



**BOSTON ASSESSMENT OF TBI-LIFETIME
BAT-L FOR
SURVIVORS OF INTIMATE PARTNER VIOLENCE
IN VETERANS AND MILITARY SERVICE MEMBERS**



VA BOSTON HEALTHCARE SYSTEM

**THIS RESEARCH WAS SUPPORTED BY THE
TRANSLATIONAL RESEARCH CENTER FOR TBI AND STRESS DISORDERS (TRACTS)
A VA REHABILITATION RESEARCH AND DEVELOPMENT NATIONAL NETWORK CENTER FOR TBI**

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BAT-L

The Boston Assessment of Traumatic Brain Injury-Lifetime (BAT-L) was designed to capture the unique injuries sustained during post-9/11 deployment with particular attention to blast injuries. In addition, head injuries incurred across the lifespan are evaluated. The emphasis of this semi-structured interview is to obtain a detailed account of the injury including the context and events occurring before, during, and after the injury in both civilian and military experiences.

Administration

The BAT-L was created for use in a research setting where detailed information regarding TBI incidence and severity is necessary. The instrument guides the examiner in gathering necessary information from veterans and service members about the three worst TBIs for each category of injury (military blast, military other, pre-military, and post-military). Information is reviewed by a TBI diagnostic consensus team consisting of at least three doctoral-level psychologists, including at least one neuropsychologist. The consensus approach is integral to the instrument. If used without a consensus team, review of selected cases is suggested to assure a consistent diagnostic approach. It may be used both independently as well as part of a larger clinical interview. Please contact the TRACTS team for consultation and training requests.

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BAT-L hybrid classification system for the diagnosis of mTBI into mild Grade I, II, and III injuries (adapted from Bailes and Cantu, 2001) and VA and DoD consensus criteria for TBI severity as defined in the *Clinical practice guidelines: management of concussion—mild traumatic brain injury (mTBI)*. (DOD, 2009).

Criteria	Mild			Moderate	Severe
	Grade I	Grade II	Grade III		
Loss of Consciousness	None	< 5 minutes	> 5 minutes and < 30 minutes	> 30 minutes and < 24 hours	> 24 hours
Alteration of Mental Status	0 – 15 minutes	> 15 minutes and < 24 hours	> 24 hours	> 24 hours; severity based on other criteria	
Post Traumatic Amnesia	0 – 15 minutes	> 15 minutes and < 24 hours	> 24 hours	> 1 day and < 7 days	> 7 days
Glascow Coma Scale	13 - 15			9 - 12	< 9

Department of Veterans Affairs and Department of Defense. (2009). VA/DoD clinical practice guideline for the management of concussion/mild traumatic brain injury. Retrieved from http://www.healthquality.va.gov/mtbi/concussion_mtbi_full_1_0.pdf.

BAT-L SUMMARY SCORE SHEET

MILITARY BLAST:

Total # of Blast Exposures:	0 - 10 Meters	11 - 25 Meters	26 - 100 Meters
<input style="width: 100px; height: 40px;" type="text"/>	<input style="width: 100px; height: 40px;" type="text"/>	<input style="width: 100px; height: 40px;" type="text"/>	<input style="width: 100px; height: 40px;" type="text"/>

