

SCIENTIFIC FOREKNOWLEDGE AND MEDICAL ACUMEN OF THE BIBLE

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While the Bible does not present itself as a scientific or medical textbook, it is only reasonable that if God truly did inspire the books of the Bible, they would be completely accurate in every scientific or medical detail found among their pages. Furthermore, if the omniscient Ruler of the Universe actually did inspire these books, scientific and medical errors that fill the pages of other ancient, uninspired texts should be entirely absent from the biblical record. Is the Bible infallible when it speaks about scientific disciplines, or does it contain the errors that one would expect to find in the writings of fallible men in ancient times?

That the first five books of the Old Testament are a product of Moses is a matter of historical record (see Lyons and Smith, 2003, 23:1-7). Furthermore, the story of Moses' education among the Egyptians was well understood. In fact, even those Jews who did not convert to Christianity were so familiar with the historical fact that Moses was educated in "all the wisdom of the Egyptians" (Acts 7:22), that Stephen's statement to that effect went completely undisputed. Moses had been trained under the most advanced Egyptian educational system of his day. With such training, it would have been only natural for Moses to have included some Egyptian wisdom in writing the Pentateuch.

A look into the medical practices from ancient Egypt and those found in the Pentateuch, however, reveals that Moses did not necessarily rely on the "wisdom" of the Egyptians (which, in many cases, consisted of life-threatening malpractice). While

a small fraction of the medical practices described in the Pentateuch are similar to those found in ancient Egyptian documents, the Pentateuch exhibits a conspicuous absence of those harmful malpractices that plague the writings of the Egyptians. Moses penned the most advanced, flawless medical prescriptions that had ever been recorded. Furthermore, every statement recorded by Moses that pertained to the health and the physical well-being of the Israelite nation could theoretically still be implemented today and be in complete accord with every fact modern medicine has learned in regard to germ spreading, epidemic disease control, communal sanitation, and a host of other medical and scientific discoveries.

The Egyptians were renowned in the ancient world for their progress in the field of medicine. Dr. Massengill noted that "Egypt was the medical center of the ancient world" (1943, p. 13). During the days of the Medo-Persian Empire, the ancient historian Herodotus recorded that it was king Darius' practice "to keep in attendance certain Egyptian doctors, who had a reputation for the highest eminence in their profession" (Herodotus, 1972, 3.129). Thus, while the medical practices of the Bible could be compared to those of other ancient cultures and found to be flawlessly superior, comparing it to that of the eminent Egyptian culture should suffice to manifest the Bible's supernatural superiority in the field.

"It Will Cure You, If It Doesn't Kill You First"

Among the ancient documents that detail much of the Egyptian medicinal knowledge that has survived, the Ebers Pa-

pyrus ranks as one of the foremost sources. This papyrus was discovered in 1872 by a German Egyptologist named Georg Ebers (the name from which the papyrus acquired its moniker) (Bryan, 1930, p. 1). It consists of a host of medical remedies purported to heal, enhance, and prevent. "Altogether 811 prescriptions are set forth in the papyrus, and they take the form of salves, plasters, and poultices; snuffs, inhalations, and gargles; draughts, confections, and pills; fumigations, suppositories, and enemata" (p. 15). Among the hundreds of prescriptions, we find disgusting treatments that caused much more harm than good. For instance, under a section titled "What to do to draw out splinters

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in the flesh,” a remedy is prescribed consisting of “worm blood, mole, and donkey dung” (p. 73). [NOTE: Doctors S.I. McMillen and David Stern note that dung “is loaded with tetanus spores” and “a simple splinter often resulted in a gruesome death from lockjaw (2000, p. 10).] Remedies to help heal skin diseases included such prescriptions as: “A hog’s tooth, cat’s dung, dog’s dung, aau-of-samu-oil, berries-of-the-xet-plant, pound and apply as poultice” (Bryan, 1930, p. 92). Various other ingredients for the plethora of remedies concocted included “dried excrement of a child” (p. 98), “hog dung” (p. 115), and “a farmer’s urine” (p. 131). One recipe to prevent hair growth included lizard dung and the blood from a cow, donkey, pig, dog, and stag (p. 102). While it must be noted that some of the Egyptian medicine was helpful, the harmful remedies and ingredients cast a sickening shadow of untrustworthiness on the entire Egyptian endeavor as viewed by the modern reader.

As S.E. Massengill stated:

The early Egyptian physicians made considerable use of drugs. Their drugs were of the kind usually found in early civilizations; a few effective remedies lost in a mass of substances of purely superstitious origin. They used opium, squill, and other vegetable substances, but also excrement and urine. It is said that the urine of a faithful wife was with them effective in the treatment of sore eyes (1943, p. 15).

