

Vestigial Organs

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Vestigial organs: what are they and why should we learn about them? When Dr. Michael Shermer debated Dr. Duane Gish at UCLA last March 10th, he called upon vestigial organs as evidence for evolution. If someone like Shermer is using this as evidence for evolution and against creation, you can be sure there are many others who believe the same thing. This article will review which organs people are most likely to consider vestigial and what their known functions are, so that you can show others there is no such thing as a vestigial organ. People may not like you for it, but at least they will never use the vestigial organ argument again. *Vestigial Organs Are Fully Functional*, written for the Creation Research Society by Drs. Jerry Bergman and George Howe, was the source for much of this information. Their book goes into detail about most of the alleged vestigial organs, human and animal.

What Are Vestigial Organs?

Vestigial organs are body structures considered to have been better developed and functional in the past but to have now lost most or all of their function and some or most of their structure. Darwin called them rudimentary. Evolutionists believe they were useful in ancestral species but are slowly being phased out in modern animals. It is evolutionally correct to get rid of unneeded baggage. Examples of vestigial organs in humans usually include the appendix, the coccyx (tail bone), and the tonsils. While Robert Wiedersheim listed 180 alleged vestigial or rudimentary organs in 1895, today the list is down to a handful. Vestigial organs were considered passé because of ignorance, but now we have discovered important biological functions and necessity for every one of them. At an ICR summer institute, Dr. Richard Lumsden stated emphatically that there are no vestigial organs. Creationists would do well to ask, "What was this made for?" when looking at a seemingly useless body part. Since God made the whole body, He had a reason for including every part.

Some Alleged Vestigial Organs in Man	
Tonsils	Adenoids

Coccyx (tail bone)	Nictitating membrane of eye
Thymus	Appendix
Little toe	Wisdom teeth
Nipples on males	Parathyroid
Nodes on ears "Darwin's points"	Ear muscles for wiggling
Pineal gland	Body hair

Coccyx

Evolutionists consider the coccyx or tail bone the remnant of our evolutionary ancestor's tail. The tail bone (coccyx) used to be removed when people injured them, and developed coccydynia (painful coccyx). Dr. Robert Franks says that he told his suffering patients to resist removal of the coccyx, if ever suggested. The tailbone has some important functions, starting with the role it plays in enabling us to sit. Ask someone who has had his tail bone removed what it's like to sit. That should have been an obvious function to the unprejudiced observer. For instance, if you came from Mars or Alpha Centauri and saw a pair of boots, you might conclude they were useless objects. Nancy Sinatra thought they were for walking. Actually, the feet and legs do the walking; the boots facilitate this activity. Various muscles attached to the tail bone are important for facilitating bowel and labor movements, supporting internal organs, and keeping the anus closed. Concerning the coccyx, Evan Shute wrote:

"...Take it away and patients complain; indeed the operation for its removal has time and again fallen into disrepute, only to be revived by some naive surgeon who really believes what biologists have told him about this useless 'rudiment.'" [Shute]

Cora Reno says that the coccyx is merely the terminal portion of the backbone. "After all, it does have to have an end!" [Reno] Bergman and Howe go into much more detail on the coccyx in their book.

Do Human Embryos Have Tails?

There is a political aspect to evolution, and part of it is the story of embryonic recapitulation. This means that as the human embryo develops it recapitulates

or retraces its supposed route of evolution by reflecting the different phases of evolution our ancestors went through. First, it resembles the single-cell stage, then successively the fish stage with gill slits, the tadpole stage, the reptile stage, and the tailed-ancestor stage in its development into a true human. We begin as a single-celled zygote, but that is not where our evolutionary trail begins. We have to begin as something, and the least something we can be is a cell. By the time the fetus develops to the "ape" stage, the coccyx is no longer prominent. Planned Parenthood and other abortionists sell abortion by saying that the developing embryo is not really human but rather a mass of tissue going through a series of evolutionary developments. If women can be convinced that their babies are really subhuman, it is then acceptable to abort them.

The human embryo does not develop a tail. Anthony Smith wrote:

"...although the human embryo has a short stub of a tail for a while and this is precisely similar to the short stubs that become tails in many other species, the human tail stub only forms the basis of the human coccyx." [Smith]

What looks like one thing in an embryo becomes something quite different in the mature fetus. For instance, the bulbous structure in the drawing does not become a nose, it is the forehead. In the drawing, the small node at the top is not an ear, although it looks like one. Both of these structures are very close to where those parts would be, but they do not become them.

