiotherapists through university and private rehabilitation clinics, hospitals, mental health, nursing, and wellness centers as well as special schools.

THEORY AND PRACTICE

- Kinesiotherapy I and II
- Organization/Administration

CLINICAL INTERNSHIP
(minimum of 1000 hours)

- Neurology
- Orthopedics
- Cardiac
- Pediatric
- Psychiatry
- Geriatric
- Wellness and Fitness Programs
- Specialization
Education & Training

CLINICAL INTERNSHIP REQUIREMENTS

Students are required to have a minimal grade point average of 2.5 (4.0 scale) with no course below a grade of “C” before becoming qualified for admission in the Kinesiotherapy Clinical Internship.

The accredited colleges and universities require a four-year bachelor’s degree in Kinesiotherapy or a bachelor’s degree in Exercise Science with a specialization in Kinesiotherapy.

STUDENT ADMISSION REQUIREMENTS

Admission requirements for those colleges and universities with programs accredited by the Committee on Accreditation for Kinesiotherapy Programs (CoA-KT) are specific to each institution. This information is on file with the Director of Accreditation for CoA-KT and can be provided upon request.

Kinesiotherapist with an undergraduate degree would be eligible to enter any college or university to pursue further studies at either the masters or doctoral level.

Choices for specializing beyond the entry level are nearly limitless, with the most likely choices listed below:

1. **Motor Learning** - to improve therapy skills needed in work with pediatric populations, or with neurologically impaired persons.

2. **Exercise Physiology** - to improve therapy skills which would allow the practitioner to design more advanced conditioning programs, including cardiac rehabilitation.

3. **Biomechanics** - to improve skills in the areas of ergonomics.

4. **Gerontology** - to improve skills needed to design exercise and conditioning programs for the elderly.

5. **Psychology** - to improve skills used in working with psychologically and sociologically dysfunctional persons.

6. **Business Administration** - to develop knowledge and skills needed to manage an independent therapy practice.
Education & Training

7. **Education** - to produce a therapist-educator capable of working in the college/university setting to train and educate students in a Kinesiotherapy program.

Kinesiotherapists advance into supervisory positions within the parameters of the employer’s qualification standards. This may mean advancement to a section supervisor of Kinesiotherapy, supervisor of specialized treatment areas (aquatics, cardiac rehabilitation, geriatric home-based care section, etc.), or even into positions within a multidisciplinary treatment team where the Kinesiotherapist would coordinate all team members. Kinesiotherapists are employed in educational settings and may advance as per the standards established by the employer. Administrative positions for Kinesiotherapists are also available, as experience and skill level advance.

**KINESIOATHERAPISTS ARE PRACTICING IN THE FOLLOWING PLACES**

Currently the practice of Kinesiotherapy is established in almost every state. There are also Registered Kinesiotherapists practicing in Canada, Aruba, and Malaysia. The Council on Professional Standards for Kinesiotherapy has established a national roster for Registered Kinesiotherapists.

**CURRENT KINESIOOTHERAPY PROGRAMS**

It is anticipated that two new programs will be added during the next five years. Based on previous projections, it is anticipated that these new programs would produce 600 to 700 additional Kinesiotherapists within the next five years.
KINESIOTHERAPY ACCREDITATION

THE COMMISSION ON ACCREDITATION OF ALLIED HEALTH EDUCATION PROGRAMS RECOGNIZES KINESIOTHERAPY AS AN ALLIED HEALTH CARE PROFESSION

The Commission on Accreditation of Allied Health Education Programs (CAAHEP) voted in April 1995, to recognize Kinesiotherapy as an Allied Health Profession. In that same year the American Kinesiotherapy Association and the American Academy of Physical Medicine and Rehabilitation joined CAAHEP as co-sponsors of Kinesiotherapy. In April 1997, during the third annual CAAHEP Conference, the Commissioners voted to formally recognize the Committee on Accreditation of Education Programs for Kinesiotherapy. On April 23, 1998, the CAAHEP Executive Board approved The Standards and Guidelines for Accredited Educational Programs for Kinesiotherapy.