In addition, it seems that the Egyptians were among the first to present the idea of “good and laudable pus” (McMillen and Stern, 2000, p. 10). Due to the mistaken idea that infection was good and the puss that resulted from it was a welcomed effect, “well-meaning doctors killed millions by deliberately infecting their wounds” (p. 10). Needless to say, the modern-day reader would not want to be a patient in an ancient Egyptian clinic!

PRESCRIPTIONS IN THE PENTATEUCH

The first five books of the Old Testament, admittedly, are not devoted to the enumeration of medical prescriptions. They are not ancient medical textbooks. These books do, however, contain numerous regulations for sanitation, quarantine, and other medical procedures that were to govern the daily lives of the Israelite nation. Missing entirely from the pages of these writings are the harmful remedies and ingredients prescribed by other ancient civilizations. In fact, the Pentateuch exhibits an understanding of germs and disease that the “modern” medical community did not grasp until relatively recently.

Germs, Labor Fever, and Biblical Sanitation

In 1847, an obstetrician named Ignaz Semmelweis was the director of a hospital ward in Vienna, Austria. Many pregnant women checked into his ward, but

18% of those women never checked out. One out of every six that received treatment in Semmelweis’ ward died of labor fever (Nuland, 2003, p. 31). Autopsies revealed pus under their skin, in their chest cavities, in their eye sockets, etc. Semmelweis was distraught over the mortality rate in his ward, and other hospital wards like it all over Europe. Nuland noted that Australia, the Americas, Britain, Ireland, and practically every other nation that had established a hospital suffered a similar mortality rate (pp. 41-43). If a woman delivered a baby using a midwife, then the death rate fell to only about 3%. Yet if she chose to use the most advanced medical knowledge and facilities of the day, her chance of dying skyrocketed immensely!

Semmelweis had tried everything to curb the carnage. He turned all the women on their sides in hopes that the death rate would drop, but with no results. He thought maybe the bell that the priest rang late in the evenings scared the women. So, he made the priest enter silently, yet without any drop in death rates.

As he contemplated his dilemma, he watched young medical students perform their routine tasks. Each day the students would perform autopsies on the dead mothers. Then they would rinse their hands in a bowl of bloody water, wipe them off on a common, shared towel, and immediately begin internal examinations of the still-living women (McMillen and Stern, 2000, pp. 17-26). Nuland commented concerning the practice: “Because there seemed no reason for them to wash their hands, except superficially, or change their clothing before coming to the First Division, they did neither” (p. 100). As a twenty-first-century observer, one is appalled to think that such practices actually took place only 150 years ago in institutes of what was at the time “modern technology.” What doctor in his right mind would touch a dead person and then perform examinations on living patients—without first employing some sort of minimal hygienic practices intended to kill germs? But to Europeans in the middle-nineteenth-century, germs were virtually a foreign concept. They never had seen a germ, much less been able to predict its destructive potential. According to many of their most prevalent theories, disease was caused by “atmospheric conditions” or “cosmic telluric influences.”

Reason & Revelation is published monthly by Apologetics Press, Inc. Periodicals postage paid at Montgomery, AL. **POSTMASTER:** Send address changes to **Reason & Revelation, 230 Landmark Dr., Montgomery, AL 36117; ISSN:[1542-0922] USPS# 023415.**

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Annual Subscription Rates:

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(5+ to same address)
\$16.00 Canada & Overseas Airmail

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Semmelweis ordered everyone in his ward to wash his or her hands thoroughly in a chlorine solution after every examination. In three months, the death rate fell from 18% to 1%. Semmelweis had made an amazing discovery. On the inside cover flap of a book about Semmelweis, written by medical doctor and historian Sherwin Nuland, the text reads:

Ignác Semmelweis is remembered for the now-commonplace notion that doctors must wash their hands before examining patients. In mid-nineteenth-century Vienna, this was a subversive idea. With deaths from childbed fever exploding, Semmelweis discovered that doctors themselves were spreading the disease (2003).

Had Semmelweis made a groundbreaking discovery, or is it possible that he simply “rediscovered” what had been known in some circles for many years? Almost 3,300 years before Semmelweis lived, Moses had written: “He who touches the dead body of anyone shall be unclean seven days. He shall purify himself with the water on the third day and on the seventh day; then he will be clean. But if he does not purify himself on the third day and on the seventh day, he will not be clean” (Numbers 19:11-12). Germs were no new discovery in 1847; the biblical text recorded measures to check their spread as far back as approximately 1500 B.C.

