Islamic Law Regarding Pork

Author: Sayyed Saeed Akhtar Rizvi

[www.alhassanain.org/english](http://www.alhassanain.org/english)

Notice:

This work is published on behalf of [www.alhassanain.org/english](http://www.alhassanain.org/english)

The typing errors are n’t corrected.

Table of Contents

[Question n.1 4](#_Toc482620755)

[Question n.2 5](#_Toc482620756)

[Question n.3 6](#_Toc482620757)

[Question n.4 7](#_Toc482620758)

[Question n.5 8](#_Toc482620759)

[Question n. 6 9](#_Toc482620760)

[Question n. 7 10](#_Toc482620761)

[Question n. 8 11](#_Toc482620762)

[Question n. 9 12](#_Toc482620763)

[Question n. 10 13](#_Toc482620764)

[Question n. 11 14](#_Toc482620765)

[Question n. 12 15](#_Toc482620766)

[Question n. 13 16](#_Toc482620767)

[Question n. 14 17](#_Toc482620768)

[Question n. 15 18](#_Toc482620769)

[Question n. 16 19](#_Toc482620770)

[Question n. 17 20](#_Toc482620771)

[Question n. 18 21](#_Toc482620772)

[Question n. 19 22](#_Toc482620773)

[Question n.20 23](#_Toc482620774)

[Question n.21 24](#_Toc482620775)

[Question n.22 25](#_Toc482620776)

[Question n.23 26](#_Toc482620777)

[Question n.24 27](#_Toc482620778)

[Question n.25 28](#_Toc482620779)

[Question n.26 29](#_Toc482620780)

[Question n.27 30](#_Toc482620781)

[Question n.28 31](#_Toc482620782)

[Question n. 29 32](#_Toc482620783)

[Question n.30 33](#_Toc482620784)

[Question n.31 34](#_Toc482620785)

[Question n.32 35](#_Toc482620786)

[Question n.33 36](#_Toc482620787)

[Question n.34 37](#_Toc482620788)

[Question n.35 38](#_Toc482620789)

[Conclusion 39](#_Toc482620790)

[Notes 40](#_Toc482620791)

Question n.1

Question: What is the teaching of Islam about pork?

Answer: Pig is absolutely unclean and eating its meat, and fat etc., as well as using its skin or any other parts is strictly forbidden. Allah has said in various places in the Holy Qur'an:

 حُرِّمَتْ عَلَيْكُمُ الْمَيْتَةُ وَالدَّمُ وَلَحْمُ الْخِنْزِيرِ ….

“Forbidden to you (for food) are: dead meat, blood, the flesh of swine . . .”(Qur'an, 5:3)

Question n.2

Question: I, being a Christian, have no difficulty in eating pork. I often wonder why Muslim brethren have not been allowed to enjoy this tasty food, as we Christians do?

Answer: This question is somewhat astonishing because, according to the Scriptures, even the Christians are not allowed to eat pork.

Question n.3

Question: How can you say this?

Answer: Well, let us see what the Bible says about pork: “And the swine,... . he is unclean to you. Of the flesh shall ye not eat, and their carcase shall ye not touch; they are unclean to you .” (Leviticus, 11:7-8). The same command is repeated in Deuteronomy, 14:8.

Rev. W. K. Lawther Clarke says in his Concise Bible Commentary commenting upon these passages: “The laws were inculcated and obeyed because they embodied God's will”1.

Dr. E. A. Widmer quotes in his article Pork, Man and Disease 2:”Pork although one of the most common articles of diet, is one of the most injurious. God did not prohibit the Hebrews from eating swine’s flesh merely to show His authority, but because it was not a proper article of food for man.”

Question n.4

Question: Well, these revelations are very interesting. Can you please, give some more references on this subject from Christians' writings?

Answer: Yes, you may see the discourse under the word “Swine” in The Westminster Dictionary of the Bible which is very clear. Here is an extract from it:

“The swine was a ceremonially unclean animal ... It is dirty, does not refuse to eat offal and carrion, and the use of its flesh for food in hot countries is supposed to produce cutaneous disease. It was not raised by Arabs 3, and was regarded as unclean by Phoenicians, Ethiopians, and Egyptians ... To the Jews swine's flesh was abominable, the pig was the emblem of filth and coarseness . Yet pork found entrance to the idolatrous feasts of degenerate Hebrews (Isa. 65:4; 66:17).