CAAHEP, a national, voluntary, specialized accreditation agency, independent of any single professional organization or agency, represents a broad range of health care disciplines. The mission of CAAHEP is to provide recognition for the quality of the educational programs in its system to the public.

PROFESSIONAL CREDENTIALING

Registration as a Kinesiotherapist: Individuals who satisfy the didactic coursework requirements, consisting of a minimum of a bachelors degree in exercise science or related field, completion of specific core courses with grades no less than C, and overall GPA of at least 2.5 (on a 4.0 scale), and who complete the 1000 hour clinical internship requirements are eligible to take the Registration Examination in Kinesiotherapy. Application to take the exam is available at www.akta.org.

Application materials include all official transcripts from colleges or universities attended, written verification of the clinical hours from clinical supervisors, and the non-refundable application fee, all of which should be sent directly to the Director of the Registration Board.
KINESIOOTHERAPY
ACCREDITATION

Upon determination of eligibility, candidates will be notified in writing of the next scheduled examination dates and locations, and will need to submit the examination fee. The exam is offered twice yearly. All application materials must be received no later than two months prior to the scheduled examination date. In the event an individual is lacking certain required courses, or is otherwise denied eligibility to take the exam, a written appeal may be sent to the Director of the Board, no later than 30 days after notification of ineligibility. A review of the applicant’s file will be conducted and decision returned to the applicant no later than 45 days following receipt of the appeal letter. Upon passing the examination, the individual is listed on the Registry of Kinesiotherapists, and may use the title RKT.

CONTINUING COMPETENCY

A registered Kinesiotherapist is annually required to complete and submit verification of continuing competency to maintain registered status. Documentation of attendance at seminars, conferences, or workshops, college level coursework beyond the bachelors degree, home study courses, presentation of scholarly works at conferences, publication of journal articles or textbook chapters, and other proof of maintenance of academic and clinical competency, must be submitted to the Director of the Continuing Competency Board each year, along with the required fees. The content of any of these activities should be directly applicable to the growth of the RKT, to improve and maintain professional competency, promote the highest quality of therapeutic exercise intervention and education intervention in the treatment of clients, and to remain abreast of the rapid scientific and technological changes in the allied health professions. The number of contact hours is established by the board, and failure to submit verification of the required hours or required fees will result in the RKT being placed on probation. Removal from probation is accomplished by submission of the requisite number of contact hours and all fees. If an RKT fails to return to the registered status within a specified time period, registered status is revoked, and can only be re-activated by taking the registration examination.
SCOPE OF PRACTICE

PREAMBLE

This Scope of Practice has been established by the Council on Professional Standards for Kinesiotherapy, Inc., and is put forth for application to those individuals who are REGISTERED by said body. This document delineates the competencies for Registered Kinesiotherapists (RKT’s), and identifies the job tasks that Registered Kinesiotherapists are qualified to perform. This Scope of Practice reflects the evaluation procedures and comprehensive treatment interventions applied by Kinesiotherapists. The individual Kinesiotherapist may obtain additional training and credentials in areas beyond this Scope of Practice. Kinesiotherapists administer treatment upon receipt of a prescription from physicians, and nurse practitioners or physician’s assistants who have legal privileges to make such referrals.

DEFINITIONS

KINESIOTHERAPY:  Kinesiotherapy is the application of scientifically based exercise principles adapted to enhance the strength, endurance, and mobility of individuals with functional limitations or those requiring extended physical conditioning. An RKT can administer treatment only upon receipt of a prescription from qualified physicians, nurse practitioners and/or physician’s assistants who have been priviledged to make such referrals.

The Kinesiotherapist is a health care professional competent in the administration of musculoskeletal, neurological, ergonomic, biomechanical, psychosocial, and task specific functional tests and measures.

The Kinesiotherapist determines the appropriate evaluation tools and interventions necessary to establish, in collaboration with the client, a goal specific treatment plan.

