

## Praying with Purpose 4:

### Business, Economics, Agriculture, Health, Science and Technology

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#### I. Business, Economics & Agriculture: Provision and stewardship

##### **Gen. 1:28**

*Then God blessed them, and God said to them, “Be fruitful and multiply; fill the earth and subdue it; have dominion over the fish of the sea, over the birds of the air, and over every living thing that moves on the earth.” And God said, “See, I have given you every herb that yields seed which is on the face of all the earth, and every tree whose fruit yields seed; to you it shall be for food.*

This scripture shows us that God has made us stewards over the earth and all that is in it. It means that the earth, creation and material goods are by nature good and useful and that they should neither be misused nor destroyed. Multiplying them appears as a continuation of creation, good stewardship and a service to fellow men.

When we study a biblical view of business, economics and agriculture, the bible’s instructions around material goods is important. Through one of the Ten Commandments “thou shall not steal”, we see that private ownership is assumed and protected.

In **Luke 6:38** Jesus teaches us, “Give, and it will be given to you: good measure, pressed down, shaken together, and running over will be put into your bosom. For with the same measure that you use, it will be measured back to you.”

God desires that we own and have our own property and finances. How can we give what we do not own? How can we receive the blessings that come with generosity if we have nothing to give? Worldviews and systems of Government are critical.

##### **Deut 15:10**

*Give generously to the poor, not grudgingly, for the Lord your God will bless you in everything you do.*

We see that ownership is a biblical principle, along with generosity.

In **Gen. 2:15** we read that “the Lord God took the man and put him in the garden of Eden to tend and keep it”. So, God gave Adam work to do, before the fall, therefore we also see that work is a biblical principle that was set in place before the fall of

man. In actual fact, God desires that we work, are productive, make a living, and be in a position to be generous.

**Prov. 10:4**

*He who has a slack hand becomes poor, but the hand of the diligent makes rich.*

**Eph. 4:28**

*Let him who stole steal no longer, but rather let him labor, working with his hands what is good, that he may have something to give him who has need.*

In **Matt 20:15**, the owner of the vineyard, representing God, says to the dissatisfied workers: “Don’t I have the right to do what I want with what is mine? In **Acts 5:4** Peter comments on the case of Ananias: “Before you sold it, wasn’t it yours to sell or to keep? And after you sold it, wasn’t the money entirely at your disposal? ...”.

We can see that the Bible accepts the classical notion of property, which presupposes making a free use of owned things freely. If we take into account the biblical approval of human freedom, it allows seeing the free market economy as morally better.

Collective property has only a marginal function in the Bible. In the Old Testament, the temple belongings are mentioned. In the New Testament, we have a collectivist experiment undertaken by the Jerusalem community (and only there). In both cases, religious motivations stood behind such solutions, not economic or social ones. The Jerusalem community was similar to a convent and not to a kibbutz; it was intended to be spiritually fruitful and not to produce.

As for state property, known in the form of royal property, it should be limited according to the Law (Deut 17.17). High taxes are severely criticized (1 Sam 8.11–18; Prov 29.4) although the principle of paying taxes to the rulers is approved (Mark 12.17; Rom 13.6).

**The Parable of the Talents**

This parable of Jesus is quoted as a justification of entrepreneurship, understood as multiplying invested capitals (Matt 25.14–30; Luke 19.11–27). It could also be applied to faithfulness with and multiplication of the gifts of God. Interesting to note is in Jesus choosing this imagery, he evidently did not consider business “dirty” or sinful.

The parable presupposes capitalist business relations. The economy of the early Roman Empire was close to capitalism because it guaranteed property rights, moderate taxes, and relative economic liberty. People who invest great money with success and double the capital are presented as an example to follow. The biblical

talent, 34 kilos of silver, both in material and symbolic value corresponds to millions of dollars or euros.

The gifts of God, material or spiritual, should be stewarded and multiplied according to the steward's capabilities. A failure to multiply the gifts of God is condemnable and will result in their loss.

To conclude, the Bible condemns theft, greed, egoism but without a negation of the value of material goods. Multiplying them by means of property, work, and business has a good aim satisfying legitimate human needs. A person who works and honestly increases his or her wealth through business can be praised. Producing (creating) material goods is not less important than distributing them.

### **Name, nature and attributes of God:**

God is Jehovah Jireh, provider. In the original language, Jehovah Jireh literally means the Self-existent, eternal one, the Lord, will see to it.