The human embryo never has gills and it never has slits, so it never has gill slits. It has a series of pharyngeal pouches that develop into the thymus gland, the parathyroids, and the middle ear canals. The gills in fish are their breathing apparatus; these pouches are not related to breathing. They are not enriched with capillaries for oxygen exchange. Very rarely one of these pouches will break through, so that a child is born with a hole in its neck. I never saw it in the thousands of premature infants I saw at the USC Women's Hospital, where about 18,000 children are born each year. I saw many oddities such as legs on backwards, absent skull cap, spina bifida (hole at lower end of spinal column that didn't close), and cleft palate with enormous gaps I thought would be impossible to close.

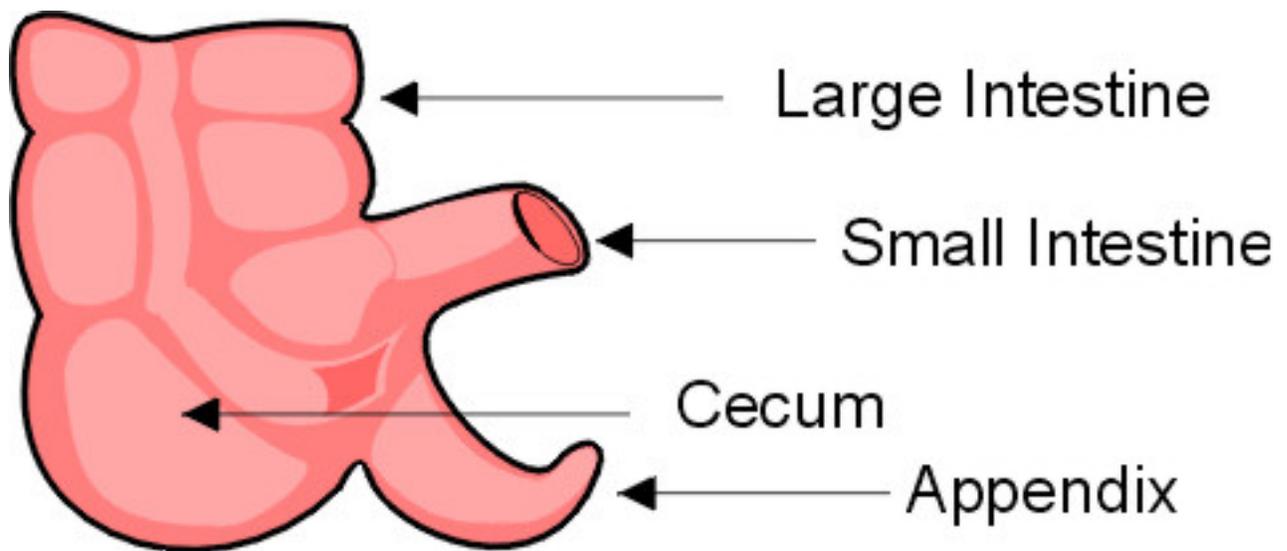
The "yolk sac" is actually the site where the first blood cells form. Thus, the embryo does not go through an egg stage and does not get nourished by a yolk

like chicks or baby lizards. We get our nourishment through the placenta and we have nothing in common with the lower animals in this respect.

The human embryo does not recapitulate an imaginary, evolutionary past. It is just as different from other creatures in the one-celled stage as it is when fully grown. Superficially, the zygote looks like a one-celled organism, but that's because it has not yet divided. Its DNA is different from all other organisms. Only a small part of the human genome has been mapped by geneticists. Depending on which protein is compared, we are more closely related to a bacterium than an ape and vice versa. It becomes a game we can play. If you find a human protein that is almost a 100% match with an ape, someone else can find a protein that relates us more closely to an entirely different organism.

Appendix

I went to a talk entitled "Mucinous Borderline Tumors of the Ovary," by Dr. Joanne Rutgers from Harbor/UCLA Medical Center. Sounds like a great subject doesn't it? I actually stayed awake and asked a question at the end--an *intelligent* question, remarked a pathologist later. I am glad to know I still have some of those left in me--too bad I have forgotten what it was or I could ask it again! During her talk, she explained that there was a raging debate, more or less, over which organ is responsible for these tumors: the ovary or the appendix. This is because of the presence of goblet cells in these tumors and other reasons as well. Goblet cells are in glands in the appendix (crypts of Leiberkuhn). They secrete a mucous lubricant (this is where the mucinous tumor stuff ties in--you thought I was rambling) into the intestines which aids movement of material through them. After the appendix is removed, the patient may suffer constipation until other areas of the intestine can compensate for its contribution. This is a physiological effect, not just due to the surgical trauma.