Total # Blast TBIs:	<input style="width: 100px; height: 40px;" type="text"/>
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<u>1st Most Severe</u>	<u>2nd Most Severe</u>	<u>3rd Most Severe</u>
Age <input style="width: 150px; height: 30px;" type="text"/>	Age <input style="width: 150px; height: 30px;" type="text"/>	Age <input style="width: 150px; height: 30px;" type="text"/>
AMS <input style="width: 150px; height: 30px;" type="text"/> hr / min / sec	AMS <input style="width: 150px; height: 30px;" type="text"/> hr / min / sec	AMS <input style="width: 150px; height: 30px;" type="text"/> hr / min / sec
PTA <input style="width: 150px; height: 30px;" type="text"/> hr / min / sec	PTA <input style="width: 150px; height: 30px;" type="text"/> hr / min / sec	PTA <input style="width: 150px; height: 30px;" type="text"/> hr / min / sec
LOC <input style="width: 150px; height: 30px;" type="text"/> hr / min / sec	LOC <input style="width: 150px; height: 30px;" type="text"/> hr / min / sec	LOC <input style="width: 150px; height: 30px;" type="text"/> hr / min / sec
Severity <input type="checkbox"/> Mild <i>If Mild:</i> <input type="checkbox"/> Stage I <input type="checkbox"/> Moderate <input type="checkbox"/> Stage II <input type="checkbox"/> Severe <input type="checkbox"/> Stage III	Severity <input type="checkbox"/> Mild <i>If Mild:</i> <input type="checkbox"/> Stage I <input type="checkbox"/> Moderate <input type="checkbox"/> Stage II <input type="checkbox"/> Severe <input type="checkbox"/> Stage III	Severity <input type="checkbox"/> Mild <i>If Mild:</i> <input type="checkbox"/> Stage I <input type="checkbox"/> Moderate <input type="checkbox"/> Stage II <input type="checkbox"/> Severe <input type="checkbox"/> Stage III
BATL Score (0 – 5) <input style="width: 150px; height: 40px;" type="text"/>	BATL Score (0 – 5) <input style="width: 150px; height: 40px;" type="text"/>	BATL Score (0 – 5) <input style="width: 150px; height: 40px;" type="text"/>
Nature of Blast <input type="checkbox"/> Primary (Head) <input type="checkbox"/> Secondary (Head: <input type="checkbox"/> Yes <input type="checkbox"/> No) <input type="checkbox"/> Tertiary (Head: <input type="checkbox"/> Yes <input type="checkbox"/> No) <input type="checkbox"/> Quaternary (Head: <input type="checkbox"/> Yes <input type="checkbox"/> No)	Nature of Blast <input type="checkbox"/> Primary (Head) <input type="checkbox"/> Secondary (Head: <input type="checkbox"/> Yes <input type="checkbox"/> No) <input type="checkbox"/> Tertiary (Head: <input type="checkbox"/> Yes <input type="checkbox"/> No) <input type="checkbox"/> Quaternary (Head: <input type="checkbox"/> Yes <input type="checkbox"/> No)	Nature of Blast <input type="checkbox"/> Primary (Head) <input type="checkbox"/> Secondary (Head: <input type="checkbox"/> Yes <input type="checkbox"/> No) <input type="checkbox"/> Tertiary (Head: <input type="checkbox"/> Yes <input type="checkbox"/> No) <input type="checkbox"/> Quaternary (Head: <input type="checkbox"/> Yes <input type="checkbox"/> No)

MILITARY OTHER:

Total # Other TBIs:

<u>1st Most Severe</u>	<u>2nd Most Severe</u>	<u>3rd Most Severe</u>
Age <input style="width: 100%; height: 20px;" type="text"/> AMS <input style="width: 100%; height: 20px;" type="text" value="hr / min / sec"/> PTA <input style="width: 100%; height: 20px;" type="text" value="hr / min / sec"/> LOC <input style="width: 100%; height: 20px;" type="text" value="hr / min / sec"/> Severity <i>If Mild:</i> <input type="checkbox"/> Mild <input type="checkbox"/> Stage I <input type="checkbox"/> Moderate <input type="checkbox"/> Stage II <input type="checkbox"/> Severe <input type="checkbox"/> Stage III BATL Score (0 – 5) <input style="width: 100%; height: 20px;" type="text"/> Nature of Injury <input type="checkbox"/> MVA <input type="checkbox"/> Physical Assault <input type="checkbox"/> Fall <input type="checkbox"/> Penetrating Injury <input type="checkbox"/> Sports-Related <input type="checkbox"/> Other: _____	Age <input style="width: 100%; height: 20px;" type="text"/> AMS <input style="width: 100%; height: 20px;" type="text" value="hr / min / sec"/> PTA <input style="width: 100%; height: 20px;" type="text" value="hr / min / sec"/> LOC <input style="width: 100%; height: 20px;" type="text" value="hr / min / sec"/> Severity <i>If Mild:</i> <input type="checkbox"/> Mild <input type="checkbox"/> Stage I <input type="checkbox"/> Moderate <input type="checkbox"/> Stage II <input type="checkbox"/> Severe <input type="checkbox"/> Stage III BATL Score (0 – 5) <input style="width: 100%; height: 20px;" type="text"/> Nature of Injury <input type="checkbox"/> MVA <input type="checkbox"/> Physical Assault <input type="checkbox"/> Fall <input type="checkbox"/> Penetrating Injury <input type="checkbox"/> Sports-Related <input type="checkbox"/> Other: _____	Age <input style="width: 100%; height: 20px;" type="text"/> AMS <input style="width: 100%; height: 20px;" type="text" value="hr / min / sec"/> PTA <input style="width: 100%; height: 20px;" type="text" value="hr / min / sec"/> LOC <input style="width: 100%; height: 20px;" type="text" value="hr / min / sec"/> Severity <i>If Mild:</i> <input type="checkbox"/> Mild <input type="checkbox"/> Stage I <input type="checkbox"/> Moderate <input type="checkbox"/> Stage II <input type="checkbox"/> Severe <input type="checkbox"/> Stage III BATL Score (0 – 5) <input style="width: 100%; height: 20px;" type="text"/> Nature of Injury <input type="checkbox"/> MVA <input type="checkbox"/> Physical Assault <input type="checkbox"/> Fall <input type="checkbox"/> Penetrating Injury <input type="checkbox"/> Sports-Related <input type="checkbox"/> Other: _____

