

# **La traducción científica como herramienta de investigación**

## **ANEXO II: Antología de textos en su versión original**

Lenguas Aplicadas y Traducción

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# 1. Pre-Hippocratic Medicine: The Philosopher-Scientist

BY ALBERT S. LYONS

Greek secular, rational medicine, which reached its summit in the time of Hippocrates, was undoubtedly preceded by a long tradition. But we do not know precisely the nature of medicine, or even science, in the centuries between the Homeric period of the ninth or eighth century B.C. and the advent of the philosopher-scientists in the sixth century.

Interchanges among Crete, Mycenae, Egypt, and Asia had always contained interlacings of religious and empiric healing methods, so it is likely that this cross-fertilization continued. A few bits of information from Hesiod's Works and Days of the eighth century suggest the prevalence of a kind of folk medicine which combined basic hygienic rules with pragmatic use of foods and plants, but it also included religious and magical associations.

Therefore, when one comes upon the sixth century—about which we have direct and indirect information on the philosopher-scientists—one is impressed by what appears to be a sudden new approach: an attempt to give all phenomena natural rather than supernatural explanations.

By the time of Thales (640?-546 B.C.), the first true scientist-philosopher of the Greeks, his birthplace Miletos on the Aegean west coast of Asia Minor had become a great port of trade, with an international population and exceptional thinkers and teachers. It was on the periphery of the Greek world, and in that sense typical of the areas in which the new philosophies seem to have developed: the Aegean islands, the Asiatic coast, and Italy and Sicily, in centers which must have been growing over centuries.

Meanwhile, the practice of medicine was probably carried on by itinerant craftsmen, as in Homer's time. Information was transmitted orally from generation to generation, and by the time of Hippocrates (mid-fifth century B.C.) practitioners were engaged in a variety of methods of differing effectiveness. At the same time, medical teaching groups, or "schools," were developing throughout the Greek world and were heirs of both the empiric tradition and the philosophic inquiries of the philosopher-scientists.

Our information about Thales is based on what others wrote about him and quoted from his teachings. ("What is difficult? To know thyself. What is easy? To advise another.") The man who emerges from these accounts had an extraordinarily wide range of interests and a profound effect on his contemporaries and followers. It is no wonder that he was considered among the seven greatest sages.

Thales believed that the basic element in all animal and plant life was water, from which came earth and air. He made many contributions to mathematics, astronomy, navigation, and geometry, and is said to have developed several of the geometric theorems later used by Euclid. The most significant attribute of his work, for which he has been called the "Father of Science," is that his explanations of phenomena did not fall back on supernatural agency. Although he accepted the idea of a God, he did not use religious means to seek or establish the natural processes of the universe or of humans.

At Miletos, two especially influential thinkers followed Thales: Anaximander (fl. c. 560 B.C.) and Anaximenes (fl. c. 546 B.C.). Anaximander (extending the rational views of Thales) taught that all living creatures had their beginnings in water. Even man originally came from a water organism. Anaximander also espoused the doctrine that the universe was constituted of opposite forces in balance and that it was governed by universal laws. His pupil Anaximenes considered air rather than water the primary element and therefore the essential requirement for life.

Heraclitos (fl. c. 500 B.C.), the outstanding philosopher of Ephesos, to the north of Miletos, considered fire rather than water or air as the principal element, but he underlined Anaximander's concept of opposites by suggesting that tensions between opposing forces were essential to the universe and to life. Change was the only constant.

By the sixth century B.C., four basic elements had become generally accepted as the components of all substances: water, earth, fire, and air, each of which had its corresponding characteristic—wet, dry, hot, cold. This doctrine of the four elements and their qualities (later projected into the four humors) continued to affect medical theory for many centuries, even into recent times.

There were many other leaders of what was referred to as the Ionian school because it sprang from the islands and territories to which the ancient mainland Ionians had migrated. Each inquired rationally into the makeup of humans as well as the cosmic environment.

At the western borders of the Greek world in the sixth century, an Italic "school" of philosophers was centered in Sicily and southern Italy. The most famous group was at Crotona, where Pythagoras came to teach. A center of philosophy may have been there before he arrived, but the influence of Pythagoras and the teachings of his followers were to have a profound effect on medicine.

Pythagoras (fl. c. 530 B.C.) was born on the island of Samos just off the coast of Asia Minor, but he emigrated west to Crotona in southern Italy because of his opposition to the tyrant Polycrates. He and his followers formed not only a school of philosophy but also a religious cult that allied itself with the ancient mystical teachings of Orpheus.

The Pythagoreans in the west focused principally on the soul and the spiritual universe, whereas Thales in the east was concerned with matter. Humans were fallen gods eventually capable of

returning to divinity, for although the body decayed the soul was continually reborn—even in animals. All life was therefore sacred, and surgical procedures were forbidden since they might interfere with the soul. Their belief in reincarnation resembles some religious ideas developing in India (where the Buddha also lived in the sixth century B.C.).

The basic principle of the Pythagorean universe was not any of the elemental substances but rather the science of numbers, which determined what happened in living creatures as well as in the cosmos. Each number had a special significance beyond its own function in mathematical process. For instance, 1 represented God, 2 stood for matter. Therefore 12 was the universe, divisible by 4 three times. The Pythagoreans also established scientific theories of sound and of musical octaves. Furthermore, as proponents of the mythical teachings of Orpheus, they felt that music should play an important role in their discipline.

Balance in all things was the goal of correct behavior. Opposite pairs of substances and qualities achieved the balance; therefore, the number 4 was important to health, and the concept of four elements with four qualities received further impetus, particularly when supported by so influential a school.

As a logical concomitant of Pythagorean beliefs, diet was vegetarian and frugal, but there were a few curious prohibitions against some foods, such as beans. The explanation given by Diogenes Laertius (third century A.D.) was that in mythical times the bean had been a symbol of the head and therefore of the mind, which might have made it taboo to this sect.

Cabbage, anise, and squill were recommended to maintain health and treat illness, and external applications of plant substances were also permissible, but the chief Pythagorean therapy consisted of diet, exercise, music, and meditation.

Other "schools" of medicine (that is, associations of philosophers, medical teachers, practitioners, and students) had been developing nearby in Sicily, in Cyrene on the African coast, and in Rhodes, Cnidos, and Cos at the eastern periphery of the Greek world. But Crotona was the most famous of philosophic centers according to Herodotus. Democedes, one of the best-known practitioners among the Greeks, was educated at Crotona, and his reputation increased after he went to Aegina and to Athens.

He was persuaded to come to Samos by its ruler Polycrates, but when Samos was taken by the Persians Democedes was brought along to the court of Darius. There, chance brought him to the attention of the king, whose ankle injury he was able to treat successfully, as well as his daughter's abscessed breast. We do not know his method of treatment, but Egyptian physicians had previously been unsuccessful in relieving the king's difficulties.

A younger member of the Crotona school (possibly of the fifth century B.C.) was Alcmaeon, whose principal focus was on man, not the cosmos. His book *Concerning Nature* may be the beginning

of Greek medical literature, but only a few fragments survive. Works by a number of later writers—especially Aristotle—are the principal sources for what was contained in Alcmaeon's teachings. He held a general philosophic attitude: health is harmony; disease is a disturbance of the harmony. But he also believed that investigation (including dissection), not just philosophy, was needed in order to understand the body. His combination of direct observation and experimental testing stands out as unique in his time.

Although many remarkable facts emerged from his dissections (probably on animals), his most striking contribution was to establish the connection between the sense organs and the brain. Even the optic nerves and their chiasm (crossing) were clearly delineated. Going further he concluded that the brain was the organ of the mind, not only perceiving sensations but also responsible for thought and memory. About a century later, Aristotle, one of the greatest philosopher-scientists in history, disagreed entirely with Alcmaeon, believing instead that the heart was the center of sensation.