The intervention process includes the development and implementation of a treatment plan, assessment of progress toward goals, modification as necessary to achieve goals and outcomes, and client education. The foundation of clinician-client rapport is based on education, instruction, demonstration and mentoring of therapeutic techniques and behaviors to restore, maintain and improve overall functional abilities.

THE COUNCIL ON PROFESSIONAL STANDARDS FOR KINESIOTHERAPY, INC.: An organization whose function is to insure that kinesiotherapy practitioners meet the standards for education, credentialing, and professional competence, which the Council has established.
SCOPE OF PRACTICE

A. EVALUATION

The kinesiotherapist obtains detailed information from the client and the clinical record regarding the specific history that resulted in the referral for treatment. This is followed by an appropriate physical assessment pertaining to the reason for referral. The kinesiotherapist then records and analyzes the data, develops an appropriate treatment plan in conjunction with the client, and communicates with the referring practitioner regarding the proposed

1. PHYSICAL COMPONENTS:
   - Muscular strength and endurance
   - Functional stability and mobility
   - Neuromuscular coordination
   - Kinesthesia, proprioception, and sensory deficits
   - Flexibility/joint range of motion
   - Aerobic fitness
   - Reaction time

2. PSYCHOSOCIAL COMPONENTS:
   - Appropriateness of behavior
   - Enhancers/barriers to learning
   - Capability of task planning and goal-directed behavior
   - Orientation
   - Affect
   - Social interaction
   - Motivation
SCOPE OF PRACTICE

INTERVENTIONS:

The kinesiotherapist administers scientifically based exercise principals and activities to accomplish the stated goals of the treatment plan, such as those outlined in the Kinesiotherapy Scope of Practice and Kinesiotherapy Standards of Practice. The treatment plan may include strategies to educate the client and caregiver on techniques to enhance neuromusculoskeletal, psychomotor and psychosocial well-being.

1. THERAPEUTIC EXERCISE:
   - Strengthening exercise:
     1. Isometric
     2. Isotonic
     3. Isokinetic
   - Endurance exercise
     1. Aerobic exercise
     2. Muscular endurance
   - Functional mobility training and ambulation training
   - Flexibility and range of motion exercise
     1. Passive
     2. Active-assistive
     3. Active
   - Aquatic exercise
   - Balance and coordination activities
   - Neuromuscular re-education
   - Work conditioning exercise

2. EDUCATION
   - Implications of disease/disability process, progression, and expectations for client & family.
   - Home exercise programs.
   - Body mechanics and functional mobility.
   - Home and/or worksite modification.

Revised 4/18/05.
STANDARDS OF PRACTICE

Preamble: These standards have been established by the Council on Professional Standards for Kinesiotherapy and are endorsed by the American Kinesiotherapy Association. The intent of these standards is to serve as guidelines for Registered Kinesiotherapists and to provide a basis for assessment of Kinesiotherapy practice. A registered Kinesiotherapist has attained that status upon passing the registration examination of the Council on Professional Standards for Kinesiotherapy. Herein after in this document a registered Kinesiotherapist will be referred to as an RKT.

Standard 1: Only individuals who qualify by virtue of their education and clinical experience can practice Kinesiotherapy.

1.1 An RKT must have a minimum of a baccalaureate degree with didactic preparation in the following areas:

1.101 Human anatomy
1.102 Human physiology
1.103 Exercise physiology
1.104 Kinesiology/biomechanics
1.105 Therapeutic exercise
1.106 Adapted physical education
1.107 Growth and development
1.108 Motor learning/control/performance
1.109 General psychology
1.110 Organization and administration
1.111 Tests and measurements
1.112 Research methods or statistics
1.113 First aid and cardiopulmonary resuscitation
1.114 Introduction to Kinesiotherapy
1.115 Pathophysiology
1.116 Clinical Neurology
1.117 Rehabilitation Procedures
1.118 Patient Assessment and Management
1.119 Therapeutic Activities
STANDARDS OF PRACTICE

1.2 An RKT must have completed a minimum of 1,000 hours of clinical practice in approved training sites to qualify for certification and subsequent registration.

