

YOUR IMPACT

SUNNYBROOK'S TORY TRAUMA PROGRAM



Profound appreciation: James Mann wants everyone to know: “Sunnybrook absolutely changed my life,” after an accident during a snowstorm on his Port Perry farm. From the nurses, anaesthesiologists, plastic surgeons, dental surgeons, otolaryngologists and ophthalmologists who treated him in the operating room to the social workers, occupational therapists, speech and language pathologists and the entire team in the critical care unit and trauma ward, everyone worked toward the same goal: to get James back to his wife Yawen, son Wesley and daughters Mimi, Maylee and Jamie.

THE TORY TRAUMA PROGRAM IS A NATIONAL AND GLOBAL LEADER BECAUSE OF YOU



“A trauma is like a drop of water on a pond. A sudden, unexpected moment changes the way the water moves – the way a person’s life is going – with a ripple effect on everything and everyone connected to them.”

- Kyle Williams, a University of Toronto social work student who completed a training rotation in the Tory Trauma Program that saw him providing support to James Mann and his family after James awoke from a week-long medically induced coma.

Read our full story about James by scanning the QR code below.

At left: More than 30 members of the Tory Trauma Program took part in a training exercise in the Blake & Belinda Goldring and Family Hybrid Operating Room, which has triple the functionality and double the space of a standard OR.

The Tory Trauma Program cares for the largest number of patients with traumatic injuries and burns in Canada. We serve all of Ontario with high-performing teams ready for trauma and burn surgery, neurosurgery and neurovascular care, orthopaedic surgery and spine care, plastic and reconstructive surgery, and intensive care. Our research discoveries shape Ontario’s health system and make global impact. You make it all possible.



5,843

critically ill patients treated in the 2023 calendar year

2,171

Tory Trauma team activations in our ER Trauma Room

1,897

patients seen in the Jennifer Tory Trauma Recovery Clinic

210

acute burn patients treated in the Ross Tilley Burn Centre

173

procedures in the Blake & Belinda Goldring and Family Hybrid OR

A message of gratitude from our high-performing team

In the pages that follow, you will read how your support of the Tory Trauma Program is making a life-saving difference, from helping to build a second burn operating room, to improving traumatic brain injury care, to supporting the innovative thinking and collaboration that define our high-performing teams.

My colleagues and I are grateful for your generous investments. And while we see the benefits of your giving on a daily basis, it's sometimes the people we don't see who illustrate your biggest impact.

We have seen an increase in violent injuries, disproportionately in young males, with many instances where the same patient returns for multiple injuries, sometimes years apart. We want to be part of the broader community effort to reverse this trend. In 2020 we launched BRAVE, the Breaking the Cycle of Violence with Empathy Program. Taking a trauma-informed approach to violence prevention, patients are met by a case worker who works with them for up to a year post-discharge to increase the protective factors that may keep them from needing our trauma team.

Less than four years in and we know it's working – the risk factors we measure at admission are reduced by as much as 35 per cent through participation in BRAVE. This reduction is impressive, but it's the stories behind these statistics that resonate deeply with me.

One young man expressed his profound gratitude and credited the Tory Trauma Program with “making a huge difference on the course of his life.” Having previously set aside his ambition for higher education, he told us he was accepted to start a Master of Social Work degree program in Fall 2024. This is the power of injury prevention, and it's a collective responsibility we all share. Together, we are healing communities.



Dr. Robert Fowler
Chief, Tory Trauma Program
Sunnybrook Health Sciences Centre



First outside the U.S.

In May 2023, Sunnybrook became the first hospital outside the U.S. to be officially verified as a Level 1 trauma centre by the American College of Surgeons (ACS). We share this honour with our donors, whose generosity makes us outstanding in this field.

“This is an historic achievement in the Canadian trauma community and highlights our role not only as a strong leader in Ontario’s Trauma and Critical Care system, but in Canada,” says Dr. Andy Smith, Sunnybrook’s President & CEO. “Our pursuit of ACS verification has undoubtedly made Sunnybrook’s trauma care better than ever.”

Above: Thao Sindall, a registered nurse, on the day Sunnybrook received its accreditation.

The Globe & Mail followed the clinical care leader during one of her 12-hour shifts. Read more [here](#).

BRAVE RECOVERY

Donor support is key to the future of Sunnybrook's Breaking the Cycle of Violence with Empathy Program.

When Michael Lewis called the mother of a discharged Tory Trauma Program patient to tell her that he could take care of her rent for the month, she thought he was joking.

“She has two kids and lives in a low-income neighbourhood. Taking time off work to care for her injured son means she might not make the rent or buy groceries this week,” says Michael, one of two case managers with our BRAVE Program.

BRAVE, the Breaking the Cycle of Violence with Empathy Program, addresses the social determinants of health leading to violence that land hundreds of people per year in Sunnybrook's trauma centre. It is offered at Sunnybrook, Scarborough Health and Humber River hospitals, through referrals from the care teams, review of trauma lists, and our Jennifer Tory Trauma Recovery Clinic, the first of its kind in Canada.

