

*Discovery is seeing what everybody else has seen, and thinking what nobody else has thought.
- Albert Szent-Gyorgi, discovered vitamin C in 1928*

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Can The Ability To Produce Vitamin C Be Restored To Humans?

By Bill Sardi

Can a genetic plague be corrected to restore the ability of humans to produce vitamin C? Scientists are getting closer to accomplishing this task.

Researchers believe humans once produced their own vitamin C. Most animals still produce vitamin C. Exceptions are fruit bats, guinea pigs and monkeys.

Humans have a malfunctioning (mutant) gene in their liver that no longer produces vitamin C by enzymatically converting blood sugar to ascorbate (the scientific name for vitamin C). Animals that don't produce vitamin C, like guinea pigs, will develop artery disease, cataracts and other health problems if not supplied with sufficient amounts of supplemental vitamin C. Humans are in the same predicament.

In an attempt to correct this genetic flaw, in 1996 researchers inserted the gene that produces the missing enzyme (gulonolactone oxidase) needed to produce vitamin C, into fish eggs. The fish offspring were able to produce vitamin C. [Biochem

Recently, investigators at McMaster University in Hamilton, Ontario, Canada, successfully demonstrated that the gulonolactone oxidase gene can be inserted into human cells using a virus as a vector (carrier). [Genomics 83: 482-92, 2005]

It is surmised that humans would live far longer and suffer less disease if they could produce vitamin C as they once did long ago.

Daily Production of Ascorbate in Animals		
Animal	Milligrams per Kilogram of body weight/per day	Human equivalent per day
Cold-blooded animals		
Snake	10	700
Tortoise	7	490
Warm-blooded animals		
Mouse	275	19,250
Rabbit	226	15,820
Goat	190	13,300
Rat	150	10,500
Dog	40	2800
Cat	40	2800
Humans	0	--