1.3 An RKT must not perform any treatment beyond the Kinesiotherapy Scope of Practice unless credentialed or otherwise qualified to do so.

1.4 An RKT can administer treatment only upon receipt of a prescription from qualified physicians, nurse practitioners and/or physician’s assistants who have been privileged to make such referrals.

1.5 An RKT will adhere to all policies and protocols established by the profession and the work setting.

1.6 An RKT will comply with local, state and federal requirements for administering health care.

1.7 An RKT must demonstrate competency to maintain a safe treatment environment.

Standard 2: Referrals shall contain appropriate information before treatment can be administered by an RKT.

2.1 Prescriptions for kinesiotherapy should contain description information to include the following:

   2.11 Client’s name and/or identification number

   2.12 A referring diagnosis and problem to be addressed

   2.13 Indications/contraindications for treatment

   2.14 Client’s assigned medical setting or address

2.2 Prescriptions must be signed by a qualified referring source before treatment begins.

Standard 3: An RKT shall develop an individual treatment plan for each client.

3.1 An RKT is responsible for documentation of the treatment plan in the client’s permanent medical record as dictated by the work setting.
3.2 The client and family should actively participate as appropriate in the formulation of the treatment plan.

3.3 Goals specified in the treatment plan should be stated in measurable terms and include time frames for achievement.

3.4 Client/family education shall be addressed as appropriate in the treatment plan.

3.5 The treatment plan should be updated on a regular basis or as required by national accrediting bodies and/or the treatment facility.

Standard 4: An RKT shall perform assessments on the first visit and on subsequent visits as change in status dictates.

4.1 An RKT will evaluate the physical capabilities and capacities of the patient, including:

4.11 Muscular strength and endurance
4.12 Functional stability and mobility
4.13 Neuromuscular coordination
4.14 Kinesthesia, proprioception, and sensory deficits
4.15 Flexibility/joint range of motion
4.16 Aerobic fitness
4.17 Reaction time

4.2 An RKT will assess various psychosocial components, which include:

4.21 Appropriateness of behavior
4.22 Enhancers/barriers to learning
4.23 Capability of task planning and goal-directed behavior
4.24 Orientation
STANDARDS OF PRACTICE

4.25 Affect
4.26 Social interaction
4.27 Motivation

4.3 Only an RKT with specific academic and professional training will be qualified to assess prosthetic and orthotic devices with regard to fit and appropriateness of prescription.

4.4 An RKT will assess clients for ambulation and mobility aids.

4.5 Client/family involvement will be encouraged as a part of the assessment process.

Standard 5: An RKT shall administer therapeutic exercise or activity to accomplish the stated goals of the treatment plan.

5.1 An RKT shall instruct clients in the following interventions:

5.11 Strengthening exercise
  5.111 Isometric
  5.112 Isotonic
  5.113 Isokinetic

5.12 Endurance exercise
  5.121 Aerobic exercise
  5.122 Muscular endurance

5.13 Functional mobility training and ambulation training

5.14 Flexibility and range of motion exercise
  5.141 Passive
  5.142 Active-assistive
  5.143 Active

5.15 Aquatic exercise

5.16 Balance and coordination exercise/activity

5.17 Neuromuscular re-education
STANDARDS OF PRACTICE

5.18  Work conditioning exercise

5.2  An RKT will monitor client treatment and intervene regularly to facilitate progress toward stated goals.

5.3  An RKT shall be responsible for the treatment process and will provide a safe environment that is conducive to achievement of the treatment objectives.

5.4  An RKT will be trained in the safe use of equipment employed in the treatment process.

Standard 6: An RKT shall educate the client and family/caregiver as appropriate to accomplish the stated goals of the treatment plan.

6.1  An RKT shall provide instruction in the following areas:

   6.11  Implications of disease/disability process, progression, and expectations for client and family

   6.12  Home exercise programs

   6.13  Body mechanics/functional mobility

   6.14  Home and/or worksite modification

Standard 7: An RKT shall document patient treatment information.