In the reign of Antiochus Epiphanes the command to a Jew to offer or to taste swine's flesh was used as a means of determining whether “he was loyal to the religion of his fathers or was willing to accept the worship favoured by his conquerors (I Macc. 1:47,50; II Macc. 6:18,21; 7:1,7). But many Jews affected Grecian manners, and John Hyrcanus found it advisable to issue an edict that no one should keep swine.

In the time of Christ one large herd of swine at least was pastured in the Decapelis (Mark 5:11,13), a region colonized by Greeks, among whom the swine was highly esteemed as an article of food. There is no reason to suppose that Jews owned either these pigs or those in the far country fed by the prodigal son (Luke 15:15).”4

Similar statements may be found in almost all Bible dictionaries.

Question n.5

Question: Thank you very much. But I have just observed that all these quota-tions are from the Old Testament. They are binding upon the Jews. But we, the Christians, would like to know what was the teaching of Jesus Christ on this subject.

Answer: Well, I was coming to that point. You see, whatever the teaching of Old Testament, the same was the teaching of Jesus Christ. He says in clear words that the laws of the Old Testament were to be obeyed without any change: “Think not that I am come to destroy the law, or the prophets: I am not come to destroy, but to fulfil. For verily I say unto you, Till heaven and earth pass, one jot or one little shall in no wise pass from the law, till all be fulfilled. Whosoever therefore shall break one of these least commandments, and shall teach men, so he shall be called the least in the Kingdom of Heaven.” (Mat., 5:17-19).

Question n. 6

Question: I remember reading this saying of the Gospel several times. Sometimes I wondered why Christ stressed this point in so many words?

Answer: It was because he knew that after his ascension some of his followers would denounce the Law. Jesus Christ himself obeyed the Law faithfully. It was only after his departure from this world that St. Paul, a forceful orator, and a member of “elite” circle of the society, who took to heart the Greek 'advanced' civilization (as many people now-a-days take pride in being 'Westernized') prevailed upon the illiterate and simple-minded Christians to abandon the Law. The fact that he himself had never met Jesus Christ, and those who opposed him were constant companions of Christ, is most revealing.

Jesus Christ corrected Pharisees' misinterpretation of the Law. For example, his disciples in their hunger plucked the ears of corn on sabbath day. When the Pharisees objected, Jesus Christ replied, “The sabbath was made for man, and not man for the sabbath.” (Mk., 2:27). But he never said anything against the Law, including the dietary laws.

St. Paul on the other hand denounced the Law, saying that “the Law worketh wrath; for where no law is, there no transgression.” (Rom., 4:15)

Question n. 7

Question: This logic seems to me very convincing.

Answer: Well, if you are really convinced of this reasoning, then you should see to it that all legislatures are abolished, and all courts are closed. Thus there would be no criminal, because there would be no law to transgress!

Question n. 8

Question: I don't think any Christian government would be pleased with this suggestion. Let us forget it. But tell me how St. Paul abrogated the Law?

Answer: He claimed that, “I know, and am persuaded by the Lord Jesus, that there is nothing unclean of itself; but to him that esteemeth anything to be unclean, to him it is unclean.” (Rom., 14:14)

Question n. 9

Question: Well, I think it settles the matter nicely.

Answer: No. On the contrary, it creates more problems than it solves. You see, if that is what Jesus Christ had intended to be the tenant of Christianity, why did he not declare so when he was with his disciples in this world? Why did he advocate the theory of unchangeability of Mosaic Law?

Did St. Paul want the people to believe that Jesus Christ was not sincere in his pronouncements when he was with the people? We Muslims cannot believe it. As for the Christians, action speaks louder than words.

Question n. 10

Question: I must admit that you have got a very strong point here. I now agree that according to the Original Christianity, pork was and will remain forbidden. But, frankly speaking, I do not find anything wrong with pork.

Answer: I hope that you are not one of those who think that aping the Western culture is the proof of enlightenment.

In directing the dietary principles of the children of Israel and, thereafter of the Muslims, God meant these rules to be a source of continued benefit to mankind. The transfer of certain disease, as modern medical research has substantiated, would be adequate justification for this ancient law.

