

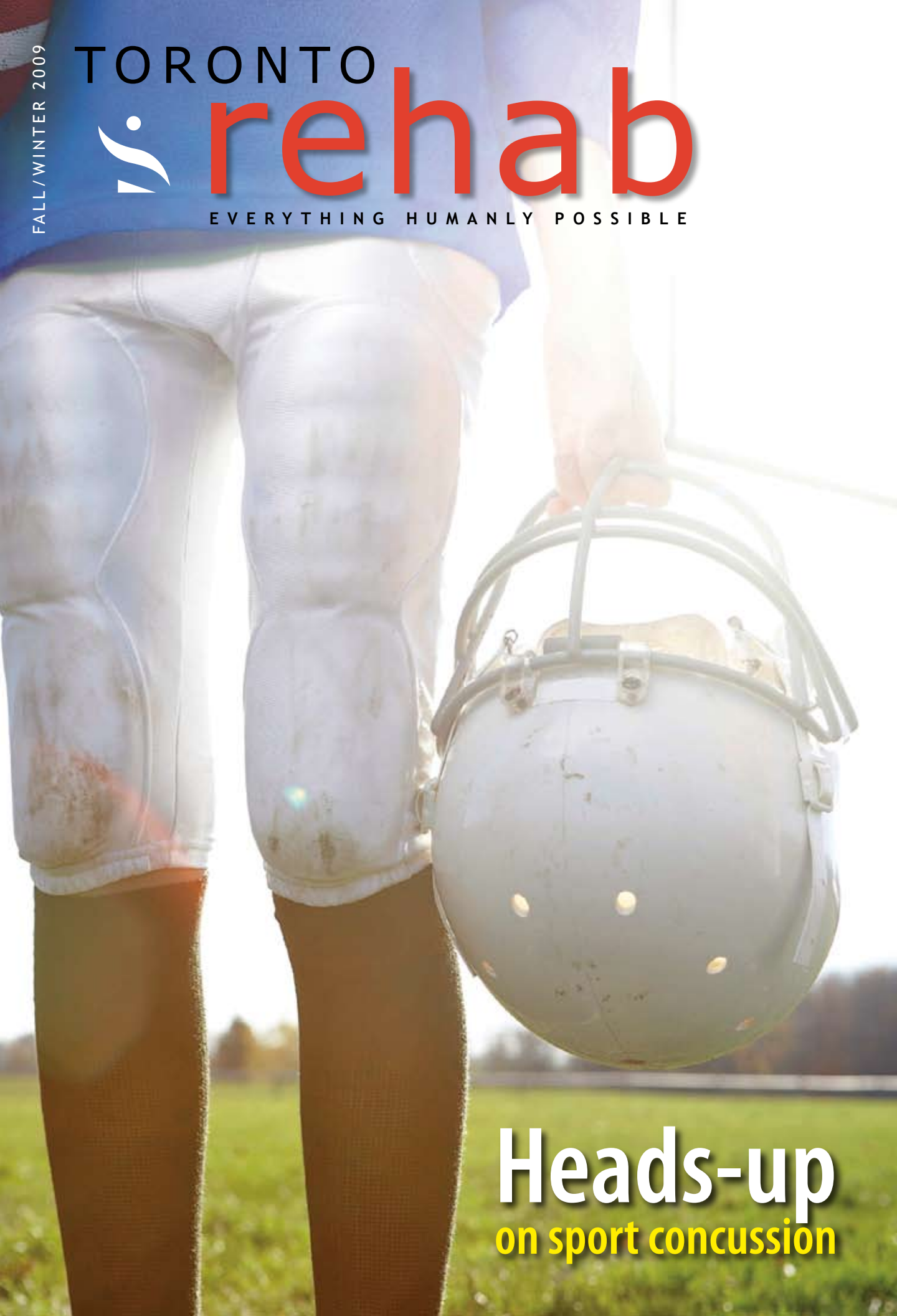
FALL/WINTER 2009

TORONTO



rehab

EVERYTHING HUMANLY POSSIBLE



Heads-up
on sport concussion

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The Toronto Rehabilitation Institute is at the forefront of one of the most important and emerging frontiers in health care today—rehabilitation science. As the University of Toronto's fully affiliated teaching and research hospital in adult rehabilitation, complex continuing care and long-term care, our goal is to advance rehabilitation and enhance quality of life for the 4.4 million Canadians who experience disabling injury and illness.

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H1N1 vaccine

By Dr. Michael Gardam



An explosion of information and misinformation about the H1N1 influenza and vaccine has resulted in an epidemic of confusion among many Canadians. This fall, I've been interviewed daily by the media in an attempt to provide clarity and up-to-date information so that people can make informed decisions.

If I can get one message out to the public, it is this: The

H1N1 vaccine has been approved by Health Canada and is being distributed across the country for the largest immunization campaign in Canadian history. To protect yourself from getting the flu and potentially spreading it to others, you and your family should strongly consider being vaccinated.

When you are vaccinated, your body will start to produce antibodies to fight this new strain of flu virus. Canadians are fortunate: over the course of the fall, we will have more than enough H1N1 vaccine for everybody who wants it to get the flu shot.