PRE-MILITARY:

Total # TBIs:

<u>1st Most Severe</u>	<u>2nd Most Severe</u>	<u>3rd Most Severe</u>
Age <input style="width: 100%; height: 20px;" type="text"/> AMS <input style="width: 100%; height: 20px;" type="text" value="hr / min / sec"/> PTA <input style="width: 100%; height: 20px;" type="text" value="hr / min / sec"/> LOC <input style="width: 100%; height: 20px;" type="text" value="hr / min / sec"/> Severity <i>If Mild:</i> <input type="checkbox"/> Mild <input type="checkbox"/> Stage I <input type="checkbox"/> Moderate <input type="checkbox"/> Stage II <input type="checkbox"/> Severe <input type="checkbox"/> Stage III BATL Score (0 – 5) <input style="width: 100%; height: 20px;" type="text"/> Nature of Injury <input type="checkbox"/> MVA <input type="checkbox"/> Physical Assault <input type="checkbox"/> Fall <input type="checkbox"/> Penetrating Injury <input type="checkbox"/> Sports <input type="checkbox"/> Other: _____	Age <input style="width: 100%; height: 20px;" type="text"/> AMS <input style="width: 100%; height: 20px;" type="text" value="hr / min / sec"/> PTA <input style="width: 100%; height: 20px;" type="text" value="hr / min / sec"/> LOC <input style="width: 100%; height: 20px;" type="text" value="hr / min / sec"/> Severity <i>If Mild:</i> <input type="checkbox"/> Mild <input type="checkbox"/> Stage I <input type="checkbox"/> Moderate <input type="checkbox"/> Stage II <input type="checkbox"/> Severe <input type="checkbox"/> Stage III BATL Score (0 – 5) <input style="width: 100%; height: 20px;" type="text"/> Nature of Injury <input type="checkbox"/> MVA <input type="checkbox"/> Physical Assault <input type="checkbox"/> Fall <input type="checkbox"/> Penetrating Injury <input type="checkbox"/> Sports <input type="checkbox"/> Other: _____	Age <input style="width: 100%; height: 20px;" type="text"/> AMS <input style="width: 100%; height: 20px;" type="text" value="hr / min / sec"/> PTA <input style="width: 100%; height: 20px;" type="text" value="hr / min / sec"/> LOC <input style="width: 100%; height: 20px;" type="text" value="hr / min / sec"/> Severity <i>If Mild:</i> <input type="checkbox"/> Mild <input type="checkbox"/> Stage I <input type="checkbox"/> Moderate <input type="checkbox"/> Stage II <input type="checkbox"/> Severe <input type="checkbox"/> Stage III BATL Score (0 – 5) <input style="width: 100%; height: 20px;" type="text"/> Nature of Injury <input type="checkbox"/> MVA <input type="checkbox"/> Physical Assault <input type="checkbox"/> Fall <input type="checkbox"/> Penetrating Injury <input type="checkbox"/> Sports <input type="checkbox"/> Other: _____

POST-MILITARY:

Total # TBIs:		
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<u>1st Most Severe</u>	<u>2nd Most Severe</u>	<u>3rd Most Severe</u>
Age	Age	Age
AMS	AMS	AMS
PTA	PTA	PTA
LOC	LOC	LOC
Severity	Severity	Severity
<input type="checkbox"/> Mild <input type="checkbox"/> Moderate <input type="checkbox"/> Severe	<input type="checkbox"/> Mild <input type="checkbox"/> Moderate <input type="checkbox"/> Severe	<input type="checkbox"/> Mild <input type="checkbox"/> Moderate <input type="checkbox"/> Severe
<i>If Mild:</i>	<i>If Mild:</i>	<i>If Mild:</i>
<input type="checkbox"/> Stage I <input type="checkbox"/> Stage II <input type="checkbox"/> Stage III	<input type="checkbox"/> Stage I <input type="checkbox"/> Stage II <input type="checkbox"/> Stage III	<input type="checkbox"/> Stage I <input type="checkbox"/> Stage II <input type="checkbox"/> Stage III
BATL Score (0 – 5)	BATL Score (0 – 5)	BATL Score (0 – 5)
Nature of Injury	Nature of Injury	Nature of Injury
<input type="checkbox"/> MVA <input type="checkbox"/> Fall <input type="checkbox"/> Sports-Related	<input type="checkbox"/> MVA <input type="checkbox"/> Fall <input type="checkbox"/> Sports-Related	<input type="checkbox"/> MVA <input type="checkbox"/> Fall <input type="checkbox"/> Sports-Related
<input type="checkbox"/> Physical Assault <input type="checkbox"/> Penetrating Injury <input type="checkbox"/> Other: _____	<input type="checkbox"/> Physical Assault <input type="checkbox"/> Penetrating Injury <input type="checkbox"/> Other: _____	<input type="checkbox"/> Physical Assault <input type="checkbox"/> Penetrating Injury <input type="checkbox"/> Other: _____

IPV-RELATED:

Total # TBIs:		
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<u>1st Most Severe</u>	<u>2nd Most Severe</u>	<u>3rd Most Severe</u>
Age	Age	Age
AMS	AMS	AMS
PTA	PTA	PTA
LOC	LOC	LOC
Severity	Severity	Severity
<input type="checkbox"/> Mild <input type="checkbox"/> Moderate <input type="checkbox"/> Severe	<input type="checkbox"/> Mild <input type="checkbox"/> Moderate <input type="checkbox"/> Severe	<input type="checkbox"/> Mild <input type="checkbox"/> Moderate <input type="checkbox"/> Severe
<i>If Mild:</i>	<i>If Mild:</i>	<i>If Mild:</i>
<input type="checkbox"/> Stage I <input type="checkbox"/> Stage II <input type="checkbox"/> Stage III	<input type="checkbox"/> Stage I <input type="checkbox"/> Stage II <input type="checkbox"/> Stage III	<input type="checkbox"/> Stage I <input type="checkbox"/> Stage II <input type="checkbox"/> Stage III
BATL Score (0 – 5)	BATL Score (0 – 5)	BATL Score (0 – 5)
Nature of Injury	Nature of Injury	Nature of Injury
<input type="checkbox"/> MVA <input type="checkbox"/> Fall <input type="checkbox"/> Sports-Related	<input type="checkbox"/> MVA <input type="checkbox"/> Fall <input type="checkbox"/> Sports-Related	<input type="checkbox"/> MVA <input type="checkbox"/> Fall <input type="checkbox"/> Sports-Related
<input type="checkbox"/> Physical Assault <input type="checkbox"/> Penetrating Injury <input type="checkbox"/> Other: _____	<input type="checkbox"/> Physical Assault <input type="checkbox"/> Penetrating Injury <input type="checkbox"/> Other: _____	<input type="checkbox"/> Physical Assault <input type="checkbox"/> Penetrating Injury <input type="checkbox"/> Other: _____

BOSTON ASSESSMENT OF TBI-LIFETIME

BAT-L Score (0 – 5):	BAT-L Lifetime Total Score
0 = no TBI	Sum Military Blast BATL Scores _____
1 = mTBI grade I	Sum Military Other BATL Scores _____
2 = mTBI grade II	Sum Pre-Military BATL Scores _____
3 = mTBI grade III	Sum Post-Military BATL Scores _____
4 = moderate TBI	Sum IPV Scores _____
5 = severe TBI	
	<div style="border: 1px solid black; width: 100px; height: 30px; background-color: #cccccc; margin: 0 auto;"></div>
	BAT-L TOTAL LIFETIME SCORE TOTAL
BAT-L Total Score = Sum of the scores for the three worst TBIs across all categories of injury (blast-related, military other, pre-military, post-military and IPV) (BAT-L Total Score: Range = 0 - 75).	

