A portable x-ray instrument developed by NASA and now being produced commercially as an industrial tool may soon find further utility as a medical system. The instrument is Lixiscope—Low Intensity X-ray Imaging Scope—a self-contained, battery-powered fluoroscope that produces an instant image through use of a small amount of radioactive isotope; it is designed to utilize less than one percent of the radiation required by conventional x-ray devices. Originally developed by Goddard Space Flight Center, Lixiscope is being produced by Lixi, Inc., Downers Grove, Illinois, which has an exclusive NASA license for one version of the device. Lixi, Inc. has received Food and Drug Administration approval to begin testing the device for medical applications, the first step toward its adoption as a clinical instrument.

The unit's portability allows its emergency use in field situations where immediate fluoroscopic examination is indicated, for example, scanning for possible bone injuries to athletes (above). Lixiscope's small size and low radiation dosage makes it attractive in other medical applications, such as emergency room examination of small children to avoid the necessity for taking them to the x-ray department (below). The instrument also has applications in dentistry and orthopedic surgery.

Lixiscope is finding growing acceptance as an industrial tool in the U.S. and abroad; it is used mostly for rapid non-destructive testing—instant detection of product flaws without waiting for development of x-ray film. It is also used in security applications, such as examining parcels in mail rooms and building entries.