*Abraham named the place Yahweh-Yireh (which means "the Lord will provide"). To this day, people still use that name as a proverb: "On the mountain of the Lord it will be provided." Gen. 22:14*

Some of the attributes of God that can be seen in and through this domain are provision, goodness, faithfulness and generosity.

### **Ps. 27:13**

*I would have lost heart, unless I had believed that I would see the goodness of the Lord in the land of the living.*

### **Purpose:**

to provide for needed goods and services, as well as gainful employment opportunities for the community, at a fair market value. The laws of "sowing & reaping" and "supply & demand" govern this domain.

### **Some prayer points:**

- God to meet needs according to His riches (*Phil 4:19, Matt 6:25-33*).
- Biblical economics: Honest money (*Lev 19:35-36, Prov. 11:1, 20:10, Amos 8:5-7*).
- Biblical economics: A responsible free market economy.

- Economics that encourage initiative, entrepreneurship, productivity, personal responsibility and performance (*Lk. 19:11-26; Ex. 20:15-17; 2 Cor. 3:17*).
- Diligence (*Prov. 10:4; Eph. 4:28*).
- Value in private property and the right to own: with freedom to share and give resulting in blessing (*Prov. 11:25; Lk. 6:38; 2 Cor. 9:5*).
- Prosperity through covenant, generosity, diligence, integrity, planning, thrift, wise investing, avoidance of sin, resulting in long term generational blessing and inheritance (*Prov. 10:4; Ps. 25:21; 26:1; Prov. 10:9; Deut. 7:9*).
- Agricultural land be blessed and productive (*Deut. 33:13-15*).
- Agricultural land be fertile.
- Agricultural land be managed well.

### **Prayer points for God-Honouring Entrepreneurs**

(Adapted from *Business God's Way* by Paul Nyamuda)

We can identify 15 key attributes of a God-honouring entrepreneur in Proverbs 31:10-31. Although this passage of scripture is often used to describe the marks of a virtuous woman, it is important to note that this woman was also an entrepreneur.

- They are of noble character and fear the Lord (Pro. 31:10, 30).
- They are diligent (Pro. 31:13, 15, 27).
- They maintain focus on their family (Pro. 31:15, 27).
- They take calculated risks (Pro. 31:16).
- They are generous to their workers (Pro. 31:15).
- They run profitable businesses (Pro. 31:18).
- They are not clock-watchers, but are result-oriented (Pro. 31:18).
- They give to the poor (Pro. 31:20).
- They see ahead and plan (Pro. 31:21).
- They are dignified (Pro. 31:22, 25).
- They have a positive impact on their spouse and children (Pro. 31:23, 28).
- They keep a guard over their mouths by their choice of words (Pro. 31:26).
- They maintain good customer service (Pro. 31:24).
- They have a good reputation (Pro. 31:31).

These attributes are powerful prayer points to use when praying for entrepreneurs.

## Prayer Points Regarding Land Reform

These prayer points have been taken directly from scripture. Please refer to the scriptures cited for more information.

(Adapted from Prayer Points by Vimbai Chariga based on a Biblical View of Land Reform series by Paul Nyamuda)

- Thanksgiving. Thank God for our beautiful nation, South Africa. Thank Him for our land, the natural resources in it, the people and God's redemptive purpose for South Africa.
- Pray that we would be a generation of believers that executes God's plan for our nation and region. (*Gen. 43:23-27*)
- Pray and ask God for a blueprint of restoration for South Africa. (*Gen. 43:23-27*)
- Let us repent for the pollution our land has gone through: pollution through senseless bloodshed, racism, xenophobia, etc. (*Num. 35:33-34*).
- Pray in accordance with this scripture. That we may be a people aligned to the purpose of God and that God will heal our land. (*2 Chron. 7:13-14*)
- Pray that we may be a Church that is prepared to do "identificational" repentance as the Holy Spirit leads. (*Lev. 26:40-42*)
- Pray that we may carry the right attitude, heart and mind of God as the nation seeks to address the land issue in this season. (*Gen. 50:15-21*)
- Pray that we may be a Church that is bold enough to mould the culture we want to see in our nation and communities. (*Gen. 50:15-21*)
- Pray that we may be faithful stewards of what God has called us to. (*Ps. 24:1; Gen 2:15; Gen. 12:6-7*)
- Pray that we would be a nation that respects the right to own land with title. (*Lev. 25:23-28*)
- Pray against the spirit of greed and covetousness in our nation. (*Deut. 19:14; Mic. 2:2; Job 24:2; Hos. 5:10*)
- Pray and uproot every desire and plan to acquire land fraudulently in our nation. (*Deut. 19:14; Mic. 2:2; Job 24:2; Hos. 5:10*)
- Pray that God would raise a team full of His wisdom that will formulate a system that will result in fair land distribution in South Africa. (*Num. 33:53-54*)
- Pray and break the spirit of contention bringing quarrelling and disorder over the land issue and pray rather for a godly resolve. (*Gen. 13:1-18; Prov. 10:22*)