The H1N1 flu virus is distinct from the seasonal flu and requires its own vaccine. People over age 65 are most at risk of getting very ill from the seasonal flu. We learned, however, from the first wave of H1N1 influenza that this type of flu is quite different; this strain of influenza is clearly affecting a younger population than seasonal flu. Serious illness has been found to occur in young children and adults, pregnant women, First Nations communities and people with underlying medical conditions, such as respiratory and heart disease.


While the vast majority of people who get H1N1 flu will not get sick enough to require hospitalization, we should take this pandemic seriously and protect ourselves and our families by getting vaccinated, especially if one has underlying

Get it to protect you and your family

medical conditions. Even though serious complications are rare, there will be more people hospitalized from this strain of flu and there will be more deaths before this pandemic is over.


The H1N1 flu shot is different from other flu shots we have used before in Canada in that this vaccine contains an “adjuvant,” which in this case, is a mixture of fats that enhances one’s immune response to the vaccine. This vaccine, or components of it, has already been used in millions of people around the world, and the risk of medical complications from the vaccination is far less than the risk posed by the H1N1 flu itself. The vaccine has been tested appropriately in clinical trials, and has been approved for use in both the European Union and Canada.


Here are some tips to help protect you and your family from flu viruses:

 It is strongly recommended that everyone six months and older be vaccinated. Babies under the age of six months will not be vaccinated because they cannot develop an immune response. To help protect

To protect yourself from getting the flu and potentially spreading it to others, you and your family should strongly consider being vaccinated.

babies from the H1N1 flu, parents and siblings should be vaccinated.

 To protect against flu, wash your hands thoroughly and often. Keep alcohol-based sanitizer handy. Cough or sneeze into a tissue or sleeve. Keep surfaces and items disinfected.

 In general, if you are sick with flu symptoms, STAY HOME. If symptoms are severe, if you have an underlying medical condition such as heart or respiratory disease, or if you are pregnant, contact a health practitioner as he/she may recommend antiviral medications. For antiviral medications to work well, they need to be started within 48 hours of the onset of symptoms, so don’t delay.



Much of the confusion around this year’s flu season is understandable because, at the best of times, flu is confusing and, by its nature, frequently unpredictable. When any outbreak of a new influenza strain starts, there is always a lot of uncertainty which, over time, gets smaller and smaller as we learn more about the extent and severity of the outbreak and the characteristics of the virus. Simply put, we won’t be in a position of certainty to know exactly how serious this virus is, how many people will be infected, and how many people will ultimately become seriously ill or die, until after the pandemic is over.

Unfortunately, with a new strain of flu we don’t have the benefit of hindsight when we need it most—so we must proceed with the best information available to us. I encourage everyone to take the time to protect yourself and your family against the H1N1 influenza this season by taking the precautions described above and by getting vaccinated.

For more information, visit www.ontario.ca/flu and www.fightflu.ca. Dr. Michael Gardam is Director, Infectious Diseases Prevention and Control, for the Ontario Agency for Health Protection and Promotion.

Complex Injury

Outpatient Rehab

Every day, 32-year-old Rolando Cruz feels one step closer to reclaiming his life. He credits his ongoing recovery from numerous upper body and head injuries following a motorcycle crash in September 2008 to the acute care hospital that saved him, the Toronto Rehab trauma service that put him back on his feet and the hospital's Complex Injury Outpatient Rehab service that is "helping me to get my life back." His confidence in his recovery comes from having clear goals, a plan of action, and a coordinated and knowledgeable team to keep him on track.

Despite multiple and complex injuries to the muscles, bones and nerves in his chest, spine, neck and right arm, Rolando is steadily gaining independence and hopes to resume plans with his wife Jean to start a family, and get back to work as a network administrator/system architect with a financial institution. But for now, he says "my full-time job is to get better. Rehab is a big part of my life right now."

Rolando was one of the first patients to join the Complex Injury Outpatient Rehab service, which was launched in the fall of 2008 to provide comprehensive, coordinated

and cost-effective rehabilitation for people with complex acquired brain and musculoskeletal injuries and stroke. Located at Toronto Rehab's University Centre and

explains Director Joanne Zee.

"We focus on improved patient outcomes and work closely with patients, families, caregivers, insurers, and community health care

"It's helping me to get my life back."

Hillcrest Centre and affiliated with the University of Toronto, the service offers "integrated, evidence-based rehab that supports a faster return to home life, work or school,"

providers to help individuals return to active living in their communities as soon as possible."

The service features an interprofessional team of regulated and other health care professionals with expertise in neuro and musculoskeletal rehabilitation. "Patients have access to the best expertise available for complex trauma in an interprofessional model," says Joanne. The team



Rolando Cruz does his exercises with guidance from Manesha Khazanchi, rehab therapist.



Rolando practices his golf putt as wife Jean watches.

coordination of services becomes our concern and not the patient and family's."