Total Repetitive Blasts/Exposures: _____

MILITARY HEAD INJURIES

During this interview I will be asking you about any blows to the head that may have occurred to you during your life. First, I will ask you about any blasts or explosions you may have been exposed to while in the military.

MILITARY BLAST:

During your time in the military, were you involved in any blasts or explosions within 100 meters?

Uncertain

No *If no, query further about types of blasts/explosions (item 1 below) to rule out blast exposure then discontinue questionnaire if none.*

Yes *If yes, How many blasts were you exposed to within ____ meters?*

≤ 10 meters: _____
Cue: Approximately 32 feet or the length of 2 parking spaces

11 – 25 meters: _____
Cue: Approximately 82 feet or the distance between home base and first base in a professional baseball diamond

26 – 100 meters: _____
Cue: Approximately 320 feet or the length of a professional football field

Total Blasts: _____

Next, I am going to ask you about the three worst or most severe blasts you experienced while deployed. I am not looking for the most upsetting incidents, but rather the blasts that were the most severe or that were the strongest/closest.

MILITARY BLAST #1 (Most Severe):

Age (or best estimate) at time of occurrence: _____

1. What type of blast/accident was it?

- Unknown
- Grenade
- Bomb
- Other: _____
- IED
- Land mine
- Rocket
- RPG
- Mortar
- Suicide vest/bomb

2. Do you remember the blast/accident itself? *If yes, Can you describe it to me? If you don't remember, can you tell me what other people said happened?*

a. Were others seriously injured?

- Uncertain
- No
- Yes

b. How far away was the blast/explosion? *Clarify/confirm distance of closest blast/explosion for consistency. If patient is uncertain, encourage pt to provide an estimate.*

- c. What is the last thing you can remember just before the blast/accident? *Clarify timing of events. Cue pt to walk you through time until it is clear there are no gaps in memory. Probe to ensure clear recall.*
- d. What is the first thing you can remember just after the blast/accident? *Following pt's response ask, How long do you think that was after the blast? Clarify timing of events. Cue pt to walk you through time until it is clear there are no gaps in memory. Probe to ensure clear recall.*
- e. *If injury is the result of an IED or bomb ask, Do you remember hearing the explosion?*
 Uncertain No Yes
- f. Do you remember feeling the pressure changes associated with the blast?
 Uncertain No Yes
- g. What direction did the blast wave/blast come from? *(multiple boxes may be checked)*
 Uncertain Front Back Left Right Under Above
- Was it an incoming blast?
 Uncertain No Yes *If no, What type/direction: _____*
- h. Were you thrown by the blast/accident, either out of a vehicle or off of your feet? Did you hit your head? Was something propelled or thrown at you/your head by the blast/accident? *If yes, ask pt to provide as much information and detail as possible. Note type of vehicle and position in the vehicle if pt was in a vehicle at the time of the blast.*
- i. Did you experience any changes in your vision or hearing during the accident? *Establish that the pt is not reporting mental status change when was in fact hearing/vision change.*
 Uncertain No Yes
Any bleeding from your eardrum?
 Uncertain No Yes
- j. Did you experience confusion or disorientation (not sure where you were, what day or time it was, perform simple math calculations, perform duties as expected) after the blast/accident? If so, for how long? *With this and the following question, try to determine if the pt experienced an actual change in mental status vs. vision/hearing difficulty associated with the blast/accident vs. the chaos surrounding the event. Probe if others thought pt was functioning normally.*

6. Did you experience a disruption of duty after the blast/accident?

- Uncertain
- No
- Yes

If Yes:

For how long were you pulled from duty? _____
 Did you return to active duty? _____
 Did this event lead to medical hold? _____
 Sick leave? _____
 Discharge? _____

EVALUATE MILITARY BLAST #1:

Using the questions above, or in spontaneous dialogue, evaluate the following:

Alteration of mental status:

- NO YES

If yes, enter the estimated duration of the AMS? _____ hr / min / sec
 *AMS = AMS + PTA + LOC

PTA:

- NO YES

If yes, enter the estimated duration of the PTA? _____ hr / min / sec
 *PTA = PTA + LOC

LOC:

- NO YES

If yes, enter the estimated duration of the LOC? _____ hr / min / sec

Substance Related:

- NO
- YES

Setting of Injury:

- Combat
- Non-Combat Military (e.g., training)

Emotional Context of Injury:

- Traumatic
- Non-traumatic

Does the patient actually recall this information themselves? (e.g., can provide specific information regarding what they were doing when blast occurred, etc., or was knowledge gained from the reports of witnesses?)