- Pray for believers to have the wisdom to know who they should part from order to experience kingdom increase. (*Gen. 13:1-18; Prov. 10:22*)
- Pray that we would be a nation with an abundance mentality believing that God can prosper us wherever we may be. (*Gen. 13:1-18; Prov. 10:22*)
- Pray that we would be a nation that recognizes that the empowerment of self should never result in the disempowerment of others. (*Gen. 13:1-18; Prov. 10:22*)
- Pray that we would be a nation that is not too attached to possessions but is willing to let go and recognize that God is our provider. (*Mk. 10:29-30*)
- Repent for when you have not practised restitution when you should have. (*Ex. 22:5-6; Lk. 19:1-9*)
- Pray that you will always practise restitution from the heart and that it will be in a manner that pleases God. (*Ex. 22:5-6; Lk. 19:1-9*)
- Pray that we would be a Church with a multi-generational vision. (*2 Sam. 9:1-12*)
- Pray that we would be a church that speaks forth generational blessings to our children and the young in our midst. (*2 Sam. 9:1-12*)
- Pray that we would embrace every generational blessing from our family line. (*2 Sam. 9:1-12*)
- Ask God to help you see Him as a God of restoration. (*Jer. 30:17*)
- Name each area where you require restoration and believe God for it. (*Jer. 30:17*)
- Believe God for restoration in the nation. (*Jer. 30:17*)
- Pray that the leaders of this nation would not address the land issue based on colour and that they would thoroughly deal with it in a manner that is not driven by revenge or other ungodly hidden agendas. (*Jer. 30:17*)
- Pray that we would be a nation that empowers workers. (*Deut. 24:19-21*)
- Pray that even in our households we would truly care for the welfare of those who work for us. (*Deut. 24:19-21*)

Pray that as a nation:

- We would understand that farming is an integral part of the economy.
- That we would be wise enough to give land to those that can use it.
- That we would reward those who use land well and allow others to purchase from those who do not steward it well.
- That we would help people to purchase land and have title.

- That we would make room for current landowners to voluntarily part ways with parts of their land.
- That we would find ways to keep farming skills in the country and reward those who mentor others.

**Reference:**

[https://www.researchgate.net/publication/273462329\\_ECONOMY\\_AND\\_BUSINESS\\_IN\\_THE\\_BIBLE](https://www.researchgate.net/publication/273462329_ECONOMY_AND_BUSINESS_IN_THE_BIBLE)

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## **II. Health, Science and Technology:**

### **Discovery; blessing; healing; improved standard of living**

The Pentateuch contains numerous regulations for sanitation, healthy eating guidelines around meat consumption, quarantine, and medical procedures that were to govern the daily lives of the Israelite nation.

#### **Lev. 11:1-3**

*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...*

God outlined hygiene standards to be upheld within the camp of His people in order to prevent disease and uncleanness.

#### **Deut. 23:12-14**

*“Also, you shall have a place outside the camp, where you may go out; and you shall have an implement among your equipment, and when you sit down outside, you shall dig with it and turn and cover your refuse. For the Lord your God walks in the midst of your camp, to deliver you and give your enemies over to you; therefore, your camp shall be holy, that He may see no unclean thing among you, and turn away from you.*

There are many other medical and health practices prescribed by God for His people in the Pentateuch which the Israelites would not have understood at the time, but which God was stipulating because He wanted His people healthy. See Appendix 4 for more understanding of these.

### **Name, nature and attributes of God:**

The name and attributes of God that we see manifested in and through this domain include Creator and Healer.