Outpatient treatment plans are both intensive and tailored to the client's needs to promote optimal outcomes. For example, in some situations a patient's treatment may be intensive, initially with a combination of home-based and clinic visits, then three to five days of clinic-based services each week, and gradually transitioning to the community. Examples from a range of community services include attendant care, ergonomic and job site analysis assessments. For brain-injured patients living outside the Greater Toronto Area, the team can conduct the initial assessment and

a week at Toronto Rehab's Hillcrest Centre and has home-based therapy on the other weekdays. On weekends, he tries to relax with Jean and gather his energy for the coming week of rehab. He spends time doing some activities he enjoys—working on his computer and practicing one-arm putting in his house as he hopes to return to golf, his favourite pastime and "my guilty pleasure."

With each day, Rolando is making tangible gains in independence, which he credits to his hard work and the support of the Complex Injury Outpatient Rehab service.

"It's really a robust program and I'm so grateful for it. When I was healthy, I thought I was invincible.

includes neuropsychologists and psychologists, nurses, occupational therapists, physiatrists (specialists in rehabilitation medicine), physiotherapists, rehabilitation therapists, social workers, speech language pathologists and massage therapists. Patients work with various members of the team depending on their specific needs and goals.

"They call me the VIP because I see everybody," says Rolando. "It's great and convenient to have all the services in one program and facility—that's a big plus. They develop a coordinated treatment plan and program for each person. My massage therapist talks to my physiotherapist, my physio talks to my occupational therapist and so on, to get feedback on how I'm doing. We do reassessments as a team on a regular basis."

The Complex Injury Outpatient Rehab service is a "one-stop shopping" approach to rehabilitation that is typically accessed privately one service at a time in the community. By coordinating services under one roof, "we can help with the optimum balance of treatment, vocational rehabilitation and community re-integration," says Joanne. "It's all about getting better as fast as you can. Navigation and




Working on computer skills

develop individualized treatment plans that can be supported in a patient's home community.

Services provided by Complex Injury Outpatient Rehab are not typically covered by OHIP. In most cases, the costs are covered by third party insurers such as motor vehicle insurance, the Work and Safety Insurance Board (WSIB) or the patient's extended health benefits.

Rolando attends clinic three days

Then this happened to me and I realized what a big help rehab is. I now know that if one of my family members suffers a traumatic event, there's a program to help them get back to their lives."

For more information about the Complex Injury Outpatient Rehab service, contact the Referral Coordinator at 416-597-3422, ext. 3486. 



A step in the right direction

New clinic puts the power of research and technology to work for people with strokes

Allyson Forshaw, 44, doesn't mind being thrown off kilter—safely—if it helps her and others who have had strokes to avoid falls, and improve their balance and mobility. Strapped into a harness that prevents her from falling and then deliberately thrown off balance by a special piece of equipment, sophisticated instrumentation and force plates

measure exactly how Allyson's body reacts. Following a stroke in June that affected the left side of her body, she was one of the first patients to be assessed at Toronto Rehab's new Balance, Mobility and Falls Clinic, where the next generation of technology—never before used outside of the research lab—is giving clinicians detailed information that

informs care and may lead to exciting new treatments.

"The clinic is in the early stages but it has so much potential," says Janice Komar, Allyson's physiotherapist. "The clinic assessment gives me greater detail as to how the patient is responding. It helps me to modify my treatment and further challenge Allyson to continue to work on her balance—to ensure she is as safe as possible so that she can walk down the street and not be afraid of falling."

The Balance, Mobility and Falls Clinic is designed to "accelerate the integration of research into practice around the care of individual patients," says Liz Inness, a physiotherapist at the helm of the new clinic. The clinic is now part of the routine assessment for everyone admitted to Toronto Rehab's inpatient stroke service.

"It's one thing to read about research but the question is always how does it apply to my patient—not how does it apply to this group of patients that I read about in this journal article but how does it apply to the patient in front of me right now," says Liz.

On the flip side, "patients will continue to inform questions that we



Liz Inness (right) reviews test results with physiotherapists Lou Biasin (top) and Janice Komar.

need to evaluate with more rigour on the research side of things, so it's a nice circle of knowledge and practice."

Working side-by-side in a shared clinic space at Toronto Rehab's University Centre, researchers and clinicians put patients through a battery of technology-based tests that provide detailed data on gait (walking) and balance that is not available with other assessment tools or through observation. An electronic walking mat gauges how well a patient walks, and an instrumented walker equipped with cameras and sensors can be used to collect information on everything from walking and standing to weight distribution. Small wearable devices offer rare insight into the quantity and quality of walking done by patients outside of the clinic.

A report is generated for each patient and reviewed by the clinic team and the patient's rehab team; together they mine this information to

identify how it can be used to improve treatment.

"This is a new generation of assessment," explains Dr. William McIlroy, a Toronto Rehab scientist leading the clinic's researchers. "We're hopeful that the details we give the clinician in the summary report are far more informative and help guide their treatment decisions. We get much closer to helping the clinician personalize the balance and gait retraining based on sound measurements that are more telling about the underlying nature of the disorder. That's what the equipment helps us to do."

Patients are assessed early in their hospital stay, then again at discharge and follow-up assessments will also be conducted.

For the individual patient, the goal is to regain as much of their mobility and independence as possible. "This is a safety and quality of life issue,"




The electronic walking mat is used to gauge how well Allyson walks.