Alcmaeon was also a hostage of his age. For instance, he speculated that sleep occurred when the blood vessels in the brain were filled; withdrawal of blood from the brain caused waking. Along with his careful dissections of the eye and demonstrations of the pathways connecting the brain and the eye, he reported that the eye contains both water and fire. However, he condemned the commonly accepted belief of the time that semen originated in the brain. His doctrine of the balancing of opposite qualities and its effect on health were in agreement with Pythagorean teachings. But the breadth of his detailed examinations and rational concepts opened a new view on the acquisition of medical knowledge. He can be called virtually the first medical scientist.

Further south in Sicily another Greek Italic center of medicine flourished. The best-known member of this group was Empedocles (c. 493-c. 433 B.C.). Many fragments of his writings survive, and much other information about him is contained in later commentaries. From these sources historians have obtained a picture of an aristocratic leader of enormous egotism but also of exceptional knowledge and ability. He went about dressed in purple finery and decorated with flowers, boasting in verse of his own godlike nature and power of accomplishment. Yet, he did work prodigious feats for his city and its citizens. During a time when it was as still possible for one person to encompass many fields he seemed to outdistance anyone else in being many-sided. Poet, statesman, priest, philosopher, scientist, physician—he excelled in all.

His treatises were written in verse, a common practice, and he preached the Pythagorean doctrines concerning purity of mind, body, and behavior, as well as the virtues of regulated, temperate diet and exercise. His teaching that gained the widest influence was the concept that all things inanimate and animate were comprised of four basic elements: water, air, fire, and earth. Although this belief was accepted before Empedocles, he is often credited with its origination.

The elements according to Empedocles are joined together during life and separate after death. Substances are formed by attraction and repulsion of the elements in different proportions. He saw that the element air had substance and could exert pressure. The flow of blood through the body was connected in some way with propulsion by air. Respiration occurred not only through the nose and mouth but also through respiratory pores in the skin; after Hippocrates, a system of medicine called Methodist was developed from this idea. Even today some speak of the opening of the pores in hot weather and their closing in the cold.

The theories espoused by the followers of Empedocles led to further elaboration and were a step toward the concept that matter is composed of atoms. For instance, Anaxagoras (c. 500-c. 428 B.C.) held that each element was composed of many small invisible particles or seeds which were released from a food by digestion and then reconstituted into components of the body—such as bone and muscle. However, it was Democritus and Leucippos later in the fifth century B.C. who advanced the fully developed theory that all matter is made up of atoms of different size, weight, shape, and position. All animate and inanimate objects were originally created by the collisions and combinations of atoms.

Democritus also dealt with diet, health and illness, and his speculative writings had a great influence on medical as well as scientific thought.

Of the other philosopher-scientist groups flourishing in the sixth and fifth centuries, two of the most important in influence were at Cnidos on the Asia Minor shore, and at Cos on an island off the coast. However, their fame may have come late in the fifth century B.C. because the historian Herodotos, who wrote in the mid-fifth century, spoke of the "schools" at Cyrene in Africa and Crotona in Italy but made no mention of either Cnidos or Cos.

It was on Cos that Hippocrates lived and taught. The writings of the Coan teachers, presumably by Hippocrates or by others of his time, are called the Corpus Hippocraticum and will be considered in a later section.

Neighboring Cnidos on the mainland was the location of a group of teachers and students that was probably as important as Cos and slightly older. The "Cnidian Sentences" was a collection of medical treatises which has not survived and is only known to us by mention in the Corpus Hippocraticum and through later commentators on Hippocrates, especially Galen in the second century A.D. Scholars consider it probable that some writings attributed to Hippocrates actually came from Cnidos.

For a long time, historians have assumed that Cos and Cnidos were rival centers, but more recent analysis suggests that the two groups may not have been much different or even competitive. Nevertheless, a summary of the attitudes which scholars heretofore have believed were prevalent at the two locations may help clarify medical principles in the Greek world.

In Cnidos diseases were supposed to have been elaborately categorized according to the organ affected, a system with some resemblance to the practice in the Mesopotamian lands east of Cnidos. Treatments which were linked with and listed with each disease were simple and sparse.

In contrast, the Hippocratists, it was assumed, made virtually no classifications and used empiric rather than theoretical bases for the management of patients. With respect to treatment, however, Hippocratic methods were not much different from the Cnidian.

In addition, according to Galen, the system at Cnidos emphasized elaborate diagnosis based on symptoms, so that virtually every symptom was a disease. For instance, there were seven diseases of the bile, twelve of the bladder, and four types of consumption (which usually meant the spitting of blood). Although descriptions of the patient's history were complete and clear, the accent was on the disease rather than the patient (Hippocratic methods emphasized the patient rather than the disease, with great attention paid to observing and evaluating the physical findings). Wherever these Cnidian characteristics are found in the body of the Hippocratic works, they have been attributed by some scholars to Cnidian origin. Two treatises, *On Diet and Acute Diseases* and *On Diseases*, have been particularly singled out as probable contributions from Cnidos.

Some of the outstanding leaders of that school were Euryphon, Ctesias, Chrysippos, Polycrates, Endoxos, and Nichomachos, the father of Aristotle. According to Galen, Euryphon, a great anatomist, was one of the most famous physicians of his time and made many contributions to the "Cnidian Sentences." Ctesias, a younger contemporary of Hippocrates, attained fame as a physician in the Persian court of Artaxerxes Mnemon, and he wrote a commentary on Hippocrates which contained a number of disagreements with the methods and conclusions.

However, the most famous name that has come down to us is Hippocrates of Cos. Whether the teachings with which he has been associated are the work of one man or of many is not known. When the Hippocratic writings were collected in the great library of Alexandria in the fourth century B.C., the works of others were presumably also attributed to Hippocrates. So, when we speak of Hippocrates we are probably referring to more than one man.

Nevertheless, there is some evidence that he did exist and that he may indeed have been the extraordinary person later generations considered him. In any case, he typifies in his teachings, his life, and his behavior the ideal to which all healers strive and which all patients seek in their doctors.

Before considering the principles and methods of Hippocrates, it is appropriate to describe the common medical practices of his time.

FONT: <http://www.healthguidance.org/entry/6336/1/Pre-Hippocratic-Medicine-The-Philosopher-Scientist.html>



## 2. Celtic Medical Treatments

By Dr. Ross Mitchell

### Folk Medicine

Beliefs about health and disease are seldom unique to one society, for they tend to pass from one community to another by word of mouth and the tales of itinerant travelers. Thus, for example, eating a mouse was considered a cure for bed-wetting throughout Europe in the Middle Ages but there were local variations: in the North of Scotland, the custom was to eat the mouse from a spoon made of horn taken from a living animal - 'a quick horn spoon'. In Scotland the line between Highlands and Lowlands was never precisely defined in cultural terms and there was always some intermingling of ideas, especially in the marginal areas of Atholl, Angus and Mar. However, certain practices are recorded as having been widespread in the Celtic highlands and may therefore be considered as characteristic in their detail if not unique in concept.

In the early Celtic world, there was general belief in the supernatural - fairies, demons and the threat of the evil eye ('droch-shuil') and there were certain people who were believed to have occult powers while others were able to exorcise evil spirits. These beliefs were complemented by a deep knowledge of the therapeutic properties of plants, animal products and other materials, even water. The wise women and other gifted individuals would use these medicinal substances in combination with charms and incantations in the treatment of disease.

### Plants

A great variety of plants was used in Celtic medicine and there was a general familiarity with common herbs. Some of these were undoubtedly of real value, though many were probably ineffective and achieved any perceived result through the belief of people in the accompanying charms and spells. Thus, a poultice of hemlock applied to a skin cancer with the appropriate incantation was believed to remove the growth, at least in some cases.

