



THE
MAC PARKMAN
F O U N D A T I O N
— We Should Have Known —

2023 ANNUAL REPORT

www.mpfact.com

WHY WE EXIST

In September of 2020, at age 17, Mac Parkman, carrying the weight of a deep depression and mental illness, died by suicide.

Just like other child athletes, Mac sustained injuries including three documented concussions which were treated according to the two-week concussion protocol that most medical centers and sports programs follow.

What we did not know is that the continued exposure of his brain to year-round subconcussive trauma from repeated head injuries (RHI) was damaging his brain and not allowing it to heal. Over time, this damage progressed until the damage led to the development of mental health issues to include depression and schizophrenia which Mac decided to bravely hide from his family, coaches, and friends to shield them from sharing his pain. Mac continued to fight bravely until his mental anguish increased to the point where he could not handle it and resulted in him deciding to leave this life behind.

After his death, the family struggled with why this had happened and looked for answers anywhere they could, eventually donating his brain to the VA-BU-CLF Brain Bank for brain trauma research – their findings were not only unexpected, but heartbreaking as they did identify changes to Mac's brain caused by repeated head injuries sustained during participation in contact sports. This led them to conduct their own research which, along with the BU-CTE findings, proved that Mac's mental illness was caused by brain damage which was caused by years of unintentional exposure to repeated head injuries through contact sports.

The family now realizes that Mac had been struggling with something he did not understand, and he did not know how to talk to them, his friends, or coaches in order to seek help. What is know now could have saved Mac Parkman, and while it's too late for Mac, our knowledge and the foundation can help save other children.

**THIS IS ONE OF THE LARGEST PREVENTABLE CAUSE OF
MENTAL ILLNESS FOR TEENAGERS AND YOUNG ADULTS IN
THIS COUNTRY. WE NEED YOUR HELP!**

ADVANCING THE MISSION

In 2009, Bruce co-founded the Green Beret Foundation, which offers Special Forces Soldiers and their families emergency, immediate, and ongoing support. His dedication to the veteran community also led him to be a founding member of the Global SOF Foundation and The Green Beret Foundation, serve on the Special Operations Transition Foundation Board, and later, join the Veterans Advisory Board for the Concussion Legacy Foundation. Additionally, he supports Project Enlist and advises the 38 Challenge, both focused on eliminating veteran suicide.

Bruce recognized the parallels between repeated head injuries (RHI) in young athletes and the head trauma experienced by service members. Repeated Blast Exposure (RBE), a recently identified condition within military and veteran communities, results from ongoing exposure to explosive blasts. Similar to RHI, RBE can cause brain damage and lead to mental health disorders. However, RBE is still largely unrecognized outside of research circles, leaving many veterans with undiagnosed brain injuries and exacerbating issues like PTSD and generalized anxiety disorder (GAD). Veterans endure RBE not only in combat but also during high-intensity training involving explosives, artillery, and more. Without proper diagnosis and treatment, veterans suffering from significant RBE can experience severe mental health challenges, including violence, marital and financial problems, emotional and behavioral issues, and suicidal and homicidal ideation.

Proper assessment and treatment for RBE are crucial to improving veterans' mental health and quality of life. By understanding the risks and recognizing their impairments from a causal perspective, veterans can reduce fear and stigma, paving the way for effective treatment and recovery.

In November 2023, the Mac Parkman Foundation expanded its mission to include research, education, and awareness of RBE. While continuing to support existing organizations, the foundation launched new research and outreach initiatives to address critical gaps in the care and support needed by veterans suffering from RBE.

Caring for the brain health of our veterans is not just about healing injuries; it's about honoring their service by ensuring they have the tools to reclaim their lives, dignity, and well-being.



**ULTIMATELY, WE NEED
TO TAKE A HARD LOOK
AT THE CULTURE OF
CONTACT SPORTS AND
ASK OURSELVES
WHETHER THE BENEFITS
OUTWEIGH THE RISKS.**

Bruce Parkman

Our Mission

The Mac Parkman Foundation is committed to raising awareness, advancing research, and supporting individuals affected by Repeated Head Impacts (RHI) and Repeated Blast Exposure (RBE). We aim to safeguard the brain health of children, athletes, and veterans by promoting education, early diagnosis, and innovative treatments to mitigate the long-term effects of brain trauma. Through advocacy and community engagement, we strive to create a safer environment in sports and military service, ensuring a healthier future for all.