Allyson Forshaw (centre) is assessed in the Balance, Mobility and Falls Clinic by Dr. Avril Mansfield (left) and Liz Inness.

says Dr. Mark Bayley, Medical Director of Toronto Rehab's neuro rehabilitation program, who helps to oversee the clinic. "If we can improve people's gait, then they will be less likely to fall and more likely to engage in activities in the community, which is ultimately the goal of rehabilitation."

That's why Allyson was anxious to be an early participant in the new Balance, Mobility and Falls Clinic. "I'm excited to be involved in the clinic for my own benefit and the benefit of others. I'm looking forward to total independence. As Director of Operations for a major tour company, I had a busy and active life before my stroke and I want to return to that level of life again."

Dr. McIlroy believes the clinic can help people like Allyson to reach their goals. "There is a bit of a revolution that says the central nervous system can be trained. We might be able to do something about gait, balance and mobility problems if we can properly diagnose the problem and guide ourselves to new and novel treatments. This clinic is a stepping stone in that direction." 

CONCUSSION

no longer an invisible injury

A first-of-its-kind consensus statement by international concussion experts gives health professionals, parents, coaches, trainers and athletes a “go to” document to guide them in dealing with sport concussion.

“I think we’re learning more and more that concussion is not the invisible injury, and that there are ways we can see it, assess it and see it getting better,” says Dr. Karen Johnston, neurosurgeon and Director of the sport concussion clinic at Toronto Rehab.

An international neurosurgical consultant for professional and amateur sporting groups, Dr. Johnston was a member of the expert panel that developed the consensus statement at the 3rd International Conference on Concussion in Sport held in Zurich in late 2008. The conference was organized by the International Ice Hockey Federation, the Federation Internationale de Football, the International Olympic Committee Medical Commission and the International Rugby Board.



Dr. Karen Johnston

Outlining the definition, diagnosis, treatment and assessment of concussion, the consensus document has been published in 10 leading journals including the *Clinical Journal of Sport Medicine*, the *British Journal of Sports Medicine* and the *Journal of Clinical Neuroscience*.

“The paper provides important updates to our understanding of sport concussion based on new science and directs modified approaches to diagnostic

and management issues,” explains Dr. Johnston. It is accompanied by a revised Sport Concussion Assessment Tool (SCAT2), an objective and standardized diagnosis method for health professionals to use for concussions in athletes over the age of 10.

A pocket-sized SCAT2 has also been introduced for use by coaches, trainers, parents and other team members on the sidelines at sporting events (*see sidebar*). While anyone who gets concussed needs to see a doctor as soon as possible, the pocket SCAT2 is a practical tool that allows onsite preliminary assessment.

The consensus document presents “a new international standard of care,” according to Dr. Johnston. “The bottom line is that all athletes, whether recreational or elite, should be treated with the same conservative caution when it comes to concussion care and return to play.”

Previous guidelines for physical and cognitive rest and graduated return to activity have been reinforced by the expert panel. Cognitive rest includes elimination and then gradual resumption of activities that stimulate the brain such as reading, watching TV, computer activities and text messaging.

Other highlights of the consensus document include the use of balance assessment technology in diagnosing concussions and the importance of knowledge transfer about concussions between athletes, health care providers and the general public.

While most concussions will resolve in seven to 10 days, the experts say that modifiers such as previous concussions, the level of physical contact in the particular sport, and a history of learning disability or mood disorder can affect an individual’s rate of recovery, and their timeline for resumption of activity and return to play. Recovery time for children may be longer and the panel has identified paediatric concussion as one of several key areas for future study.

“We’ve come a long way with education on concussion but we have a long way still to go,” says Dr. Johnston. “My hope is that the consensus statement will improve care and outcomes for people who experience concussion playing sports.”

To review the Consensus Statement on Concussion in Sport, visit the safety info section at www.thinkfirst.ca

W injury



Pocket SCAT2



FIFA®



Concussion should be suspected in the presence of any one or more of the following symptoms (such as headache), or physical signs (such as unsteadiness), or impaired brain function (e.g. confusion) or abnormal behaviour.

1. SYMPTOMS

Presence of any of the following signs and symptoms may suggest a concussion:

- ◆ Loss of consciousness
- ◆ Seizure or convulsion
- ◆ Amnesia
- ◆ Headache
- ◆ "Pressure in head"
- ◆ Neck pain
- ◆ Nausea or vomiting
- ◆ Dizziness
- ◆ Blurred vision
- ◆ Balance problems
- ◆ Sensitivity to light
- ◆ Sensitivity to noise
- ◆ Feeling slowed down
- ◆ Feeling like "in a fog"
- ◆ "Don't feel right"
- ◆ Difficulty concentrating
- ◆ Difficulty remembering
- ◆ Fatigue or low energy
- ◆ Confusion
- ◆ Drowsiness
- ◆ More emotional
- ◆ Irritability
- ◆ Sadness
- ◆ Nervous or anxious

2. MEMORY FUNCTION

Failure to answer all questions correctly may suggest a concussion.

"At what venue are we at today?"

"Which half is it now?"

"Who scored last in this game?"