The Water of Purification

Also germane to this discussion is the composition of the “water of purification” listed in Numbers 19. When Old Testament instructions are compared to the New Testament explanations for those actions, it becomes clear that some of the ancient injunctions were primarily symbolic in nature. For instance, when the Passover Lamb was eaten, none of its bones was to be broken. This symbolized the sacrifice of Christ, Whose side was pierced, yet even in death escaped the usual practice of having His legs broken (John 19:31-37).

With the presence of such symbolism in the Old Testament, it is important that we do not overlook Old Testament instructions that were pragmatic in value and that testify to a Master Mind behind the writing of the Law. One such directive is found in Numbers 19, where the Israelites were instructed to prepare the “water of purification” that was to be used to wash any person who had touched a dead body.

At first glance, the water of purification sounds like a hodge-podge of superstitious potion-making that included the ashes of a red heifer, hyssop, cedar wood, and scarlet. But this formula was the farthest thing from a symbolic potion intended to “ward off evil spirits.” On the contrary, the recipe for the water of purification stands today as a wonderful example of the Bible’s brilliance, since the recipe is nothing less than a procedure to produce an antibacterial soap.

When we look at the ingredients individually, we begin to see the value of each. First, consider the ashes of this mixture. As most school children know, the pioneers in this country could not go to the nearest supermarket and buy their favorite personal hygiene products. If they needed soap or shampoo, they made it themselves. Under such situations, they concocted various recipes for soap. One of the most oft-produced types of soap was lye soap. Practically anyone today can easily obtain a recipe for lye soap via a quick search of the Internet (see “Soap-making,” n.d.). The various lye-soap recipes reveal that, to obtain lye, water often is poured through ashes. The water retrieved from pouring it through the ashes contained a concentration of lye. Lye, in high concentrations, is very caustic and irritating to the skin. It is, in fact, one of the main ingredients in many modern chemical mixtures used to unclog drains. In more diluted concentrations, it can be used as an excellent exfoliate and cleansing agent. Many companies today still produce lye soaps. Amazingly, Moses instructed the Israelites to prepare a mixture that would have included lye mixed in a diluted solution.

Furthermore, consider that hyssop was also added to the “water of purification.” Hyssop contains the antiseptic thymol, the same ingredient that we find today in some brands of mouthwash (McMillen and Stern, 2000, p. 24). Hyssop oil continues to be a popular “healing oil,” and actually is quite expensive. In listing the benefits of hyssop, one author noted: “Once used for purifying temples and cleansing lepers, the leaves contain an antiseptic, antiviral oil. A mold that produces penicillin grows on the leaves. An infusion is taken as a sedative expectorant for flu, bronchitis, and phlegm” (see “Hyssop,” n.d.).

Other ingredients in the “water of purification” also stand out as having beneficial properties. The oil from the cedar

wood in the mixture most likely maintained numerous salutary properties. One resource dealing with various essential oils noted: “Cedar wood has long been used for storage cabinets because of its ability to repel insects and prevent decay. In oil form, applied to humans, it is an antiseptic, astringent, expectorant (removes mucus from respiratory system), anti-fungal, sedative and insecticide” (“Spa Essential Oils,” 2005). Another source, more specifically dealing with the beneficial properties of cedar, explained:

Cedar leaves and twigs are in fact rich in vitamin C, and it was their effectiveness in preventing or treating scurvy that led to the tree’s being called *arbor vitae* or tree of life. In addition, recent research has shown that extracts prepared from either *Thuja occidentalis* or *Thuja plicata* [types of oriental cedar—KB] do in fact have antiviral, anti-inflammatory, and antibacterial properties. A group of German researchers reported in 2002 that an extract prepared from cedar leaf, alcohol, and water inhibits the reproduction of influenza virus type A, while a team of researchers in Japan found that an extract of Western red cedar was effective in treating eczema (Frey, n.d.).

It is interesting to note that this information about the beneficial properties of ingredients such as cedar, hyssop, and lye in the water of purification is not coming from Bible-based sources. Most of it comes from studies that have been done through cosmetic and therapeutic research.

Finally, the Israelites were instructed to toss into the mix “scarlet,” which most likely was scarlet wool (see Hebrews 9:19). Adding wool fibers to the concoction would have made the mixture the “ancient equivalent of Lava soap,” since the small fibers would require more scrubbing to remove (McMillen and Stern, p. 25).

Thousands of years before any formal studies were done to see what type of cleaning methods were the most effective, millennia before American pioneers concocted their lye solutions, and ages before our most advanced medical students knew a thing about germ theory, Moses instructed the Israelites to prepare an amazingly effective mixture for soap, that, if used in medical facilities (like hospitals in Vienna), would have saved literally thousands of lives. Furthermore, Moses’ instructions were not obscurely hidden and pulled out of context as proof text for the medical accuracy of the Bible. The entire 19th chapter of Numbers

belabors the recipe for the water of purification as well as the proper procedure for its use. The Israelites had known these procedures and used them for years exactly as Moses had commanded.