Our Purpose

The Mac Parkman Foundation is a dedicated resource for service members, veterans, their families, parents, coaches, athletic trainers, medical professionals, and athletes impacted by Repeated Head Impacts (RHI) in sports and Repeated Blast Exposure (RBE) from military service. We aim to raise awareness about the long-term effects of subconcussive trauma, providing vital information, resources, and support to help children, athletes, and veterans suffering from these injuries. Join us in our mission to improve brain health and protect at-risk individuals.

What We Know

The Link Between Head Injuries and Mental Health

The current focus on head injuries predominantly centers around Chronic Traumatic Encephalopathy (CTE) and Traumatic Brain Injury (TBI), likely due to their immediate and severe symptoms, which are easier to identify and diagnose. However, sub-concussive trauma—repeated head impacts that do not cause full-blown concussions—poses a significant yet underrecognized threat. These repeated hits can accumulate over time, leading to more extensive brain damage and a greater impact on mental health. Unlike CTE or TBI, the subtle and cumulative nature of sub-concussive trauma makes it harder to detect, often going unnoticed and untreated. This lack of awareness and education is particularly concerning for athletes and military service members who experience repeated head impacts during training and daily activities. Addressing this gap is crucial to protecting their long-term brain health and overall well-being.

Eradicating the Path to CTE

Our foundation is not focused on CTE because that is the end of the injury - to diagnose CTE means death has most likely occurred. We are focused on what leads to CTE (sub-concussive trauma and repeated head injuries/RHI) and how do we prevent this from happening, how we can support our kids in sports while giving them a safe environment to play, one that will not lead to mental illness or death. Most parents today are not aware of the dangers surrounding repeated head trauma and the impact this has on their child's health and well-being today and in the future.

The lack of focus on sub-concussive trauma/RHI has resulted in a knowledge gap surrounding the long-term impact of sports-related concussive and sub-concussive trauma to the adolescent brain affecting parents, coaches, athletic trainers, and medical practitioners. Combined with minimal research from our National Health Associations on adolescents and disinformation campaigns by sports associations concerned about potential impacts on revenue, this knowledge prevents stakeholders from making informed decisions regarding sports participation, providing follow-up evaluations and longer-term monitoring or intervention. This tragic combination of a lack of awareness and professional knowledge contributes to the increasing number of American athletes, young and old, with hidden or identified psychological disorders that can lead to serious self-harm, aggression, and even suicide.

Between 1.7 and 3 million sports- and recreation-related concussions happen each year. Around 300,000 of those are from football. 5 in 10 concussions go unreported or undetected. 2 in 10 high school athletes who play contact sports — including soccer and lacrosse — will get a concussion this year.

A child athlete can experience up to 1,500 subconcussive hits in a single season.

TBI, Repeated Blast Trauma, & the Impact on Mental Health

Recent studies by the VA have linked veteran psychiatric conditions to Traumatic Brain Injury (TBI) or mild Traumatic Brain Injury (mTBI), primarily focusing on combat and PTSD. Just as with our young athletes, the focus is on the major trauma and not the repeated blast exposure (RBE) that goes undetected until it is too late.

Repeated Blast Exposure (RBE), a newer diagnosis emerging within military and veteran communities, results from recurrent exposure to explosive blasts. Analogous to RHI, continuous exposure induces brain damage, potentially leading to mental health disorders. Yet, RBE remains largely unrecognized outside research circles, leaving many veterans with undiagnosed brain injuries, exacerbating issues like PTSD and generalized anxiety disorder (GAD). High-intensity training involving repetitive blasts from explosives, artillery, high-caliber weaponry, breaching, parachuting, and more happens off battlefields just as it does during combat situations.

Veterans with significant RBE from combat and training often experience mental health challenges without adequate acknowledgment or treatment. Without proper diagnosis and treatment options that address brain damage, veterans can spiral into further mental health issues, leading to violence, marital and financial problems, emotional and behavioral issues, as well as suicidal and homicidal ideation and incarceration. Proper assessment and treatment for RBE are critical to providing veterans with the care they need to improve their mental health and quality of life.

The Mac Parkman Foundation is dedicated to illuminating these critical links while exploring and advocating for essential treatments to address brain injuries, particularly within military and veteran communities. By increasing awareness, encouraging proactive assessments, and championing targeted interventions, we aim to mitigate the profound impacts of RHI and RBE, fostering healthier futures for both our children and our veterans.