Certain plants had a general application, such as the medicinal tea made from the common speedwell. Others were reserved for particular conditions. The juice of juniper berries was thought to be effective in curing epilepsy. Infusion of wild garlic was one of many remedies for bladder stone and infusion of tansy got rid of intestinal worms. Figwort was widely used for healing cuts and sores: it was called the plant of the thunderer ('Ius an torranain') after Toranis the Celtic god of thunder, who gave his name to the island of Taransay. Some plants were used for magical purposes. For example, the sap of the rowan tree (mountain ash) was given to newborn infants to ward off evil spirits.

In Skye, seaweeds such as dulse were used as treatment for headache, colic, constipation and worms.

## **Animals and Animal Products**

Eating a mouse to cure bed-wetting has been mentioned and many other animals had specific uses. A common belief throughout the British Isles was that whooping cough could be cured by passing the sufferer under the belly of a horse, when the disease would be transferred to the animal. In most areas a piebald horse was specified but in the Celtic world it had to be a white horse, perhaps in contrast with the malevolent black water horse, the mythical kelpie. The Celtic Scots also believed that asthma could be alleviated by smearing deer grease on the soles of the feet, whereas the Irish considered a dandelion potion to be more effective.

In the Western Isles, the ubiquity of seals meant that products of these animals were used for many purposes. The wearing of a sealskin girdle resulted in the relief of sciatica and the fresh flesh of young seals was given for diarrhoea. In St Kilda, the fat of seafoals ('gibean') was used to heal wounds and this 'gibean of St Kilda' was highly prized in Skye and other islands for the same purpose.

## **Charms and Spells**

In his book 'Carmina Gadelica' Carmichael listed large numbers of runes and incantations in Gaelic, each of which was appropriate to a particular situation or disease. There was a widespread Celtic belief that fairies were especially predatory around the time of childbirth and it was customary to put a piece of cold iron in the mother's bed to prevent abduction of the mother and her baby. The newborn infant is still vulnerable to evil spirits until baptism, which should therefore be undertaken as soon as possible. Neonatal convulsions were thought to represent struggles to escape the fairies' clutches. It was generally believed that, if a baby arrived feet first, he was born to be hanged and that, if the fingernails were cut before one year of age, he would become a thief.

In later life a charm ('sian') could be put on someone to protect him from injury, perhaps in battle, or to ward off the ill-effects of the evil eye. Exorcism of demons was often undertaken with various specialised rituals for the demons of jaundice, epilepsy, erysipelas, local infections such as styes and so on. A magical cure for epilepsy was to bury a black cock at the spot where the patient had had his last fit.

Rickets and the resulting deformity were common in mediaeval Scotland and became even more widespread as diets deteriorated after the 18th Century. It was generally believed that blacksmiths, particularly if descended from several generations of smiths, possessed preventive and therapeutic powers, provided that an exact ritual was followed which varied in different areas. According to the practice of 'laying' in the Highlands, the rickety child was washed with special water before sunrise and then placed with due ceremony on the anvil, when the smith passed his tools three times over the child.

## Water

Plant, animal and magical cures were commonly combined with water, often administered three times. However, the medicinal qualities of water alone were highly regarded, especially if it came from a particular river or well. In Ireland, drinking water three times from certain rivers was thought to be effective in mumps. Therapeutic properties were attributed to special wells in the Highlands, such as the Well of Balquhadder, which was reputed to cure whooping cough, and a well at Borge in Harris, which was efficacious against 'stitches and gravel'. A well in North Uist ('tobar an deididh', well of the toothache) gave complete relief from toothache if three draughts of water were drunk in quick succession. Wells were often identified with local gods and the healing properties attributed to these deities.

The Water of Life - 'uisge beatha' in Gaelic, usquebaugh in Scots and whisky in English - was understandably considered to be almost a panacea, given for a variety of ailments but believed to be specific for smallpox. In 1785, the right of Forbes of Culloden to distil duty-free whisky at Ferintosh in Cromarty was withdrawn by law, which prompted Robert Burns to write:

Thee Ferintosh! O sadly lost!

Scotland lament frae coast to coast!

Now colic grips an' barkin' hoast

May kill us all!

Clearly confidence in the medicinal value of whisky endured in Scotland long after the Middle Ages.

No doubt many early Celtic leeches used plant and animal products in good faith and believed in their efficacy, though later generations of physicians relegated them to folklore. Conversely, however, some ancient Celtic remedies, such as giving the thyroid gland of a sheep born on St Brigit's Day to a child with cretinism, may have been compatible with the scientific facts that form the basis of modern therapeutics.

### **3. The use of deep friction massage with olive oil as a means of prevention and treatment of sports injuries in ancient times**

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#### **Abstract**

The aim of this research was to analyse the use of olive oil as a means of prevention and treatment of sports injuries in the ancient world. The method adopted was based on a thorough study of Greek and world literature. Writings of major ancient philosophers and physicians such as Hippocrates, Aristotle, Philostratus, and Lucian have been analysed in depth. According to the results, the use of massage, together with olive oil rub, helped to reduce muscle fatigue, to remove lactic acid, and to prevent the occurrence of sports injuries through flexibility provided to the skin of athletes. The therapeutic use of oil in the ancient world was fully recognized; and as a result, Athenian athlothes (sponsors of sporting events) provided free oil to all sport facilities where athletes could make free use of it [1].

Keywords: trauma, sport injuries, therapy, olive oil, deep friction massage

#### **Introduction**

The ancient Greeks had early recognized the advantages of deep friction massage of the body with olive oil. In the eighth century BC athletes, especially those active in wrestling and pangenion, rubbed their bodies with oil or threw sand-dust (κόκκιν) on them [2]. In the initial stage of the massage, a dry rub was performed gently with the palm, a touch on the naked body of the exercisers that prepared the athletes physically and psychologically just before they entered the playing field [3]. The rub, "massage" (Greek word from the ancient verb "masso = give assistance operations") [4, 5], was of light intensity and progressively it became stronger [6]. The ancients aimed in this way to achieve a gradual increase in the rate of metabolic processes, so the athlete's body could respond in the best way to the required activity.

The main objective of this article is to analyse and to substantiate the beneficial effects of using deep friction massage with olive oil as a means of prevention and treatment of sports injuries.

## **Search strategy**

We pursued this objective by reviewing (study design) the ancient literature in relation to modern literature. In this way we wish to attribute to this study a beneficial role and usage, so that the modern community can adopt its use as the ancients did. For this purpose, we visited the National Library of Greece, the Gennadius Library / The Library of the American School of Classical Studies at Athens, the Library of the University of Athens / Medical School and other institutions. The search strategy we followed was an extensive review of the Greek and world literature. Writings of significant physicians such as Hippocrates and Galen were analysed.

## **Obtained results**

The whole process was performed in a specific part within sports institutions (Palaestra and Gymnasium), called aleiptirion [7]. According to Aristophanes, the massage was performed by the umbilicus [8]. An individual with special knowledge on human anatomy carried out the process of massage with oils. He was called the aleiptes [9], the paidotrivis, or the “trainer” or other co-athlete [3]. The actions of the rub were mostly mild and gentle in such a manner as to avoid sudden movements that might cause injury to the soft tissue (muscle) of the trainee [10]. A knowledge of the human anatomy was significant for beneficial and not harmful massage. Not everyone could do massage. As a prerequisite knowledge of the human body and its mechanisms was necessary at a theoretical and practical level, so that aleiptes could not only promote the mental health of the person who accepted his services, but also be able to actively assist in the treatment of any injuries [11]. Characteristic of the therapeutic usefulness of the rub with olive oil is the reference in Patrologia Minge of how the aleiptes could reset the bone to articulate “the dislocated limb through the art of massage and settle it back into place” [12].

