Applied Kinesiology
An Extra Step in Health Care Examination

- Nervous system
- Triad of health
- Acupuncture
- Cranial-sacral
- Nutrition
Applied kinesiology (AK) is an examination system that augments a doctor’s standard examination with the evaluation of structural, chemical, and mental aspects of health. It began when a chiropractor, Dr. George J. Goodheart, Jr., found a technique that could immediately make a weak muscle strong. From this initial experience, testing muscles in a precise manner became routine in his examination protocol. He called the system applied kinesiology (kih-nee’-see-awl’-oh-jee). Kinesiology is the study of the anatomy, physiology, and mechanics of body movement. Applied kinesiology makes use of these basic sciences in evaluating health. It was soon found that all muscle weaknesses did not respond to the initial technique. Investigation of other causes of muscle weakness and their correction developed into what is currently the practice of applied kinesiology.

Muscle testing is not new; it has been and is an important part of standard neurologic examination to determine how the nervous system controls muscles. AK has found through muscle testing that many aspects influencing health can cause muscle function to change from normal. As with Dr. Goodheart’s initial technique, when proper treatment is applied the muscle immediately returns to normal function.

From the beginning of health care history, doctors have observed what can be called the body language of health and disease. Examples of body language are skin color, eye movement, fingernails, posture, fat deposition location, hair quality, body movement, and other factors the astute physician observes, feels, hears, and smells during an examination. The doctor combines this information with the findings from physical, neurologic, orthopedic, mental, laboratory, and other assessments to determine what is causing the loss of optimal health. With applied kinesiology a doctor has expanded body language analysis and testing that broaden the information used to make a decision about a patient’s health problem.

This pamphlet will provide an overview of applied kinesiology from its early development and the basic principles used in the discipline.

George J. Goodheart, Jr. D.C. is known as the father of applied kinesiology. He graduated from the National College of Chiropractic in 1939 and started practice with his father in Detroit, Michigan. With the advent of World War II he went into the United States Air Force in 1941 and was honorably discharged as a major in 1946.

Applied kinesiology originated with the treatment of a 24-year-old patient. This man could not pass a job physical because he could not push forward with one of his arms. Goodheart observed that the shoulder blade on that side stuck out from the chest wall. The serratus anterior muscle holds the shoulder blade against the chest wall. After studying a textbook on muscle testing, Goodheart tested the muscle and found it very weak. The muscle felt normal to touch with the same full mass as the muscle on the other side. The only unusual things were nodules where the muscle’s tendon attaches to bone. As he further evaluated the nodules by pressing on them, they went away. Rather than just an examination, pressing on the nodules turned out to be treatment because the muscle immediately returned to normal strength and the shoulder blade moved into its normal position. Even though shoulder weakness had been the problem for as long as the patient...
Applied kinesiology stresses that there are three factors forming an equilateral triangle that must be kept in balance to maintain health: structural, chemical, and mental/spiritual: a triad of health. If one or more sides of the triad become deficient, diminished health results. Failure to correct the deficiency causes further imbalances; eventually all three sides of the triad become involved and there is further decline in health.

Depending on a doctor’s background, education, and general interest there is a tendency to concentrate on one side of the triad. Although this approach may improve symptoms, it often leaves important causes of the problem undetected and uncorrected.

Structure. In medicine the orthopedist, manipulating osteopath, and physiatrist dominate the structural side of the triad. In natural health care chiropractic is the major healing profession that deals with structure.

Chemical. This side of the triad has been dominated by the allopathic medical physician who attempts to control body dysfunction with drugs. In natural health care there is an interest in the chemical aspect of health by nutritionists and health food providers.

Mental/spiritual. Today it is more common for doctors to prescribe medications to control the mental side of the triad. Counseling either by a psychologist or minister is the usual approach without drugs. Some doctors try to affect other sides of the triad with their area of specialty, such as an allopath using muscle relaxants and pain killers for a backache rather than correcting the structural cause of the problem. The ideal approach in applied kinesiology is to find the side of the triad that is adversely affecting health and use the tools necessary to make the correction.

