

Saving Superman: Ethics and Stem Cell Research*

by

Doug Post and **Doug Knutson**
Department of Family Medicine
The Ohio State University



There was hardly a household in America that was not tuned in for news in the days following actor Christopher Reeve's accident at an equestrian competition in Culpepper County, Virginia, in May of 1995. Known for his acting, athleticism, and advocacy work, Reeve was also a passionate rider. The accident happened on the third jump of a two-mile cross-country jumping event. His horse stopped midway over a fence, catapulting Reeve headfirst. The fall caused multiple fractures of his first and second cervical vertebrae, shattering C1 and C2. During surgery, his head had to be literally reattached to his spinal column. The actor who was known to millions worldwide as Superman, "the man of steel," was fighting for his life.

Eight weeks after surgery, Reeve was left ventilator dependent and paralyzed from his shoulders down because of a 20-millimeter gap in his spine that prevented neuron flow and movement. He endured six months of intense physical therapy at Kessler Rehabilitation Institute in New Jersey before moving back home with his wife, Dana, and their three children—Matthew, Alexandra, and Will. Reeve's condition led to several medical complications, including pneumonia, blood clots, wounds that wouldn't heal, and a condition called autonomic dysreflexia.

Over time, Reeve gradually regained sensation in his left leg, parts of his left arm, and down his spine. He learned to breathe on his own for up to 90 minutes at a time and would walk, suspended from a harness on a treadmill. Despite the hardship, he kept an optimistic outlook and was confident that one day he would walk on his own. Reeve was an active advocate for federal funding and regulation of embryonic stem cell research and sincerely believed that this scientific breakthrough held future therapeutic promise for repairing his damaged nervous system. Typically on the road for five days a month working to raise public awareness about spinal cord injury as well as funds to find a cure, Reeve was utterly determined—to the detriment of his health and, ultimately, his life. He died in October 2004 of heart failure, at the age of 52.

The death of "Superman in a wheelchair" may have given a face to the issues surrounding stem cell research, but the controversy has been in the public spotlight for some time, complete with congressional hearings, Senate indecision, increased media coverage, and a vocal president, who used the issue as a focal point of his 2004 campaign.

*This case is based on another case in the National Center for Case Study Teaching in Science collection titled "Saving Superman: A Look into Stem Cell Research" by Lisa M. Rubin.

Image Credit: *Superman Arrives*, United States Postal Service stamp which appeared in 1998 with 14 other 1930s stamps as part of the *Celebrate The Century* series.

Copyright © 2006 by the [National Center for Case Study Teaching in Science](http://www.sciencecases.org).
Originally published 02/16/06 at http://www.sciencecases.org/superman_ethics/superman_ethics.asp
Please see our [usage guidelines](#), which outline our policy concerning permissible reproduction of this work.