Question n. 11

Question: But this “transfer of diseases” is not the unique feature of pork. Even beef and mutton contain some germs of diseases

Answer: Well, why limit your argument to beef and mutton? We know that even vegetables contain infectious germs. But the fact remains that pork reigns supreme in the greater content of germs among all meats that are known to human-beings. The more we read about it the more we dread it.

Question n. 12

Question: Can you name some of those germs to which you have just referred?

Answer: The following list shows germs or parasites that are found in pork. Many of them are contagious, others are fatal. This proves once more that the more science advances, the more Islam is proved to be correct in so many respects. The present day science of parasitology lists a protozoan ciliate, the pork tapeworm, and the trichina roundworm as causing important diseases that the pig shares with man.

Question n. 13

Question: Well, I do not understand these Latin words. Please explain them in simple Language

Answer: In fact, I had not used their full Latin names. For example, protozoan ciliate is called by “Balantidium Coli.” “ it is a “parasite, harbouring in the large intestine” and is “the largest protozoan affecting man.”

Question n. 14

Question: What has this “Balantidium Coli” to do with pigs and how does it affect human-beings?

Answer: It is normal inhabitant of the pigs' bowels. It is excreted by its faeces and finding the external environment unsuitable for itself, develops a shell round it which is called a “cyst.”

The cyst contains living parasites that communicate with man's diet thus enter his bowels, was found by Dr. Malmston (1857) and Stein (1862).

Dr. E. A. Widmer writes in his article Pork, Man and Disease (Good Health, vol. 69, no. 1):

“The protozoan ciliate, known technically as Balantidium Coli, is extremely common in swine. Recent surveys in various countries reveal an incidence range of 21 to 100 per-cent.

This organism is much less common in man. The general incidence of one per-cent reported in Puerto Rico is representative of the incidence in many countries. When found in man serious clinical symptoms may result. Current evidence points strongly to the pig as the chief source of human infection.” {Emphasis mine}

Question n. 15

Question: And what are those “serious clinical symptoms” which are caused by this germ?

Answer: It creates incurable dysentery. Dysentery is a disease very familiar to the public. The symptoms of this disease are horribly acute and may end fatally. Unfortunately there is no specific cure for dysentery caused by Balantidium Coli up-to-date. According to Dr. Chandler in his book, Animal Parasites and Human Disease, page 7: “it is only in pig-raising countries and where there is too close an association between man and this animal that this disease is common.”

Question n. 16

Question: What are other germs which are transferred from pig to man?

Answer: There are many more. For example, there is the “Trichinella Spiralis” (Trichina Worms).

Dr. Glen Shephered wrote an article on the dangers of eating pork in the 31st May, 1952 issue of the Washington Post; and the following information are taken from that article:

“One in six people in the United States of America and Canada have worms in their muscles - Trichinosis - from eating pork infected with Trichina or Trichinelly. Many people so infected have no symptoms. Most of those who do have, recover slowly. Some die. Some are reduced to permanent invalids. All were careless pork eaters.”

He continued: “No one is immune from this disease and there is no cure. Neither antibiotics nor drugs or vaccines affect these tiny deadly worms. Preventing infection is the real answer.

“Fully grown Trichina worms are about 1/8 inch long and about 1/400 inch broad. They remain alive for about forty years, curled up in lemon shaped, invisible tiny capsules between muscle fibres.

When you eat infected meat, these dormant worm capsules are digested, but their live contents grow into full size worms each of which has about 1,500 offspring. They get into your blood one to three weeks after you eat their parents. Because many organs can be invaded by the worms, symptoms can resemble those of fifty other diseases. This makes diagnosis difficult.” (Emphasis mine)

Question n. 17

Question: I would like to know more about this disease-carrying germ.

Answer: Dr. Widmer writes in the article, Pork, Man and Disease - mentioned earlier:

“The trichina worm is essentially limited to Central Europe and those parts of temperate America to which its emigrants have gone.

In comparison with the ciliate and the pork tapeworm the trichina worm produces the most serious effects in the human body. The adults are present in the small intestine of man. After mating, the females produce larvae which enter the blood vessels for distribution to all parts of the body.

These migrating larvae may invade skeletal muscles, brain, bone marrow, retina, and the lungs. Since each female worm can produce more than 1,500 larvae, and since these immature worms invade many organs of the body, many clinical symptoms may appear. I n heavy infections death may take place in the second or third week, but more often it occurs in the fourth to the sixth week after exposure. Any recovery predictions vary with the location and number of larvae trichinae, severity of symptoms, and the physical condition of the patient.”