International College of Applied Kinesiology

Goodheart’s work drew a large following of doctors. The International College of Applied Kinesiology was founded in 1976 to promote the research and teaching of AK. Initially the organization was in the United States with chiropractors as the majority of members. It is now in Australia, Austria, Benelux, Brazil, Canada, Germany, Korea, Russia, Sweden, Switzerland, United Kingdom, and the USA. The organization is multi-disciplinary; membership now includes chiropractors, medical doctors, osteopaths, dentists, psychologists, and other health care providers that have a license to diagnose. The concentration of doctors practicing AK varies by country. In the United States it is dominated by chiropractors and in Europe by medical doctors.
Muscle testing is a science and an art. The objective is to determine if a muscle is functioning normally. To do this, the doctor must know the anatomy and physiology of the muscle and how the body tries to recruit additional muscles to aid the one that is dysfunctioning. Precise positioning and stabilization of the patient are critical. The doctor continues developing the art of timing and application of pressure over years of practice.

There are four findings determined from an AK muscle test: 1) the muscle tests normal, 2) the muscle tests weak, 3) the muscle is hypertonic, and 4) the muscle is pathologically weak. The third and fourth results require additional consideration.

First, let’s consider the hypertonic muscle. As a person moves about, his muscles turn on and off to provide movement. A dysfunctional state occurs when a muscle fails to turn off under the appropriate conditions; this means the muscle is in an over-excited state of contraction. In applied kinesiology, there are numerous techniques that are expected to temporarily make a normal muscle test weak. If these methods do not weaken the muscle, it is hypertonic. Muscles become hypertonic because of some health problem; the reason must be found and corrected.

A pathologically weak muscle is one in which disease or trauma is affecting the muscle’s ability to contract. A pathologically weak muscle does not immediately respond to the usual applied kinesiology techniques, and further examination is necessary to determine the cause. It could be a severed nerve that supplies the muscle or disease of the muscle tissue, among many possibilities.

Analyzing movement and postural balance reveals many things about a person’s health to an applied kinesiologist. Structural balance is much more than good posture. Postural balance is considered in both a static position and with dynamic activity when walking, running, and other movements. If balance is not present, pain may occur and joints may be injured or wear too quickly. There should be a proper and precise timing of a muscle’s contraction that produces movement while simultaneously antagonist muscles — those that work against the movement — appropriately relax. Failure to do so causes strain and reveals much about the body’s controlling mechanisms.

Muscle balance can be illustrated by two muscles pulling on an upright post. When one of the muscles is signaled to contract, the other muscle — the antagonist muscle — must relax adequately to “play out” its length so that the post can move. If something goes wrong with the controlling systems, the contracting muscles cannot properly move the structure. This simple principle is present in a very complex manner as you walk and move about in your daily activities.

When muscles are maintained in balance by the controlling systems, the whole structure is balanced. An imbalance of muscles indicates that the structure cannot be held in balance.

The same controlling systems that are used in applied kinesiology to correct muscle imbalance also control the organs and glands of the body. The examination and treatment methods discussed next to restore muscle balance also affect the organs, glands, and other structures of the body.

Abnormal results of a muscle test whether it is weak or hypertonic may indicate abnormal involvement of any of the items surrounding the muscle. A change of muscle function when specific stimulation is applied may also indicate dysfunction of the surrounding items.
Testing Methods

The applied kinesiology functional neurologic examination usually begins with an assessment of the body’s structural balance and muscle function. A specific physical, chemical or mental stimulus is applied to assess muscle reaction. A weak muscle may become strong or a normal muscle may become weak. These tests are used to evaluate the functional status of the three sides of the triad of health.