Continuous and unrelenting physical damage causes irreparable harm to the brain resulting in mental illness due to an abnormally functioning brain.

WHAT ARE THE CONTRIBUTING FACTORS TODAY

For our young athletes, there are many contributing factors.

Starting children in contact sports too young.

By allowing children to engage in contact activities before the age of 14, millions of young Americans with developing brains are exposed to countless repeated head injuries (RHI) or micro-hits to the head, potentially harming them along the way. This exposure to concussive and **RHI** through contact sports can lead to long-term psychological and physiological issues, including mental illness. While much attention is given to identifying and preventing concussions, little focus is placed on the cumulative damage caused by repeated impacts to a child's brain.

No Allowance for Breaks/Down Time for Recovery

Today, kids participate in extended sports seasons, engaging in contact sports year-round and stacking training sessions on top of competitive play focused on contact, rather than recreational sports that emphasize technique and enjoyment. There is little to no time built in for recovery.

Lack of Awareness

We are not opposed to contact sports. Rather, we urge parents, coaches, schools, trainers, and communities to become informed. It is crucial to understand how early and prolonged exposure to concussive and repeated head trauma affects a child's developing brain and its potential link to mental health disorders. Current scientific research strongly suggests delaying participation in contact sports until children are at least 14 years old.

Your child's brain is their most vital organ, shaping their future success, well-being, and longevity. As parents, who wouldn't want to learn how to better protect their children? We invite you to explore Mac's story, our foundation's mission, discover how science informs us about the risks children may face, and what we can do about it.

Young males have the highest odds of developing novel suicidal ideation within 365 days following a concussion.

~Alexander Ballatori

May 2024

Concussion, CTE experts warn term used to describe head impacts – “subconcussion” – is misleading and dangerous


May 14, 2024 in Medicine Reading Time: 4 mins read

Alabama teen dies after head injury during high school football game

By Melissa Alonso and Amy Simonson, CNN
3 minute read · Updated 9:58 PM EDT, Mon August 26, 2024



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If we have proof that adult brains are affected by subconcussive trauma, how can we ignore the fact that a child's developing brain is exponentially MORE vulnerable to the same trauma?

We have enough PROOF, let's do something with it and stop making excuses.

Thank you,

Bruce Parkman

DISCOVERY · HEALTH · HEALTH & MEDICINE

MCG researcher says combat blasts caused injury to brain-cleansing system

Jennifer Hilliard Scott 4 min read May 30, 2024

Slides of tissue taken from Kosta Karageorge's brain (in the frame on top). Ann McKee, a neuropathologist, found early signs of permanent brain damage. Erik Jacobs for The New York Times

High school football player that committed suicide had brain damage

Increasing number of young athletes, like Tyler Hilinski, suffering from CTE

Volleyball star Hayley Hodson had it all, until blows to her head changed everything *Los Angeles Times*

Study: 1 in 9 Kids Develop Mental Health Issues After Concussion

College Football Player Dies; Brain Injury Suspected

Frostburg State senior Derek Sheely died Sunday after collapsing at practice.



Kelly Catlin: cycling world champion suffered concussion in months before suicide

Parents' agony as rugby player son, 14, dies from 'second impact syndrome' after playing on for 25 minutes following heavy collision

The terrifying link between concussions and suicide

The Washington Post
Democracy Dies in Darkness



ACHIEVEMENTS

The Mac Parkman Foundation has taken the lead in promoting research, studies, and awareness about the risks of children playing contact sports and the associated damage to their brain and mental illnesses that can result. With partnerships across the country with CTE, Neurology, Family Foundations

and leading research centers like Boston University Center for CTE and the Mt. Sinai Neuropathology Brain Bank & Research CoRE, the Mac Parkman has supported numerous studies to demonstrate that our children are being harmed by early participation in contact sports.

