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Rebuilding shattered minds

By ANNE MULLENS

IMAGINE the brain as a huge telephone switchboard, connecting and processing a person's movement, behavior and intellect like phone calls from around the world.

Then through an accident — head-on collison, fall from a height, a violent blow to the head — the lines of communication are severed, rearranged or destroyed completely. Numbers don't ring, or if they ring they are wrong numbers.

Some muscles won't move, other muscles are overactive, words are jumbled or make no sense, memory is lost, logic and reasoning flounder, emotions are confused or uncontrolled.

After a brain injury it takes a special repair team to reconnect, slowly, the lines of communication.

At Vancouver's G.F. Strong Rehabilitation Centre, a team of specialists including neurologists, psychologists, physiotherapists, speech and occupational therapists, nurses, social workers and sexual rehabilitation therapists work to bring brain-injured patients, who before their accidents were intelligent and talented men and women, back into the world.

In 1982, 100 severely brain-injured people went through G.F. Strong's program. Most were men between the ages of 18 and 35, victims of car and motorcycle accidents. Others were there because of falls, sports injuries, industrial accidents and disease.

In physiotherapy, Tamara Lloyd, 23, is learning how to use her right arm again. Lloyd cracked her head against the steering wheel in a head-on car collision in July, 1982. Emerging from a coma three months later, her world was a nonsensical blur — like that of a newborn baby.

Lloyd, a determined and courageous woman, has come far in the past 14 months. At first it was thought she wouldn't live; then that she'd be "a vegetable." Doctors wondered if she'd walk again.

Although she still relies on a wheelchair, Lloyd took her first steps in early September on the guiding arm of her relationship is to them. They will have a difficult time understanding concepts such as time and space.

In reality orientation, patients are repeatedly questioned and told who they are, where they are, why they are there, what day it is, what time it is and so on. Every morning the same nurse goes into the room and follows a strict sequence of events.

She changes the calender, commenting on the date and the day of the week. Then she and the patient talk about the weather and what the patient had to eat.

"They may remember the color of the bicycle they had when they were 6 but they have no idea what they had to eat two minutes ago," said nurse Susan Palmiere, who works on the ward.

"Structure and repetition are essential to bring order into their disorganized world."

Patients need many hours of physiotherapy to restore motor control.

Tamara Lloyd's brain no longer remembers how to signal the muscles of her arm and hand to perform the natural reflex of grasping a glass. The seemingly simple and automatic task becomes an intricate and exhausting lesson.

DiCasmirro gets Lloyd to think hard about the movement, visualizing what the hand and wrist are supposed to do, concentrating on relaxing the other muscles of the arm. Lloyd's arm has a tendency to go into hard contractions when she exerts any effort. "It does its own thing," she said.

Lloyd, who now lives at home but has daily therapy from 9 a.m. to 5 p.m., holds the glass, trying to get the right tension in the fingers so she doesn't crush it or let it fall through her fingers. She will practise holding the glass and bringing it up to her mouth to sip over and over again until the movement becomes automatic.

Like most brain-injured people, Lloyd has problems with concentration. She will sometimes lose her train of thought in mid-sentence and she will have difficulty forming and articulating words — all things that frustrate her. "My speech is smoother now, but not as smooth as I would like it," she said.

TAMARA LLOYD relearns how to hold a glass: 'I feel so tall when I stand'

IAN LINDSAY

pear, when grouped together, are classified as fruit. But an apple, hot dog and a drink are classified as food.

The intellectual difficulties are the most significant aspect of brain injuries, said MacDonald. Many patients have non-observable difficulties — inability to use logic or reasoning, inability to organize or do things in sequence, a lack of motivation.

"They will sit in a chair knowing they should do the dishes but they won't be able to motivate themselves to get out of the chair to do it," said MacDonald.

coordination — but not be able to handle or understand the person's depression and aggressiveness.

"It is so hard on families, particularly husbands and wives," said social worker Norma Josephs, who leads group sessions with MacDonald.

"All of a sudden you may be married to a different person, sometimes a difficult person at that. They may feel guilty, angry, frustrated — they need a lot of support and to talk their feelings out."