Quarantine

Moses detailed measures to prevent the spread of germs from dead bodies to living humans long before such was understood and prescribed in modern medicine. But the Old Testament added another extremely beneficial practice to the field of medicine in its detailed descriptions of maladies for which living individuals should be quarantined. The book of Leviticus lists a plethora of diseases and ways in which an Israelite might come in contact with germs. Those with such diseases as leprosy were instructed to “dwell alone...outside the camp” (Leviticus 13:46). If and when a diseased individual did get close to those who were not diseased, he was instructed to “cover his mustache, and cry, ‘Unclean! Unclean!’” (13:45). It is of interest that the covering of one’s mustache would prevent spit and spray from the mouth of the individual to pass freely through the air, much like the covering of one’s mouth during a cough or sneeze.

Concerning such quarantine practices, S.E. Massengill wrote in his book *A Sketch of Medicine and Pharmacy*:

In the prevention of disease, however, the ancient Hebrews made real progress. The teachings of Moses, as embodied in the Priestly Code of the Old Testament, contain two clear conceptions of modern sanitation—the importance of cleanliness and the possibility of controlling epidemic disease by isolation and quarantine (1943, p. 252).

In regard to the understanding of contagion implied in the quarantine rules in the Old Testament, McGrew noted in the *Encyclopedia of Medical History*: “The idea of contagion was foreign to the classic medical tradition and found no place in the voluminous Hippocratic writings. The Old Testament, however, is a rich source for contagionist sentiment, especially in regard to leprosy and venereal disease” (1985, pp. 77-78). Here again, the Old Testament exhibits amazingly accurate medical knowledge that surpasses any known human ingenuity available at the time of its writing.

Blood: The Liquid of Life

Blood always has been a curious substance whose vast mysteries and capabil-

ities have yet to be fully explored. Doctors in the twenty-first century transfuse it, draw it, separate it, package it, store it, ship it, and sell it. And, although modern-day scientists have not uncovered completely all of the wonders of blood, they have discovered that it is the key to life. Without this “liquid of life,” humans and animals would have no way to circulate the necessary oxygen and proteins that their bodies need in order to survive and reproduce. Hemoglobin found in red blood cells carries oxygen to the brain, which in turn uses that oxygen to enable it to control the entire body. A brain without oxygen is like a car without gas or a computer without electricity. Blood makes all of the functions in the body possible.

In the past, ignorance of blood’s value caused some “learned” men to do tragic things. For instance, during the middle ages, and even until the nineteenth century, doctors believed that harmful “vapors” or “humors” entered the blood and caused sickness. For this reason, leeches were applied to victims of fever and other illnesses in an attempt to draw out blood containing these vapors. Also, the veins and arteries located just above the elbow were opened, and the patient’s arms were bled to expunge the contaminated blood. The death of George Washington, the first President of the United States, was due, in part, to such misplaced medical zeal. An eyewitness account of Washington’s death relates that he came down with a chill, and in an effort to cure him, those who attended him resorted to bleeding; “a vein was opened, but no relief afforded” (“The Death...” 2001).

Thousands of years before the lethal practice of bloodletting was conceived, mankind had been informed by God that blood was, indeed, the key to life. In Leviticus 17:11, Moses wrote: “For the life of the flesh is in the blood.” In order to press the point even further, Moses instructed the Israelites to pour out the blood of any animal that they caught or killed during hunting before eating the animal, “for it is the life of all flesh. Its blood sustains its life” (Leviticus 17:13-14). One would be hard pressed to miss the fact that Moses made the connection between pouring out the blood of an animal (or person) and literally draining out its life.

Today, we understand completely the truthfulness of Moses’ statement that “the life of the flesh is in the blood.” But how did an ancient shepherd like Moses

come to know such information? Just a lucky guess? How could Moses have known almost 3,500 years ago that life was in the blood, while it took the rest of the scientific and medical community thousands of years (and thousands of lives!) to grasp this truth? The Old Testament’s conspicuous failure to institute improper medical procedures as they related to blood speaks loudly of its medical accuracy and divine origin.

LAWS OF FOOD CONSUMPTION

Food regulations enumerated in the first five books of the Old Testament have been scrutinized by credentialed professionals in the fields of dietary and pathological research. The regulations have proven to coincide with modern science’s understanding of various aspects of health and disease prevention.