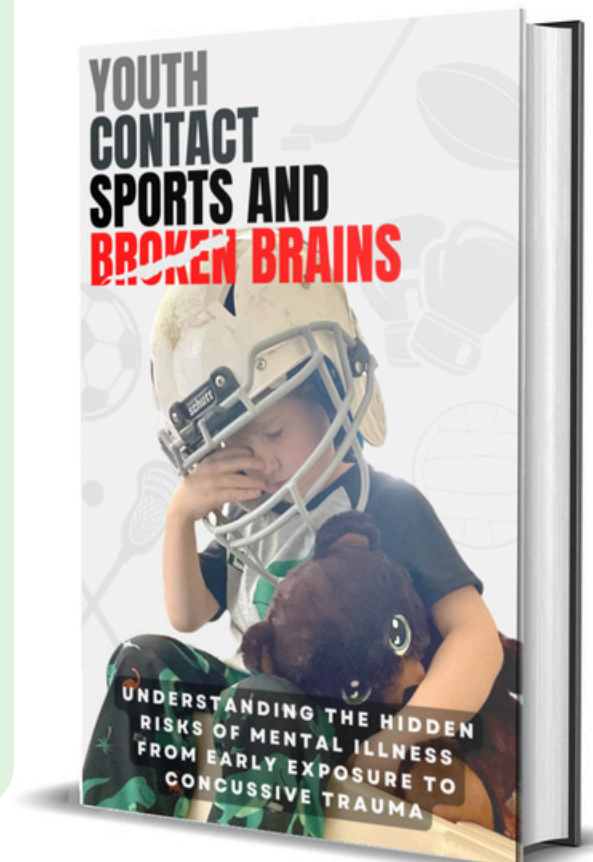
Comprehensive Book Update and Digital Access

Expanded Content and Research

Enhanced Information: We have thoroughly updated our book, Youth Contact Sports and Broken Brains, incorporating the latest research findings and expert insights on brain injuries in youth sports. This new content provides a deeper understanding of the risks and long-term impacts of repeated head injuries, offering valuable information for parents, coaches, and healthcare professionals.

Digital Accessibility

Free Online Version: To ensure widespread access to this critical information, we have created a digital version of the updated book. This digital copy is now available for free on our website, making it easy for anyone to read and benefit from our latest research and recommendations.

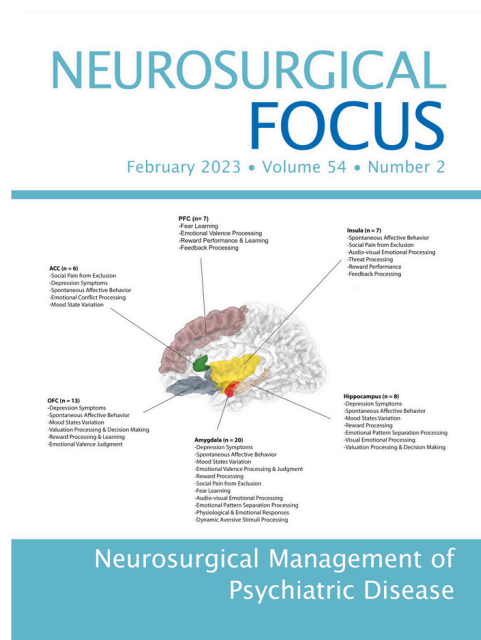


Funded Research

Mac Parkman Foundation Funds Brain Injury Research in Young Athletes

The Mac Parkman Foundation has committed \$258,000 to Boston University and the Icahn School of Medicine at Mount Sinai to study changes in the brains and neuropsychiatry of young contact sport athletes.

This work aims to help explain how white matter changes arising from repetitive head impacts lead to serious morbidity, including death. It has the potential to dramatically alter the way American football is played and neuropsychiatric illness is diagnosed. This research was published and is being used to update the book, will be included in the app, and research shared publicly, as well as used in the next round of research.



Our sponsored research was published on [Novel Psychiatric Disorders Following Mild Traumatic Brain Injury: a Retrospective Multivariable Analysis with Screening Recommendations](#)

The Mac Parkman App

Enhancing Community Accessibility

In 2023, our organization secured funding to initiate the planning and development of an app designed to offer the following benefits to the community:

- **Increasing Accessibility:** Enables supporters, volunteers, and beneficiaries to access information and resources anytime, anywhere.
- **Enhancing Engagement:** Interactive features and push notifications keep users informed and engaged with events, updates, and calls to action.
- **Streamlining Communication:** Provides a direct channel for sharing important messages and receiving feedback, improving communication between the organization and the community.
- **Simplifying Donations:** Integrated donation features make it easier for supporters to contribute financially, enhancing fundraising efforts.
- **Tracking Impact:** Data analytics from app usage offer valuable insights into user behavior and program effectiveness.
- **Building Community:** Forums, chat features, and social media integration can help build a sense of community among supporters, volunteers, and beneficiaries.



