

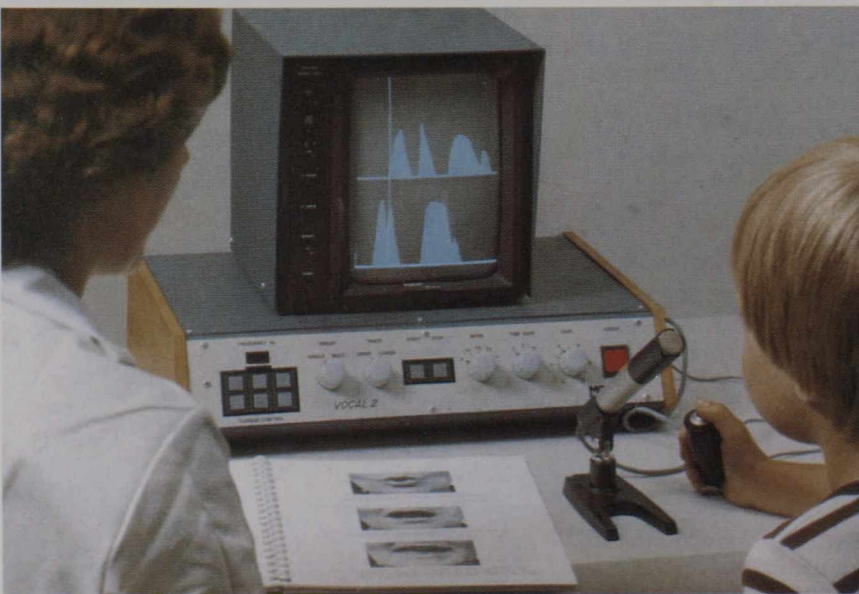
Scanners can eliminate the need for risky surgery.

The firm also produces biomedical devices which monitor heart beat and an 'electronic gym' which measures the electrical activity of various muscle groups during isometric exercise.

Scanners and analyzers play vital role in diagnosis
Nowadays, it is possible to study virtually every organ of the body without anaesthetic or potentially risky surgery — either through X-rays or through diagnostic imaging. Again, Canada is at the forefront of scanning technology.

Picker International Canada Inc is a major international designer of standard X-ray machines and computerised axial tomograph (CAT) scanners.

Below: Visible-speech training system helps both hearing and voice problems.
Below right: Cataract surgery can now be performed in minutes without anaesthetic.



Their *Angicon* system, for instance, enables doctors to pinpoint the precise point where blood flow is interrupted or where blockages occur by the use of instant filming.

Blood analysis used to be a lengthy business, but thanks to automated blood chemistry analyzers, the process has been speeded up considerably. Équie-ment Moniteur Inc of St Eustache, Quebec, produces the latest in automated blood chemistry analyzers which work round the clock seven days a week, thus avoiding the need for separate analyzers. The instrument operates at a fixed rate of 80 patients an hour regardless of the number of chemistry tests required.

Modern technology leads to innovations in eye surgery

Lasers were once a futuristic dream, but nowadays they have a variety of applications, not least of which is in eye surgery. Cataracts, for instance, can now be removed by lasers, and Lumonics Inc, based near Ottawa, has developed state-of-the-art system.

This can produce cuts of one tenth of a millimetre by passing a laser through the artificial lens of the eye without damaging it. As a consequence of this development patients for secondary cataract removal can go home straight away after the operation and do not even need an anaesthetic. Lumonics, incidentally, is the third largest manufacturer of commercial lasers in the world.

Another Canadian firm which is very much involved in eye care is Radionics Medical Inc of Scarborough, Ontario. Its speciality is ultrasonic testing devices which transmit low power pulsed ultrasound into the eye through direct contact on the cornea.

The echoes produced are received by a transducer and then interpreted on a microprocessor. The firm also manufactures a non-invasive ultrasonic device for the diagnosis and treatment of paranasal sinusitis.

Canadian devices facilitate brain surgery

Non-invasive ultrasound devices are also being developed by Bach-Simpson Ltd of London, Ontario, which manufactures a micro doppler probe.