"What team did you play last week/game?"

"Did your team win the last game?"

3. BALANCE TESTING

Instruction for tandem stance:

"Now stand heel-to-toe with your non-dominant foot in back. Your weight should be evenly distributed across both feet. You should try to maintain stability for 20 seconds with your hands on your hips and your eyes closed. I will be counting the number of times you move out of this position. If you stumble out of this position, open your eyes and return to the start position and continue balancing. I will start timing you when you are set and have your eyes closed."

Observe the athlete for 20 seconds. If they make more than 5 errors (such as lift their hands off their hips; open their eyes; lift their forefoot or heel; step, stumble or fall; or remain out of the start position for more than 5 seconds), then this may suggest a concussion.

Any athlete with a suspected concussion should be IMMEDIATELY REMOVED FROM PLAY, urgently assessed medically, should not be left alone and should not drive a motor vehicle.

TORONTO rehab news

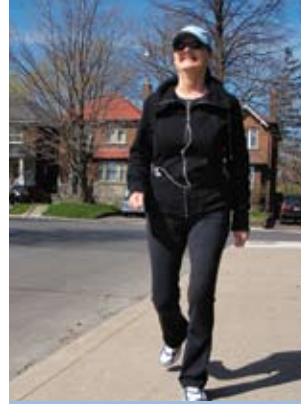


Learning to live well

Toronto Rehab hosts a free public education series called Living With/Living Well. It features several events each year and a collection of online educational booklets and videos to help people learn to overcome or prevent injury and illness so they can live life to the fullest.

Upcoming sessions will explore topics such as home safety for seniors, depression and heart disease, accessible products to make living with a disability easier, and much more. For a list of upcoming events and an archive of educational materials from previous events, visit www.torontorehab.com/livingwithlivingwell

Women's cardiac rehab service launched



Women have historically accounted for a 35% drop-out rate in Toronto Rehab's cardiac rehabilitation and secondary prevention program reflecting a national trend, but the




program hopes to change that with the launch earlier this year of its Women with Heart Cardiac Rehabilitation Best Practice Initiative.

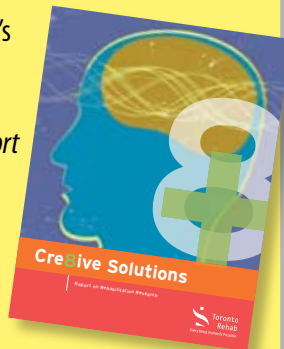
Informed by evidence-based research, the key elements include a six-month weekly women-only cardiac rehab exercise and education program, a quarterly Women with Heart seminar series (offered in collaboration with Women's College Hospital and open to the public) and a peer support group for women. The goal is to improve retention in the program and generate improved outcomes for women. Since launching in March, the women-only cardiac rehab program hasn't had a single drop-out.

For information about women-only cardiac rehab, contact Tracey Colella at 416-597-3422, ext. 5234 or by email at colella.tracey@torontorehab.on.ca

Online resources

Visit www.torontorehab.com to check out the following:

-  Toronto Rehab and Toronto Rehab Foundation's electronic annual reports
-  the Research section for our *+8 Research Report* highlighting the exciting work and many accomplishments of Toronto Rehab scientists, researchers and clinicians in advancing rehabilitation science in Canada
-  the About Us section for our *Performance Report*, which measures Toronto Rehab's performance, comparing our results to those achieved by other similar health care providers and monitoring our progress toward the achievement of our strategic goals.



New directors named

Toronto Rehab's Board of Directors recently welcomed **John Shepherd**, a consultant and researcher in health services with a focus on spinal cord injury. Although newly elected as a board member, John is not new to the board, where he has represented the Canadian Paraplegic Association Ontario for the past year. He is currently working with the Ontario Neurotrauma Foundation to identify and implement health promotion strategies for Ontarians with spinal cord injury.



Dr. Colleen McGillivray also joined the board (ex-officio) as the incoming President of the Medical Staff Association. Dr. McGillivray is a physiatrist in Toronto Rehab's spinal cord rehabilitation program.

For a full list of the Toronto Rehab Board of Directors visit www.torontorehab.com



Canada Research Chair to Dr. Robin Green



Dr. Robin Green, a scientist and clinical neuropsychologist at Toronto Rehab and head of the hospital's cognitive neurorehabilitation sciences lab, has been awarded a prestigious Tier 2 Canada Research Chair (CRC) for her groundbreaking research on brain injury.

The CRC in Traumatic Brain Injury—Cognitive Rehabilitation Neuroscience, University of Toronto, will cover Dr. Green's salary for five years. At U of T, Dr. Green's primary appointment is in the Department of Psychiatry, Neuroscience Division. She is also leader of the social and cognitive sciences field of the Graduate Department of Rehabilitation Sciences.

"This award will advance my lab's work in understanding, assessing and treating traumatic brain injury," says Dr. Green. "This field is poised for breakthroughs as we learn more and more about the brain's ability to change after injury."

Awards recognize outstanding contributions



Toronto Rehab is pleased to announce the following recent awards to members our health care team:

The Tecla Lin Nursing Scholarship was awarded to **Denise Anderson** during National Nursing Week.