Our appendix is viewed as degenerate by evolutionists, but from which ancestral stock did it de-evolve? Dr. Howe asks: "If total absence of an appendix were a token of advancement, the old and new world monkeys should be considered more highly evolved than either mankind (or lemurs), a bizarre conclusion." [Bergman and Howe, p. 41] Biologist Helena Curtis considers the human appendix vestigial and calls it "the trouble-making appendix." [Curtis] That's a bad rap for this valiant little organ. The appendix is certainly not vestigial, it is very useful, although it can become infected and kill you if it ruptures. Almost any organ in your body can kill you if it is sufficiently diseased. How many people die of heart attacks vs. appendicitis? The heart, the physical or the spiritual one, is far more troublesome. If your lungs become infected, you can die, but no one suggests removing the lungs as a preventive measure during surgery for another reason. The theory of evolution has blinded otherwise brilliant minds and people think they can prune vestigial parts with impunity. In some cases, the partial removal of a lung, or the removal of an entire lung is necessary, as in the case of lung cancer or severe, incurable infection. Fortunately, we have another one, and although there are immediate consequences, we can adjust. No one, however, would remove a healthy lung. A surgeon can remove an appendix from someone, and there doesn't seem to be any noticeable effect, but a healthy appendix is beneficial. Healthy appendices were the victims of surgical instruments for the better part of this century simply because the prevailing wisdom was that they were useless bits of flesh left over from a previous evolutionary era and were better out than in.

What are some other functions of the appendix? It protects the body in several ways. It is rich in lymphoid tissue, meaning that it acts as a filter and removes bacteria and protects the intestines from infection. Antibodies are also made there. One study done by Dr. Howard R. Bierman on hundreds of patients with

leukemia, Hodgkin's disease, cancer of the colon, and cancer of the ovaries showed that 84% of these patients had their appendix removed, while in a healthy control group only 25% had it removed. [Bergman and Howe, p. 45] This is a positive correlation, indicating a possible role of the appendix in preventing these diseases. Bierman concluded that the premature removal of the appendix during childhood permitted leukemia and other related forms of cancer to develop. There may be a relationship between these diseases and viral infections. The Epstein-Barr virus probably causes Burkitt's lymphoma. Viruses consumed in undercooked animal foods could be responsible for some cancers. My wife, a physician and preventive medicine specialist, convinced me of this and got me to eat my protein well done. Immunologist Dr. Ken Anderson, who has spoken to our group two or three times, also believes that viruses play a part in these diseases. The white cells harbored in the appendix are certainly capable of protecting us from these viruses and the subsequent development of tumor cells. Is there a possibility that when the appendix is removed the last, crucial line of defense against these diseases is removed?

Tonsils

Like the appendix, the tonsils were also the almost indiscriminant targets of scalpels. They are considered more troublesome vestiges that bode ill will for their owner, always becoming infected, making children sick, and causing them to miss school. Are they wimpy, evolutionary vestiges or ardent defenders of the body? In a detailed medical supplement, Drs. Maeda and Mogi wrote that the tonsil functions both in antibody production and cell-mediated immunity. [Maeda] Other contributors to this supplement said that the tonsil is important as a lymphoid organ in the upper respiratory tract. In the introductory remarks to this supplement, Dr. Kataura said that numerous modern immunological studies show that the palatine tonsil is an immunological organ and acts as defense mechanism against the infection of the upper respiratory tract.

Bergman and Howe say that doctors are now reluctant to remove the tonsils or the adenoids. They cite studies, which showed there was no decrease in the number of colds, sore throats, and other respiratory infections between children who had them removed, and those who did not. Other studies they cited indicated that people who have had tonsillectomies may have a significant increase in strep throat and are nearly three times as likely to develop Hodgkin's disease. They say that the tonsils help the immune system to develop.

Conclusion

What should you remember about vestigial organs? Remember that every organ once considered to be a useless, degenerating leftover from some bygone evolutionary era has important functions in our bodies. It was ignorance that permitted evolutionists to call them vestigial. While the theory of evolution would predict the development of new structures in evolving organisms and possibly the degeneration of no longer needed organs, as our knowledge increases there seems to be little evidence to support these predictions. Indeed, evolution cannot distinguish between developing and degenerating structures, making it a poor theory. A good example of this is the wing claws of the baby hoatzin. On a Discovery show, the moderator wondered if these claws were new developments in the hoatzin or evolutionary leftovers. Although evolutionists commonly regard the wing claws of *Archaeopteryx* to be primitive structures left over from its reptilian ancestry, the evolutionists who produced the material shown on Discovery couldn't decide about their status in the hoatzin. Why did the hoatzin keep these ancient features for 175 million years? Evolutionists had trouble believing that a well-developed bird would retain such an ancient feature, so they thought maybe these claws were a new development in the hoatzin's quest for survival.

Dr. Shermer also used arguments from homology and embryonic recapitulation as evidence for evolution. If nothing else, most people who believe in evolution hold the homology banner high. In a later issue we'll look at homology and discover why it fails as evidence for evolution and actually supports creation.

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