In 1953, an extensive study, performed by David I. Macht and published in the *Bulletin of the History of Medicine* (a publication of the American Association of the History of Medicine and of The Johns Hopkins Institute of the History of Medicine), tested the toxicity of the meat of animals listed in Leviticus 11 and Deuteronomy 14. Macht’s technique was to place a certain seedling (*Lupinus albus*) in fresh muscle juices of the various animals noted as clean and unclean in the biblical text. This method was used at the time to study the blood of normal human patients as opposed to the blood of cancerous patients (1953, p. 444). Macht noted that his results reveal “data which are of considerable interest not only to the medical investigator but also to the students of ancient Biblical literature” (p. 445).

Some of his results were indeed of interest. For instance, he would take a control group of seedlings that grew in normal solutions and compare that group to seedlings placed in the various meat juices. He would then record the percent of seeds that grew in the meat juices as compared to those that grew under normal circumstances. For example, when placing the seedlings in meat juices from the Ox, the seeds grew 91% as often as they would if placed in a regular growing solution. Seeds in sheep juices grew 94% as often as those in the control group in regular solution. Seedlings in meat juice from a calf—82%; from a goat—90%; and from a deer 90%. Since these animals chew the cud and have a divided

hoof, they were listed as clean in Leviticus 11 and Deuteronomy 14:

Now the Lord spoke to Moses and Aaron, saying to them, "Speak to the children of Israel, saying, "These are the animals which you may eat among all the animals that are on the earth: Among the animals, whatever divides the hoof, having cloven hooves and chewing the cud—that you may eat" (Leviticus 11:1-3)

When several unclean animals were studied, however, they showed significantly higher levels of toxicity and much lower levels of seedling growth. Seedlings in meat juice from pigs grew only 54% as often as the control group under normal growing conditions; Rabbit—49%; camel—41%; and horse 39%; These results for larger mammals verified that the biblical division between clean and unclean tend to be related to the toxicity of the juices of such animals.

Macht did similar research on birds, in which he found that extracts from biblical clean birds such as the pigeon and quail grew his seedlings 93% and 89%, while those from unclean birds such as the Red-tail hawk (36%) and owl (62%) were much more toxic. As Moses said: "And these you shall regard as an abomination among the birds; they shall not be eaten, they are an abomination: the eagle, the vulture, the buzzard, the kite, and the falcon after its kind; every raven after its kind, the ostrich, the short-eared owl, the sea gull, and the hawk after its kind" (Leviticus 11:13-19). Other studies included several different kinds of fish. The biblical regulation for eating fish was that the Israelites could eat any fish that had fins and scales (Deuteronomy 14:9). Those water-living creatures that did not possess fins and scales were not to be eaten (14:10). In regard to his study on the toxicity of fish, Macht wrote:

Of special interest were experiments made with muscle juices and also blood solutions obtained from many species of fishes. Fifty-four species of fishes were so far studied in regard to toxicity of meat extracts. It was found that the muscle extracts of those fishes which possess scales and fins were practically non-toxic [Herring—100%; Pike—98%; Shad—100%—KB], while muscle extracts from fishes without scales and fins were highly toxic for the growth of *Lupinus albus* seedlings (pp. 446-448).

Macht's study, even after more than five decades, continues to remain of great interest. His rigorous research led him to conclude:

The observations described above corroborate the impression repeatedly made on the author in investigations as a physician (M.D. Johns Hopkins, 1906), as an experimental biologist (Member of Society for Experimental Biology and Medicine), and as Doctor of Hebrew Literature (Yeshiva University, 1928) that all allusions of the Book of Books, to nature, natural phenomena, and natural history, whether in the form of factual statements or in the form of metaphors, similes, parables, allegories, or other tropes are correct either literally or figuratively.... Such being the extraordinary concordance between the data of the Scriptures and many of the modern and even most recent discoveries in both the biological and physico-chemical sciences, every serious student of the Bible will, I believe, endorse the assertion of Sir Isaac Newton, that "The Scriptures of God are the most sublime philosophy. I find more such marks of authenticity in the Bible than in profane history anywhere" (p. 449).

The findings of Dr. Macht certainly aid in the defense of the Bible's inspiration and remarkably accurate medical procedures as far back as the time of Moses. But the value and uniqueness of the food regulations in the Old Testament are not lost on professionals from other fields of study. The eminent archaeologist, W.F. Albright, in comparing the list of clean and unclean animals detailed in the Pentateuch, noted that in other ancient civilizations, "we find no classifications as logical as this in any of the elaborate cuneiform list of fauna or ritual taboos" (1968, p. 180).