Rubbing with oil was considered so important in the ancient world that Philostratus in his book “Gymnastics-Epistolai” considered it necessary to provide instructions on how to conduct effective rubbing with olive oil [13]. In particular, the great writer of antiquity says: “The trainer should apply rubbings for the athletes of light and heavy events, with a moderate amount of oil, especially the lower parts, and wipe them well” [13]. The same author, in his effort to stress the positive effects of rubbing the body with oil, states: “they rubbed themselves with the oil of the wild olive. This style of living made them free from sickness and they kept their youth a long time. Some of them competed in eight Olympic Games, some others in nine; they were also excellent soldiers.” [14]. Moreover, Philostratus believed that exercise combined with proper nutrition and rubbing acted positively even in the prevention of diseases [15].

Furthermore, Hippocrates, the father of medicine, in his work “About Diet” refers to differences between exercises in oil and those in dust: “LXV. Exercises in dust differ from those in oil, in that dust is cold and oil is warm. In winter oil promotes more growth, because it prevents the cold from being carried from the body. In summer, oil, producing excess of heat, melts the flesh, when the

latter is heated by the season, by the oil and by the exercise. In summer exercise in dust promotes growth more, for by cooling the body it prevents its being heated to excess. But in winter dust is chilling, or even freezing. To remain in the dust after exercise in summer benefits by its cooling properties, if it be for a short time; if it be for long, it dries the body to excess and renders it hard as wood. Rubbing with oil and water softens the body, and prevents it becoming over-heated” [16].

According to these reports, the reasons that the athletes rubbed their bodies with oil varied and this constitutes a subject of analysis for various interpretations/theories. Some authors believe that rubbing with oil helped to raise the temperature of the body (warm it up) and further lead to flexibility (limberness) of the muscles before exercise. Some others think that the oil protected the body from the sun and other elements of nature [17]; it is theorized that oil had heat-insulating characteristics. According to another theory the oil produced a glistening body which was aesthetically pleasing and desirable, or that the coating of oil prevented the loss of body fluids during exercise (protection from dehydration) [17]. Pliny believed that oil protected the body against the cold [17]. Massage with oil was so important that the nomenclature of two sport professions, paidotrivis (boy rubber) and aleiptes (oiler), came from it [18]. For wrestlers and pankratiasts the olive oil had the added function of reducing skin abrasion and hindering dirt from becoming packed into the pores of athletes’ skin [18].

Ailianos claimed that rubbing with oil was first discovered by the Athenians: “και τον' αγωνα δια των σωματων ηλειψαντο” [19]. The person (aleiptes) who was charged with the performance of the necessary manoeuvres of oil massage had to be aware of the strength and age of the trainee [20, 21]. The implementation of deep friction massage with oil was important not merely for warming up, but also to achieve the desired performance. After the end of the sporting event the athlete scraped his body with a strigil (stlengis), a curved tool. The strigils removed from the body surface area not merely the products of the metabolic processes (sweat), but also the combination of oil, sweat and dust. This mixture was called gloios and it was collected in vases and sold for its presumed medical value [17]. In addition, athletes also used a sponge to wash themselves down after the scraping was completed. When the procedure of scraping ended, aleiptes of palaestra applied to athletes a massage in order to appease the fatigued body [3, 22]. According to Lucian the olive oil had positive effects on athletes’ bodies: “Then we rub their bodies with olive oil and work it in so that they will have better tone.” [23].

Furthermore, according to Hippocrates the post-exercise massage helped to alleviate muscle pain [6]. From the above reference, it can be theorised that Hippocrates and his contemporaries were aware of the analgesic properties of deep friction. The correctness of this theory is verified by modern research findings according to which massage increases local blood flow, relaxes muscles and further mobilizes and breaks down the scar tissue [24]. In particular, the local friction succeeds in increasing the local temperature and contributes to better blood flow, due to induced vasodilation and increased permeability of blood vessels.

However, in ancient Greece deep friction massage (DFM) in conjunction with olive oil was used not only for therapeutic purposes, since oil, apart from treatment and analgesic properties, had another use, as a preventive measure for averting sports injuries. Oil not only allowed freedom of movement, but also helped to prevent injuries. The skin and thus the body by the friction with oil becomes flexible. The oil causes the forces to be less intense and longer compared to non-oiled skin. The oil greatly facilitated the escape of an athlete from painful and injury-prone holds, such as trapping the neck (trachilismos). Especially in wrestling an oiled body offered the opportunity for the athlete to avoid dangerous holds applied by an opponent, such as entrapment of the waist (μεισοφερδην) or throat (τραχηλιζειν), because the body was slippery and thus the implementation of the holds was difficult [25]. The applied oil, through increased slipperiness, helped the body to reduce the intensity and duration of hazardous holds. In combination with the increased capacity of the skin (through flexibility) to receive larger forces, the oil makes the generation of sports injuries more difficult.

Apart from the aforementioned use, oil was likely to have additional benefits in terms of prevention. In particular, the oil when it was rubbed on the body did not allow or prevented the full exposure of the body to the negative effects of solar ultraviolet radiation. However, this has not yet been established scientifically (the protection offered by olive oil from the sun) and the confirmation may be an area for new research efforts and applications in modern public health.

## **Discussion**

Oil and its beneficial effects were well known to the ancient world. The Greeks through the use of olive oil succeed in increasing skin elasticity and blood supply to the underlying muscle. Also post-exercise massage combined with the oil rub resulted in faster recovery of the athlete, as the blood flow increased and the product of metabolic processes (lactic acid) was removed rapidly from the extended blood vessels. Furthermore, the oil rub gave flexibility and lubricity to the body of athletes. This resulted in its use being adopted not only as a means of treatment, but also for the prevention of sports injuries.

Post-exercise deep friction massage combined with the application of oil was beneficial in reducing muscle fatigue. In particular, the friction increased the blood flow of the underlying tissue (at the local level) and helped to achieve faster removal of lactic acid from the tissues of the fatigued neuromuscular system of the athlete. In this way ancient Greeks achieved better recovery of the acid-base balance of the body and further restored the pH of the arterial blood to normal levels (pH 7.35-7.45). The ancients knew through visual observation the beneficial results of using oil as a means of reducing muscle fatigue and faster recovery of the athletes.

The beneficial properties of deep friction massage (DFM) have been confirmed by recent studies. According to a synchronous study, massage has both reflective and mechanical action [26]. It

contributes to effective reduction of increased muscle tone and further increases venous return [26]. In addition it reduces levels of creatine kinase and the number of circulating neutrophils, and delays the onset of muscle pain after eccentric exercise, through disruption of the inflammatory response [24].

Steward et al. state that DFM has a therapeutic modality for tendinitis, muscle strains, ligamentous sprains, and capsulitis of the trapezio-first-metacarpal joint [27]. Depending on the stage and site of the lesion, treatment sessions may be as brief as 5 min or as long as 20 min. Many therapists find DFM to be very effective but they state that treatment is too fatiguing to administer [27]. Brosseau et al. state that deep transverse friction massage (DTFM) is one of several physiotherapy interventions suggested for the management of tendinitis pain [28]. Mayer et al. reported that pain (in 31 male runners with unilateral, untreated Achilles tendinopathy, who completed 4 weeks of either physiotherapy, 10 treatments: deep friction, pulsed ultrasound, ice, sensory motor training) was reduced to < 50% of the baseline [29]. According to Boisaubert et al., for the long term, physiotherapy (pulsed ultrasound, deep friction massage and exercise programme) is the best option that could be applied [30].

Patricia Benjamin supports Marys McMillan's thesis that the use of cod liver oil or olive oil is advocated for its nutritive value when massaging young children [31]. Dana Michelsen states that back rubs have benefits [30]. Also exercise, even of the passive type, is essential in illness. The same author writes that massage with a warmed lubricant (such as olive oil) is encouraged in order to prevent depressed circulation and tissue breakdown, and to aid natural skin tone [32]. According to Ostermann et al., repeated rhythmic embrocation with oil may improve mood, pain perception, and the ability to cope with pain in patients with chronic low back pain [33]. These recent findings are in accordance with the beneficial effects already observed in ancient Greece and confirm the positive effects of deep friction massage with olive oil to treat injuries.

