

# Applied Kinesiology

Revised Edition

A Training Manual and  
Reference Book of Basic  
Principles and Practices

ROBERT FROST, PhD

# APPLIED KINESIOLOGY

Revised Edition

A Training Manual and Reference Book  
of Basic Principles and Practices



Robert Frost, PhD

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Berkeley, California

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## FOREWORD

Applied Kinesiology had a simple beginning in 1964, based on the concept that muscle weakness is involved in most muscle spasms and, indeed, is primary.

Applied Kinesiology is based on the fact that body language never lies. The opportunity of understanding body language is enhanced by the ability to use muscles as indicators for body language. The original method of testing muscles and determining their function, first brought to my attention by Kendall, Kendall, and Wadsworth, remains the prime diagnostic device.

Once muscle weakness has been ascertained, a variety of therapeutic options is available, too numerous to enumerate here. The opportunity to use the body as an instrument of laboratory analysis is unparalleled in modern therapeutics because the response of the body is unerring; if one approaches the problem correctly, making the proper and adequate diagnosis and treatment, the response is adequate and satisfactory both to the doctor and to the patient.

The name of the game, to quote a phrase, is to get people better. The body heals itself in a sure, sensible, practical, reasonable, and observable manner. "The healer within" can be approached from without. Man possesses a potential for recovery through the innate intelligence or the physiological homeostasis of the human structure. The recovery potential with which he is endowed merely waits for the hand and the heart and the mind of a trained individual to bring it into manifestation, allowing health to come forth; this is man's natural heritage.



DR. GEORGE J. GOODHEART, JR.

This benefits mankind individually and collectively. It benefits the doctor who has rendered the service, and it allows the force which created the structure to operate unimpeded. This benefit can be performed with knowledge, with physiological facts, with predictable certainty. It should be done, it can be done, and this book offers a means and a measure of how it can be done. My appreciation to the author and his staff for the excellent job he has performed in advancing these principles, and my best wishes are extended to all who read this manual.

—George J. Goodheart, Jr., DC, FICC Diplomate, ICAK

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First of all, I would like to give a heartfelt thanks to the founder of Applied Kinesiology, George Goodheart, DC. His insights and research are the reason this field exists at all.

Next, I am indebted to the excellent texts of David Walther, DC, David Leaf, DC, and Wolfgang Gerz, MD. These were my most-used references for the writing of this book. Dr. Gerz was also kind enough to read the text, answer questions by phone and fax, provide various diagrams, and to help with specific questions including the correct translations of Applied Kinesiology terminology (*Fachbegriffe*) for the German edition. His critical reading of this text, corrections and suggestions greatly assisted its accuracy and completeness.

My deepest thanks go out also to my personal teachers of kinesiology: John Grahme, Andres Bernard, Richard Harnack, Jimmy Scott, Gordon Stokes, Daniel Whiteside, John Thie, Frank Mahoney, Dominique Monette, Richard Utt, Sheldon Deal, Joan and Bruce Dewe, John Varun Maguire, Hap and Elizabeth Barhydt, Irene Yaychuk Arabei, and Andrew Verity. Their dedication and personal love of kinesiology constitute an ongoing inspiration. A special thanks to Irene Yaychuk Arabei and Andrew Verity for the personal balancing sessions that helped me rid myself of various health and personal problems, making the writing of this book and the achievement of other life goals possible.

Parts of this text were derived from my doctoral thesis. While I was writing that thesis, my father played the role of the interested but uninformed student of kinesiology. Through his continual questioning, I rewrote and rewrote until a beginner could understand what I meant. Through the magic of electronic mail (between California and Switzerland/Germany), he assisted me in clarifying this text as well. He taught me to seek unity, coherence, and emphasis in my writing. I hear his guiding words whenever I write. Thanks to you, Joe Frost.