Therapy localization (TL). Goodheart observed a remarkable change of muscle strength when a patient placed her hand randomly on different parts of her body. Investigation revealed that touching certain areas changes muscle strength if the area has an influence on the person’s health. This is known as therapy localization and can relate to many aspects of health. An example is a muscle strengthening when the patient touches a tonification acupuncture point associated with the muscle. The on the other hand a normal muscle may weaken if an area that needs treatment is touched.

Challenge. There are many methods used in AK to apply a physical, chemical, or mental stimulus to test for a temporary change of muscle function. The application of a stimulus is called a challenge. A weak muscle may become strong or a normal muscle may become weak as the result of a challenge.

When there is dysfunction of a joint and it needs corrective manipulation, the applied kinesiologist can challenge the joint in different directions to determine exactly how to apply the corrective manipulation. The application of the challenge stimulates the nerve receptors in the joint. When the proper challenge is applied an associated weak muscle will temporarily strengthen, giving the doctor information of how to manipulate the joint.

There are many types of challenge. A chemical challenge can be a nutritious or a toxic substance that either strengthens or weakens a muscle. A mental challenge might be having the patient concentrate on stressful aspects in his life. It is a positive challenge if it causes a muscle to weaken.

The procedures of muscle testing, therapy localization, challenge and other tools of AK are applied with the other disciplines of standard diagnosis. This enhances the general examination of a patient, helping the physician arrive at final conclusions about health problems.

Applied kinesiology techniques are reviewed by the International College of Applied Kinesiology Board of Standards for approval and standardizing of the discipline.

Treatment

Most of the treatment used in applied kinesiology is from the healing arts professions outside of AK. Because AK examination finds unique health problems new treatments have been developed within the system to correct these conditions.

AK is practiced by chiropractors, osteopaths, medical doctors, dentists, acupuncturists, naturopaths, and psychologists, bringing a wide range of treatment methods together. Drawing from many complementary therapies, AK provides an interdisciplinary approach to health care. Applied kinesiology examination allows the doctor to match the needs of the patient with the most appropriate therapies.

Types of treatment and analysis

- Specific joint manipulation
- Joint mobilization
- Peripheral nerve entrapment
- Myofascial therapies
- Muscle balancing
- Cranial-sacral techniques
- Acupuncture meridian balancing
- Clinical nutrition
- Food sensitivities
- Homeopathy
- Toxicity evaluation
- Dietary management
- Emotional testing
- Counseling skills
- Allergy testing
- Various reflex techniques

AK Logo

The triad of health with structure at the base is the foundation of the applied kinesiology logo. A human form represents structure and postural balance. A circle of icons represents important treatment avenues used in AK.
General Adaptation Syndrome

Everyone is familiar with stress but in health care the term is often misunderstood and misused. Hans Selye, while a medical student in the 1920s, noticed that people suffering from diverse diseases shared many of the same signs and symptoms. He spent decades of research to arrive at his definition of stress: “Stress is the state manifested by a specific syndrome which consists of all the nonspecifically-induced changes within a biologic system.”

Stress is the reaction of the body to adversities. There are many stressors in everyday life; one cannot live without them. A few examples will help put this in perspective. They can be physical such as excessive work or muscular imbalance causing joint strain. Chemical stressors are toxins, inadequate nutrition, and medication reactions. Mental stressors can be poor interaction between people, worrying about health and economic problems.

Selye studied how animals adapt when subjected to physical, chemical, and mental adversities (stressors). There is a consistent series of physical consequences called the general adaptation syndrome (G.A.S.). The first stage is the alarm reaction, which is a call to arms of the body’s defense mechanisms against a stressor. This is a normal activation of the adrenal glands to provide hormones for adapting to the adversities of the stressor. The second or resistance stage occurs if the effects of the stressor are prolonged. The adrenal glands grow in size to meet the prolonged stressor. Third is the exhaustion stage, during which the adrenal glands become depleted and can no longer meet the body’s demand to respond to the stressor. Research has found that with prolonged stress, no matter what the cause, it is possible to stress any animal to death. In every case of death from stress three organs are affected. 1) The stomach develops inflammation, ulcers, and ruptures. 2) The thymus gland atrophies and is functionally inhibited. 3) The adrenal glands enlarge and are fatty and functionally inhibited. Depending on the stressor other organs will be affected, but the three named are affected without fail.