And now comes an interesting observation.

Question n. 18

Question: What is that, please?

Answer: “Trichinosis,” the disease caused by “trichina worms” breaks out like epidemics. And its relation with pigs, like that of plague with rats, was known to people thousands of years ago. Those who do not believe in divine origin of Mosaic and Islamic Laws, say that it was because of this epidemic that these religions prohibited pork.

The same article (Pork, Man and Disease) says:

“It is generally assumed that the presence of trichina worms in pigs was the basis for the prohibition of their use for food by the Jewish people.” In his book, A History of Parasitology, W. D. Foster (1965) emphasizes this viewpoint when he writes: 'The Mosaic and Mohammedan prohibitions on the eating of pork are far more likely to have been to the observation of outbreaks of trichinosis than any other recognition of an association with tapeworm infestation . . .

The association of the disease with the eating of pork would be well within the capacity of primitive peoples. Indeed, what is surprising is that this association was lost sight of by the world at large, although the conditions cannot have been uncommon, and looking back we can recognize epidemics which were almost certainly trichinosis.”

Question n. 19

Question: What is the use of talking about epidemics of long ago? Surely, with advance in medical science, such diseases must have been eradicated from the face of earth?

Answer: Unfortunately, this is not the case. The same article says:

Outbreaks of trichinosis are still common in the United States. Between March 9 and March 25, 1968, four of seven family members in Willoughby, Ohio, developed symptoms of trichinosis. The family had purchased sausage from a local packing company and after soaking it in oil for several days ate it raw5.

“In May, 1968, a family of eight in New Berlin, Wisconsin, became ill with a “flu-like” disease. Later evidence was obtained that per mitted a diagnosis of trichinosis to be made. All of the individuals ate raw 'beef' hamburger sandwiches. It is assumed .. .”

Question n.20

Question: If it was cause by beef, why should “pork” be singled out for blame?

Answer: Don't be hasty, my friend. Let me finish the report. It goes on to say:

“It is assumed that these 'beef' hamburgers were contaminated with infected pork since cattle do not harbour the trichina worm6. The hamburger meat was bought at a local market that had a single grinder for pork and beef.”

And here is the 3rd report:

“In December, 1969, trichinosis was diagnosed in seventy-six persons in Washington, Missouri. This outbreak was attributed to eating locally manufactured pork which was not processed adequately to destroy the infective larva” (Morbidity and Mortality Weekly Report, vol.18, no.9).

Question n.21

Question: Well this last report presents the problem in its true perspective. The infection was caused because the pork was not processed adequately. But with modern scientific methods all bacteria can be destroyed.

Answer: it is a delusion and nothing more. Dr. Shephered writes:

“Ordinary methods of salting and smoking do not kill these worms. Nor can Government

inspection of meat at packing houses or abattoirs identify all infected pork.”

Dr. Widmer says: “It is significant to note that from the time of God's Command to the children of Israel until this decade, medical science has had no cure for patients with trichinosis. Treatment consists of alleviation of the symptoms caused by the worms rather than destruction of the worms.”

Question n.22

Question: You said in the beginning that “pork reigns supreme in the greater contents of germs among all meats known to human-beings.” I would like to have a detailed list of those germs.

Answer: In addition to the bacteria and worms described earlier, pork is the main carrier of the

following germs and parasites:

1) Tapeworms

2) Roundworms

3) Hookworms

4) Faciolopsis Buski

5) Paragonimus

6) Clonorchis Sinesis

7) Erysipelothrix Rhusiophathiae

Question n.23

Question: Will you, please, explain their relation with pork?

Answer: Let us begin with tapeworm.

Tapeworm is called “Taenia Solium” in Latin. Pork is one of the main sources of this Infection.

The incidence of human infection with the pork tapeworm varies throughout the world.

In his now classic report “This Wormy World,” (1947) Stoll estimated that 2.5 million persons throughout the world were infected with this organism.

Question n.24

Question: What about roundworm?

Answer: It is a parasite, six to twelve inches long, which is also called a 'travelling worm' because it goes into various organs of the human body. Dr. Ramson mentioned in the 'Stills parisitology,' that these parasites of men are identical with those found in pigs; they belong to the same species. It means that the worm which is found in pork is quite easily transferred to human-beings where it does a lot of damage. The same statement is found in Encyclopaedia Britannica, under 'Roundworm.'