Community Growth & Reach

(January 1, 2023, through December 31, 2023)

Our message is resonating with the community, and they are actively using the information!

Our leading social channels are up significantly in 2023!

Reach

Compare your reach from this period to the previous one.

Facebook Page reach

42,871 ↑ 324.9%

Instagram reach

2,474 ↑ 13.6K%

→ We tend to outperform our peers.

Instagram followers ⓘ

2K

Higher than others

Typically: 502

New Instagram followers ⓘ

512

Higher than others

Typically: 17

Content interactions ⓘ

119

Similar to others

Typically: 87

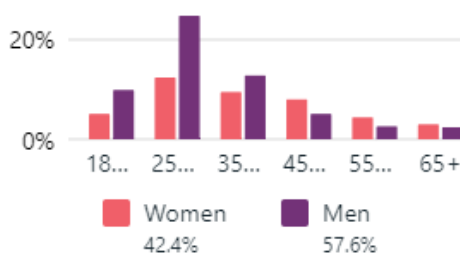
→ We have found our target with a younger audience.

Audience

Facebook Page likes

3,532

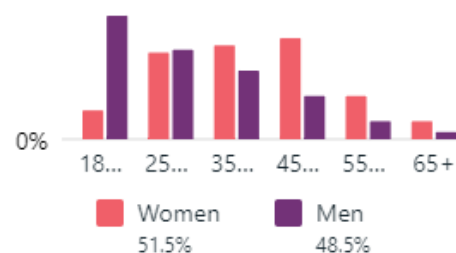
Age & gender



Instagram followers

1,983

Age & gender



Education & Awareness

Connecting the dots between youth contact sports, subconcussive trauma, brain injuries and progressive mental health issues among adolescent athletes.

The Mac Parkman Foundation is dedicated to raising awareness and educating the community—including parents, coaches, doctors, and trainers—about repeated head trauma and its association with mental illness. In 2023, our organization launched outreach campaigns in Michigan and Florida, collaborating with local sports leagues, coaches, parents, and partners. These efforts focused on educating children, parents, and coaches about the critical importance of brain health and how simple adjustments in play can significantly enhance the mental well-being and future prospects of our youth.

Our organization connected with over 500 families and coaches in 2023 and aligned with local leagues and associations in MI and FL to prepare for the launch of our Head Smart app and education programs.

The Mac Parkman Foundation Podcast

We have expanded our podcast series, now titled 'Broken Brains with Bruce Parkman,' to delve deeper into subconcussive trauma, repeated head injuries, their impact on mental health, and strategies to prevent such trauma. This series invites supporters to join us on our journey of discovery and education.



#kidsbrainsmatter

Our team loves working with journalists to share our compelling story.

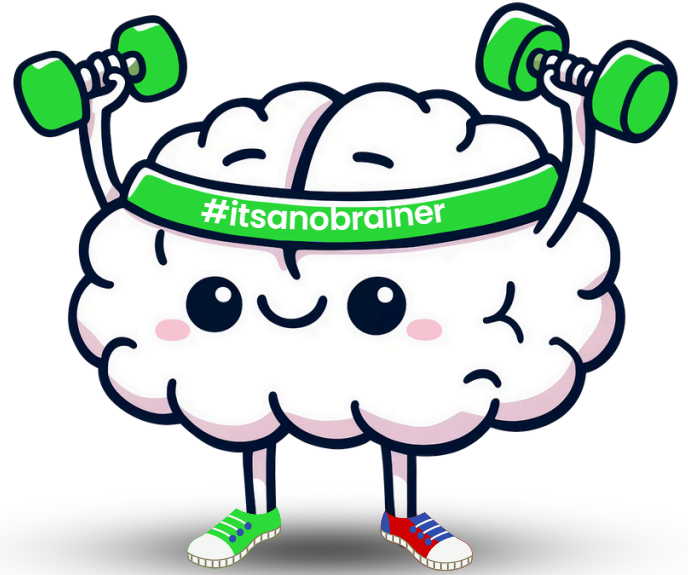


What does that mean?

Our message is getting out there and influencing the generational change that needs to happen.

With social media algorithms, the more engagement the wider the reach.

The data is letting us know that our message is being seen and engaged by more and more people --> in the target demographic that we want!