#### **Is. 40:28**

*Have you not known? Have you not heard? The everlasting God, the Lord, the Creator of the ends of the earth, neither faints, nor is weary. His understanding is unsearchable.*

#### **Ex. 15:26 ESV**

*“If you will diligently listen to the voice of the Lord your God, and do that which is right in his eyes, and give ear to his commandments and keep all his statutes, I will put none of the diseases on you that I put on the Egyptians, for I am the Lord, your healer.”*

### **1 Pet. 2:24-25**

*He himself bore our sins” in his body on the cross, so that we might die to sins and live for righteousness; “by his wounds you have been healed.” For “you were like sheep going astray,” but now you have returned to the Shepherd and Overseer of your souls.*

### **Is 53:3-5**

*He was despised and rejected by mankind, a man of suffering, and familiar with pain. Like one from whom people hide their faces he was despised, and we held him in low esteem. Surely he took up our pain and bore our suffering, yet we considered him punished by God, stricken by him, and afflicted. But he was pierced for our transgressions, he was crushed for our iniquities; the punishment that brought us peace was on him, and by his wounds we are healed.*

### **The Purpose:**

to discover and use God’s laws for the blessing of all people, pursuing higher standard of living, health and better stewardship of the resources of His creation. Leads us to a greater revelation of God in life, nature, technology and creation.

The Bible goes on to say in **1 Peter 2:24**, *“Who his own self bare our sins in his own body, on the tree, that we, being dead to sins, should live unto righteousness: by whose stripes ye were healed.”*

This is in the past tense. Jesus came, and part of what He came to do was heal your physical bodies. I am not diminishing the fact that He also came to forgive your sins. That’s important, and forgiveness of sins is like the doorway, the entrance to everything else, but He didn’t come only to forgive your sins. He also came to heal your body. In Greek, the word used for salvation in the New Testament is sozo, an all-encompassing word that applies to many different things. But if you look it up, it’s also translated “healed.” **James 5:14** states: *“Is any sick among you? let them call for the elders of the church; and let them pray over him, anointing him with oil in the name of the Lord; And prayer of faith shall save the sick.”*

The word “save” there is the Greek word sozo, and it is talking about the sick being physically healed in their bodies.

This same word that was translated forgiveness of sins hundreds of times in the New Testament was also translated healed.

When Jesus sent His disciples out in Matthew 10, the command He gave them was to heal the sick, cleanse the lepers, raise the dead, cast out devils, and preach the Gospel. In the same breath that He told them to preach the Gospel, He told them to

heal the sick, cleanse the lepers, and cast out devils. Healing is just as much a part of what Jesus came to accomplish in your life as forgiveness of sins.

In the same way you would never think that the Lord would want you to commit a sin to teach you that you could learn something through your sin, He would never want you to live in sickness. God is not the author of sickness in your life. Sometimes people say things like, "Well, this sickness is really a blessing from God because it turned me to Him." It's true that in crisis situations people turn to God, but He doesn't send sickness to teach you. He wouldn't do that anymore than He would put sin on you. Can you learn something if you go live in sin? If you live a life of adultery or homosexuality and get some disease, can you learn that the lifestyle was wrong? Certainly you can, but God didn't cause you to live that lifestyle. He didn't put sin in your life, yet you can learn from sinning. You can beat your head against the wall and learn that it's not the thing to do, but you could also learn that without physically beating your head against the wall.

You don't have to learn everything in the school of hard knocks. God does not put sickness in your life to humble you and teach you something. Jesus died to forgive you of your sins and also to heal you of your diseases. He bore your sins in His own body, and by His stripes you were healed.

God's supernatural divine healing is available to all of us and is part of the atonement that Jesus died to produce. If you aren't receiving your healing, God's not upset with you. You don't have to be healed to love God. You can love God with your whole heart, not believe in healing, and still go to heaven. As a matter of fact, you'll probably get there quicker because you don't know how to walk in health. But you know what—it's available to you. Jesus died to produce it. God wants you to be well.

### **Some prayer points:**

For those called to and working in this domain:

- for wisdom and understanding in their domain (*Ex. 36:1; Is. 11:2-3; Eph. 1:17*).
- for God's supremacy in their lives (*Lev. 11:44*).
- for guidance and wisdom from God in order to find more and better ways to use technology (*Ex. 36:1; Eph. 1:17*).
- for guidance and wisdom in discoveries that bring healing and help mankind.
- for advances that contribute to the betterment of mankind.
- for discoveries.