Following the initial pilot program funded by the City of Toronto, there has been additional funding from the City in 2023 to help bridge the gap between injury and reintegration.

“In stabilizing youth and their families, we hope to redirect them from future violence and ensure they don't become unhoused as a result of their injury,” explains Michael. He and fellow case manager Elena Gordon, who joined the program in July, cared for more than 50 people enrolled in BRAVE in 2023.

Additional donor investment is needed to sustain the program moving forward, as the City funding is set to expire. “This isn't a want, but a need,” says Michael. “Without BRAVE, many people will have nowhere to turn.”



Above: Michael Lewis, a case manager for BRAVE. Below: Members of the Jennifer Tory Trauma Recovery Clinic accept the 2023 Marilyn Reddick Award for Team Work.

“**One patient shared how he feels energized and motivated to continue the meaningful work he began in his community because of BRAVE.**”

– Corey Freedman, Manager of Trauma Services

Donors rally to support our **NEW BURN OPERATING ROOM**

We are close to reaching our fundraising goal to construct a second operating room for specialized acute and reconstructive surgeries. Soon Sunnybrook's Ross Tilley Burn Centre will be one of only a few global centres with two operating rooms designated for life-saving and life-restoring surgeries.

As Sunnybrook's donor community rallies to close the fundraising gap, the Ross Tilley Burn Centre is preparing to start construction on a specialized new operating room.

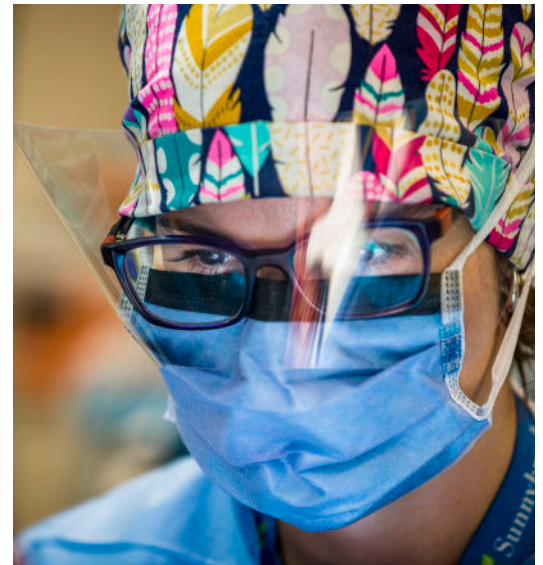
The Ross Tilley Burn Centre is Canada's largest adult burn centre caring for more than 300 inpatients and 3,000 outpatients each year, including every Ontario patient with an electrical injury. Having just one main operating room means that minor and elective surgeries are often delayed.

"Sunnybrook's second burn operating room will allow us to tackle our growing wait list for reconstructive surgery," says Interim Associate Director Dr. Stephanie Mason.

The Ross Tilley Burn Centre has seen its patient volumes increase by 20 per cent over the past six years, and we expect this increase will continue for an indefinite period. That's in part because Sunnybrook is Canada's largest burn resource, in addition to having been the primary hospital in Ontario equipped to admit adult patients with severe burns covering more than 20 per cent of the body.

More than 100 Sunnybrook patients are currently on the wait list for reconstructive surgery following serious burns. Not just about healing the physical appearance of scars, reconstruction burn surgery can help improve mobility and function and minimize pain. Patients in need of reconstructive surgery can wait months and sometimes years for their procedure, further compromising their quality of life, independence and mental well-being.

Construction on the second OR is expected to begin in 2024. Designed for adaptability, the new operating space will also be available for use in emergency situations involving mass casualties. Gifts to this priority also are supporting renovations to patient waiting areas and outpatient clinics.



Dr. Stephanie Mason, Interim Associate Director of the Ross Tilley Burn Centre.

Laser focus

The new burn operating room will be home to a therapeutic laser. Purchased with donor support, it is an advanced option that disrupts abnormal collagen cells and stimulates blood flow to the damaged skin, helping fresh healthy cells reorganize the skin's structure.

The Ross Tilley Burn Centre is the first adult burn centre in Canada with this laser.

Building Sunnybrook's capacity for trauma clinical research with **DONOR SUPPORT FOR THE DE SOUZA CHAIR**

As a trauma surgeon, Dr. Avery Nathens knows that it takes a village to care for critically ill and injured patients.

And as the de Souza Chair in Trauma Clinical Research, he's learned that it also takes high-performing teams to transform ideas into practice.

Dr. Nathens is grateful for the donor support that allows him to build the capacity of Sunnybrook's hard-working trauma research team, including Sunnybrook neurosurgery resident and PhD candidate Dr. Armaan Malhotra.

Dr. Malhotra was inspired to pursue research after seeing the uncertainty that comes with a traumatic brain injury (TBI) diagnosis.