From this study, we can conclude that DFM in combination with olive oil has beneficial effects as a means of prevention and treatment of sports injuries. According to the results and the discussion section of this article, DFM and olive oil helped the athletes to increase the local temperature of the rubbed muscle and contributed to better blood flow. Furthermore, the body through friction with oil becomes more flexible and thus the generation of injuries during sports is more difficult. In addition, post-exercise massage combined with oil rub resulted in faster recovery of the athlete. The friction increased the blood flow of the underlying tissue and in that way contributed to faster removal of lactic acid and, as a result, the rapid recovery of the athlete.

The beneficial results of deep friction massage with oil as derived from ancient Greek literature and as outlined in this research is a fact; but it needs further scientific research by scientists of moderate sports history and especially sports medicine, in order to find application to the current needs of athletes. It is anticipated that this article will be a stimulus so that further trials, using



appropriate methods and adequate sample sizes, will be conducted so as to reveal the benefits of olive oil application and the potential applications in modern medicine and coaching.

Font: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3298328/>

## 4. Hippocrate et la théorie des humeurs

Antoine THIVEL

La théorie des humeurs a régné sur toute l'histoire de la civilisation occidentale depuis des siècles, sur la médecine, la biologie, la philosophie, la cosmologie et même la géographie et l'astronomie, et pourtant elle était fautive, mais sa fausseté n'est apparue que lorsqu'ont été mises au point la médecine, la chimie et la physique modernes, c'est-à-dire vers la fin de notre XVIIIème siècle. Même des savants comme Descartes ou Gassendi croient encore à la bile et au phlegme, Boerhave et Barthez n'ont pas de meilleure explication à donner lorsqu'ils parlent du corps humain, et s'il fallait évoquer la place de la théorie des humeurs dans la littérature de ce temps, qu'elle soit invoquée comme une vérité d'évidence comme dans Shakespeare, ou attaquée comme une absurdité comme dans Montaigne ou Molière, il y aurait tout un volume à écrire.

....

Même notre langage courant en porte encore de nombreuses traces, et nous employons sans y penser des expressions qui viennent de cette théorie, bien que nous n'y attachions, bien entendu, pas la moindre valeur : nous parlons encore de « rhume de cerveau » comme si cette affection était due à un écoulement de la matière du cerveau dans les narines par des conduits qui n'existent pas, mais telle a bien été, et jusqu'au XVIème siècle, l'explication « savante » de cette maladie, bénigne mais fort gênante. Il a fallu que les anatomistes de la Renaissance montrent que l'os du front n'avait pas d'ouverture au-dessus du nez pour que l'on renonce à cette « explication », et encore des esprits obstinés ont-ils pu soutenir pendant un certain temps qu'il y avait bien un passage, mais qu'il se faisait par des « pores invisibles ».

Quant aux dommages que cela aurait pu causer au cerveau, personne n'y pensait, apparemment, mais il a fallu plus tard la découverte du microscope pour venir à bout de ces résistances.

Le terme « rhume », du grec rheuma, « écoulement », tient encore une grande place dans le vocabulaire médical : nous parlons de « rhumatismes », alors que nous savons très bien que ces douleurs ne sont pas dues à des écoulements d'humeurs, mais à des dégradations des articulations. Ces écoulements sont aussi présents dans les « catarrhes » (grec : katarrhooi, « écoulements vers le bas »), qui commencent à passer de mode, mais qu'on trouvait chez les « cacochymes », vieillards atteints de fluxions sur la poitrine, puisque le mot est formé du grec kakos, « mauvais », et de khuma, « chose qui se déverse ».

....

Les auteurs des traités qui analysent les choses de cette façon raisonnent par le principe des contraires : c'est par les contraires, l'union des graves et des aigus, que se fait la plus belle harmonie (comme dit Héraclite, fr. B 51 D.K.). Ainsi le phlegme, humeur âcre et froide, pourra donner des inflammations, donc créer le chaud.

Inversement, dans les systèmes à quatre humeurs, celles-ci sont rigides, ce sont des blocs qui ne peuvent communiquer entre eux, qui ne se combinent que par des mélanges où chaque élément garde sa spécificité, mais s'unit au voisin par ce qu'il a de commun avec lui : ce sont des traités où l'on raisonne par le principe des semblables, la logique formelle :  $A = A$ ,  $A = \text{non } B$ , et le principe du tiers exclu. Pour ces auteurs, l'harmonie vient de ce que le semblable va toujours vers le semblable (to homoion pros to homoion).

Là est la véritable doctrine « hippocratique » des humeurs, qui n'est évidemment pas une invention d'Hippocrate, car elle est beaucoup plus ancienne que lui. C'est, en fait, la conception générale de la santé que se faisaient les Grecs, et elle se retrouve dans les domaines cosmologique et politique. Des historiens comme Hérodote et Thucydide emploient le terme « isonomie » comme synonyme de « démocratie », et on le trouve aussi chez des philosophes et des savants comme Hippon et Philolaos. Ainsi, sans qu'on puisse dire exactement comment elle s'est formée, on peut assurer sans crainte de se tromper que la théorie des humeurs est fort ancienne en Grèce, qu'elle est liée à des idées cosmologiques et politiques, et qu'on ne peut pas l'attribuer à une école particulière. Cependant, elle n'a jamais été, au moins dans un premier temps, systématisée de manière dogmatique, comme elle l'a été en Inde, par exemple, et on ne peut pas dire non plus que les humeurs soient pensées dans un rapport direct avec le macrocosme, qu'il y ait une relation de cause à effet entre elles et les éléments.

Comme les textes de la Collection hippocratique représentent un travail collectif qui a duré environ 80 ans (mais beaucoup de traités médicaux de cette époque ont disparu, nous sommes loin de posséder toute cette littérature médicale, et il est impossible d'attribuer tel ou tel écrit à un auteur particulier, même à Hippocrate), ils ont pour nous l'intérêt de décrire une évolution historique et un foisonnement d'idées, des discussions, des polémiques entre divers groupes de médecins qui ne formaient pas vraiment des écoles, car la liberté de pensée et de recherche y était totale. Pour ce qui est des humeurs, on peut distinguer en gros deux théories, qui se succèdent d'ailleurs dans le temps : d'abord celles qui utilisent deux humeurs, la bile et le phlegme, et expliquent tout par leurs innombrables variétés et combinaisons ; viennent ensuite les théories à quatre humeurs, mais là il faut mettre à part le traité De la nature de l'homme, qui admet la bile, le phlegme, le sang et la bile noire, et d'un autre côté quelques traités (Affections, Maladies I et IV, Lieux dans l'homme) qui utilisent un autre système à quatre humeurs : bile, phlegme, sang, eau. On sait que dans la suite de l'histoire de la médecine, c'est la première forme de ces théories, qui ne se trouve d'ailleurs que dans le traité De la nature de l'homme, qui s'est imposée, puisqu'elle existe chez Aristote, et ensuite chez tous les médecins de l'époque

hellénistique et de l'époque romaine (où certains refusent la théorie des humeurs), puis au Moyen-Age, à la Renaissance, et jusqu'au XVIIIème siècle.

C'est à cette théorie, en général, que l'on fait allusion quand on parle de « la théorie des humeurs », mais en fait ce n'est pas celle de l'Hippocrate historique (qui avait sûrement une théorie à deux humeurs), c'est celle de Galien, car ce dernier, adepte de la théorie bile-phlegme-sang-bile noire, ne la trouvant chez « Hippocrate » que dans le traité De la nature de l'homme, a accredité l'idée que ce traité était bien d'Hippocrate lui-même (comme il lui fallait un garant, un grand ancêtre), alors que nous savons que l'auteur de cet écrit n'est pas Hippocrate, mais son gendre, Polybe, comme un texte d'Aristote nous le dit. C'est même le seul texte de cette Collection dont nous connaissions l'auteur avec certitude.

