

### Migraine's mysteries under scrutiny

One of the problems for headache sufferers is that the painful condition does not evoke much sympathy from friends, family and, especially, employers.

"Numerous surveys show that migraine, although it has no risk of mortality, is one of the major medical causes for time loss in the work field," says Dr. Henry Dinsdale, chairman of the Neurology Division of the Faculty of Medicine at Queen's University, Kingston, Ontario.

Dr. Dinsdale, a member of the medical advisory committee of the newly-formed Migraine Foundation, suffers from migraine himself.

The Migraine Foundation was established last July to educate the public, raise funds for research and to assist in providing service, possibly in the form of clinics where migraines can be treated and studied. The head office is in Toronto.

"Migraine is not diagnosed as often as it should be," Dr. Dinsdale continues, "and many doctors are not well instructed about it."

Migraine can be mistaken for tension headaches, caused by muscle contraction in the scalp and neck. Occasionally *migraineurs* can be helped by identifying a trigger substance such as alcohol, Dr. Dinsdale says. Doctors must not overlook the possibility of pressure caused by a tumor or blood clot, although this is rare as a cause of headache, he adds.

Because society and the medical profession are generally uninformed and therefore in large measure unsympathetic toward migraine, the condition has not attracted many investigators, according to Dr. Dinsdale. It is hoped that the Foundation may be helpful in changing this.

#### Heredity factor

Migraine, which affects more than 20 per cent of Canadians, is often inherited by members of the same family. Attacks occur in any age group, although they are commonly first experienced in late adolescence, and continue through middle age, tapering off as the person gets older.

Classical migraine begins with a change of vision or sensory perception, lasting five to 30 minutes before the

onset of the headache. The headache itself can last from a few hours to days. Common migraine, unaccompanied by any warning, usually involves just one side of the head.

Dr. Dinsdale says that much is still to be learned about causes of migraine. "There are many reasonable suggestions centering around changes in the blood vessels to the scalp and brain.

### Reservoir made of rubber

The town of Gatineau, Quebec is the site of the first synthetic-rubber reservoir in Canada for the storage of drinking water. The reservoir, which was constructed in a very short time, is 270 feet (82 m) long by 215 feet (65 m) wide and can hold 740,000 cubic feet of water (21,100 m<sup>3</sup>). It has a floating rubber cover 1/16 of an inch (16 mm) thick.

The municipality of Gatineau hired the firm of Bessette, Crevier, Tanguay and Associates to carry out a study of its water needs. Their solution was a reservoir with compacted sand slopes covered with a layer of rubber. The reservoir is half above and half below ground; the excavation is 10 feet (3 m) deep and the sloping walls extend for another 10 feet above ground level.

Because the ground is quite weak at this location, construction of a tradi-

tional reinforced concrete tower would have been too costly. The rubber-walled reservoir is much more practical, since for the same amount it was possible to build a structure with a capacity five times as great as that of a concrete tower. The water in this reservoir costs only 6 cents a gallon (slightly more than 1 cent a litre), whereas with other reservoirs the cost would have risen, it is estimated, to 18, 20 or even 25 cents. Furthermore, a concrete tower would have taken much longer to erect. The synthetic-rubber reservoir was officially inaugurated about six months after work was begun.

#### Floating roof

The unusual design, the speed of construction and the relatively low cost are not the only noteworthy features of this reservoir. The floating roof is one of its main innovations, although it costs only about a fifth as much as a conventional roof. The sheet forming the cover is equipped with polyethylene foam floats that serve as walkways for the roof-washers. As the water rises in the reservoir, the roof also rises, folding along the sloped perimeter.

The temperature of the water remains fairly stable, since the sun raises it only 2 degrees Fahrenheit (slightly more than 1° C) at a depth of 2 feet (61 cm) below the cover.

