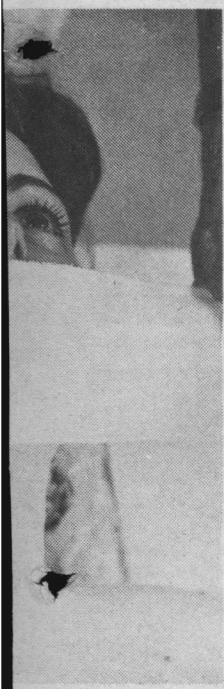
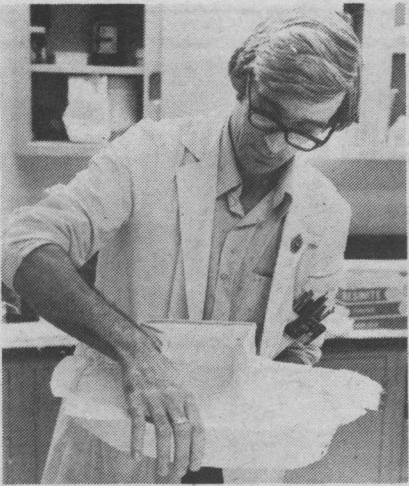


THE CAST



smoothed into place
it is essential so the
body's contours as
person feel like an
ends an understand-
and John Travolta's
of plastic strips is
off the patient.



Isitt later takes the plaster impression of the patient and manufactures a plastic cast — in much the same fashion that bubble packages are made industrially.

Here's how it's done.
First, Isitt mixes a batch of Plaster of Paris from one of the three or four 50-pound packages he uses in a week.

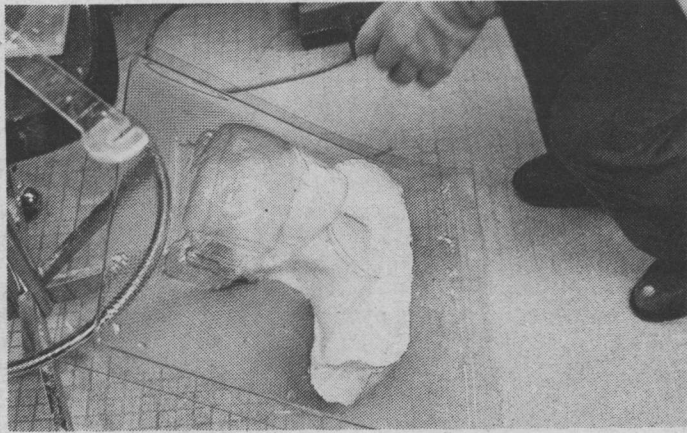
He pours the liquid plaster into the impression — like cake into the pan — and allows it to harden (see photo at left). After the plaster strips are torn off the outside, a solid plaster mould remains.

Then Isitt places the mould and a sheet of plastic 1/10 of an inch thick in a vacuum-forming machine.

The plastic softens, forms a bubble and is lowered over the plaster mould. The vacuum sucks the plaster tightly against the cast. The result: an exact plastic replica of the original plaster impression (below left).

When the plastic has cooled, Isitt will trim the cast, leaving a flap on either side so it can be attached to a special mounting device on the treatment tables.

Below, the cast is checked for fit.



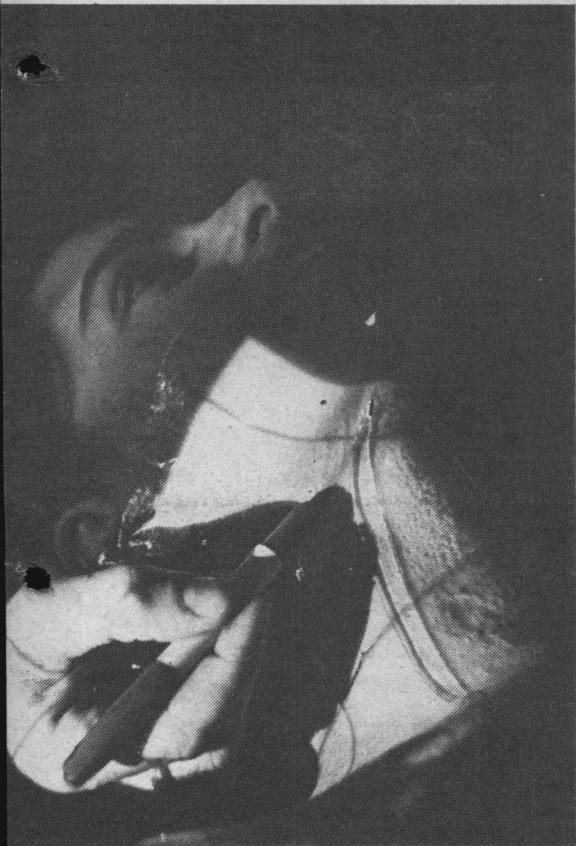
SIMULATION

The computer calculates the results of any given treatment, taking each patient's idiosyncracies into account, so the best possible treatment can be chosen for each patient. Before its acquisition, all calculations were done by hand, a sometimes mammoth task, considering the number of variables — number and duration of treatments, the amount of radiation and the size of the tumor, for example.

