

УДК 811.111:599.89

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The Model of a Perfect Human

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Our body has many disadvantages and scientists tried to solve this problem. Anatomist Alice Roberts, anatomical artist Scott Eaton and special effects designer Sangeet Prabhaker took part in making a model of a perfect body. They replaced weak parts of our body with stronger parts of animals.

LEGS AND SPINE

Our legs rest on their toes it makes them stable but not very suited for running. Our ancestors walked on all fours and our spine had the form of a bow. And in general, they never had illnesses connected with spine that we can have nowadays. Our upright posture has positive and negative sides. This type of moving consume less energy than the previous one, also this posture is better for our breathing and digestive system. But it has a big disadvantage: our spine has a form of a column; it has three bends and that put great amount of pressure on our lower vertebrae [1]. Now let's turn to our knees: we have the most advanced knuckle between two enormous levers (femur, tibia). That's why our knee can move only in 2 directions and hit from the side will be very destructive and painful. Our feet have very complex structure and many unnecessary bones that are held together with the help of great amount of bunches. This structure is due to our primate past: we needed that to hold on different branches, but now they are not useful. Scientists found solution to all these problems: they paid attention to leg prostheses that were made for professional runner Oscar Pistorius who lost his legs. This type of prostheses is made on

the basis of ostrich legs. They rest on finger and their size bigger than our legs size, they have less complex structure (they consist of only 5 bones). In addition, they perfectly suit for running and give ability to rise high speed at running. Ostrich leg has fewer bones and better distributes pressure, that will not cause any illnesses connected with spine [2].

EYES

The second part are our eyes. Here we have the same situation that we had with our legs: the structure is too advanced and it can be simpler and better. Despite the fact that our eye performs its function well enough, it has a number of imperfections. One of often used arguments of creationists is that our eye is so complex and has so many interconnected parts that it could not be produced by evolution. Evolution is a long, continuous process, it simply cannot produce something brand new, it only can slightly change the existing structure. Actually, the human eye is one of the most studied organs in terms of evolutionary progress (Fig. 1).

All vertebrates have the same design flaw in their eyes: photoreceptor cells of the retina are facing backwards [3]. The nerve side faces the light and the light-sensitive side faces inward. The light must travel through a layer of tissue, blood supply and a bulk of photoreceptor cell in order to be detected (Fig 2). This is also a reason why we have a blind spot. All of these nerves must travel to the other side of the retina to the brain and they all go through a hole in the retina. Cephalopods do not have such a problem. Their photoreceptor cells are facing the right way so light gets directly into photoreceptors (Fig 3). And the optic nerves are connected from the back side of the retina so there is no hole in the retina. Cephalopods have overall better eye structure; they can see a wider range of wavelengths including ultraviolet and infrared light. Their eyes are closer to a camera lens: they are focusing light by moving the lens, rather than deforming it like a vertebrate eye does.

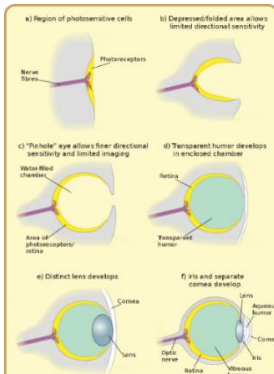


Figure 1 – Eye evolution

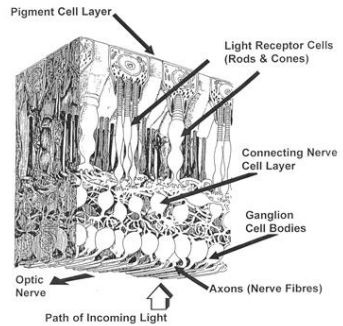
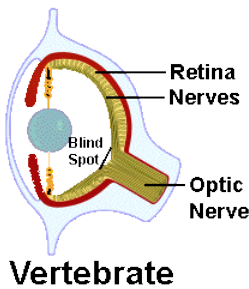
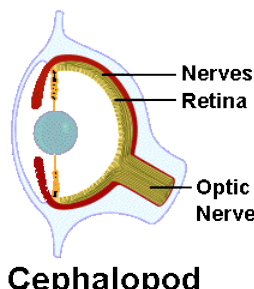


Figure 2 – Vertebrate retina structure



Vertebrate



Cephalopod

Figure 3 – Vertebrate and Cephalopod eye structure

REPRODUCTIVE SYSTEM

During the evolution our pelvis was changing in two ways: at first it has become narrow, when human started using only legs for movement but then it became more widely for better childbearing, but now it's still too narrow. Pregnancy is too long and child birthing is too painful. Scientists took both facts into consideration and found the solution: after a certain period, a part of baby body will be placed out of mother body and continue the growth [4]. They “stole” this idea from

marsupials. People can adapt to anything, so, who knows what our appearance in the future will be.

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