

EVOLUTIONARY LOSS OF VITAMIN C SYNTHESIZING ABILITY IN TERRESTRIAL VERTEBRATES

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Most mammals synthesize their own requirement of vitamin C, but the humans cannot. This is an evolutionary loss. Such causes of evolutionary loss of function have been discussed since Darwin's time. An example of such loss of evolutionary function is the loss of vitamin C synthesizing ability in humans. The biosynthetic capacity apparently emerged in the kidney of amphibians, resided in the kidney of reptiles, became transferred to the liver of mammals and finally disappeared in the guinea pig, the flying mammals, monkeys, apes and humans. The phylogenetic occurrence of loss of vitamin C synthesizing ability is apparently a result of neutral mutation. The mutants did not become extinct because the environment furnished the vitamin. Thus the loss of vitamin C synthesizing ability is probably attributable to unneeded functions. Some scientists think that the loss of human ability to synthesize vitamin C may have caused Homo sapiens rapid evolution into modern man. It appears in general that Darwin's opinion may have been correct, after all.