Question n.25

Question: And what are 'hookworms'?

Answer: The young worms of this disease enter the human skin by piercing the skin or through any wounds. Pigs eat up human excreta containing eggs of the parasites which develop inside them and they hatch into young worms. When these are passed out they are infectious to man. This infection is very prevalent in various tropical countries.

Encyclopaedia Britannica (vol. II) writes under 'Hookworm':

“Hookworm is a parasitic roundworm. Two parasites Ancylostoma duodenale and Necator americanus cause hookworm disease.

“Hookworm disease is a scourge of tropical climates, resulting in a debilitated anaemic population. Anaemia in hookworm disease results from sucking of blood by the adult worms in the intestine and the attendant inflammation of the bowel. A single A. duodenale can remove, on the average, almost one cubic centimetre of blood a day. As a blood sucker, N. americanus is about one-fifth as efficient.

“In general, the symptoms of classical heavy infections include pallor of skin and mucous membranes, fluid retention in the face and extremities, constipation alternating with diarrhoea, abdominal tenderness, increased appetite for bulky foods or unusual substances (clay eaters), sexual derangements (delayed puberty, impotence irregular menstruation), endocrine insufficiency, stunted growth, cardiac weakness, palpitation, hyper-sensitiveness of the skin to cold, physical debility, fatigue, dullness, apathy and melancholia.”

Question n.26

Question: Now what about Faciolopsis Buski?

Answer: These parasites were discovered by Lankaster (1857) and Oliver (1902). These parasites remain latent for a good time in the pig's small intestines. The parasite on leaving the pig infects the water-snail which in turn infects man. It is extremely prevalent in China.

Question n.27

Question: And what is the parasite 'Parago-nimus' ?

Answer: This parasite lives in the lungs of pigs. It was discovered by Dr. Mason in 1880. it is a common parasite which causes pneumonia in pigs. There is still no way of killing the parasite in the tissues, neither has anyone found a method of expelling them. The epidemiology of the resulting is jaundice.

Question n.28

Question: Now we come to 'Clonorchis Sinesis

Answer: This parasite was discovered by Cobbold (1875) and Looss (1907).

Clonorchis Sinesis is a sucking worm, a kind of parasite which inhabits the bile passage of pigs' liver, which is a source of these parasites infecting people in close contact with pigs. The occurrence of the disease in China, Formosa, Japan, Korea and Southern India and Vietnam again points to the close association with pigs.

This parasite creates many serious diseases of liver and chest in human beings.

Question n. 29

Question: What are those diseases?

Answer: if this parasite is present in the lungs, it may cause pneumonia; if it is in the air tubes it causes suffocation and if in the intestines it causes intestinal obstruction, or acute pancreatitis.

Then there is Clonorchiasis, a peculiar liver disease. The liver becomes enlarged accompanied with severe jaundice, diarrhoea and emaciation; it may end fatally. Medical science, in spite of its strenuous efforts, has not yet been able to produce any specific treatment for it. Complications in the disease are stone formation in the liver and cancer.

Question n.30

Question: Are there any more diseases connected with pork?

Answer: Yes. There are “Erysipelas” and “Endemic Haemptysis” (i.e. Bleeding of the Lungs), and “Brucellosis” (i.e. Swine Abortion).

Question n.31

Question: What is “Erysipelas” ?

Answer: This disease is caused by the germ “Erysipelothrix Rhusiopathiae.” This disease occurs in acute and chronic forms. The symptom of the acute form are chiefly high fever and reduced activity and appetite. It usually brings rapid death. Chronic Erysipelas causes sloughing of diamond-shaped areas of skin. and there is residual damage to the joint surfaces and the heart valves which may result in lameness and/or sudden death.

The details may be seen in Chambers Encyclopaedia (New Revised Edition 1968), vol. 10 under 'Pig' and in the American People's Encyclopaedia, (1960) vol. 15 under 'Pig'

Question n.32

Question: And what is its connection with pig?

Answer: According to the Chambers Encyclopaedia, this bacteria “can survive for long period in the soil and is also found in the body of some 30% of all healthy pigs. Thus eradication is impossible and overt disease is not a simple matter of infection.”