- for their work to serve others and bring life and restoration in accordance with Godly principles, as opposed to bringing destruction that sometimes comes with so-called advances in science.
- wisdom to find solutions for problems for which we still have no answers.
- witty inventions.
- for encouragement and tenacity when work becomes tedious or attempted solutions don't work.
- Divine inspiration.
- a strong ethical code.
- a sharpened conscience (*Ex. 1:17*)

For all healthcare providers:

- expertise, equipping, and strategic placement in communities.
- wisdom and anointing in bringing healing.
- commitment to obey the Lord and His principles; fear of God (*Ex. 1:17*).
- a revelation of God the Healer (*Ex. 15:26; Acts 9:34*).

### **Discipleship Questions**

1. Read Matthew 8:16-17. How many people did Jesus heal?

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2. Read Isaiah 53:3-5. What type of healing are these verses talking about?

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3. Read Matthew 8:17. What happened to our sicknesses and infirmity?

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4. Read 1 Peter 2:24. What two things does this verse say Jesus did for us?

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5. Read James 5:14-15. The word “saved” in verse 15 is the Greek word sozo, which is translated “to deliver, protect, heal, preserve, be whole.” It is the same word the Bible refers to as “salvation”.

According to these verses and the Greek definition for salvation, what is included in salvation?

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6. Read Matthew 10:7. When Jesus sent out His disciples, what did He tell them to say?

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7. Read Matthew 10:8. What did Jesus tell them to do?

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8. Read Mark 16:15. What did Jesus tell His disciples to do?

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9. Read Mark 16:16. Those that respond to the Gospel will do what?

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10. Read Mark 16:17. What signs will follow the believer?

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11. Read Mark 16:18. What other signs follow believers?

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## Scriptures to Use with Questions

**Matthew 8:16-17** – “<sup>16</sup> When the even was come, they brought unto him many that were possessed with devils: and he cast out the spirits with his word, and healed all that were sick: <sup>17</sup> That it might be fulfilled which was spoken by Esaias the prophet, saying, Himself took our infirmities, and bare our sicknesses.”

**Isaiah 53:3-5** – “<sup>3</sup> He is despised and rejected of men; a man of sorrows, and acquainted with grief: and we hid as it were our faces from him; he was despised, and we esteemed him not. <sup>4</sup> Surely he hath borne our griefs, and carried our sorrows: yet we did esteem him stricken, smitten of God, and afflicted. <sup>5</sup> But he was wounded for our transgressions, he was bruised for our iniquities: the chastisement of our peace was upon him; and with his stripes we are healed.”

**Matthew 8:17** – “That it might be fulfilled which was spoken by Esaias the prophet, saying, Himself took our infirmities, and bare our sicknesses.”

**1 Peter 2:24** – “Who his own self bare our sins in his own body on the tree, that we, being dead to sins, should live unto righteousness: by whose stripes ye were healed.”

**James 5:14-15** – “<sup>14</sup> Is any sick among you? let him call for the elders of the church; and let them pray over him, anointing him with oil in the name of the Lord: <sup>15</sup> And the prayer of faith shall save the sick, and the Lord shall raise him up; and if he have committed sins, they shall be forgiven him.”

**Matthew 10:7** – “And as ye go, preach, saying, The kingdom of heaven is at hand.”

**Matthew 10:8** – “Heal the sick, cleanse the lepers, raise the dead, cast out devils: freely ye have received, freely give.”

**Mark 16:15** – “And he said unto them, Go ye into all the world, and preach the gospel to every creature.”

**Mark 16:16** – “He that believeth and is baptized shall be saved; but he that believeth not shall be damned.”

**Mark 16:17** – “And these signs shall follow them that believe; In my name shall they cast out devils; they shall speak with new tongues.”

**Mark 16:18** – “They shall take up serpents; and if they drink any deadly thing, it shall not hurt them; they shall lay hands on the sick, and they shall recover.”