To raise awareness of brain damage from contact sports and mental illness in adolescents, we recognize March 10 every year as "Mismatched Socks for Mac Day."

Mac was colorblind and fondly remembered for his habit of wearing mismatched socks. Mac's approach to life taught us to look beyond superficial details and care more about the things that matter. By remembering him on this day, we aim to spread awareness and encourage others to take action to address these critical issues affecting our youth.





Funds Raised

In 2023, we raised over \$260,000, which is fueling the development of our app, community outreach initiatives, and training programs for coaches. These funds are helping us launch impactful programs in 2024 that will educate parents, empower coaches, and protect the brain health of young athletes nationwide. We are grateful for the support that enables us to continue driving change and safeguarding futures.

These funds will support our ongoing initiatives, ensuring their growth and impact. Looking ahead, we aim to raise an additional \$350,000 to meet our expanding needs and continue making a positive difference in our community.

2024/2025 GOALS



1 Continue to fund research

Research on the impact of repetitive head injuries (RHI) and brain damage in adolescents is still in its early stages, and diagnosing brain damage/CTE in vivo remains a key goal. We are committed to conducting research projects to develop protocols for diagnosing Traumatic Encephalopathy Syndrome (TES) and to explore early identification and intervention for adolescents with mental health issues. While this research progresses, we will not remain passive. Instead, we will educate our community, raise awareness, and provide resources that offer solutions and support.

2 Raise Awareness

We aim to raise awareness about sub-concussive trauma and repeated head injuries, highlighting their impact on children due to overexposure. Millions live with mental illness, facing daily struggles; we must prevent this for today's children and future generations while also providing support for those currently affected.

3 Legislature

Sports are great for kids, but there are limits to what kids should be doing at a young age, or there should be. As a foundation, our goal is to prohibit contact sports before the age of 14 and to promote non-contact forms of those sports to protect our children. Recent conversations with lawmakers in Washington D.C. and in state capitals indicate strong support for legislation that will support these objectives. We can be supportive of sports for kids while still wanting to make sure they are safe on the field or court!

2024/2025 GOALS

4 **Education, Advocacy and a Path forward - Launch of our App**

Take the lead in establishing and implementing best practices for concussion and repeated head trauma protocols. Our app serves as a centralized community hub for parents, coaches, athletes, and athletic trainers to educate themselves about the risks associated with concussions and repeated head injuries (RHI). It provides insights into play adjustments that can safeguard young athletes, along with information on effective treatments and preventive measures for ensuring proper healing. We compile a comprehensive list of best practices, paving a safe and informative path forward for all stakeholders.



5 **Conference**

Planning our Inaugural Summit on Subconcussive Trauma and Brain Health for May 2024. This conference is expertly curated to convene distinguished stakeholders from the research, medical, psychological, veteran, and legislative sectors. Our primary aim is to delve into the profound implications of subconcussive trauma across children, adults, and veterans. Together, we seek to spotlight cutting-edge advancements in scientific research, diagnostic techniques, and treatment modalities, ensuring that these critical insights are communicated effectively to the public.

A MESSAGE FROM OUR LEADERS

Our foundation exists because it must. Ideally, children should be able to enjoy sports without the shadow of brain damage or mental illness, and veterans should not have to face the enduring impacts of their service alone. Yet, here we are—confronting these harsh realities every day as children like Mac and countless veterans endure suffering that could be prevented.

No child should have to face suffering or loss due to a lack of awareness about the dangers of repeated head injuries. No veteran should be left to navigate the profound impacts of their service without the support they rightfully deserve.

Our mission is clear: to transform this painful reality. We are committed to safeguarding our children, honoring our veterans, and advocating for their futures. However, we cannot achieve this alone. We need your support to spread awareness, influence policy, and drive change within the community.

The message of **#WeShouldHaveKnown** reflects our urgent need to address the gaps in our understanding and prevent future tragedies. The cost of ignorance is measured in the lives of the innocent and the brave. It is our collective responsibility to ensure that knowledge leads to action—so our children can play safely, and our veterans receive the care they need. With our combined efforts, we aim to make strides in reducing the impact of these issues and supporting those in need.

Join us in our commitment to protecting lives and ensuring a brighter future for all.

#WESHOULDHAVEKNOWN



THE
MAC PARKMAN
F O U N D A T I O N
— **We Should Have Known** —

We need your help to...

**Protect the brain
health of children,
athletes, and
veterans**

It's just a no-brainer.