And what is more troublesome is the fact that the same bacteria causes the same disease in human beings. Thus anybody eating pork taken from even a “healthy pig” is in danger of the above-mentioned diseases and death. The said Encyclopaedia says that “the same organism (i.e. germ) causes 'erasipeloid' in man.”

Question n.33

Question: Now I see the wisdom of the Islamic law forbidding pork; in fact, I am very much alarmed by these disclosures. Will you, please, now explain “Endemic Haemptysis” ?

Answer: As I told you earlier, it means bleeding of lung. This disease is quite common in China, Japan, Formosa and countries where the consumption of pork is predominant.

Patients having this infection suffer from cough with rusty sputum and have repeated attacks of profuse bleeding of the lungs; disease in countries where human beings live in close association with pigs clearly shows that this animal is the reservoir of infection. The disease is however, absent from countries where pigs are rare.

Question n.34

Question: And what is the 'Swine Abortion'?

Answer: Its scientific name is 'Brucellosis.' The American People's Encyclopaedia (vol. 15, under 'Pig') says: .

“Brucellosis or swine abortion is important not only because of hog losses, but also because the disease may be contacted by man. In the hog, brucellosis causes abortion and sterility. The disease is difficult to diagnose and practically impossible to cure. Disposal of infected animals is recommended.”

In short, the pig, the supreme germ carrier, is the cause of many serious and fatal diseases, among them, dysentery, trichinosis, tapeworm, roundworm, hookworm, jaundice, pneumonia, suffocation, intestinal obstruction, acute pancreatitis, enlargement of liver, diarrhoea, emaciation, stone formation in liver, cancer, anaemia, high fever, hindrance of growth development in children, typhoid, lameness, heart trouble, abortion, sterility, and sudden death.

I do not know of any other animal carrying so many and so deadly bombs to wreck the human body.

Question n.35

Question: Now I am fully convinced that pork is not a food, but a package of poisons. Still, I have heard many people saying that now-a-days pigs are raised in hygienic conditions and fed clean food, and that they are quite different from their fore-fathers who ate human dirt and soil; and that their meat is not a danger to health.

Answer: All the statements of the doctors quoted above are about those very pigs who are raised in hygienic conditions and still carry the germs. Those are the findings of recent times based on experiences of modern pig-raising. And still you must have marked such statements as follows:

• “Balantidium Coli is extremely common in swine. Recent surveys reveal an incidence of 21 to 100 percent.”

• “It is only in pig-raising countries .... that this disease is common.”

• “One in six people in U. S. A. and Canada have worms in their muscles from eating pork”

• “No one is immune from this disease and there is no cure. Neither antibiotics nor drugs or vaccines effect these tiny deadly worms.”

• “There is still no way of killing the parasite (Paragonimus) in the tissues, neither has anyone found a method of expelling them.”

• “Medical science, in spite of its strenuous efforts, has not yet been able to produce any specific treatment for it (Clonorchiasis).”

• “'Erysipelothix' is found in the body of some 30% all healthy pigs. Thus eradication is impossible.”

• Today, all pig farms are run on so-called hygienic principles. But still the result is the same as it was centuries earlier.

Still, let us, for the sake of discussion, accept that a time may come (in distant future, perhaps) when drugs may be found to counteract the ill-effects of the germs and parasites carried by pigs. But even then it will not sanction the use of pork as a diet, just as discovery of snake-bite serums does not sanction our putting our finger in the mouth of a cobra.

Conclusion

I am really very much perturbed by these observations. I find that there is Truth in what you have said. I agree that pork is extremely harmful to the health, no matter how hygienic the conditions in which pigs are kept now-a-days.

I promise that from now on I will never take pork, bacon or anything connected with pig. I know that breaking a habit is a very difficult thing; but I hope that by my strong will and the help of God I will succeed in my resolution.

Answer: Yes. I am sure God's help will always be available to you if you genuinely want to obey His Command.

May God Be With You.

Notes

1. Concise Bible Commentary, pub. S.P.C.K., 1952, p. 371.

2. Good Health, vol. 69, no. 1

3. Pliny Hist. Nat. VIII p.78

4. pp. 584-585.

5. Morbidity and Mortality Weekly Report, vol. 17, no. 23

6. CDC Veterinary Public Health Notes, February, 1969.

[www.alhassanain.org/english](http://www.alhassanain.org/english)