- Uncertain
- No
- Yes

Blast Injuries:

- Primary:** Injury from over-pressurization force (blast wave) impacting the body surface — TM rupture, pulmonary damage and air embolization, hollow viscus injury
- Secondary:** Injury from projectiles (bomb fragments, flying debris) — Penetrating trauma, fragmentation injuries, blunt trauma
- Tertiary:** Injuries from displacement of victim by the blast wind — Blunt/penetrating trauma, fractures, and traumatic amputations
- Quaternary:** All other injuries from the blast — Crush injuries, burns, asphyxia, toxic exposures, exacerbations of chronic illness

MILITARY BLAST #2 (Second Most Severe):

Age (or best estimate) at time of occurrence: _____

1. What type of blast/accident was it?

- | | | | |
|----------------------------------|------------------------------------|--------------------------------------------|---------------------------------------|
| <input type="checkbox"/> Unknown | <input type="checkbox"/> Grenade | <input type="checkbox"/> Bomb | <input type="checkbox"/> Other: _____ |
| <input type="checkbox"/> IED | <input type="checkbox"/> Land mine | <input type="checkbox"/> Rocket | |
| <input type="checkbox"/> RPG | <input type="checkbox"/> Mortar | <input type="checkbox"/> Suicide vest/bomb | |

2. Do you remember the blast/accident itself? ***If yes***, Can you describe it to me? If you don't remember, can you tell me what other people said happened?

a. Were others seriously injured?

- Uncertain No Yes

b. How far away was the blast/explosion? *Clarify/confirm distance of closest blast/explosion for consistency. If patient is uncertain, encourage pt to provide an estimate.*

c. What is the last thing you can remember just before the blast/accident? *Clarify timing of events. Cue pt to walk you through time until it is clear there are no gaps in memory. Probe to ensure clear recall.*

d. What is the first thing you can remember just after the blast/accident? *Following pt's response ask, How long do you think that was after the blast? Clarify timing of events. Cue pt to walk you through time until it is clear there are no gaps in memory. Probe to ensure clear recall.*

e. *If injury is the result of an IED or bomb ask, Do you remember hearing the explosion?*

- Uncertain No Yes

f. Do you remember feeling the pressure changes associated with the blast?

- Uncertain No Yes

g. What direction did the blast wave/blast come from? *(multiple boxes may be checked)*

- Uncertain Front Back Left Right Under Above

Was it an incoming blast?

- Uncertain No Yes ***If no***, What type/direction: _____

BOSTON ASSESSMENT OF TBI-LIFETIME

h. Were you thrown by the blast/accident, either out of a vehicle or off of your feet? Did you hit your head? Was something propelled or thrown at you/your head by the blast/accident? *If yes, ask pt to provide as much information and detail as possible. Note type of vehicle and position in the vehicle if pt was in a vehicle at the time of the blast.*

i. Did you experience any changes in your vision or hearing during the accident? *Establish that the pt is not reporting mental status change when was in fact hearing/vision change.*
 Uncertain No Yes

Any bleeding from your eardrum?

Uncertain No Yes

j. Did you experience confusion or disorientation (not sure where you were, what day or time it was, perform simple math calculations, perform duties as expected) after the blast/accident? If so, for how long? *With this and the following question, try to determine if the pt experienced an actual change in mental status vs. vision/hearing difficulty associated with the blast/accident vs. the chaos surrounding the event. Probe if others thought pt was functioning normally.*

k. Did you experience a loss of consciousness at the time of the blast/accident (were you 'knocked out')? If so, for how long? If yes, was LOC witnessed (were you told by others you were knocked out/unconscious)? *Probe to ensure LOC is not due to anoxia/alcohol/substance overdose. Probe to differentiate LOC from PTA (if possible).*
 Uncertain No Yes

l. Did you experience any of the following immediately after the event? *Note Sx duration.*