A special thanks to Tatjana Schuba (*Heilpraktikerin*, acupuncturist, fitness trainer, designer). Her design and precision craftsmanship produced the various anatomical and other graphic drawings. During the initial writing of this book, Tatjana sat next to me and translated the text into German. Through her extensive knowledge of anatomy and physiology, the text achieved scientific accuracy. In particular the parts about the nervous system, neurophysiology, hormones, and the meridian system have, through her research and reworking of my text, achieved greater precision. Writing together made the work fun and stimulated us both to keep at it for long

hours. Through her questioning of exactly what I meant to say, many unclear sections of the text were rewritten and greatly improved.

I also want to thank Kaitlyn Vera, CPT, the model in [chapters 7–9](#), as well as Michael Lebowitz who allowed me to summarize his latest protocol of systemic corrections for dealing with difficult patients.

# INTRODUCTION

This book is for those who want a detailed introduction to Applied Kinesiology (AK) as it is performed by qualified chiropractors, medical doctors and health professionals. The goal of this book is to present the principles and basic practices of AK in their original form as developed by George Goodheart, but in a manner and a format which may be understood even by the reader with no prior medical training. Standard medical terminology as used in AK is adhered to in this text. However, since most every specific term or concept is defined and logically presented, even the complete beginner should be able to follow and understand the ideas. Since I especially wish to present these concepts using the vocabulary common to occupational groups with medical background, I utilize the following terminology which is also typical in AK literature: The “examiner” tests the “patient,” “diagnoses” and provides corrective “treatments.”

At the beginning of the first chapter, I present short definitions of traditional kinesiology (biomechanics), Applied Kinesiology and muscle testing so that the reader may more easily understand these topics. Then a short history of Applied Kinesiology, its methods and techniques is provided. In order to describe how living beings move (the original meaning of kinesiology or biomechanics), I describe the anatomy and physiology of muscles and related structures. Since muscles are driven by nerves, sections on neurophysiology and nerve receptors are included. The stress concept of Hans Selye and how this relates to muscular dysfunction follows. Since many of the phenomena of Applied Kinesiology cannot be adequately described within the limitations of the old Newtonian cause-and-effect scientific model, this is contrasted with the new worldviews provided by quantum and chaos theories. Biological medicine, which uses quantum and chaos theories to provide a basis for a holistic model of healing, and which often uses Applied Kinesiology for diagnostic purposes, is then described at length. There follows a section on how to use the concepts of biological medicine to improve and maintain optimal health.

For those with some experience in muscle testing, the main portion of this book will provide the theoretical background necessary to deeply understand and to explain to others how muscle testing is performed and how muscle strengthening techniques function. The testing and strengthening of thirty-three muscles are illustrated and carefully described. The muscle strengthening techniques discussed in this text include Goodheart’s original origin-insertion technique, neurolymphatic reflex point massage, neurovascular reflex point holding, appropriate nutrition, and manipulation of

the neuromuscular spindle cells and Golgi tendon organs. The detailed explanations of how these techniques are performed in AK will enable the “apprentice” muscle-tester to use muscle testing and strengthening techniques with improved precision and effectiveness. The advanced AK diagnostic and treatment techniques explained in this book include therapy localization, challenge, nutritional and other substance testing, individual activation of the right and left halves of the brain, repeated muscle testing, muscle stretch response, and reactive muscles. Use of these techniques will produce much greater ability to locate and correct the energy imbalances that affect health and optimal functioning. These basic and advanced AK techniques are described in a step-by-step format I designed for easy application in a therapeutic session. A selection of case histories using this format is presented to help the reader bridge the gap from theory to practice. Most anatomical and other specific terms used in this text are defined in the glossary.

The AK techniques in this book should give the student a thorough theoretical grounding in muscle testing and its application. However, nothing can replace “hands-on” experience. It is highly advisable to seek training with a health professional experienced with AK techniques before attempting to perform them. Readers who already have experience in muscle testing will find the techniques that are new for them described in enough detail here that they will be able to put them directly into use. It is hoped that this text will also whet their appetite for more. For all those who have the required prior training in a health profession, it is recommended that they acquire training under the guidance of a qualified teacher of Applied Kinesiology.