Selye describes two types of stress, “eustress” and distress, both of which exist in the word stress. Eustress is a good form of stress that provides us with the ability to meet our desires or emergencies. The feat of lifting a car off a child in an emergency is an extreme example, or simply meeting a deadline with the feeling of accomplishment that follows. Eustress does not go into the exhaustion stage. Distress is the type of stress that has adverse effects on health if prolonged. The goal is to attain as much eustress and as little distress as possible.

One of the important goals of an AK examination is to find the causes of distress and to determine the best method of eliminating them. Muscle function reflects the state of the general adaptation syndrome. A weak muscle, especially if almost all muscles are weak, may be due to the G.A.S. moving toward the exhaustion stage. Hypertonic muscles, especially if almost all muscles are hypertonic, may indicate the stage of resistance. This may indicate a person that is very competitive or is constantly under some other stressor or stressors.

It is important to have a balance between eustress and distress. Learn to recognize the body’s reaction to both. Recognize the need for more rest or change of activities.
Many who study the information about proper nutrition, diet, and the food supply find the broad subject to be in a state of confusion. Some authorities such as doctors and researchers state that a balanced diet is all that is necessary, while other highly qualified authorities state that high potency vitamin and mineral supplementation is mandatory. Studying ten different authorities will probably leave you with about eight different approaches to what is best for proper nutrition. A year later many of the recommendations given by the very same people may change.

There are many reasons for these diverse approaches to nutrition. The biochemical individuality of the human population is a major reason. People differ in their nutritional requirements, and each person’s needs must be considered by thorough examination. The average doctor’s examination may be of no help. The education of many in the healing arts is directed toward treating the effects of disease, not the cause and prevention of disease.

When a doctor directs his/her efforts toward the cause of health problems, therapeutic efforts are aimed at rebuilding the body by correcting the controlling mechanisms and providing the necessary building blocks. Weak or hypertonic muscles in an AK examination may indicate nutritional supplements or diet changes are needed. Supplying the proper supplement immediately returns the muscle to proper function.

Nutritional evaluation in AK is done as part of a total examination. A muscle test alone is inadequate to determine nutritional needs. A person working in this manner has in fact misunderstood AK and is ignoring the criteria set down by the International College of Applied Kinesiology.

The nature of today’s food supply is the major reason that nutritional supplementation is often needed. Food grown on depleted soil does not have the nutrients present in food grown on fertile organic soil. Processed food is modified and has additives to prolong shelf life without refrigeration that are harmful to health. Simple tests, quickly performed, can reveal much about vitamin and mineral levels and a host of common deficiencies. Many deficiencies are immediately evident to anyone who is trained to see them.

Many processed foods have additives to enhance taste. Monosodium glutamate (MSG) is an example. Glutamate is manufactured as a food additive and like MSG does not have a flavorful taste. It is an excitotoxin and enhances taste by exciting portions of the nervous system that are responsible for taste. The problem is that it excites nerve cells to death. Glutamate is only a brief example of the problem with processed food. Processed food does not supply good nutrition and has harmful ingredients.

What is especially exciting about nutritional therapy is not just the possibility of prevention, but the reversal of diseases.

What is the state of health care today? Medications abound that can often control symptoms. Advancements have been made in the ability to manage disease, and when disease is irreparable there are even joint replacement and organ transplantation. Surgical interventions have improved and in acute emergencies save many lives.

It may appear on the surface that health care is rising to an optimal level, but the American population knows it is not. The problem is that most conditions are not successfully prevented or treated until they are a major problem or irreversible.