L'autre théorie à quatre humeurs, celle qui admettait la bile, le phlegme, le sang et l'eau, a été ensuite oubliée, peut-être parce que l'eau paraissait faire double emploi avec le phlegme, ou bien à cause de l'importance que la bile noire a prise dans la suite de l'histoire de la théorie des humeurs et des tempéraments.

## **5. Hippocrates of Kos, the Father of Clinical Medicine, and Asclepiades of Bithynia, the Father of Molecular Medicine**

CHRISTOS YAPIJAKIS

### **Abstract**

Hippocrates of Kos (460-377 Before Common Era, BCE) is universally recognized as the father of modern medicine, which is based on observation of clinical signs and rational conclusions and does not rely on religious or magical beliefs. Hippocratic medicine was influenced by the Pythagorean theory that Nature was made of four elements (water, earth, wind and fire), and therefore, in an analogous way, the body consisted of four fluids or 'humors' (black bile, yellow bile, phlegm and blood). The physician had to reinstate the healthy balance of these humors by facilitating the healing work of 'benevolent Nature'. The Hippocratic Oath contains the Pythagorean duties of justice, secrecy, respect for teachers and solidarity with peers. The clinical and ethical basics of medical practice as well as most clinical terms used even today have their origins in Hippocrates. His contribution in clinical medicine is immense. Asclepiades of Bithynia (124-40 BCE) was the first physician who established Greek medicine in Rome. Influenced by the Epicurean philosophy, he adhered to atomic theory, chance and evolution, and did not accept the theory of a 'benevolent Nature'. He suggested that the human body is composed of molecules and void spaces, and that diseases are caused by alteration of form or position of a patient's molecules. Asclepiades favored naturalistic therapeutic methods such as a healthy diet, massage and physical exercise. Above all, he introduced the friendly, sympathetic, pleasing and painless treatment of patients into medical practice, influenced by the teachings of Epicurus on pleasure and friendship. He was the first who made the highly important division of diseases into acute and chronic ones and to perform an elective non-emergency tracheotomy. As the founder of the Methodic School, Asclepiades was the first known physician who spoke about what is known today as molecular medicine.

...

### **The Life and Medical Philosophy of Hippocrates**

Hippocrates of Kos is universally recognized as the father of modern medicine, which is based on observation of clinical signs and rational conclusions (1, 2, 5, 6). Before him, therapeutic attempts were based on religious or magical beliefs and were commonly practiced by priests, spiritual healers and witch-doctors (1, 2).

Hippocrates was born in Kos, a Greek island of the southeastern Aegean (7, 8). He was the son of Heraklides and belonged to a family of physicians who claimed their ancestry from Asclepius, the god of medicine (7, 8). Hippocrates worked mainly in Kos and the nearby coast of Asia Minor (corresponding to present-day Turkey), but he also traveled extensively visiting other Greek regions including Athens, Thessaly and Thrace (5-8). His contribution to medical practice is characterized by ethical rules of conduct, close observation of clinical symptoms, an open mind for any ideas, and willingness to explain the cause of diseases.

Hippocrates based medicine on the philosophical idea that Nature was made of four elements, namely water, earth, wind and fire, according to the Pythagorean philosopher Empedocles (493-433 BCE) (1, 9-11). The Pythagoreans were an elite philosophical group who believed that benevolent Nature was divinely created by musically harmonious and numerically defined laws (1, 9, 10). They believed that through a series of reincarnations human souls were destined to be immortal ethereal stars (9, 10). The founder of this philosophical sect, the legendary Pythagoras, had claimed that he was able to remember his past lives (9, 10). Pythagoreans respected hierarchy and observed an oath of secrecy, since they believed that sacred knowledge was meant to be shared by the select few (9, 10). They believed that justice should be involved in all human relations, just like divine law governs all-natural phenomena (9, 10).

In a way analogous to the concept of the four elements, Hippocrates believed that the body consisted of four fluids or 'humors' (black bile, yellow bile, phlegm and blood) and four elemental conditions (cold, hot, dry and moist) (1, 2, 5, 6, 11, 12). Therefore, the state of health existed when these humors and qualities were in balance (1, 2, 5, 6, 11, 12). In a case of disease, the physician had to disclose the imbalance of humors and facilitate the healing work of benevolent Nature by use of bleeding, emetics, purgatives, or even surgery (1, 2, 5, 6, 12).

According to Hippocrates, the physician had to examine a patient, observe symptoms carefully, make a diagnosis and then treat the patient (1, 2, 5, 6, 12). Therefore, Hippocrates established the basics of clinical medicine as it is practiced even today (1, 2, 5). He introduced numerous medical terms universally used by physicians, including symptoma, diagnosis, therapy, trauma and sepsis (12). In addition, he described the presentation of a great number of diseases without superstition. Their names are still used in modern medicine including diabetes, gastritis, enteritis, arthritis, cancer, eclampsia, coma, paralysis, mania, panic, hysteria, epilepsia and many others (12). The latter disease was called 'divine' before Hippocrates, and a passage attributed to him underlines his rational way of thinking: "Epilepsy is not more divine a disease than any other disease. People call it divine because they do not understand it. But if we call divine all things we do not understand, then divine things will be endless" (1, 12).

...

Asclepiades of Bithynia (124-40 BCE)

## **The Life and Medical Philosophy of Asclepiades**

Asclepiades of Bithynia is recognized as the first physician who established Hellenic Medicine in Rome (2, 3). Nevertheless, he is surprisingly unknown given the important fact that he was the first physician who created a health and disease theory with apparent similarities to what is known today as molecular medicine.

...

He suggested that the human body is composed of a) molecules (μέρη, 'meree' or 'corpuscula') that are made of atoms (ἄναρμοι ὄγκοι, 'anarmoi ongoi'), and b) void spaces (πόροι, 'poroi') (18). According to Asclepiades, diseases are caused by alteration of form, position or free flow of a patient's molecules; thus, he introduced molecular stereopathology (18). In order to restore health status, he favored mild therapeutic methods such as a healthy diet, exposure to light, hydrotherapy, massage, physical exercise, although he also employed herbal remedies and surgery if judged appropriate (18). He was named Philosophicus because of his knowledge of philosophy and Pharmacion because of his knowledge of medicinal herbs, such as his favorite chamomile (18).

...

## **Conclusion**

The great Hippocrates of Kos laid the basic foundations of medical practice and ethics. The brilliant Asclepiades of Bithynia offered a more realistic and humane refinement of the medical art in ways that only recently have been appreciated. It is time that Asclepiades be recognized for his contributions as the father of molecular medicine and take his rightful place as a pioneer physician next to Hippocrates, the justly recognized father of clinical medicine.

## 6. Hippocrates VOL. I

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Traducción DEL GRIEGO AL INGLÉS de pasajes del corpus.

EJEMPLO DE DOCUMENTACIÓN Y CREACIÓN DE HISTORIAS CLÍNICAS

DOCUMENTACION DE CASOS CLÍNICOS

SIXTEEN CASES

Case I

XVII. In Thasos the Parian who lay sick beyond the temple of Artemis was seized with acute fever, which at the beginning was continuous and ardent. Thirst. At the beginning coma followed by sleeplessness. Bowels disordered at the beginning; urine thin.

Sixth day. Oily urine; delirium.

Seventh day. General exacerbation; no sleep; urine similar and mind disordered; stools bilious and fatty.

Eighth day. Slight epistaxis; vomited scanty matters of the colour of verdigris; snatches of sleep.

Ninth day. Same symptoms.

Tenth day. General improvement.

Eleventh day. Sweated all over; grew chilly, but

quickly recovered heat.

