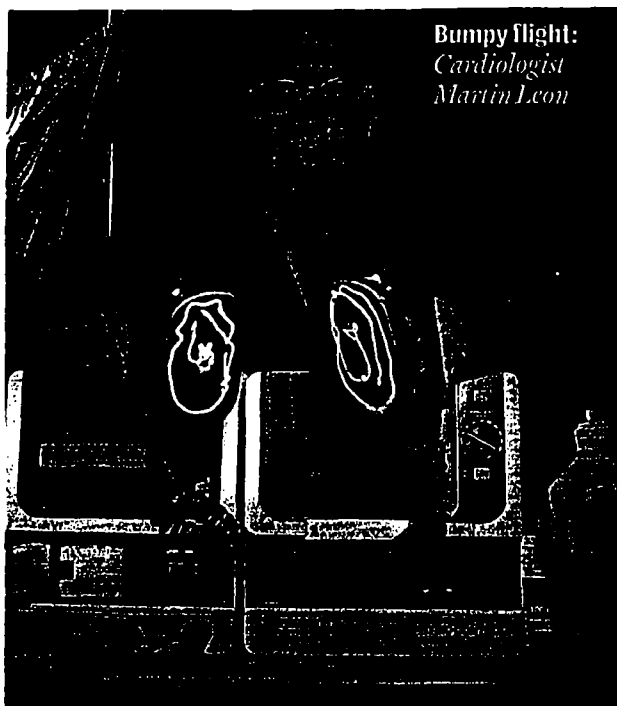


PHOTOCOPY
PRESERVATION



Bumpy flight:
Cardiologist
Martin Leon

HEALTH

Midair Attacks

What airlines do when passengers need help with medical emergencies

BY MARK HOSENBALL

THIS TIME THERE WAS A DOCTOR IN the house—about 20 of them, heart surgeons on their way to a meeting of the American College of Cardiologists in Orange County, Calif. They were at cruising altitude when the call came: a passenger in the back of the plane was having some sort of attack. A group of them rushed to the man's side, where they doubtless could have performed open-heart surgery, if not a transplant.

But when the doctors asked for the plane's medical kit, they were appalled at its contents—allergy drugs, nitroglycerine, some syringes, a stethoscope, a few other items. The available equipment "was worse than what a patient would find in the Third World," said Dr. Martin Leon, a senior cardiologist at New York's Lenox Hill hospital. The surgeons couldn't do much, and the plane, Continental Flight 320, had to land in Denver, where the man was rushed to a hospital.

Leon was so frustrated by the experience that he went public last week, saying he was shocked that the Federal Aviation

Administration doesn't require more extensive medical equipment, and doesn't mandate CPR and other training for crew members. And he urged that defibrillators be on board to determine if a patient's heart is beating and administer shocks when appropriate. Continental says it's in the process of upgrading its medical equipment and training its crew, and points out that the patient on Flight 320, who survived, turned out to be having a seizure, not a heart attack, so a defibrillator wouldn't have done any good.

But both the government and the airlines have begun to focus on the problem of in-flight medical emergencies. The FAA estimates that an average of one person a week dies while aboard a U.S. airliner, and admits that regulations for medical kits aboard U.S. airlines haven't been updated in 14 years. Dr. Jon Jordan, the FAA's chief medical officer, told **NEWSWEEK** that a decision to issue new regulations is still at least two months away. But some airlines are preparing anyway: two years ago American Airlines became the first U.S. carrier to install defibrillators on all 700 of its planes. American has also trained all of its 20,000 flight attendants on how to use the defibrillators, as well as administer CPR and mouth-to-mouth resuscitation. American has saved at least 10 passengers' lives since it first started installing the new equipment in 1997, according to airline spokesman John Hordard. Delta, US Airways and Alaska Airlines have also installed defibrillators aboard their planes. But other airlines are not as far along (chart). And international carriers have an additional problem: a pilot can't very well make an emergency landing when the plane's over the middle of the ocean, so medical equipment and training is all the more important. Especially if you don't happen to be on a plane full of eminent cardiologists.

Arrive Alive?

Some airlines are "in the process" of installing inflight defibrillators; others have a plan "under review."

✈ IN PLACE ✈ INSTALLING
✈ UNDER REVIEW

Alaska	✈
America West	✈
American	✈
Continental	✈
Delta	✈
Midwest Express	✈
Northwest	✈
Southwest	✈
TWA	✈
United	✈
US Airways	✈

Figuring Out the Fruit Fly

A step closer to reading the human genome

BY THOMAS HAYDEN

THE FRUIT FLY *DROSOPHILA MELANOGASTER* just got a whole lot more useful. The tiny mainstay of biomedical research has officially joined the much simpler worm *C. elegans* as the second animal species for which scientists had determined almost all of the chemical letters—165 million of them—that make up its DNA. The sequence, announced in February and published in the journal *Science* last week, is expected to have a profound impact on scientists' understanding of genetics and development. And because some two thirds of genes associated with illness in people are also found in *Drosophila*, the new data should help researchers to further explore the causes of human genetic disease.



Bug's life: Genetic secrets revealed

While reading the fly's full complement of DNA—its genome—is an impressive technical feat in its own right, it also foreshadows the complete reading of the human genome. That task will take at least another year—humans have almost 20 times more DNA than fruit flies—but partial "rough draft" versions of the human sequence may be available before summer.

The fly sequence was completed in record time, thanks to unusual cooperation between government-funded sequencers and a private biotech firm, Celera Genomics. "Biologists got the sequence 18 months earlier than they would have otherwise," says Gerald Rubin, director of the University of California, Berkeley, fly lab that did much of the work. Scientists hoped the fly collaboration would serve as a model for human-genome sequencing efforts, but Celera and the public Human Genome Project haven't been able to agree on data-sharing and publication protocols. Unless they learn to make nice, humans will be playing catch-up with flies for months to come.