Sports trainers and physical therapists of all sorts will learn useful techniques from this book and thereby be better able to help their clients. Mastery of the practical techniques in this text should give any health professional who practices them the ability to help patients dispel health problems, improve posture and coordination, increase endurance, eliminate pains, increase the recuperative powers and many other salutary effects.

Applied Kinesiology was created in the 1960s by the American chiropractor, Dr. George Goodheart. It has been further developed by other chiropractors and by medical doctors. The requirements for the highest accreditation, the “diplomate” of Goodheart’s International College of Applied Kinesiology (ICAK), are high indeed. To join the organization, or take training courses, you must already be a chiropractor, medical doctor, or other health professional with a four year medical training and the legal right to diagnose. Then you must have at least 300 hours of accredited instruction in AK, publish two AK research papers and practice AK for two years. Finally, you must pass intensive written, oral and practical examinations. The ICAK diplomates have tremendous training, knowledge, and experience behind them. But due to the stringent and extensive requirements for accreditation, there are not many of them, and the successful work they do is not yet very widely known.

In the German branch (ICAK-D), membership and specially designed AK

training programs are available for accredited practitioners of all state-recognized health professions including Heilpraktiker, Krankengymnasten, Physiotherapeuten and Psychologen. A special branch of ICAK-D, the International Medical Society for Applied Kinesiology (IMAK), exists to serve the interests of medical doctors and dentists, offering an exclusive AK training program for them. Germany, Austria and Switzerland are the first countries where the medical community is beginning to take serious interest in AK. In fact, there are more medical doctors who use AK techniques in the German-speaking countries than in the rest of the world combined.

In an of itself, AK is not a profession. Therefore, in the world of AK, there are no “applied kinesiologists.” As mentioned, to study AK one must already be a chiropractor, medical doctor, or at least a state-approved therapist. For simplicity in this book, qualified therapists who use AK will be referred to as “examiners” or “therapists who use AK.”

John Thie (chiropractor and first president of Goodheart’s International College of Applied Kinesiology) gave some of his patients AK techniques for self-application as “homework.” He saw that the patients who did this homework had better and swifter results than those who didn’t. Excited by these practical results, he then urged Dr. Goodheart to write a popular book about his discoveries in AK. Dr. Goodheart gave the job back to Dr. Thie. First with the help of Mary Marks, and then with both research and writing assistance from Richard Duree and Gordon Stokes, Dr. Thie wrote the now famous *Touch for Health* book, first published in 1973. This was designed for use by lay persons. The only requirements were that the chosen techniques be easy to learn, would (even in simplified form) be able to do a lot of good and, even if done incorrectly, would cause no harm. It is an excellent system for mothers to help improve the health and performance of their children. As far as it goes, the system works very well. In fact, it works so well, that many people use it professionally as a therapy system. This was a great surprise to its founders. No one ever intended that *Touch for Health* become a professional system of healing. Through its widespread popularity, *Touch for Health* has greatly increased the awareness of Applied Kinesiology. More than two million people world-wide have been introduced to kinesiology muscle testing techniques through *Touch for Health*. The many “kinesiologies” that have been developed from the root of *Touch for Health* are today referred to as belonging to the field of “Specialized Kinesiology.”

In many countries such as Germany, *Touch for Health* was being taught long before Goodheart’s Applied Kinesiology became known at large. And many of the practitioners of *Touch for Health* and related kinesiologies called their work “Angewandte Kinesiologie,” the German translation of Applied Kinesiology. At that time there were few therapists using Applied Kinesiology and there seemed to be no reason not to translate from English and use the term themselves. This can be compared with California calling its sparkling wines “champagne.” The French complained bitterly but to no avail. Although no one denies that Champagne is a province in France, the French had not

internationally patented the word “champagne.” Similarly, Goodheart never patented the term “Applied Kinesiology.” One unfortunate consequence is that many therapists believe that Touch for Health and Applied Kinesiology are identical. And seeing that Touch for Health is for lay persons, they do not pursue studies in Applied Kinesiology. In order to avoid further confusion, Goodheart’s original work, even in foreign language texts, is now called “Applied Kinesiology” with no translation of the term.