- | | |
|----------------------------------------------------------------------------------------|-----------------|
| <input type="checkbox"/> Headaches | Duration: _____ |
| <input type="checkbox"/> Trouble thinking | Duration: _____ |
| <input type="checkbox"/> Nausea | Duration: _____ |
| <input type="checkbox"/> Dizziness | Duration: _____ |
| <input type="checkbox"/> Fatigue | Duration: _____ |
| <input type="checkbox"/> Poor coordination, balance problems, or slowed reaction times | Duration: _____ |
| <input type="checkbox"/> Sensory changes (Hearing/Vision/Taste/Smell) | Duration: _____ |
| <input type="checkbox"/> Numbness or tingling | Duration: _____ |
| <input type="checkbox"/> Mood changes (Anxiety/Depression/Irritability) | Duration: _____ |
| <input type="checkbox"/> Sleep trouble | Duration: _____ |
| <input type="checkbox"/> Other: _____ | Duration: _____ |

3. At the time of the blast/accident, were you wearing a helmet, and if so was it modified (equipped with upgrade kit)?

Uncertain

No

Yes

If yes, was it modified?

Uncertain

No

Yes

If yes, did the helmet stay on your head?

Uncertain

No

Yes

4. At the time of blast/accident, were you wearing Kevlar body armor?

MILITARY BLAST #3 (Third Most Severe):

1. What type of blast/accident was it?

- Unknown Grenade Bomb Other: _____
- IED Land mine Rocket
- RPG Mortar Suicide vest/bomb

2. Do you remember the blast/accident itself? **If yes**, Can you describe it to me? If you don't remember, can you tell me what other people said happened?

a. Were others seriously injured?

- Uncertain No Yes

b. How far away was the blast/explosion? *Clarify/confirm distance of closest blast/explosion for consistency. If patient is uncertain, encourage pt to provide an estimate.*

c. What is the last thing you can remember just before the blast/accident? *Clarify timing of events. Cue pt to walk you through time until it is clear there are no gaps in memory. Probe to ensure clear recall.*

d. What is the first thing you can remember just after the blast/accident? *Following pt's response ask, How long do you think that was after the blast? Clarify timing of events. Cue pt to walk you through time until it is clear there are no gaps in memory. Probe to ensure clear recall.*

e. *If injury is the result of an IED or bomb ask, Do you remember hearing the explosion?*

- Uncertain No Yes

f. Do you remember feeling the pressure changes associated with the blast?

- Uncertain No Yes

g. What direction did the blast wave/blast come from? *(multiple boxes may be checked)*

- Uncertain Front Back Left Right Under Above

Was it an incoming blast?

- Uncertain No Yes **If no**, What type/direction: _____

BOSTON ASSESSMENT OF TBI-LIFETIME

h. Were you thrown by the blast/accident, either out of a vehicle or off of your feet? Did you hit your head? Was something propelled or thrown at you/your head by the blast/accident? *If yes, ask pt to provide as much information and detail as possible. Note type of vehicle and position in the vehicle if pt was in a vehicle at the time of the blast.*

i. Did you experience any changes in your vision or hearing during the accident? *Establish that the pt is not reporting mental status change when was in fact hearing/vision change.*

- Uncertain No Yes

Any bleeding from your eardrum?

- Uncertain No Yes

j. Did you experience confusion or disorientation (not sure where you were, what day or time it was, perform simple math calculations, perform duties as expected) after the blast/accident? If so, for how long? *With this and the following question, try to determine if the pt experienced an actual change in mental status vs. vision/hearing difficulty associated with the blast/accident vs. the chaos surrounding the event. Probe if others thought pt was functioning normally.*

k. Did you experience a loss of consciousness at the time of the blast/accident (were you 'knocked out')? If so, for how long? If yes, was LOC witnessed (were you told by others you were knocked out/unconscious)? *Probe to ensure LOC is not due to anoxia/alcohol/substance overdose. Probe to differentiate LOC from PTA (if possible).*

- Uncertain No Yes

l. Did you experience any of the following immediately after the event? *Note Sx duration.*