Case in Point: Pork Consumption

One of the most well-known Old Testament food regulations is the prohibition of pork consumption: "The swine, though it divides the hoof, having cloven hooves, yet does not chew the cud, is unclean to you. Their flesh you shall not eat, and their carcasses you shall not touch. They are unclean to you" (Leviticus 11:7). Under close scrutiny, this prohibition exemplifies the value of the biblical laws regarding clean and unclean animals. During the days of Moses, proper food preparation and cooking conditions did not always exist. In fact, the general knowledge of the need to separate certain uncooked foods, especially meats, during preparation from other foods was virtually nonexistent. Certain meats, if contacted raw or under-cooked, have immense potential to carry parasites and other harmful

bacteria that can infect the consumer (in this case, humans).

Due to the fact that pigs are scavengers and will eat practically anything, they often consume parasites and bacteria when they eat the carcasses of dead animals. These parasites and bacteria can, and often do, take up residence in the pigs' muscle tissue. Fully cooking the meat can kill these harmful organisms, but failure to cook the meat completely can cause numerous detrimental effects. R.K. Harrison listed several diseases or other health maladies that can occur due to the ingestion of improperly cooked pork. He noted that pigs often are the host of the tapeworm *Taenia solium*. Infection by this parasite can cause small tumors to arise throughout the body, including on the skin, eyes, and muscles. Furthermore, these tumors can affect the brain and cause epileptic convulsions. Additionally, humans can develop trichiniasis (*trichinosis spiralis*) infestation from eating undercooked meat, as well as tape worm infestation known as *Echiococcus granulosus* from water polluted by pigs. Further, pigs can pass on the microorganisms that cause toxoplasmosis, a disease affecting the nervous system (Harrison, 1982, p. 644).

Due to a much more exhaustive body of knowledge concerning parasites and pathogens, modern readers are increasingly attuned to the dangers of consuming raw or undercooked pork. In fact, most pork bought in grocery stores contains nitrates that have been injected into the meat to hinder the growth of harmful microorganisms. But Moses and the Israelites did not have access to such modern knowledge. How is it that the food regulations recorded by Moses over 3,000 years ago contain such an accurate understanding of disease control? Albright noted along these lines: "Thanks to the dietary and hygienic regulations of Mosaic law...subsequent history has been marked by a tremendous advantage in this respect held by Jews over all other comparable ethnic and religious groups" (Albright, p. 181).

Chewing the Fat

In our modern society, it seems like all a company has to do in order to sell a new butter spread, oil, hamburger, or pizza is to apply a sticker on the package that says "low fat" or "low in saturated fat." If you are like many others, you are confused by all the terms, such as good cholesterol, bad cholesterol, polyunsat-

urated fat, saturated fat, hydrogenated vegetable oil, partially hydrogenated oil, and trans fatty acids. However, one thing that we all are pretty sure about is the fact that certain fats can harm our bodies if consumed in large quantities. On October 31, 2000, the American Heart Association issued a statement detailing what a proper, healthy diet should involve. Dr. Ronald Krauss, the principal author of the guidelines, stated: "Americans still need to limit saturated fats and cholesterol" ("New Dietary...", 2000).

What is saturated fat, you might ask? Most nutrition and diet sources define saturated fat in terms similar to the following: "the least healthy of all fats/lipids. Common sources of saturated fat include animal fats, butter, lard, red meat, cheese, cream and milk.... Saturated fat is solid at room temperature" (Collins, 2002). What could too much of this kind of fat do to your body? It could cause your arteries to clog, lead to obesity, give you serious heart problems, raise your cholesterol, and the list goes on.

Only recently, within the last few decades, have we Americans become acutely aware of the dangers of certain types of fat. We hear stories from by-gone years about our great-grandfathers literally chewing animal fat on the porch, our grandmothers cooking most everything with lard, and heaps of bacon being served up every morning for breakfast. Widespread knowledge of the hazards of fat is relatively novel to our society. Not until 1912 did experiments by the Russian scientist Nikolai Anichov, on the effects of feed-

ing rabbits doses of animal fat, link fat intake to hardening of the arteries. In fact, even though there is some debate over the causative factors in his experiments, his name appears on many lists of the top ten medical discoveries of all time (see "Historical Chronology...", n.d.).

But long before we were diagnosing heart disease, high cholesterol, and monitoring fat intake, God saw to it that the children of Israel had regulations to insure that they did not fall prey to the diseases that ravaged the land in their day (and ours). In Leviticus 3, after Moses detailed what the Israelites were supposed to do with fat around the tail of a lamb, the fat attached to the liver of the sacrifice, and the fat above the kidneys, He wrote: "This shall be a perpetual statute throughout your generations in all your dwellings: you shall **eat neither fat** nor blood" (v. 17, emp. added). It is nothing short of amazing that in approximately 1500 B.C., hundreds of years before any scholarly dietary research ever connected fat with heart problems, God implemented a nationwide diet that would lessen the Israelites' chances of high cholesterol, heart attacks, obesity, and a host of other adverse health problems.