More money is spent on health care in the United States per capita than in any other country and it is rising at an alarming rate. It was projected that health care cost will be 18.5 percent of the gross domestic product in 2014. The next year’s estimate jumped to 20 percent by 2015 revealing the rapid increase. A large portion of the cost of medication is to treat conditions after they have developed rather than to keep problems from developing. Many medications are given to diminish the side effects caused by the initial drugs used in the treatment of a chronic condition.

The cost of health care might be justified if the population’s health is improving, but it isn’t. There are many conditions that develop for years before they are diagnosed as a disease. Metabolic Syndrome, previously called Syndrome X, is an example of a condition that needs to be discovered as it is developing when corrective measures can be accomplished.

Metabolic syndrome leads to Type-2 diabetes. Type-1 diabetes, formerly known as juvenile diabetes, is when the body’s immune system destroys the cells that make insulin. Type-2 diabetes is when the body’s cells become resistant to insulin. Metabolic syndrome is a combination of type-2 diabetes, high blood pressure, and abnormalities in the blood lipids.

Type-2 diabetes used to be called “adult onset diabetes,” but now it is being found even in children and teens. In the early 1990s only 3 percent of new diabetics in children were diagnosed as type-2 diabetes; today 45 percent of new cases are type-2. Metabolic syndrome is just an example of many conditions that develop over considerable time before symptoms appear. Modern health care demands an ability to evaluate function and all three sides of the triad of health to diagnose and treat degenerative conditions in their earliest stages.

There is an approach to health care that helps the doctor understand functional conditions and provides direction toward optimal treatment. It is the functional examination that includes applied kinesiology assessment.
Life Styles

A person’s life style is possibly the most important factor in the overall health of the individual. It has been said over and over that diet, exercise, rest, and relaxation are important, but let’s take a look at this again.

Nutrition

As discussed previously, processed foods are packed with additives, many of which are detrimental to health. Because food today has reduced nutritional value it is often necessary to supplement with good quality vitamins and minerals.

Eat as much unprocessed food as possible, including a wide variety of fresh fruits and vegetables.

Eat only food that spoils, and eat it before it does!

Exercise

Sometimes one’s occupation provides all the exercise that is necessary but that is not usually the case. Often work is sedentary and leisure time is spent in front of a television set. Find activities that are fun such as sports that you enjoy. If that is not attractive go for prolonged brisk walks outside or on a treadmill. Exercise should be active enough to provide a cardiovascular workout. Heart rate monitors help you keep your workout intensity at the proper level of cardiovascular activity. Your applied kinesiologist can inform you about the proper heart rate for your age and condition.

Mental

One cannot live without stress – it is ever present. Learn to recognize the difference between eustress and distress. Use eustress to your advantage and avoid as much distress as possible.

Take time for relaxation – you know – smell the roses.

Keep a positive mental attitude. It might be said that 95% of what worries us never happens.

Thoughts are things. To be happy, act happy; to be creative, concentrate on your successes; to be energetic, act energetic. Your thought process is what you will become, because thoughts are things!

Applied Kinesiology

- Applied kinesiology (AK) as advocated by the International College of Applied Kinesiology is practiced only by doctors licensed to diagnose.

  Characteristics of AK

- Correlates with and enhances standard examination.

- Adds extra patient specific information to the standard history, physical diagnosis, and laboratory tests if indicated.

- Helps the doctor to understand functional symptomatic complexes when standard diagnosis and laboratory tests show no cause for the symptoms.

- Examines all sides of the triad of health.

- Assesses body control by the nervous system.

- Assesses nutritional balance.

- Integrates function of the meridian system (acupuncture) into the examination.

- Examines function before symptoms are present to prevent or delay the onset of pathologic processes.

- Interdisciplinary approach – fits the best treatment to the patient’s specific needs.

- Provides an interactive assessment of an individual’s functional health status that is non-invasive and not equipment intensive but does emphasize the importance of correlating findings with standard diagnostic procedures.

- For additional information see http://www.icak.com