## **Answer Key**

1. Read Matthew 8:16-17. How many people did Jesus heal? **All that came to Him.**
2. Read Isaiah 53:3-5. What type of healing are these verses talking about? **All types of healing (including physical).**
3. Read Matthew 8:17. What happened to our sicknesses and infirmity? **Jesus bore them.**
4. Read 1 Peter 2:24. What two things does this verse say Jesus did for us? **He bore our sins in His body and took stripes for our healing.**
5. Read James 5:14-15. The word “saved” in verse 15 is the Greek word *sozo*, which is translated “to deliver, protect, heal, preserve, be whole.” It is the same word the Bible refers to as “salvation.”  
According to these verses and the Greek definition for salvation, what is included in salvation? **Healing.**
6. Read Matthew 10:7. When Jesus sent out His disciples, what did He tell them to say? **The kingdom of heaven is at hand.**
7. Read Matthew 10:8. What did Jesus tell them to do? **Heal the sick, raise the dead, and cast out demons.**
8. Read Mark 16:15. What did Jesus tell His disciples to do? **To go into all the nations and preach the Gospel to everyone.**
9. Read Mark 16:16. Those that respond to the Gospel will do what? **Believe and be baptized.**
10. Read Mark 16:17. What signs will follow the believer? **They will cast out demons and speak with tongues.**
11. Read Mark 16:18. What other signs follow believers? **Laying hands on the sick and seeing them recover.**

## **Scientific Foreknowledge and Medical Acumen of the Bible**

By Kyle Butt, M.A. ([www.apologeticspress.org](http://www.apologeticspress.org))

While it is the case that the Bible does not present itself as a scientific or medical textbook, it is only reasonable that if God truly did inspire the books that compose 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, non-inspired texts should be entirely absent from the biblical record. Is the Bible infallible when it speaks about scientific fields of discipline, 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. Furthermore, the story of Moses' education among the Egyptian culture was well understood. In fact, even those Jews who did not convert to Christianity were so familiar with the historic 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 include some of the Egyptian "wisdom" in his writings if he were composing the Pentateuch by using his own prowess and mental faculties.

A look into the medical practices from ancient Egypt and those found in the Pentateuch, however, reveals that Moses did not necessarily rely on "wisdom" of the Egyptians (which, in many cases, consisted of life-threatening malpractice). While some medical practices 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 that pertained to the health and medical well-being of the Israelite nation recorded by Moses could theoretically still be implemented and be completely in 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.

It is the case that the ancient 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 in 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” (3.129). Thus, while the medical practices of the Bible could be equally compared to those of other ancient cultures and found to be flawlessly superior, comparing them 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, the Ebers Papyrus 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) (Ancient Egyptian..., 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, disgusting treatments that caused much more harm than good can be found. For instance, under a section titled “What to do to draw out splinters in the flesh,” a remedy is prescribed consisting of worm blood, mole, and donkey dung” (p. 73). [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” (Ancient Egyptian..., 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 actually did include prescriptions and remedies that could be helpful, the harmful remedies and ingredients cast a sickening shadow of untrustworthiness over the entire Egyptian endeavor as viewed by the modern reader.

As medical doctor 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 idea that infection was good and the pus 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 entirely 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 much “modern” medicine did not grasp for 3,500 years after the books were written. Blood: The Liquid of Life Blood always has been a curious substance whose vast mysteries and capabilities 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 the red blood cells carries oxygen to the brain, which in turn uses that oxygen 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" 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. George Washington, the first President of the United States, died because of 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 of George Washington," 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." 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.

### Germs, Labor Fever, and Biblical Sanitation

In their book, *None of These Diseases*, physicians S.I. McMillen and David Stern discussed how many of the hygienic rules established by God for the children of Israel still are applicable today. To illustrate their point, they recounted the story of Ignaz Semmelweis.

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 them 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 (2003, pp. 41-43). If a woman delivered a baby using a midwife, then the death 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 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. 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” (2003, p. 100). As a twenty-first-century observer, one is appalled to think that such practices actually took place 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.”

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 the 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, inside cover flap). 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.” 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 the 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 a red heifer and cedar. 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 “Soapmaking,” 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 contains 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 exfoliant 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 Web site 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 flue, bronchitis, and phlegm” (see “Hyssop”).

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. A Web site 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 site, 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 the ingredients such as cedar, hyssop, and lye in the water of purification is not coming from Bible-based sources. Most of it is simply coming 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” (McMillen and Stern, 2000, 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 concoct an amazingly effective recipe for soap, that, if used properly in medical facilities like hospitals in Vienna, would literally have saved thousands of lives.

## 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 record 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 would 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.

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.