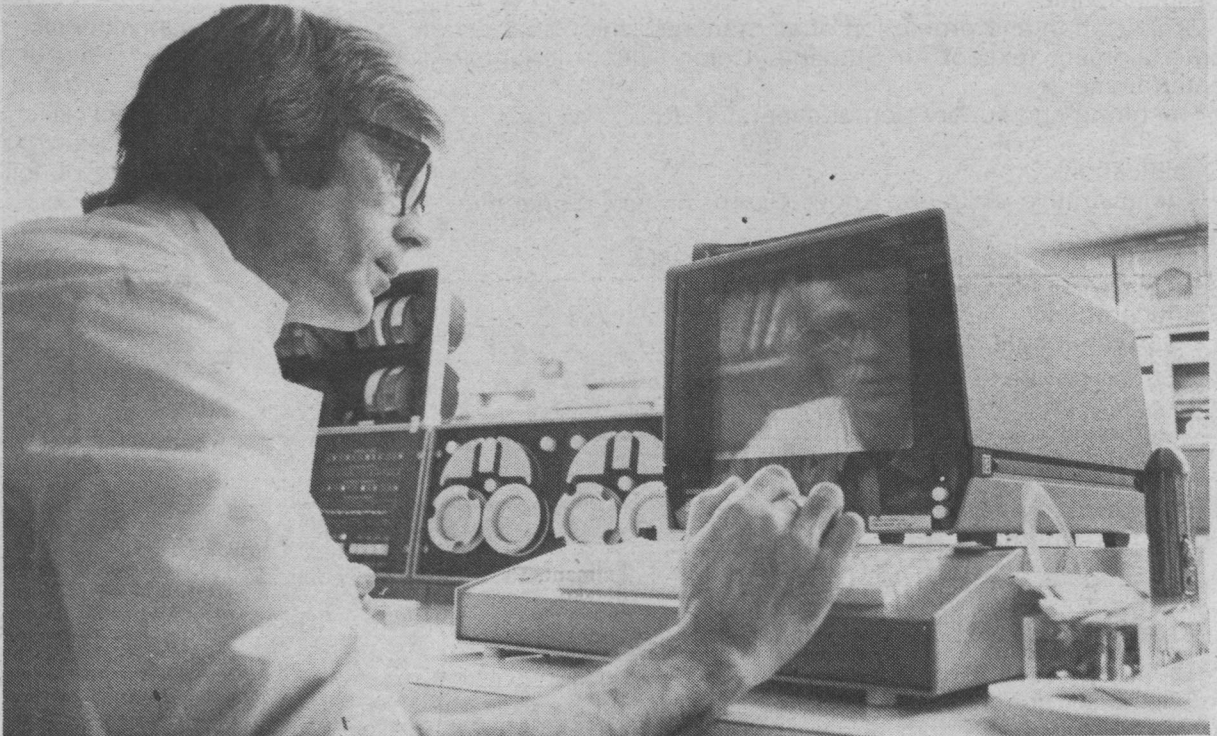
The inset below shows the computer screen with isodose lines (joining points of equal radiation) for the radiotherapy of a larynx tumor.

After a doctor has approved the treatment plan, the cast will go back to the cast room where final adjustments may be made.