CIRCUMCISION

The book of Genesis relates that God chose Abraham and his descendants to be a "special" people who were set apart from all other nations. The covenant that God made with Abraham included a physical "sign" that was to be implemented in

all future generations of Abraham's descendants. According to the text, God said:

He who is eight days old among you shall be circumcised, every male child in your generations, he who is born in your house or bought with money from any foreigner who is not your descendant. He who is born in your house and he who is bought with your money must be circumcised, and My covenant shall be in your flesh for an everlasting covenant. And the uncircumcised male child, who is not circumcised in the flesh of his foreskin, that person shall be cut off from his people; he has broken My covenant (Genesis 17:12).

Thus, the covenant between God and Abraham and his offspring was to be indelibly marked in the flesh of every male child.

The inclusion of this surgical practice provides another excellent example of the medical acumen of the biblical text. Two significant aspects of biblical circumcision need to be noted. First, circumcision can lessen the chances of getting certain diseases and infections. Pediatrician Dorothy Greenbaum noted in regard to the health benefits of circumcision: "Medically, circumcision is healthful because it substantially reduces the incidence of urinary tract infection in boys, especially those under one year of age. Some studies cited in the pediatric policy statement report 10 to 20 times more urinary tract infection in uncircumcised compared with circumcised boys" (2006). She further noted that sexually transmitted diseases are passed more readily among men who have not been circumcised (2006). In addition, circumcision virtually eliminates the chance of penile cancer. In an article titled "Benefits of Circumcision," Morris noted: "Neonatal circumcision virtually abolishes the risk [of penile cancer—KB]" and "penile cancer occurs almost entirely in uncircumcised men" (2006). [NOTE: Morris' work is of particular interest due to the fact that it has an evolutionary bias and was in no way written to buttress belief in the biblical record.]

Not only can a litany of health benefits be amassed to encourage the practice of infant circumcision, but the day on which the biblical record commands the practice to be implemented is of extreme importance as well. The encyclopedic work *Holt Pediatrics* remains one of the most influential works ever written about child care, pediatric disease, and other health concerns as they re-

SPEAKING SCHEDULES

Kyle Butt

December 1-3	Gainesville, GA	(770) 536-4284
December 28-29	Huntsville, AL	(205) 833-1400
January 20	Leeds, AL	(205) 699-2447

Eric Lyons

December 1-3	Steele, MO	(573) 695-2470
January 19-21	Rockwood, TN	(865) 354-0855

Dave Miller

December 3,10,17,24,31	Columbiana, AL	(205) 669-0244
January 19-21	Fredricksburg, TX	(830) 997-4632
January 24	Dalton, GA	(706) 537-3143

late to children. First written in 1896 by L. Emmet Holt, Jr., and going through several revisions until the year 1953, the nearly 1,500-page work is a master compilation of the “modern” medicine of its day. One section, starting on page 125 of the twelfth edition, is titled “Hemorrhagic Disease of the Newborn.” The information included in the section details the occurrence of occasional spontaneous bleeding among newborns that can sometimes cause severe damage to major organs (such as the brain), and even cause death. In the discussion pertaining to the reasons for such bleeding, the authors note that the excessive bleeding is primarily caused by a decreased level of prothrombin, which in turn is caused by insufficient levels of vitamin K. The text also notes that children’s susceptibility is “peculiar” (meaning “higher”) “between the second and fifth days of life” (Holt and McIntosh, 1953, p. 126).

In chart form, *Holt Pediatrics* illustrates that the percent of available prothrombin in a newborn dips from about 90% of normal on its day of birth to about 35% on its third day of life outside the womb. After the third day, the available prothrombin begins to climb. By the eighth day of the child’s life, the available prothrombin level is at approximately 110% of normal, about 20% more than it was on the first day, and about 10% more than it will be during subsequent days and years of its life. Such data prove that the eighth day is the perfect day on which to perform a major surgery such as circumcision.

How did Moses know such detailed data about newborn hemorrhaging? Some have suggested that the early Hebrews carried out extensive observations on newborns to determine the perfect day for surgery. But such an idea has little merit. McMillen and Stern noted:

Modern medical textbooks sometimes suggest that the Hebrews conducted careful observations of bleeding tendencies. Yet what is the evidence? Severe bleeding occurs at most in only 1 out of 200 babies. Determining the safest day for circumcision would have required careful experiments, observing thousands of circumcisions. Could Abraham (a primitive, desert-dwelling nomad) have done that? (2000, p. 84).