7.1  An RKT shall document progress toward established goals.

   7.11  An RKT will be responsible for entering progress notes into the permanent patient record.

   7.12  Time frames of completion of notes will conform to those as specified in Standard 3.

   7.13  An RKT will provide a written summary of treatment, which includes recommendations for follow-up care.
STANDARDS OF PRACTICE

7.14 All notes will be signed either in writing or electronically.

7.15 Documentation shall be subject to peer review on a regular basis so as to insure conformity to stated standards and as part of the facility’s total quality management system.

Standard 8: An RKT shall actively participate in the activities congruent with health care delivery.

8.1 An RKT shall attend client-planning functions and provide input as deemed appropriate.

8.2 An RKT shall at all times conduct themselves as professionals and accord client, family, medical staff and visitor’s respect and dignity.

8.3 An RKT shall work as a member of the health care team by participation in total quality management programs.

8.4 An RKT shall notify the Council on Professional Standards as to improprieties of another RKT.

8.5 An RKT shall inform appropriate individuals or agencies of any improprieties in the delivery of health care to the client.

8.6 An RKT shall participate in continuing education as required to insure quality client care.

Standard 9: An RKT shall follow established quality assurance guidelines to assure the quality and appropriateness of treatment provided.

9.1 A written plan shall exist that describes program objectives, organization and scope.

9.2 There will be a planned, systematic and ongoing process for monitoring and evaluating client care. Solutions will be developed when problems are identified.

9.3 Records are maintained to document all quality improvement activity.
EMPLOYMENT & FOCUS

EMPLOYMENT

Current employment settings and duties of program graduates:

A survey of kinesiotherapists registered within 1987-1990 and published by Greninger et.al. in Clinical Kinesiotherapy, Volume 46, (3),1992, revealed that Registered Kinesiotherapists were employed in Department of Veterans Affairs Medical Centers, public and private hospitals, sports medicine facilities, rehabilitation facilities, learning disability centers, schools, colleges and universities, private practice and as exercise consultants.

The types of treatments carried out by kinesiotherapists focus on, but are not limited to therapeutic exercise, ambulation training, geriatric rehabilitation, aquatic therapy, prosthetic/orthotic rehabilitation, psychiatric rehabilitation and driver training.

Dependent on the particular job setting, the average projected starting salary for Registered Kinesiotherapists is $30,000-$34,000 annually.

FOCUS OF KINESIOThERAPY WITHIN REHABILITATION

A kinesiotherapist is a health care professional who under the direction of a physician treats the effects of disease, injury and congenital disorders, through the use of therapeutic exercise and education.
EMPLOYMENT & FOCUS

The kinesiotherapist is academically and clinically prepared to provide rehabilitation exercise and education under the prescription of a licensed physician in an appropriate setting. Kinesiotherapists are accountable to the referring physician for the actions of themselves and those of their subordinates. The academic and clinical basis of kinesiotherapy is founded on the two fundamental modalities of exercise and education. Kinesiotherapists are qualified to implement exercise programs designed to reverse or minimize debilitation and enhance the functional capacity of medically stable patients in a wellness, sub-acute, or extended care setting. The role of the kinesiotherapist demands intelligence, judgment, honesty, interpersonal skills and the capacity to react to emergencies in a calm and reasoned manner. An attitude of respect for self and others, adherence to the concepts of privilege and confidentiality in communicating with patients and a commitment to the patient’s welfare are standard attributes.

At a minimum, a kinesiotherapist is educated in areas of basic exercise science and clinical applications of rehabilitation exercise. Training is received in orthopedic, neurological, psychiatric, pediatric, cardiovascular-pulmonary, and geriatric practice settings.

Kinesiotherapy skills uniquely complement the increasing need for exercise programs to minimize deconditioning and maintain the functional capacity of geriatric populations. With the increased numbers of individuals occupying nursing homes, there is an increasing need for preventive exercise programs in these facilities. This in turn would help contain health care costs.