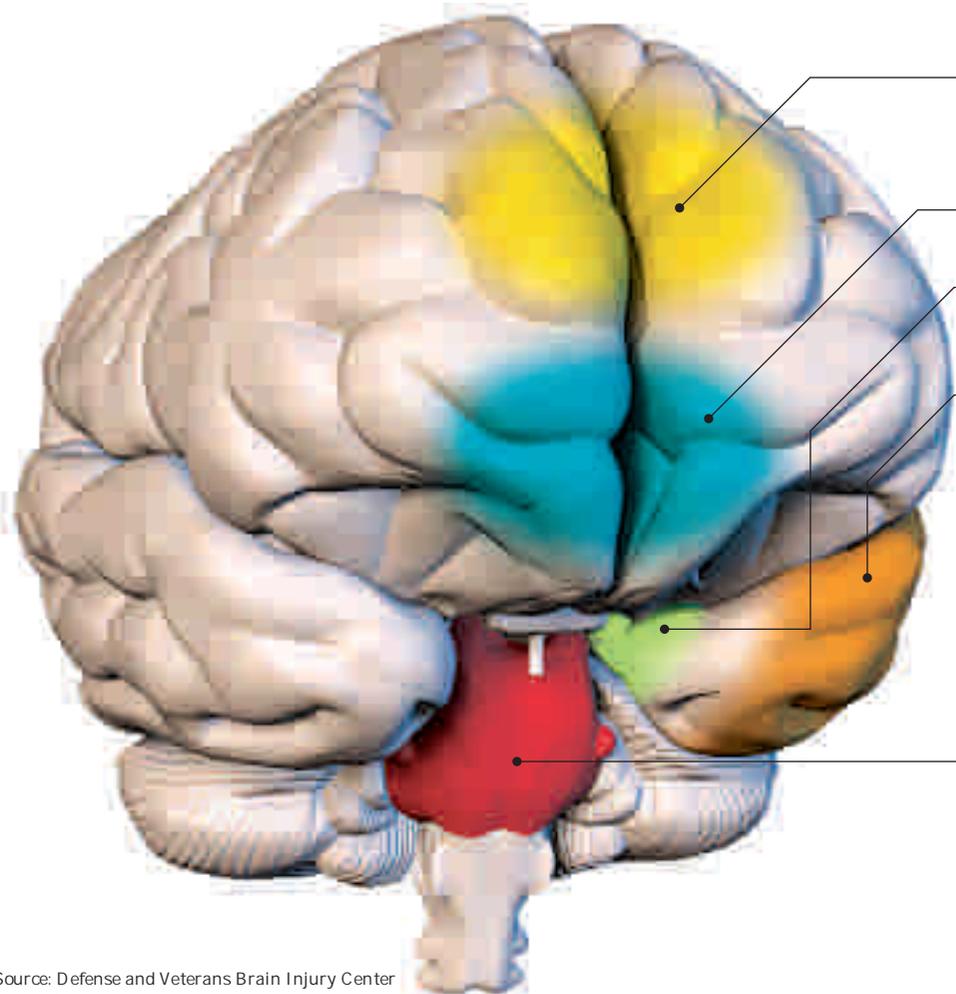




**'BOURNE' KILLER
THE AMNESIAC
ASSASSIN IS BACK
IN 'ULTIMATUM'**
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WHAT TBI AFFECTS

DORSOLATERAL PREFRONTAL CORTEX

Responsible for executive function, including sustained and complex attention, memory retrieval, abstraction, judgment, insight and problem-solving.

ORBITOFRONTAL CORTEX

Responsible for emotional and social responding.

AMYGDALA AND HIPPOCAMPAL ENTORHINAL COMPLEX

Responsible for emotional learning and conditioning (including fear and anxiety), and declarative memory.

ANTERIOR TEMPORAL CORTEX

Responsible for memory retrieval and sensory-limbic integration.

VENTRAL BRAINSTEM

Responsible for arousal and activation of other parts of the brain.

SIGNS AND SYMPTOMS

- Lack of coordination
- Light and noise sensitivity
- Loss of consciousness
- Short-term memory loss
- Foggy or dazed feeling
- Headaches
- Dizziness
- Nausea
- Vacant stare
- Visual problems
- Slowed processing or reactions
- Confusion or disorientation
- Sleep changes
- Personality changes

Source: Defense and Veterans Brain Injury Center
CHRIS BROZ/STAFF

War's 'signature' wound

Traumatic brain injuries
common, but hard to spot

Stories by Kelly Kennedy

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Sitting in a fast-food restaurant near Fort Belvoir, Va., Army Master Sgt. José Santiago, his knee bouncing up and down, asked to switch to another table.

"Since I got back, I don't like to be around dirty things," he said, wiping a wet spot from the new table with a napkin.

He then settled in for a five-hour conversation that looped back over things he had already covered, stalled when he couldn't remember a word he wanted to use and stopped when he tried to talk about how the first day of the Iraq war damaged his family.

"Did I already tell you that?" he asked, dozens of times, wincing when he feared he had.

Santiago, a chemical, biological, radiological and nuclear operations specialist, made E-7 in nine years, was picked for a special

team assigned to look for weapons of mass destruction in Iraq, and spent most of his school years in classes for gifted kids.

"I was a fast-tracker," he said.

Now, he leaves for medical appointments three hours early — even if he knows the office is only 45 minutes away — because he gets lost easily. An alarm reminds him to take his eight medications. Worse, he forgets he already swallowed his pain or anti-depression pills, and gulps down another handful.

"I almost OD'ed twice," he said.

At home, his three teenage daughters don't talk at breakfast because the noise is too distracting for their dad. They know the annual trips to the amusement park are over, as are barbecues, parties and Sunday afternoons at the movies. He stutters when frustrated, has little impulse control and angers easily.

"I just thought I got stupid all

of a sudden," he said, laughing ruefully as he sipped a Coke. "My buddies kept saying, 'What the hell's wrong with Joe?'"

What's wrong with Joe is this: At dawn on March 20, 2003, as U.S. troops awaited word to cross the Kuwaiti border and invade Iraq, Santiago fell off a berm as he scanned the enemy territory ahead through binoculars.

"It was still a little dark," he said. "I lost my footing, fell 15 to 20 feet and landed on the crown of my head."

Rather than see a doctor about his headaches and tunnel vision or the numbness in his arm, he dusted off the sand and drove on.

The 'signature' war injury

It was three more years before doctors realized Santiago had what experts call the Iraq war's "signature" wound: a traumatic brain injury.

Since the war in Afghanistan



RICK KOZAK/STAFF

Army Master Sgt. José Santiago suffers from a traumatic brain injury.

began in 2001, about 2,100 troops have been formally diagnosed with TBIs. But officials estimate up to 150,000 troops may have suffered concussions — mild TBIs — from roadside bomb attacks.

According to the Defense and Veterans Brain Injury Center, a research and treatment agency run by the Pentagon and Veterans Affairs Department, 64 percent of injured troops have suffered brain injuries.

"On today's battlefield," the DVVIC Web site says, "TBI is one of the most frequent causes of death and disability."

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The Pentagon is pushing for a new and more efficient joint disability rating system, while the Department of Veterans Affairs wants to cut down the claims backlog by automatically approving some claims.

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