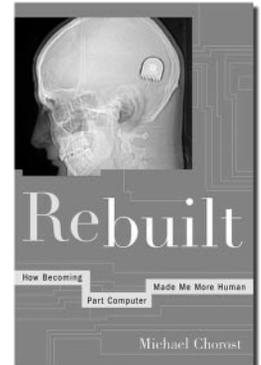


## REBUILT: How Becoming Part Computer Made Me More Human

By Michael Chorost

Reviewed by Paul Bernstein, MD, FACS



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Suddenly, instead of cars making their usual “vrump,” they sound like crumpling paper; words turn into mumbled “mmmm mmbm bmm verumf,” and then nothing. After a battery of MRIs and hearing tests, you find you have irreversible hearing loss. You’re deaf. You’ve heard about cochlear implants, was it that old TV show, *The Six Million Dollar Man*? Wasn’t that what Rush Limbaugh had done? Your hopes soar as you think of a bionic ear that will restore your hearing and bring you back into the “normal” world.

*Rebuilt*, a memoir by Michael Chorost, takes us into his world of no sound. If “Going deaf is a kind of death ...”<sup>1p187</sup> Mr Chorost takes us through his stages of rebirth. From the two-hour outpatient procedure to the programming of the implant, the reader is taken on a fascinating journey. In the author’s words, he becomes a cyborg. He is careful to point out the difference between an android like the Terminator (a robot that looks like a human being) and a cyborg, a human with a bionic part. But unlike an artificial limb, a cochlear implant alters his perception of the world. The simple sounds of a bird, a car, or a horn are now different. Autumn leaves tinkle rather than crunch. Leaf blowers and toilets sound like artillery fire. Sounds are so altered, he needs to relearn the sound and cadence of the world around him.

How does this new computer stimulation trigger his eighth cranial nerve? He describes it like a rock skipping over the surface of water. The 140,000 transistors of his implant cannot completely replicate the 12,500 outer hairs cells and 3500 inner hairs cells of his co-

chlea. The sixteen electrodes implanted through his round window into his cochlea send a digital series of ones and zeroes that Chorost’s brain learns to interpret.

The metal disc attached magnetically behind his ear to his implant is liberating for him, because people don’t know “... *what* the heck it is ...”<sup>1p189</sup> Unlike a hearing aid, people don’t assume the wearer is “... slow ... [has] to be shouted at ... old.”<sup>1p189</sup> *Imagine*. The implant not only gives him the ability to understand the sounds around him, it gives him the freedom to shape how people perceive him.

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In this moving account, the reader experiences what it’s like to live in the author’s world, from the first cell phone he’s able to plug into his implant to the first time he fumbles to remove the wires in the throes of passion. “[T]here’s nothing more isolating than deafness,”<sup>1p188</sup> Mr Chorost states, and his cochlear implant—his built-in computer chip—makes him feel more connected to the world than before. With his internal “World Wide Web”

he learns to construct the environment around him and create a fulfilling new reality.

As we enter a new age of bionics and cyborgs, *Rebuilt* teaches us that although we can now make the deaf hear, in the author’s words, “they cannot make me *listen*.”<sup>1p183</sup> To paraphrase Mr Chorost, it’s only when we listen that we become better human beings. ♦

### Reference

1. Chorost M. *Rebuilt: How becoming part computer made me more human*. New York: Houghton Mifflin; 2005.

**Paul Bernstein, MD, FACS**, is the Regional Chief of Head and Neck Surgery for SCPMG. He is the Medical Director of Quality Assurance for HEARx West, and Chair of the Head and Neck Division of the American Cancer Society. He was also the 2005 San Diego Area Partner of the Year. E-mail: paul.e.bernstein@kp.org.