



Dr. Walter Bobechko and his son Kevin, with the super stability system they designed.

leagues have found two extraordinary solutions to scoliosis, a curvature of the spine that afflicts many teenage girls. The traditional treatments have involved the wearing of neck braces for years and, in some cases, body casts for months.

If the disease, which is genetic, is detected in its early stages, before any curvature has taken place, Dr. Bobechko and his team implant a pacemaker next to the spine. The pacemaker is a radio receiver, and a transmitter by the child's bed sends out radio signals at night while the child is sleeping. The signals trigger electrical impulses which stimulate the spinal muscles and prevent curvature. The child does not feel the treatment in any way, and, in Dr. Bobechko's enthusiastic phrase, it's "good-bye to neck braces" once the pacemaker is in place. The implanting has been taking place in Toronto for ten years, and other hospitals around the continent have mastered the technique.

The second process involves children who have a degree of curvature already. The condition can be corrected by surgery, using a technique known as the Harrington operation, but post-operative treatment requires that the patient wear a body cast for six to twelve months.

Dr. Bobechko and his son Kevin, an engineering student, recently designed three-dimensional "super-stability" spinal clamps. These are attached internally to the spine, and the patient can walk unaided shortly after the operation and needs no body cast.

The Kids Who Drowned But Didn't Die

Since 1970, 140 children who had drowned or almost drowned have been brought to the Hospital for Sick Children.

Thirty-four of them appeared to be dead.

By the experience of centuries, most of the larger and all of the smaller group should have died. Most of the larger group recovered completely, and so did 30 per cent of those who showed no signs of life at all.

Dr. Alan Conn, who directed the hospital's intensive care unit for ten of those years, attributes the extraordinary success to a precise series of co-ordinated processes designed to get the heart going and to prevent the brain from swelling.

First, the apparently drowned child is given mouth-to-mouth resuscitation at the scene and rushed as soon as possible to a hospital.

Once there, five steps are followed if he is in a coma:

- 1) His intake of fluid is greatly restricted.
- 2) He is hyperventilated—given a greater level of oxygen than a person normally requires.
- 3) His body is cooled to thirty degrees centigrade, seven degrees below normal.
- 4) He is given large doses of phenobarbital and heavily sedated even though he is already in a coma.
- 5) He is kept totally paralyzed, so he cannot twist, turn or cough.

The theory behind the treatment is that when