In fact, such amazing medical accuracy cannot be accounted for on the basis of human ingenuity in the ancient world. If circumcision was the only example of such accuracy, and the Hebrew writings were

laced with incorrect, detrimental medical prescriptions, such an explanation might be plausible. But the fact is the entire Old Testament contains medical practices that would still be useful in third world countries, without a hint of error in regard to a single prescription. Divine guidance remains the only reasonable explanation. Moses stated this basic premise when he said to the ancient Israelites:

Surely I have taught you statutes and judgments, just as the Lord my God commanded me, that you should act according to them in the land which you go to possess. Therefore be careful to observe them; for this is your **wisdom and your understanding** in the sight of the peoples who will hear all these statutes, and say, “Surely this great nation is a wise and understanding people” (Deuteronomy 4:5-6, emp. added).

Even Moses acknowledged that no mere human contrivance could have formulated the perfectly accurate medical procedures contained in the Old Testament. So advanced were these prescriptions, that if the Israelites kept the commandments, other nations would attribute to them wisdom beyond human invention.

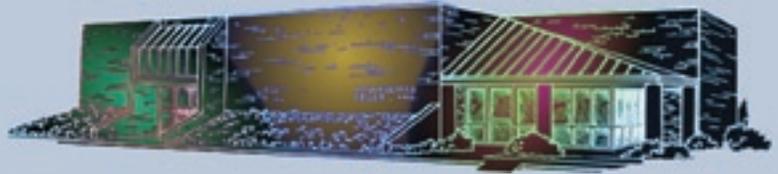
CONCLUSION

Entire books could be written on the Old Testament’s amazing medical accuracy. Medical doctors such as McMillen and Stern have done just that in their extremely interesting volume *None of These Diseases*. Many physicians who have compared Moses’ medical instructions to effective modern methods have come to realize the astonishing value and insight of the Old Testament text. As Dr. Macht once wrote: “Every word in the Hebrew Scriptures is well chosen and carries valuable knowledge and deep significance” (1953, p. 450). Such is certainly the case in regard to the medical practices listed in its pages. Indeed, the accurate medical practices, prescribed thousands of years before their significance was completely understood, provide excellent evidence for the divine inspiration of the Bible.

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NOTE FROM THE EDITOR



A.P. RESOURCES FOR THE HOLIDAYS!

One of the tasks that we at Apologetics Press take very seriously is helping people of all ages know more about the God Who created them. Through the years, we have learned that if we can begin at a very early age, we enjoy more success in our efforts. Parents understand the logic behind this reasoning, because they know that bouncing babies have inquisitive minds that are anxious to “soak up” almost everything they experience. Their busy little hands and feet help them explore the world around them during practically every waking moment. But so do their little eyes and ears. Therefore, in our ongoing quest to reach **all** ages with the biblical message of God’s astounding creation, we are pleased to report the production of our *Creation Cards*.

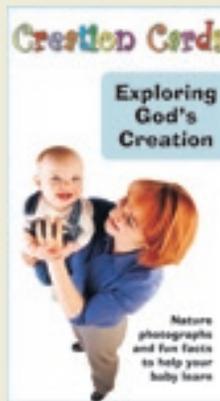
The *Creation Cards* were carefully designed to assist parents who are passionate about preparing their children to cope with the sinister forces that they will most certainly encounter as they grow toward adulthood. Indeed, challenges to the Christian worldview seem to increase on a daily basis and lurk at every turn in society. These cards enable parents to begin their monumental task at the earliest stages of their children’s development.

Each of the 29 cards presents a unique facet of God’s creation. With these cards, a child can explore such features as the Sun, Moon, stars, water, rain, and grass—all from

the comfort of home. Each card consists of special emphasis on God’s design and creative power. Brilliant, full-color pictures on the front are supported and supplemented by fascinating facts on the back. Each is composed of a sturdy, resilient material designed to survive serious exploration by inquisitive little hands. The packet even contains two blank cards that can be customized to include some of your child’s favorite aspects of God’s creation.

If you are a parent, grandparent, aunt, uncle, or an acquaintance of youth, you will want to give serious consideration to acquiring this outstanding apologetics resource for small children. Keep in mind that the abundant resources of A.P. for both adults and children make **great holiday gifts**—from our children’s reading books, tracts, DVDs, and coloring books to our adult books and tapes on Islam, evolution, and the inspiration of the Bible. Call our toll free number for a free catalog, or visit our Web store online at: www.ApologeticsPress.org.

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