



Defense Health Agency

BIAM Podcast Series: *Picking Your Brain*

Episode 1 “Active Duty”

Featuring Dr. Gary McKinney, Heather Kopf, Dr. Joanne Gold, and Joselyn Griffin

Host: Kate Perelman

(Kate) Every March, we observe Brain Injury Awareness Month, to educate the public about traumatic brain injury or TBI. Established over three decades ago, it also serves to promote the needs of those who have sustained a TBI and their families. At the Defense and Veterans Brain Injury Center, or DVBIC, Brain Injury Awareness Month is an opportunity to provide information on TBI and its effect on military service members and veterans. In this first episode of *Picking Your Brain*, I wanted to highlight the effect of TBI on our active-duty service members and its impact on the military. The Department of Defense has focused a lot of attention and resources on TBI and its impacts on our troops and military operations. In late two thousand seventeen, a Senate Armed-Services Subcommittee held a hearing on the topic. Personnel subcommittee chair, Senator Thom Tillis of North Carolina.

(Sen. Tillis) The personnel subcommittee of the Senate Armed Services Committee meets this morning to receive testimony from government and civilian witnesses on traumatic brain injury. From 2000 through the first half of 2017, the Department of Defense diagnosed over 370,000 service members with TBI. As a nation we must pursue multiple approaches to understand better the chronic effects of mild TBI, including the long term neuro-degenerative problems associated with multiple concussive injuries.

(Kate) Later the following year then Deputy Secretary defense Patrick Shanahan wrote a memo entitled comprehensive strategy and action plan for Warfighter Brain Health, which for the rest of this episode, I will refer to as “the memo.” The memo instructed all the branches of the military to develop broad policies that focused on promoting the brain health of warfighters and counteracting TBI. DVBIC neuroscience clinician, Dr. Joanne Gold explains the significance of the initiative.

(Dr. Joanne Gold) The past 17 years of conflict have really taken a toll on the force, and TBI is a less visible and poorly understood consequence of those conflicts. And so it's really the DoD's enduring responsibility, and I like that, enduring responsibility to promote and protect the health and well-being of the men and women of our Nation's Armed Forces. And to add to that, myself, I'd also say their families, the caregivers just to extend it to the other people that are fighting the war at home, sort of speak. And then also to maintain the fighting force, you know, you hear about the readiness and lethality of the force, we have to be ready to support and defend the United States.

(Kate) Former Army combat medic Gary McKinney in the Clinical Affairs Branch at DVBIC explains his experience with TBI while on active duty.



(Mr. McKinney) In knowing what I know now I'm sure I saw many more concussions than I did, then I knew that I seen at the time, if you don't know what you're looking for, even as a medic, then you might miss a simple concussion. And then the education that comes along with that for medics and people in general, when you hear like I had my bell wrong, or I saw stars, you know, back then we didn't really attribute that and connect it with being an actual concussion, but that's really what it is. Myself playing basketball, I saw stars and didn't learn to you know, few years later that I probably had a mild concussion. You know, most people recover within a week and so I had no residual symptoms or anything remaining from that event. You know, even when you're in combat you're preparing to go out of the wire are you preparing to do certain things people get hurt. Just from training people get hurt just from daily operations within a FOB, a forward operating base. Then you have the actual combat, you know, there's IEDs, vehicle rollover, some of the things that you might see, other than IEDs in garrison and training accidents, those actually happen in combat as well. The blast exposures, those different type of events, so there's multiple ways to be injured and sustained a concussion in combat.

(Kate) A TBI is defined as a blow or jolt to the head that disrupts the normal function of your brain. Although a majority of people who have sustained a TBI will fully recover within a few days, TBI can also have potentially devastating effects on service members, ranging from brief changes in mood and trouble sleeping to the loss of brain function and even self-harm. Sustaining a TBI in the military is not always what you think. Picture being overseas and your vehicle hits an IED...

<Explosion, ears ringing, and heaving breathing sound effects>

The impact of the blast throws you from your vehicle. You're briefly knocked unconscious and you wake up disoriented. You might think that combat scenarios like this are the most common way service members sustain a TBI. However, only about 20 percent of TBIs are sustained while in a deployed setting.

The majority of active-duty TBIs, about 80 percent, are actually sustained on bases in the U.S. Service members are more likely to sustain a TBI recreationally or during routine training than from a combat zone. With this in mind, let's picture a different scenario.