### Laws of Food Contamination

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 compared to the blood of cancerous patients (1953, p. 444). Macht noted that his results revealed "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 suggested that the biblical division between clean and unclean could have been 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). Some, however, have questioned Macht’s results. Prior research done by Macht in 1936 and 1949 produced discordant results from his research in 1953. But there are several compelling reasons for accepting Macht’s 1953 research. First, it could be the case that Macht’s 1953 research simply was more refined and the procedure better understood. As one would expect in the scientific field, research generally tends to improve with time. Second, Macht was a high-profile doctor with copious credentials. His research in 1936 and 1949 had been published and was easily accessible. Yet even though his previous research was available, the Johns Hopkins Institute considered it acceptable to publish his 1953 research, which would suggest that the 1953 research included additional methods and/or information that would override the earlier research. Third, Macht’s procedure as described in the 1953 paper was fairly simple and easily reproducible. But those who question the work have failed to produce experimental data after 1953 that would negate Macht’s study. If his 1953 procedures were fraught with error, a few simple experiments could be done to prove that. No such experimental data refuting Macht has been produced.

For these reasons, the findings of Dr. Macht aid in the defense of the Bible’s inspiration and remarkably accurate medical procedures as far back as the time of Moses. But the validity of Old Testament food consumption laws certainly does not rely solely on Macht’s 1953 research. Additional confirmation of the beneficial, protective nature of Mosaic food consumption laws is readily available.

### Fins and Scales

As was previously mentioned, the Mosaic criteria for eating water-living creatures was that the creatures have scales and fins (Leviticus 11:12). This injunction was extremely beneficial, since a multitude of problems surround many sea creatures that do not have scales and fins.

### The Blowfish

The blowfish has fins but does not have scales. Thus, it would not have been edible under the Old Testament laws—fortunately for the Israelites. The blowfish can

contain toxin in its ovaries, liver, and other organs that is highly potent and deadly. This toxin, called tetrodotoxin, is thought to be “1250 times more deadly than cyanide” and 160,000 times more potent than cocaine. A tiny amount of it can kill 30 grown adults (Dilion, 2005). As odd as it sounds, blowfish is served as a delicacy all over the world, especially in Japan and other far eastern countries. As a delicacy, it is called fugu, and is prepared by certified, licensed chefs. The toxins can be removed successfully, making the food edible, but the procedure often goes awry. Some who have researched fugu say that it is a food connoisseur’s version of Russian roulette. Due to the extreme danger involved in eating fugu, it is illegal to serve it to the Emperor of Japan! The Mosaic instructions concerning edible fish would have helped the Israelites avoid the dangerous blowfish, as well as danger posed by eating other toxic sea creatures such as certain jelly fish, sea anemones, and octopi.

## Shellfish

Although shellfish are edible today, there are inherent dangers in eating ill-prepared types such as oysters. The U.S. Food and Drug Administration has produced a twelve-page tract warning people about the dangers of eating raw or partially cooked oysters (“Carlos’ Tragic...,” 2003). In the tract, the FDA warns that some raw oysters contain the bacteria *Vibrio vulnificus*. In regard to this dangerous bacteria, the tract states:

Oysters are sometimes contaminated with the naturally occurring bacteria *Vibrio vulnificus*. Oysters contaminated with *Vibrio vulnificus* can’t be detected by smell or sight; they look like other oysters. Eating raw oysters containing *Vibrio vulnificus* is very dangerous for those with pre-existing medical conditions such as liver disease, diabetes, hepatitis, cancer and HIV.... 50 percent of people who are infected with *Vibrio vulnificus* as a result of eating raw contaminated oysters die (2003).

Eating oysters if they are not cooked properly can be potentially fatal, says the FDA. Thus, the wisdom of the Mosaic prohibition is evident to an honest observer. In a time when proper handling and preparation procedures were difficult to achieve, the best course of action simply would have been to avoid the risk of eating potentially contaminated foods, especially since the contamination cannot be detected by smell or sight.

## Reptiles and Salmonella

In Leviticus 11, Moses included reptiles in the list of unclean animals. Obviously, they are not cud-chewers that walk on cloven hooves, so they would not classify as clean, edible animals according to Leviticus 11:3. But to make sure that the Israelites understood, Moses specifically mentioned reptiles such as the large lizard, gecko, monitor lizard, sand reptile, sand lizard, and chameleon (Leviticus 11:29-31). Immediately following this listing of reptiles, the text states: "Whoever touches them when they are dead shall be unclean until evening" (11:31).