Fourteenth day. Acute fever; stools bilious, thin, copious; substance floating in urine; delirium.

Seventeenth day. In pain; no sleep, while the fever grew worse.

Fiftieth day. Sweated all over; no fever; stools bilious; aversion to food; coma.

Twenty-fourth day. Relapse.



Thirty-fourth day. No fever; no constipation; recovered heat.

Fortieth day. No fever; bowels constipated for a short time; aversion to food; became slightly feverish again, throughout irregularly, the fever being sometimes absent, sometimes present; for if the fever intermitted and was alleviated there was a relapse soon afterwards. He took little bits of food, and that of an unsuitable sort. Sleep bad; delirium at the relapses. Urine at these times had consistency but was troubled and bad. Bowels constipated, but afterwards relaxed. Continuous slight fevers. Stools thin and copious.

Hundred and twentieth day. Death. In this case the bowels continuously from the first day loose with bilious, loose, copious stools, or constipated with hot/ undigested stools. Urine throughout bad; mostly comatose; painful sleeplessness; continued aversion to food.

## 7. The Hippocratic Oath

Hippocratic Oath - Classical Version

Translation from the Greek by Ludwig Edelstein. From the Hippocratic Oath: Text, Translation, and Interpretation, by Ludwig Edelstein. Baltimore: Johns Hopkins Press, 1943.

I swear by Apollo Physician and Asclepius and Hygieia and Panacea and all the gods and goddesses, making them my witnesses, that I will fulfill according to my ability and judgment this oath and this covenant:

To hold him who has taught me this art as equal to my parents and to live my life in partnership with him, and if he is in need of money to give him a share of mine, and to regard his offspring as equal to my brothers in male lineage and to teach them this art—if they desire to learn it—without fee and covenant; to give a share of precepts and oral instruction and all the other learning to my sons and to the sons of him who has instructed me and to pupils who have signed the covenant and have taken an oath according to the medical law, but no one else.

I will apply dietetic measures for the benefit of the sick according to my ability and judgment; I will keep them from harm and injustice.

I will neither give a deadly drug to anybody who asked for it, nor will I make a suggestion to this effect. Similarly, I will not give to a woman an abortive remedy. In purity and holiness, I will guard my life and my art.

I will not use the knife, not even on sufferers from stone, but will withdraw in favor of such men as are engaged in this work.

Whatever houses I may visit, I will come for the benefit of the sick, remaining free of all intentional injustice, of all mischief and in particular of sexual relations with both female and male persons, be they free or slaves.

What I may see or hear in the course of the treatment or even outside of the treatment in regard to the life of men, which on no account one must spread abroad, I will keep to myself, holding such things shameful to be spoken about.

If I fulfill this oath and do not violate it, may it be granted to me to enjoy life and art, being honored with fame among all men for all time to come; if I transgress it and swear falsely, may the opposite of all this be my lot.

## 8. An experimental study of a Mediterranean diet intervention for patients with rheumatoid arthritis

L Sköldstam, L Hagfors, G Johansson

Ann Rheum Dis 2003; 62:208–214

**Objective:** To investigate the efficacy of a Mediterranean diet (MD) versus an ordinary Western diet for suppression of disease activity in patients with rheumatoid arthritis (RA).

**Methods:** Patients with well controlled, although active RA of at least two years' duration, who were receiving stable pharmacological treatment, were invited to participate. All patients were randomly allocated to the MD or the control diet (CD). To achieve good compliance with prescribed diets all patients were for the first three weeks served the MD or the CD, respectively, for lunch and dinner at the outpatient clinic's canteen. Clinical examinations were performed at baseline, and again in the 3rd, 6th, and 12th week. A composite disease activity index (DAS28), a physical function index (Health Assessment Questionnaire (HAQ)), a health survey of quality of life (Short Form-36 (SF-36)), and the daily consumption of non-steroidal anti-inflammatory drugs were used as primary efficacy variables.

**Results:** From baseline to the end of the study the patients in the MD group (n=26) showed a decrease in DAS28 of 0.56 ( $p<0.001$ ), in HAQ of 0.15 ( $p=0.020$ ), and in two dimensions of the SF-36 Health Survey: an increase in "vitality" of 11.3 ( $p=0.018$ ) and a decrease in "compared with one year earlier" of 0.6 ( $p=0.016$ ). For the control patients (n=25) no significant change was seen at the end of the study. This difference between the two treatment groups was notable only in the second half of the trial.

**Conclusion:** The results indicate that patients with RA, by adjusting to a Mediterranean diet, did obtain a reduction in inflammatory activity, an increase in physical function, and improved vitality.

## 9. Medicinal Plants in Folk Tradition: An Ethnobotany of Britain & Ireland

Authors: David E. Allen, Gabrielle Hatfield

### DRYOPTERIDACEAE

*Dryopteris filix-mas* (Linnaeus) Schott, in the broad sense male-fern Europe, temperate Asia, North America. Because male-fern (in the old aggregate sense) was recommended as a vermifuge by all the leading Classical writers, it is hard to be sure of the genuineness of its place in the folk repertory as the cure for tapeworm par excellence. It is *Dryopteris filix-mas*, male-fern (Fuchs 1543, fig. 338) nevertheless suggestive that the numerous records for that are all from the 'Celtic fringe' and that it has been used in Ireland for other ailments as well: for burns in Waterford,<sup>68</sup> shingles in Tipperary<sup>69</sup> and erysipelas in Limerick.

Greatly confusing the picture, however, was the extensive publicity for its use produced by two papers in the *Edinburgh Monthly Medical Journal* in 1852–3 ('On the treatment of Tape-worm by the Male Shield Fern'), which brought to notice a more reliable method of exploiting the plant—by soaking the fresh rhizomes in ether—and thereafter gave it respectability in official medical circles.<sup>71</sup> The powerful anthelmintic properties attributed to the rhizomes certainly have a well-attested clinical basis but their use is regarded today as dangerous.

....

### LINACEAE

*Linum catharticum* Linnaeus fairy flax, purging flax Europe, south-western Asia; introduced into North America Evidence of *Linum catharticum*, a well-known purge and emetic, has been excavated from deposits in Britain as early as the Late Bronze Age, invariably from sites associated with cultivation. This may or may not indicate medicinal use; there are, however, folk records from widely scattered and remote parts of the British Isles to suggest that its history as a purge goes back a very long way. In the Celtic-speaking regions it has also enjoyed a reputation as a cure for menstrual irregularities: in the Highlands, where it bore a name to that effect in Gaelic, this was apparently its principal use<sup>136</sup>; it is also indicated with greater or lesser explicitness from the Isle of Man<sup>137</sup> and Skye.<sup>138</sup> Its very power as a purge, evacuating 'viscid and watery humours from the most remote lodgments', was why it commended itself to 'the common people' for rheumatism as well, according to John Quincy, who nevertheless rated it 'only for very robust strong constitutions'.<sup>139</sup> There are more recent but, regrettably, unlocalised British records

for its use for that purpose, too.<sup>140</sup>Ireland supplies one further application: for urinary complaints in Cavan.<sup>141</sup>

...

Three herbs exhibit this pattern, each in rather different ways. In *Potentilla anserina* (silverweed) the dichotomy is a wholesale one, embracing all the recorded uses; in *Iris pseudacorus* (yellow iris) it is between just a single use (for toothache) in the north and west and several uses in the south and east; while in *Glechoma hederacea* (ground-ivy) just two uses out of a diversity of known ones constitute the polar opposites: it is a cold cure in the 'Celtic' countries (that useful term popularly employed in a non-linguistic sense to cover Ireland, Scotland, Wales, the Isle of Man and Cornwall) and a tonic in central and southern England. That use of *Iris pseudacorus* to ease toothache is one of quite a number of instances of therapeutic properties that would otherwise be wholly Irish extending across to the Western Isles and/or Highlands of Scotland.