Dr. William Geisler received the prestigious Medico-Legal Society Award in recognition of bringing justice to people with disabilities.

Dr. Ron Keren received the Alzheimer Society of Canada's Special Recognition Award for



his work founding the Canadian Colloquium on Dementia, an international knowledge translation forum.

And Toronto Rehab's 5th annual Celebrating Education Excellence



Awards acknowledged recipients ranging from researchers to front-line clinicians who all share a passion for education.



Gala: a Bella Notte

On October 1, 2009, over 400 guests enjoyed a beautiful night at the Toronto Rehab Foundation's Bella Notte Gala. Held at the Liberty Grand Entertainment Complex, the event raised close to \$400,000 to support Toronto Rehab programs and services.

Before enjoying a three-course dinner and an incredibly powerful performance by The Canadian Tenors, guests were welcomed by fire-juggling jesters, witnessed roving and aerial acrobats, and participated in live and silent auctions. Bella Notte also featured a moving testimonial by former neuro rehabilitation patient and gala committee member, Evan Ross.

The Toronto Rehab Foundation would like to thank the following for their support of the Bella Notte Gala: Luc Vanneste, Gala Chair, and Committee; Gold Sponsor, Scotiabank; Silver Sponsors, Skyservice Investment Inc. and Sun Life Financial Inc.; Bronze Sponsors, Aecon, Deloitte., Ernst & Young LLP, Forum Equity Partners, Jones Apparel Group Canada, KPMG Canada LLP, MintoUrban Development Services, PricewaterhouseCoopers LLP, Rogers Communications, Harlequin Enterprises Limited, Canadian ICEBERG Vodka Corp.; and the Liberty Grand Entertainment Complex.

New studies probe sleep apnea, driving ability

Dr. Douglas Bradley, a Toronto Rehab senior investigator, is leading a multi-national trial to test the effectiveness of a new device in treating obstructive and central sleep apnea in patients with congestive heart failure. The five-year study focuses on an adaptive servo-ventilation (ASV) device, which treats sleep apnea by delivering positive airway pressure to patients when they stop breathing. The trial is funded by the Canadian Institutes of Health Research and a grant from Philips Respironics Inc.

Toronto Rehab senior scientist Dr. Gary Naglie is involved in another multi-centre trial following 1,000 older adults for five years to identify key factors that affect their ability to drive safely. This national study conducted by Candrive will inform the development of a simple, objective assessment tool that family doctors can use to identify older drivers who are safe and unsafe to drive. A main goal: to keep safe older drivers behind the wheel longer. To participate in Toronto, call 416-597-3422, ext. 7851. Participants must be 70 years or older and drive at least four times a week.



Changing lives

Behind the scenes at the MSK rehab program

Living with musculoskeletal conditions like arthritis, osteoporosis, cancer of the bone and traumatic injuries sustained from events such as a car crash can be painful and affect a person's movement, mobility and quality of life. Rehabilitation plays an integral role in helping people get up and going again after hip or knee replacement surgery or after painful and invasive cancer treatments. In short, it can change lives.

Toronto Rehab's musculoskeletal (MSK) rehabilitation program, located at its Hillcrest Centre site, provides a full continuum from inpatient and outpatient care and follow-up clinics, to coordination of home care and community services upon discharge from the program. With almost 1,100 inpatient admissions and over 10,000 outpatient visits each year, this robust program has evolved to treat patients with greater complexity, to address their social and psychological needs and to do everything humanly possible to successfully return them to independent living in the community. As an academic centre, it is also involved in research and in teaching the next generation of rehab professionals.

Toronto Rehab magazine recently spent a day shift at the MSK rehab program and profiles a few of the stories shared by patients and staff.

8:50 A.M.

"I wasn't nervous about coming here even though I'm far from home," says Patricia Dias (left) of North



Bay as she is welcomed to Toronto Rehab's MSK program by Michelle Vieira, Admitting Representative, and Elliot Alexander, Service Coordinator. Patricia is here for rehabilitation

surgeries—and she'll be back for more rehab to get her mobile and independent after an upcoming revision (repeat) hip replacement. Michelle visits Patricia in her room to check information provided in advance by the referring hospital, while Elliot offers assistance with "anything that can make your stay here better"—leaving Patricia feeling "very welcomed and comfortable."

9:28 A.M.

In the hydrotherapy pool, 55-year-old bricklayer Saul Pereira stands on his own for the first time since he broke his right leg and both wrists in a fall eight weeks ago. "It's amazing what I can do in here. It feels just great," enthuses Saul, an inpatient in the MSK program's trauma service. "The warm water relaxes muscles, reduces pain and increases flexibility," explains Ruth Vallis, physiotherapist and hydrotherapist. The buoyancy of water at shoulder height means that Saul is only bearing about 8% of his regular weight, which allows him to do exercises he cannot yet do on dry land. Since water is denser than air, it takes 43% more energy to exercise in the pool, so

patients also get a good workout. "It's a lovely way to get better," adds the hydrotherapist, who nicknamed the pool "The Fountain of Ruth."





10:45 A.M.