Interestingly, reptiles have a much higher rate of carrying Salmonella bacteria than do most mammals, especially those listed as clean in the Old Law. The Center for Disease Control has repeatedly warned people about the possibility of being infected with Salmonella passed through reptiles. In summarizing the CDC's 2003 report, Lianne McLeod noted that the CDC estimates over 70,000 cases of human Salmonella infection a year are related to the handling of reptiles and amphibians (2007). The CDC recommends that homes with children under five should not have reptiles as pets. Furthermore, while other animals such as cats and dogs can pass Salmonella, McLeod noted:

As high as 90% of reptiles are natural carriers of Salmonella bacteria, harboring strains specific to reptiles without any symptoms of disease in the reptile. While it is true that many pets can carry Salmonella, the problem with reptiles (and apparently amphibians) is that they carry Salmonella with such high frequency. It is prudent to assume that all reptiles and amphibians can be a potential source of Salmonella (2007, emp. added).

In light of such evidence, the prudence of the Mosaic prohibition to eat or handle reptile carcasses is clearly evident.

Of further interest is the fact that reptilian Salmonella contamination can occur without even touching a reptile. If a person touches something that has touched a reptile the bacteria can spread. The ARAV (Association of Reptilian and Amphibian Veterinarians) made this statement: "Salmonella bacteria are easily spread from reptiles to humans. Humans may become infected when they place their hands on objects, including food items, that have been in contact with the stool of reptiles, in their mouths" ("Salmonella Bacteria..." 2007).

When this statement by the ARAV is compared with the injunctions in Leviticus 11:32-47, the astounding accuracy of the Old Testament regulation is again confirmed.

“Anything on which any of them falls, when they are dead shall be unclean, whether it is any item of wood or clothing or skin or sack, whatever item it is, in which any work is done, it must be put in water. And it shall be unclean until evening; then it shall be clean. Any earthen vessel into which any of them falls you shall break; and whatever is in it shall be unclean: in such a vessel, any edible food upon which water falls becomes unclean, and any drink that may be drunk from it becomes unclean”. (Leviticus 11:32-34).

After reading Leviticus 11:32-34, it seems as though a microbiologist was present with Moses to explain the perfect procedures to avoid spreading Salmonella and other bacteria from reptiles to humans. How could Moses have accurately laid down such precise regulations that belie a superior understanding of bacteria? An honest reader must conclude that he had divine assistance.

### Bats and Rabies

Moses specifically forbade the Israelites to eat bats (Leviticus 11:19). The wisdom of this instruction is demonstrated by the fact that bats often carry rabies. While it is true that many animals are susceptible to rabies, bats are especially so. The American College of Emergency Physicians documented that between 1992 and 2002, rabies passed from bats caused 24 of the 26 human deaths from rabies in the United States (“Human Rabies...,” 2002). In the Science Daily article describing this research, “Robert V. Gibbons, MD, MPH, of Walter Reed Army Institute of Research in Silver Spring, MD, reviewed the 24 cases of humans with bat rabies.” From his research, he advised “the public to seek emergency care for preventive treatment for rabies if direct contact with a bat occurs” (“Human Rabies...,” 2002). Moses’ instruction to avoid bats coincides perfectly with modern research. Once again, the super-human wisdom imparted through Moses by God cannot be denied by the conscientious student of the Old Testament. As 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 (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 non-existent. Certain meats, if contacted raw or under-cooked, have greater potential to carry parasites and other harmful bacteria that can infect the end 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 other 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) infestation from eating undercooked, as well as tape worm 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 attune to the dangers of consuming raw or undercooked pork. In fact, most pork bought in grocery stores contains nitrates and nitrites 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" (1968, p. 181).

## Circumcision

In the book of Genesis, the text 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 17:12-14). Thus, the covenant with Abraham and his offspring was to be indelibly marked in the flesh of every male child.

The inclusion of this medical, 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, from what modern medicine has been able to gather, 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.” 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,” the text stated: “Neonatal circumcision virtually abolishes the risk [of penile cancer—KB]” and “penile cancer occurs almost entirely in uncircumcised men” (Morris, 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 today one of the most influential works ever written about child

care, pediatric disease, and other health concerns as they relate 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 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” (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 approximately 110% of normal, about 20% higher than it was on the first day, and about 10% more than it will be during of the child’s 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 that 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 oversight remains the only reasonable answer.

## Conclusion

In reality, entire books could be written on the Old Testament's amazing medical accuracy. Medical doctors 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" (Macht, 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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