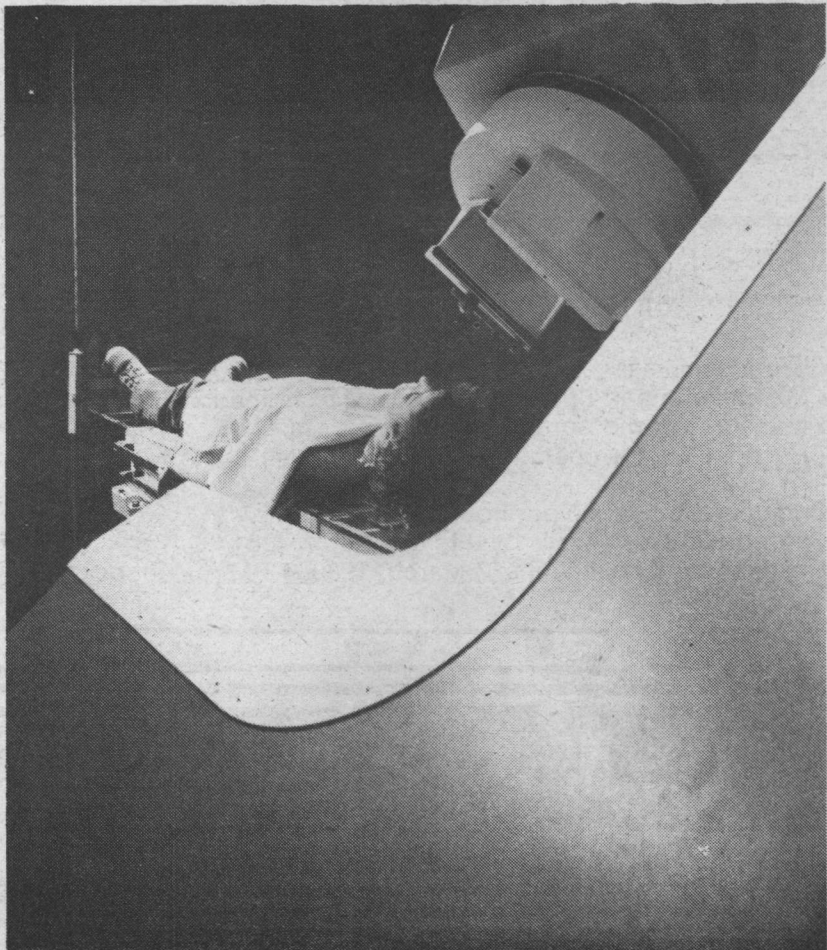
Holes can be cut in the cast where the radiation beam enters the body or lead shields, to protect vital organs from unwanted radiation, may be prepared for use under the accelerator.



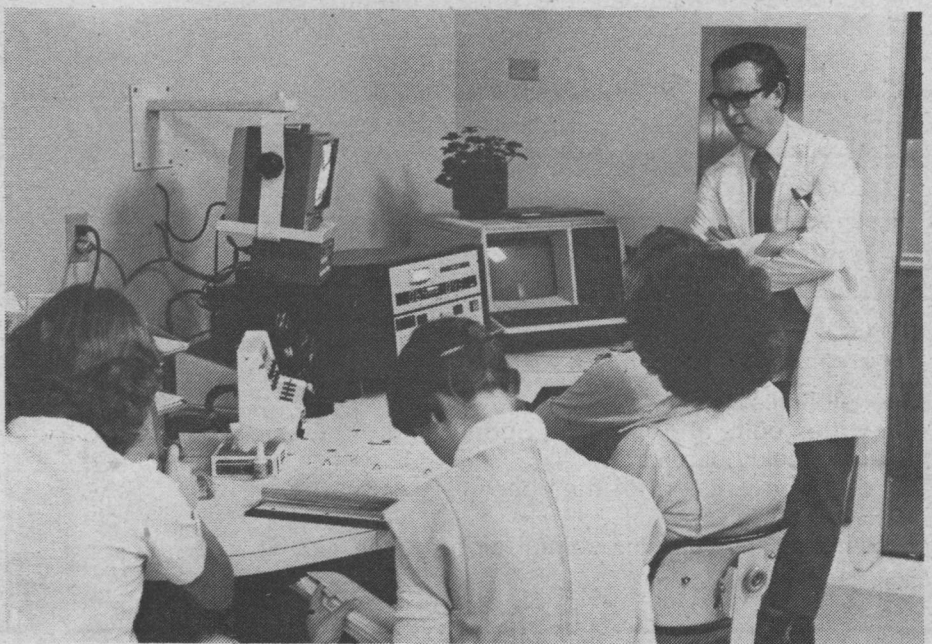
's x-rays and scans are then sent to the treatment planning
ere an exact treatment schedule is devised. At right,
demonstrates the use of the planning computer, a great
anning technicians.



RADIOTHERAPY



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Only time will tell how successful treatment has been.
According to Dr. Pearson, it takes at least a month to get an idea of how well a treatment is working. However, it can take as long as six months for a tumor to shrink.
A patient is not considered "cured" until a substantial period of time has elapsed.
"There's a terrible psychological burden of uncertainty," says Dr. Pearson.
"Sometimes two years without a recurrence is enough to say a patient is cured," he says, "for others it may take as long as five years."
"It's terribly disappointing for a patient if a cancer comes back after a few years."