## 10. Modern Medicine vs. Alternative Medicine: Different Levels of Evidence

Author: Thomas Sullivan - Policy & Medicine Writing Staff August 16, 2011 at 05:37:00 AM in Media

Prescription medicines and advances in medical treatment have helped people avoid disability and death caused by disease, lowered overall treatment costs, and has lowered death rates for heart disease, stroke, cancer, and other deadly diseases for several decades.

Since 1970, the death rate from heart disease has dropped nearly 60% and deaths from stroke are down 70%. The death rate from cancer has dropped 16% since 1990 and the death rate from HIV/AIDS has dropped more than 75% from its highest point in 1995. In addition, the average life span of Americans increased from 69.7 years in 1960 to approximately 80 years in 2007.

In addition, the 5-year survival rates for cancer have risen by 26% just since 1984. And while HIV/AIDS was the 8th leading cause of death in the US in 1996, today, it's not even ranked in the top 15.

Additionally, because of the treatments and medicine researched and developed by the pharmaceutical industry, early detection and better treatments have increased overall 5-year cancer survival rates by 36% since the late 1970s. Moreover, life expectancy for people with cancer increased 3 years between 1980 and 2000, and 86% of that gain is attributed to better treatment, including medicines.

Despite the significant gains in health care and quality of living individuals have experienced over the past several decades because of the treatments and drugs created by industry (in collaboration with academia and government), a recent article in [The Atlantic](#) conveniently disregards the above data in favor of the "triumph of new-age medicine," also known as "alternative medicine."

### New-Age Medicine

The article focuses on Brian Berman, a physician who is in charge of The Center for Integrative Medicine at the University of Maryland Medical Center in downtown Baltimore. His clinic is focused on alternative medicine, sometimes known as "complementary" or "holistic" medicine.

The term *integrative medicine* refers to the conjunction of these practices with mainstream medical care. Interestingly, Berman's clinic is "hardly unique," and in recent years, the U.S. has seen about 43 clinics spring up at major academic medical institutions including Harvard, Yale, Duke, the University of California at San Francisco, and the Mayo Clinic.

Alternative-medicine experiences can vary widely. It can include a long initial meeting covering many details of the patient's history; a calming atmosphere; an extensive discussion of how to improve diet and exercise; a strong focus on reducing everyday stress; an explanation of how the treatment will unleash the body's ability to heal itself; assurance that over time the treatment will help both the problem that prompted the visit and also general health; gentle physical contact; and the establishment of frequent follow-up visits.

To some however, such as Steven Salzberg, a prominent biology researcher at the University of Maryland at College Park, alternative medicine is merely "cleverly marketed, dangerous quackery." He asserted that, "these clinics throw together a little homeopathy, a little meditation, a little voodoo, and then they add in a little accepted medicine and call it integrative medicine, so there's less criticism."

Contrary to this approach, Salzberg asserted that there is only "one type of medicine, and that's medicine whose treatments have been proven to work." And he pointed out that alternative medicine has not been proven to work, and proponents of the practice will not admit it because "they are making too much money on it."

### **Alternative Medicine vs. Modern Medicine**

The scientific literature is replete with careful studies that show, again and again, that virtually all of the core treatments plied by alternative practitioners, including homeopathy, acupuncture, chiropractic, and others, help patients no more than do "sham" treatments designed to fool patients into thinking they're getting the treatment when they're really not.

In contrast to alternative medicine, "modern medicine was formed around successes in fighting infectious disease," says Elizabeth Blackburn, a biologist at the University of California at San Francisco and a Nobel laureate. "Infectious agents were the big sources of disease and mortality, up until the last century. We could find out what the agent was in a sick patient and attack the agent medically."

"But we haven't rethought the way we fight illness." That is, the medical establishment still waits for us to develop some sign of one of these illnesses, then seeks to treat us with drugs and surgery

Ornish, a physician-researcher at the University of California at San Francisco and the founder of the independent Preventive Medicine Research Institute, who has been showing in studies for more than three decades that diet, exercise, and stress reduction can do a better job of preventing, slowing, and even reversing heart disease than most drugs and surgical procedures.

To get patients to follow this "alternative regiment," physicians have to give patients more attention, meaning longer, more frequent visits that focus on what is going on in a patient's lives;



more effort spent easing anxieties, instilling healthy attitudes, and getting patients to take responsibility for their well-being; and concerted attempts to provide hope. In other words, conveying to patients that a physician's commitment to caring for them will endure over time, and to imbue patients with "trust, hope, and a sense of being known."

Of course, given the current status of payments, reimbursement, and other medical practice issues, it is difficult for doctors to have visits with patients lasting more than 20 minutes. Moreover, studies show that visits average about 20 minutes, that doctors change the subject back to technical talk when patients mention their emotions, that they interrupt patients' initial statements after 23 seconds on average, that they spend

a single minute providing information, and that they bring up weight issues with fewer than half their overweight patients.

### **Is Alternative Medicine Effective**

Steven Novella calls the notion that alternative care's benefits are rooted in closer practitioner-patient interactions the "touchy feely defense." Novella, a highly respected Yale neurologist, argued that claims about the practitioner-patient relationship are only intended to draw attention away from the fact that randomized trials have by and large failed to show that alternative treatments work better than placebos.

In response to this argument, Ted Kaptchuk, a Harvard researcher who studies the impact of placebos, noted that, "mainstream medicine uses the placebo effect all the time." To be approved by the FDA, a drug has to do better than a placebo in studies." Consequently, the author points to a recent study, which concluded that 85 percent of new prescription drugs hitting the market are of little or no benefit to patients. But what does that mean?

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#### Conclusion

There is no question that physicians who spend more time with patients and listen more carefully will see benefits

. Novella agreed that a caring, bonding practitioner is more likely to get patients to adopt healthier lifestyles, and that these changes lead to better health. And he agrees that many patients do feel better when practitioners actively try to help them deal with vague, hard-to-diagnose complaints such as pain and fatigue, instead of telling them that there's no diagnosis or effective treatment.

But these aspects of a better patient-practitioner relationship should not be uniquely associated with alternative medicine, and such principles should not attempt to discredit the breakthroughs and innovations from the drug and device industry. Instead, we should look to our doctors to be the nurturing caregivers who take the time to listen to us, bond with us, and guide us toward healthier lifestyles and lower levels of stress. But for doctors outside of academia, this kind of time is hard to come by. Why?

The current system makes it nearly impossible for most doctors to have the sort of relationship with patients that would best promote health. The biggest culprit, is the way doctors are reimbursed. "Doctors are paid for providing treatments, not for spending time talking to patients," says Victor Montori, an endocrinologist at the Mayo Clinic.

As pharmaceutical companies begin to take more and more of their business to other countries, along with tax revenues, jobs, and discoveries, journalists should be more careful with how they portray the significant breakthroughs and innovations the pharmaceutical and medical device industry have created for Americans.

Ultimately, if it were not for the declines in death rates from heart disease and stroke, created by the drug device industry, we would lose 1 million more Americans every year. Just ask yourself, what are the chances that you or someone you loved would be in that 1 million, this year or the next

UCD Dublin. Module Details for the Academic Year 2017/2018

IRFL20050 Healers and Healing

SUBJECT: Irish Folklore

SCHOOL: Irish, Celtic Stud & Folklore

COORDINATOR: Dr Bairbre Ní Fhloinn

This course examines the practice of folk medicine in Ireland, in the past and in the present. Irish popular tradition includes a great richness of material on this subject, encompassing a wide range of healing agents and media, from botanical remedies to prescribed rituals and actions, and from specific locations to particular individuals who were credited with special powers. The importance of ritual behaviour will be examined, as will the position of the healer in the community. The course will look at what we might learn about the dynamics of popular tradition, and the ways in which popular tradition functions, from an examination of folk healing practices. The remarkable resilience of many such practices will also be explored.