He developed a machine learning model that uses brain imaging data to predict the likelihood a patient will need neurosurgery.

"The aim," says Dr. Malhotra, "is to automate the triage process at community hospitals so patients who need specialized care from the Tory Trauma Program can receive it sooner."

With lessons learned from the study, Dr. Malhotra will develop a second model that aims to predict the likelihood a patient with TBI will experience a meaningful recovery.

Dr. Malhotra credits donor support and the mentorship from Dr. Nathens for making all of this research possible.

"The support of the de Souza Chair allows Dr. Nathens the gift of protected time so he can devote his wealth of knowledge and advice to research students like me," Dr. Malhotra says.

"Your gifts have created a ripple effect that will impact me for the rest of my career."



Dr. Armaan Malhotra in surgery.

Breaking down silos

In October 2023, more than 30 experts – including trauma doctors and nurses, surgeons, interventional radiologists, radiologists, anaesthesiologists and imaging specialists – participated in a simulation in the Blake & Belinda Goldring and Family Hybrid Operating Room designed to elevate collaborative practice and identify necessary changes to increase safety and efficiency.

The Blake & Belinda Goldring and Family Hybrid Operating Room has enough space for twice as many people as a standard OR, making it exceptional for team work and training the next generation of leaders.

"This is truly what high-performing teams do – and we are living it because of the vision and investment of our donors," Dr. Avery Nathens told the participants.

Your impact on

ADVANCING CARE FOR BRAIN INJURIES

Thanks to donor generosity and the Kimel-Schatzky Traumatic Brain Injury Research & Innovation Competition, 13 promising studies are now underway to improve understanding, treatment and prevention of traumatic brain injury. We are pleased to highlight three ways in which our researchers are accelerating ideas into action.

Using magnetic stimulation

Calling it a “circuit test of the brain,” interventional psychiatrist Dr. Sean Nestor is testing the safety and effectiveness of repetitive transcranial magnetic stimulation (rTMS) for treating post-concussive syndrome following mild traumatic brain injury (TBI).

Pictured below with the non-invasive therapy, Dr. Nestor uses its magnetic pulses to stimulate the brain through the skull.

rTMS has been shown to offer life-changing improvements in some patients with treatment-resistant depression. Dr. Nestor and cognitive neurologist Dr. Matthew Burke want to know if rTMS also offers benefits to patients with TBI. Participant recruitment is now underway.

Evaluating a potential first drug intervention

An observational study has shown patients who receive the beta-blocker propranolol after TBI have lower rates of in-hospital mortality. But there is no robust evidence to prove the impact.

Critical care physicians Dr. Bourke Tillmann and Dr. Martin Chapman developed a survey to assess current clinical practice and barriers to propranolol administration. Their findings will help inform the creation of a multi-centre randomized controlled trial examining the impact of the drug on the functional outcomes of patients who have sustained a TBI.

Improving how we diagnose

When a patient is rushed in with multiple critical injuries, the focus is always on saving lives. Sometimes that means other, less urgent but potentially life-changing injuries must be addressed later. “Concussion can have significant impact on rehabilitation success, affecting memory, cognition, learning, even mental health,” says Dr. Larry Robinson, chief of Sunnybrook’s St. John’s Rehab who was awarded a Kimel-Schatzky grant to develop a screening tool for diagnosing mild TBI. He has identified diagnostic factors to include in a screening tool that will be tested at St. John’s Rehab.



Right: Dr. Sean Nestor with the non-invasive rTMS technology.

Saving lives beyond borders

Our donor community is equipping Ukrainian surgeons with advanced medical technologies and techniques to help those injured in the Russian invasion of Ukraine.

“This is one of the greatest tragedies of the 21st century,” says plastic surgeon Dr. Oleh Antonyshyn, who leads the Sunnybrook Ukraine Surgical Education Initiative. He’s grateful for the unwavering support, adding: “I knew I had Canadians I could rely on.”

Members of Team Sunnybrook, including trauma surgeons, anaesthetists, ICU specialists, physicians, operating room and ward nurses, a pharmacist, IT specialists and administrative staff, travelled to Poland in 2022 and 2023 with the Sunnybrook Ukraine Surgical Education Initiative (now part of the Canada Ukraine Surgical Aid Program).

Part of a team of 44 Canadian specialists and 15 Ukrainian-trained surgeons, they treated 95 patients over the course of 110 operations and 331 procedures. Some complex surgeries lasted as long as 15 hours.



A look inside the “Canada Ward” in a small host hospital three hours from the Ukrainian border. Supported by our partners and donors, we rallied more than 270 volunteers, secured \$2.4 million in donated equipment and supplies, and gained the approvals, licences and technologies to deliver reconstructive surgical care and education.

OUR THANKS TO YOU

Donors like you make Sunnybrook special. With your generous support of research, education, patient care and injury prevention, Sunnybrook’s Tory Trauma Program is saving and changing lives. **Together, we are transforming trauma care.**