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## Computer helps muscular dystrophy patients

A new computer system developed by a Toronto technician is being used to design new spinal support seats that are adding years to the life spans of children with muscular dystrophy.

A computer service, operated from Toronto's Hospital for Sick Children, converts spinal X-ray films into digital data and besides giving an accurate measurement of spinal curvatures, gives engineers the information they need to build individual, properly sloping support seats for wheelchairs to help ease spinal deformities. The service is being extended to 17 new muscular dystrophy clinics opening across the country in September.

The computer system, is unique in the world, according to executives of the Muscular Dystrophy Association of Canada, and is steadily drawing U.S. associations from across the border to study it.

The computer service has been in use at the Hospital for Sick Children since last spring, in the treatment of children with Duchene muscular dystrophy. Duchene is the most common type of muscular dystrophy and affects boys only. Boys with Duchene rarely live past their teens. Muscular dystrophy is hereditary, and there is no known cure.

According to David Fischer, executive director of the Muscular Dystrophy Association of Canada, the computer system is still being refined, but he hopes there will soon be computer terminals in the new clinics so that X-ray information can be transmitted back to the main Toronto computer for analysis.

Margaret Archibald, national director of patient services and research, said that until now, children had been flown in to Toronto from all over Canada for help.

The association, which runs on public donations and pays for all equipment which victims of muscular dystrophy need, had until now, three clinics in the country — two in Montreal, and at the Hospital for Sick Children.

About 5,000 victims of muscular dystrophy are registered with the association. "But because of the new clinics, we're getting more names every day," Mrs. Archibald said.

The "open spinal support" seats, developed in experiments over the last few years, can add up to five years of life for a child, she said.

The support seats, made out of foam and designed in conjunction with the computer system, allow children previously confined to their beds for most of their day to sit for up to 12 hours.

The desk top computer and digitalizer system was developed by Jan Koreska, a bio-medical engineer at the Hospital for Sick Children. Mr. Koreska and Dr. Donald Gibson, a Toronto orthopedic surgeon, also developed the spinal support seat used in electric wheelchairs.

Mr. Koreska said standard wheelchairs do not support the spine, "and if anything, tend to encourage the deformity".

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## Dieters have fun, get fit, with losing game

Dieting may be a pain to some, but Ron and Susan Craig of Manitoba have found it can be fun and possibly profitable.

The Craigs invented *Kalory* a year ago. It's "a game for all fun loving, weight-conscious people," says a description on the box.

"It started as a conversation, just from our own personal weight problems," explained Mr. Craig, a 38-year-old schoolteacher at South Indian Lake, Manitoba. "We plugged in just from our personal experiences, and I put it down on paper."

Mrs. Craig is also a schoolteacher in the remote community, more than 750 kilometres north of Winnipeg, and the couple plans to stay there, even if the venture becomes highly lucrative.

### How it's played

The game is played on a board with dice, Kalory chips, and three types of penalty and bonus card — Slim Hope, Fat Chance and the Get Fit Pit.

A Kalory is defined in the rules as "the amount of effort it seems to take any one person to lose one pound".

### Get fit pit

Players start with the same number of Kalories, represented by different coloured discs, and try to lose weight while forcing their opponents to put on pounds.

Part of the fun comes from drawing a card from the Get Fit Pit and doing compulsory light exercises to lose chips.

Players choose the lightweight, middle-weight, or heavyweight game depending on whether they wish to lose 2,000, 3,500 or 5,000 Kalories.

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## New method teaches pre-schoolers to read

About 160 pre-schoolers in Oakville, 20 kilometres southwest of Toronto, have begun a program that uses a computer to teach them the skills needed to learn to read.

The program, under way at Oakville public library, is believed to be the first in North America to involve pre-schoolers with computers.

Since the computer arrived in the library's children's department, it's been the centre of attention, says Stan Squires, co-ordinator of children's services.

He said that as soon as the children see it "they're all over it" and have been playing with it non-stop.

Their parents are just as keen. Those who have computer skills have offered to help with the program. Others just enjoy the chance to play with the machine, which can do everything from planning personal budgets to playing bridge.

The one-year computer program is teaching children the recognition of shapes, numbers and letters, then progresses to simple three-letter words like "cat" and "dog" and eventually will work-up to common words like "stew" and "soap".

It also includes a memory-builder based on a concentration game. Any child who knows the alphabet can use it.

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## Laser surgery restores voice

Eight-year-old Joanne Machata of Calgary can shout and scream for the first time. Her voice box is sound again.

Since she was a year-and-a-half old Joanne, could only whisper. But the miracle of laser surgery permanently removed the voice-crippling growths from her larynx and windpipe.

Now, Joanne, who loves cowboys and riding ponies, can shout a raspy but loud "yahoo!" at rodeos, as she did this summer at the Calgary Stampede.

Last April, Dr. Allen Abramson of the Long Island Jewish medical centre in New York used a powerful carbon dioxide laser to evaporate numerous non-cancerous growths known as papillomas.

Recently, when Joanne and her mother, Betty Machata, 29, returned to the medical centre they were told that Joanne was cured.