<Recreation Collision sound effects>

(Kate) You're playing basketball on base. You and one of your fellow NCOs both dive for a loose ball and...your heads collide together. But no matter how service members may sustain a TBI, everyone from their battle buddies to leadership must know the signs and symptoms – because left untreated, the injury can have a far worse effect.



In September two thousand and twelve, the Department of Defense mandated that military leaders evaluate all service members who were involved in potentially concussive events (or PCEs) in their units. This policy required leaders to report all PCEs within 24-hours, as well as order a 24-hour rest period for service members involved. Leaders were also mandated to refer their troops to health care professionals for further evaluation, even if they weren't showing signs of TBI symptoms. Service members involved in PCEs are only permitted to return to duty after they've completed the mandated rest period and if no concussion was diagnosed. This policy is important because it allows leaders to further protect their troops, because, as Dr. Gold states, service members may choose to overlook any TBI symptoms to continue supporting their mission.

(Dr. Gold)...And I think we also have a predisposition to put others before ourselves. And I think the fact that service members volunteer to serve, we actually have selected this particular population that will put themselves, you know, last and put others first.

(Capt. Greeson) William Greeson, active-duty Captain, United States Marine Corps. Ooh-rah. Yeah, in '09 when I was in Helmand with the 1-5, you know, I had an RPG blow up just, I'd say about 20 feet from me in one particular incident. It's hard to self-diagnose when you aren't able to see yourself, you know, it takes people that are around you to know that you are having these issues, because you're just frustrated, maybe just and you're trying to just sign it off as well, "you know, yeah, of course, I'm just getting reset here." No one talks about the psychological effects, social effects of injuries because you don't want to talk about it, right? Especially type-A's, military alphas who are "I'm gonna go out front, I'm gonna lead. I'm just gonna do this. I'm going to get it done, and we'll talk about this later." And then later never comes.

(Kate) Because of the Department of Defense mandate, leaders of service members like Captain Greeson are now equipped with several tools, including those that help them identify the early signs and symptoms of a TBI in their troops. Take, for example, DVBIC's Line Leader Fact Sheet. In addition to describing the responsibilities of leaders in the mandated policy, it provides instructions on how and when to evaluate service members involved in a PCE while deployed. DVBIC Dissemination Specialist Heather Kopf explains how leaders can use this information.

(Heather Kopf) So the TBI Line Leader Fact Sheet for traumatic brain injury provides the line leader or commander themselves the signs and symptoms of traumatic brain injury, how to look out for that and why it's important to get that service member treated or seen for screening. So the fact sheet goes through what a potentially concussive event is and what to look out for in their service members, as well as how to recognize the signs and symptoms of TBI what we call the H.E.A.D.S. acronym so including headaches and or vomiting, ears ringing, amnesia altered or loss of consciousness, double vision and or dizziness or something feels wrong or just not right. And so through using any of those signs, we know that there might have been a concussion in that



service member and they need to go get screened. I think that importance of making sure that people are aware of TBI is because it's so prevalent. TBI affects everybody. We are there for our service members and veterans were there to make sure that they know what to do to protect themselves and protect each other and what to do in case they do get a concussion or a TBI in order for them to recover and be mission ready once again.

(Kate) In addition to fact sheets, DVBIC has another great resource for TBI information. The A Head for the Future initiative provides resources to help the military and veteran communities prevent, recognize, and recover from TBI. Through their “TBI champion” video series, A Head for the Future tells the real stories of service members and veterans, their TBI diagnosis, and their road to recovery. To explain, here’s Joselyn Griffin, program manager of the A Head for the Future Outreach initiative.

(Joselyn Griffin) My team aims to provide a network of resources that highlights the signs the symptoms and treatment of TBI through the power of storytelling and dedication of sharing information.

(AHFTF TBI Commercial) Of course, getting a TBI was not my plan. But I think you know everything happens for a reason. I feel pretty blessed have a very strong support group between the family and friends and it's been amazing. You gotta not be shamed by it and kind of go out there and do your thing.

(Kate) For more information about DVBIC resources featured in this episode go to dvbic.dcoe.mil/Resources. That's d-v-b-i-c dot d-c-o-e dot mil slash resources. We'll also have the link in the episode description. *Picking Your Brain* is a four-part series from the Defense and Veterans Brain Injury Center that focuses on the care and recovery of service members and veterans who have sustained a TBI. It's produced and edited by Vinnie White and Sara Bailey. It was hosted today by me, Kate Perelman. On the next episode of *Picking Your Brain*, we'll cover the Veterans Administration’s dedication to TBI prevention and recovery through their VA Polytrauma System of Care.