Pharmacist Radmila Nikolic (left) discusses with registered nurse Amy Robidas a new asthma medication prescribed

for an inpatient. "Pharmacy and nursing collaborate to prepare patients to be independent with their medications upon discharge," says Radmila. "We work with patients to ensure they understand changes in their medications between the time they were admitted to acute care and the time they are discharged from rehabilitation. This reconciliation is about patient safety, continuity and seamless care."

11:03 A.M.

Jinny Padmowtee, 45, is warming up for her physiotherapy session on a recumbent stepper under the watchful eye of physiotherapist Amy Underhill. Jinny had her second hip replacement in February but a slow recovery has kept her away from work at a mutual fund company and she misses her active lifestyle. "It's been a physical and emotional rollercoaster," says Jinny. But since joining the outpatient clinic two days a week, Jinny has made steady progress with the help of her team including a physiatrist (specialist in rehabilitation medicine), physiotherapist, occupational therapist, social worker and psychologist. Her walking has improved, her pain and swelling have diminished, and she is happier and more confident. "I am in good hands. I know when I leave here, I will be a much stronger person." That's the kind of feedback Amy likes to hear. "In this setting, we have the support and ability to spend as much time with the patient as they need. That's why I like working here."



12:05 P.M.

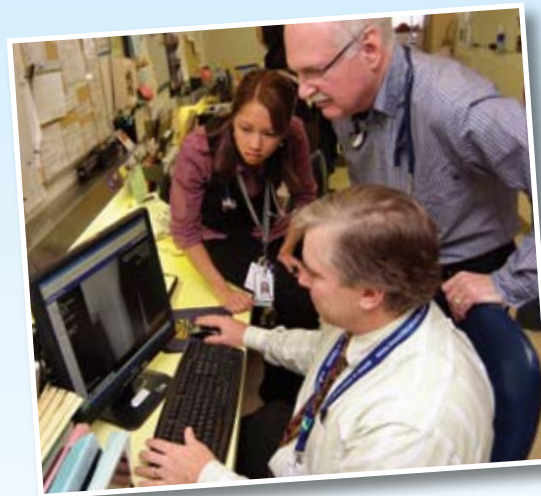
A car crash this summer left 35-year-old Rob Irwin of Oshawa with two broken legs, a broken ankle and five fractured vertebrae. "I was a mess," says Rob, an inpatient in the trauma service and a type I diabetic for 10 years. Over lunch, Rob meets with dietitian Dale Mayerson (left) and food service manager Eugene Derro (right).



"Rob takes insulin on a regular basis and I want to be sure that he has good control of his blood sugar," says Dale. "My job and Eugene's job is to keep him in good shape with good food—the right amount at the right time so he's strong and well enough to do his rehab and to return home."

1:43 P.M.

A medical consultation is under way as doctors review a complex case by studying an x-ray in the electronic patient record. The patient is experiencing pain when weight bearing following removal of a bone tumour and extended hip replacement surgery. Dr. John Flannery (front), a physiatrist and Medical Director of the MSK rehab program, and Dr. Steven Fried, a family physician, invite fourth-year University of British Columbia medical student Catherine Ho to join the discussion. Catherine is here on a visiting elective to learn about the specialty of physiatry. "I wanted to work with Dr. Flannery. I heard he was a good teacher." In addition to undergraduate medical training, the MSK program hosts post-graduate medical residents and students from numerous health disciplines for placements and interprofessional education.



2:20 P.M.

It's easy to see the warm and caring relationship between primary nurse Rebecca Lewis (left) and 92-year-old Jean Vincent, an inpatient in the fractured hip rapid assessment and treatment service. Rebecca has been Jean's touchstone during her rehabilitation following surgery for a fractured hip caused by a fall. Jean lives with her daughter and is preparing for discharge. "Rebecca and the whole team have looked



after me wonderfully. I'm definitely learning what I need to know to get ready to go home." Rebecca brings Jean to meet outpatient nurse Lisa

Semeniuk (right), to ensure a smooth transition from inpatient care to the outpatient clinic.

3:04 P.M.

In the parking lot, occupational therapist Margaret Liu (centre) and occupational therapy assistant Haleh Alehaidar teach inpatient Mary Dean, 94, how to safely transfer into her daughter's car in preparation for her upcoming discharge to a retirement residence. Mary fell and broke her arm and after treatment in acute care hospital, she was referred to the complex



MSK service for rehab. "Usually when we do transfers to a vehicle, we rely on our upper body. So we need to teach her a different technique to get into the car," explains Margaret.

4:30 P.M.

Betty Grundy, 77, and family members gather with Dr. John Goldsand and the interprofessional oncology service team to discuss Betty's progress and plans for discharge. Multiple myeloma, a form of cancer, weakened Betty's bones and she suffered a hip fracture. "At one point when mother was in acute care, they called in the family from out of town as they




didn't know whether she was going to survive," says son Martin. Betty not only survived but after three weeks of inpatient rehab, she is ready to go home. "Rehab has meant everything to me," Betty says. "When I came here, I couldn't walk; but within two days, I was walking. I haven't been home since June so I'm looking forward to getting into my Lazy Boy chair." That's fine with her rehab team—as long as she keeps up with her exercises too!