The simplified techniques of Touch for Health do not go as far or do as much good as can be achieved by the original and more complicated techniques of AK. For example, Touch for Health advises, as a muscle strengthening technique, that the neurovascular points be gently held. AK teaches that neurovascular points be not only held, but gently tugged in various directions, until the direction that produces maximum pulsation is detected. Then the points are held in this exact direction for 20 seconds longer. Just holding the points will often strengthen the muscle test. Careful experimentation has revealed that the best effects upon the associated organ and bodily areas are only achieved with the precise application taught in AK (and explained in this book).

In most systems of Specialized Kinesiology, there is a conspicuous absence of descriptive detail of the anatomy and physiology involved. And an explanation of how the techniques function is also lacking. This is to be expected, because Touch for Health was designed for lay persons. For those who began with Touch for Health and/or other branches of Specialized Kinesiology and are now ready for more detailed knowledge and precision, this book will provide a bridge toward the deeper understandings and applications of the original techniques of Applied Kinesiology. It is hoped that this book will demonstrate the professional level of knowledge, the wide range of application and the practical usefulness of the techniques of AK and thereby attract more health professionals to study AK.

The English version of this book has been in print for eleven years. I am proud now to present the revised edition.

—Robert Frost, PhD

June 2013



## CHAPTER 1

# From BioMechanics To Applied Kinesiology

**KINESIOLOGY** (from the Greek *kinesis*, movement) began in antiquity as the study of human and animal movement. Over the course of many centuries, this original, traditional form of kinesiology (*biomechanics*) has produced a broad body of knowledge of how nerves stimulate muscles to act upon bones in order to produce posture and movement. Like physiotherapy, kinesiology is a therapeutic profession with a long history. Medical muscle testing existed in biomechanics long before the emergence of Applied Kinesiology.

The biomechanic principles of kinesiology (such as the application of the minimal force necessary to produce maximal result) have been successfully applied to a wide variety of ergonomic problems of industry, sports, and medicine. The application of biomechanics in industry has resulted in the design of tools, chairs, work stations, etc., that are “user friendly.” It has stimulated the development of ergonomic work techniques (e.g., how to lift heavy objects without endangering the body) that result in fewer injuries and yield greater productivity. Athletes work with kinesiologists to learn how to more efficiently and successfully perform the movements required by their sports. And biomechanic principles have many applications in the various fields of medicine including the designing of artificial joints and the development of more effective rehabilitation methods.

The research and developments of biomechanics or “traditional” kinesiology can be traced back over thousands of years and continue into the present. By contrast, Applied Kinesiology (shortened in this book to AK) began in 1964 with the research of the American chiropractor, George J. Goodheart, Jr., DC. His extraordinary powers of observation, his curiosity, his drive to research the causes of what he observed and the resulting discoveries have been the source of most of the diagnostic techniques used today in this relatively new discipline.

Various kinds of health professionals schooled in AK use standard medical muscle tests of biomechanics to directly assess the functional integrity of the nervous system and the muscles. Muscle testing is described at length later in this book. As a preliminary introduction, a brief description of muscle testing as performed in AK is given below:

## How Muscles Are Tested in Applied Kinesiology

1. Most muscles are attached through their tendons at both ends to bones that meet in a moveable joint. When muscles contract, they shorten. This shortening pulls one of the attached bones toward the other.
2. To prepare for the muscle test, one bends the joint over which the muscle is attached. This shortens the muscle, bringing it into a position of contraction. The examiner places his hand in a position to resist the further contraction of the muscle.
3. The patient initiates the test by steadily contracting the muscle from zero force up to the maximum force of contraction against the examiner's unmoving hand. During this short period, the examiner provides an equal and opposite, steadily increasing resistance to maintain the starting position of the muscle test. When the patient has willfully contracted his or her muscle as much as possible, the examiner applies a bit more force. The whole test procedure should not last longer than 2–3 seconds. If the patient can maintain the original test position against this small extra force without movement, the muscle “tested strong.” If not, it “tested weak.”
4. In the first part of the muscle test, one is testing the determination and ability of the patient to strongly contract the muscle. In the second part of the muscle test, one is also testing the ability of the patient's nervous system, “on its own,” to provide a little more contraction than the patient can willfully provide. By this technique, one is actually assessing the functional integrity of the complete circuit of the muscle and the portion of the nervous system involved with that muscle. This initial muscle test is performed “in the clear,” i.e., with no extra stimulus of any kind. The muscle is contracted as strongly as the patient is consciously able. In the second part of the muscle test, the question asked is: After the patient has completely contracted the muscle, and the examiner then applies additional pressure, can her nervous system finely coordinate the muscle to contract just a bit more than he or she is consciously able to do?
5. AK uses not only muscle testing “in the clear” as described above, but also “indicator” muscle testing. In this type of muscle testing, a muscle that previously tested strong in the clear is used as an indicator for testing some other stimulus. The extra stimulus can be provided by touching an area of the patient's body that is “disturbed” or dysfunctional because of injury, infection, etc. If this is done while repeating the test of a previously strong-testing indicator muscle, such stimulus may cause that muscle to test weak. The stimulus provided by the patient touching himself or herself is referred to as “therapy localization.”

In practice, many examiners touch the patient to therapy-localize, which is

often easier, faster, and usually produces the same results. However, on occasion, when the examiner touches the patient, the results of therapy localization are different than when the patient touches the same area of the body. Therefore it is recommended that the patient touch herself for therapy localization. When the patient is presented with some other kind of stimulus besides touch, or performs some kind of activity and the effect is then measured with muscle testing, this is called “challenge.”

Much of the fascination of Applied Kinesiology lies in the fact that most factors influencing health may be tested using an indicator muscle and therapy localization or challenge. As will be described later, health professionals familiar with AK techniques use standard muscle testing “in the clear” and indicator muscle testing of various stimuli to evaluate the structural, mental/emotional, and biochemical functions of the human organism.

Applied Kinesiology is primarily a diagnostic technique. Although extensive methods for the evaluation (diagnosis) of dysfunction were developed early within the field of AK, most of the treatments used in AK have been gathered from other (sometimes quite foreign) areas of healing. Besides its well-developed diagnostic techniques, the practical advantage of AK is that one can determine which of many possible therapy methods will be the most effective for the individual problems of specific patients. In this way, before applying any therapeutic technique, the examiner can determine the relative effectiveness and thus choose accurately from a wide variety of treatments.

The diagnostic techniques of AK allow one to determine which body system is disturbed and which treatment modalities are best suited to the correction of the disturbance. Interventions of all sorts (structural, chemical, nutritional, mental, electromagnetic, etc.) may be individually tested in advance to assess their worth in treating a specific problem. After treatment, the same techniques can be applied to determine whether the treatment was appropriate, correctly applied, and effective.

## **The Development of Traditional Kinesiology or Biomechanics**

Beginning with the ideas of Aristotle (384–322 BC), who is often called the “father of biology,” the study of movement (the original kinesiology) has for centuries centered upon anatomy and mechanics. Leonardo da Vinci (1452–1519) is especially well known for studies of human structure and function. These make him one of the best known pioneers of the study of movement, or kinesiology.

Mechanics is the branch of physical science that deals with energy and forces and their effect upon bodies. The central interest of the early kinesiologists was the mechanical consideration of how muscles act upon bones and joints to produce posture and movement. Eventually, in the