

## Electrical implant corrects curvature of the spine



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*Eddie Chin uses a portable hand programmer to change the voltage in a pulse generator implanted in his 13-year-old daughter Juliana's back to correct a curvature in her spine.*

Juliana Chin, a 13-year-old Toronto girl, is believed to be the first person in the world to have an electrical device implanted in her back to correct the curvature of her spine.

The surgery was performed recently by Dr. Walter Bobechko, the inventor of the technique and chief of orthopedic surgery at the Hospital for Sick Children in Toronto. He called the technique a big step forward in treating scoliosis, a condition in which the spine curves sideways, deforming the patient.

Ten years ago, Dr. Bobechko devised the first electrical-magnetic device to treat the condition, but it could not be implanted. It was attached to the skin with a wire running from the device to a battery and transmitter.

### Silver dollar size

The new implant, about the size of a silver dollar, has no external wires or parts to entangle the patient and interfere with sleep. It gradually straightens the spine through electrical-magnetic force.

Juliana Chin was discovered to have a curved spine about two years ago. The family doctor sent her to Dr. Bobechko and she spent a week in hospital to have

the implant. The device can be turned on and off by use of a magnet and can be programmed from outside as a stronger voltage is needed. Juliana feels a tingling when it's turned on at bedtime each night.

Dr. Bobechko, who got the idea of straightening spines with electricity in 1969, says electronics was a boyhood hobby. In 1971, an American heart pacemaker company, Medtronic, offered financial support and put \$1.2 million into his idea during the next three years. The original device is now used in most countries of the world.

Dr. Bobechko spends three or four months a year teaching doctors in other countries his procedure. He has operated on patients in 20 countries without charge, because, he says, he believes that affluent countries such as Canada have a responsibility to share medical advances internationally.

Dr. Bobechko also devised a new brace for children with a hip condition called Legg-Perthes disease that allows them to run and play. Previously they had to be in full leg casts. The brace, known worldwide as the Toronto brace, was featured on a postage stamp in Australia in 1972.

## Air agreement with USSR

Canada and the Soviet Union signed a letter of understanding recently that could rebuild much of the lost Aeroflot air traffic to the Gander, Newfoundland international airport.

The agreement, signed by Transport Minister Lloyd Axworthy and Soviet Ambassador Alexey Rodionov, was drawn up months ago but was put on hold by the Canadian government after the Soviet downing of a Korean Air Lines jumbo jet last September 1 that claimed 269 lives, including eight Canadians.

It calls for construction of a tanker discharge facility at Lewisport, near Gander, two jet fuel storage tanks there, and another tank at the airport itself.

The agreement also regularizes a practice of Aeroflot flying fishing crews from Montreal to Gander to rejoin ships in dry dock at St. John's.

Previously, the Soviets were only allowed "technical" stops under Canadian air route regulations, but those stops were most often used to bring in Soviet crews for drydocked ships.

## Canadian medals at freestyle meet

Alain Laroche of Beaupré, Quebec won the 1984 men's World Cup freestyle skiing title and Canadians received four individual medals at the final event of the season held in Tignes, France.

Mr. Laroche, 20, became the youngest freestyle champion with a four-event, season-long points total of 74.87.

American Bruce Bolksi was second with 67 points while last year's champion Peter Judge of Canmore, Alberta was fourth with 58.27. Freestyle skiers are judged on their season's performance in aerials, ballet, moguls and combined.

In the women's competition, Meredith Gardner of Toronto was third over-all behind champion Conny Kissling of Switzerland. Canada swept the top three spots in the aerials competition.

Mr. Laroche's older brother, Yves, placed first with 124 points; Paul Poulin of Quebec was second with 122 points; and Lloyd Langois of Magog, Quebec was third with 116 points. Alain Laroche also had 116 points but fewer high placings so he was ranked fourth in the event.

It was one of Canada's best showings in the seven-year history of the freestyle World Cup, contested from January to March in Europe and North America.