5:12 P.M.

Toronto Rehab scientist Dr. Kathy McGilton and Dr. John Flannery get together to discuss a new approach to care and a related research study that are changing lives. Their recent collaboration,



along with colleague Sue Calabrese, showed that hip fracture patients who also have a cognitive impairment can do just as well as those whose cognition is intact when treated with a new approach to care developed at the MSK rehab program. The study was published this summer in *Archives of Gerontology and Geriatrics*. It found that cognitively impaired patients made comparable gains in functional independence after breaking a hip and they did not require extra days in hospital. The new approach has now been introduced at more than 30 health care institutions across the Greater Toronto Area. In addition to enhancing quality of life of older adults, it reduces long-term care costs. If implemented across the province, it could save an estimated \$1.3-million a year. 

For more information about Toronto Rehab's MSK rehabilitation program, visit www.torontorehab.com



Patient Connie Cardoso (right) and physiotherapist Jackie Lymburner demonstrate rehab treadmill equipment for Tim Casgrain.

Tim Casgrain: *Man on a mission*

Tim Casgrain is on a mission—to ensure that rehabilitation patients, clinicians and scientists have the equipment, research funds and educational materials to transform lives as Toronto Rehab prepares to launch new state-of-the-art patient care and research facilities.

The Chair of the Toronto Rehab Foundation, who also serves as Vice-Chairman of Skyservice Investments Inc. and Chair of the Board of CBC/Radio Canada, is seeking donor support for the Foundation’s new vision, which is built on the legacy of the recently completed capital campaign.

“This vision is about raising funds to do more research and to provide whatever is required as people face the challenges of their disabilities and as they age,” says Tim. “With donor support, we can catapult Toronto Rehab forward so we can meet the demands of rehabilitation’s ever-increasing role in an aging society.”

Toronto Rehab’s University Centre is being redeveloped into a state-of-the-art rehabilitation hospital to better serve the

“This vision is about raising funds to do more research and to provide whatever is required as people face the challenges of their disabilities and as they age.”

needs of individuals recovering from and living with disabling injuries and illnesses, and age-related conditions. The new hospital tower will also house iDAPT, one of the world’s most advanced rehabilitation research

facilities, which will bring together the brightest research minds and the latest technology to improve the lives of people with a variety of challenges from stroke and spinal cord injury to cancer and Alzheimer’s disease.


With funding in place and construction under way for the multi-million-dollar expansion and renovation project, which is scheduled for completion in 2011, the Foundation is focused on a new set of fundraising priorities. Therapy, medical, recreational and research equipment are often not funded by

government. Funding is also required for a range of needs—from patient activities and outings to supporting research into new and more effective treatment interventions and assistive devices. These new treatments and devices will speed recovery and enhance quality of life by increasing people’s functional abilities and independence.

Tim assures prospective donors that “opportunities exist for everyone—we have funding needs at every level.” The following are just a few examples of how donors can support critical areas of need at Toronto Rehab:

- gifts from \$100 will allow patients to participate in community fitness, sports and cultural activities and other outings
- \$500+ will help fund exercise equipment including weights, cross trainers, bikes, a leg press or sport wheelchair
- \$1,000+ will purchase patio furniture for patient gardens or patient televisions
- \$10,000 will provide entertainment centres for use in therapy, education and for leisure
- \$25,000 will award the Toronto Rehab Scholarship in Rehabilitation-related Research for Students with Disabilities to a student for one year
- \$1-million will establish a Cardiac Rehab Research Fund.

“If we could get each Canadian to come to the door and see the magic of the care and level of leading-edge research—it’s a wonderful story and it sells itself.”

Give the Gift of Hope to meet the challenges of a lifetime. Contact the Toronto Rehab Foundation at 416-597-3040 or visit www.torontorehabfoundation.com 



Post script Louis Benitez, 62, has a message for his rehabilitation team at Toronto Rehab: “Please look at me. I am the result of all your hard work. It’s paying off big time.” Louis is walking with a cane, talking, driving and he even hopes to return to work part-time in industrial flooring design. Less than 18 months ago, he lay in a hospital intensive care unit on life support—comatose for almost four months. An investigation determined that salami Louis had eaten contained a bacteria, which led to botulism—a rare disease that causes paralysis and can be deadly. Fortunately, treatment worked and gradually Louis awoke. After seven months in an acute care hospital, he was transferred to Toronto Rehab’s E.W. Bickle Centre for Complex Continuing Care, where he was admitted into the low intensity, long duration rehab service. “When I arrived, I could hardly move. I could not speak and I could hardly see people—my vision wasn’t clear,” he recalls. Louis put his “mind and heart to work” to achieve the goals he had set with his rehab team of physicians, nurses and therapists. In March 2009, he was discharged and left the hospital with the aid of a walker. He was talking and well on his way to being independent again. His rehab continues three days a week as an outpatient in the musculoskeletal rehabilitation program at the hospital’s Hillcrest Centre. “I’ve been given a second chance in life,” Louis beams as Elvia, his wife of 42 years, looks on. “I’m a very happy customer.”