- | | |
|----------------------------------------------------------------------------------------|-----------------|
| <input type="checkbox"/> Headaches | Duration: _____ |
| <input type="checkbox"/> Trouble thinking | Duration: _____ |
| <input type="checkbox"/> Nausea | Duration: _____ |
| <input type="checkbox"/> Dizziness | Duration: _____ |
| <input type="checkbox"/> Fatigue | Duration: _____ |
| <input type="checkbox"/> Poor coordination, balance problems, or slowed reaction times | Duration: _____ |
| <input type="checkbox"/> Sensory changes (Hearing/Vision/Taste/Smell) | Duration: _____ |
| <input type="checkbox"/> Numbness or tingling | Duration: _____ |
| <input type="checkbox"/> Mood changes (Anxiety/Depression/Irritability) | Duration: _____ |
| <input type="checkbox"/> Sleep trouble | Duration: _____ |
| <input type="checkbox"/> Other: _____ | Duration: _____ |

3. At the time of the blast/accident, were you wearing a helmet, and if so was it modified (equipped with upgrade kit)?

Uncertain

No

Yes

If yes, was it modified?

If yes, did the helmet stay on your head?

Uncertain

No

Yes

Uncertain

No

Yes

BLAST FINAL QUERY:

Is there anything else related to your military duties that exposed you to a high rate of blasts or explosives? (Regardless of presence or absence of acute AMS/PTA/LOC)

Uncertain

No *If no, query specific causes listed below.*

Yes *If yes, What was the cause of the injury?*

Breaches or Breach training: # Occurrences: _____

"Flashbangs": # Occurrences: _____

Large munitions such as a Horwitzer: # Occurrences: _____

RPG or rocket propelled grenade launcher: # Occurrences: _____

Other: Type: _____ # Occurrences: _____

Total Repetitive Blasts/Exposures: _____

**If acute symptoms are reported, assess further following format for Blast Injuries in the preceding section.*

MILITARY OTHER:

Have you experienced other blows to the head during your time in the military? (Patient report, you will evaluate below)

Uncertain

No *If no, query specific causes listed below, as well as further losses of consciousness or PTA then discontinue questionnaire if none.*

Yes *If yes, What was the cause of the injury?*

MVA

Fall

Training-related injury (e.g., obstacles, combatives, pugil stick, jumps)

Sports-related injury (e.g., football, hockey, baseball, basketball, soccer, lacrosse, boxing, wrestling, martial arts)

Physical assault/fights

Penetrating injury

Other: Type _____

Next, I am going to ask you about the [number 1 – 3] worst or most severe non-blast head injuries you experienced during your deployment.

MILITARY OTHER #1 (Most Severe):

Age (or best estimate) at time of occurrence: _____

1. What type of accident was it?

MVA

Physical assault

Fall

Penetrating injury

Sports-related injury

Other: _____

2. Do you remember the event itself? ***If yes***, Can you describe it to me? If you don't remember, can you tell me what other people said happened?

a. Were others seriously injured?

Uncertain No Yes

b. What is the last thing you can remember just before the event?

c. What is the first thing you can remember just after the event? *Following pt's response ask, How long do you think that was after the event?*

d. Did you experience any changes in your vision or hearing after the event? *Establish that the pt is not reporting mental status change when was in fact hearing/vision change.*

e. Did you experience confusion or disorientation (not sure where you were, what day or time it was) after the event? If so, for how long? *With this and the following question, try to determine if the pt experienced an actual change in mental status vs. vision/hearing difficulty associated with the blast/accident and the chaos surrounding the event.*

f. Did you experience a loss of consciousness at the time of the blast/accident (were you 'knocked out')? If so, for how long? If yes, was LOC witnessed (were you told by others you were knocked out/unconscious)? *Probe to ensure LOC is not due to anoxia/alcohol/substance overdose.*

g. Did you experience any of the following immediately after the event? *Note Sx duration.*

- Headaches Duration: _____
- Trouble thinking Duration: _____
- Nausea Duration: _____
- Dizziness Duration: _____
- Fatigue Duration: _____
- Poor coordination, balance problems, or slowed reaction times Duration: _____
- Sensory changes (Hearing/Vision/Taste/Smell) Duration: _____
- Numbness or tingling Duration: _____
- Mood changes (Anxiety/Depression/Irritability) Duration: _____
- Sleep trouble Duration: _____
- Other: _____ Duration: _____

3. At the time of the accident, were you wearing a helmet, and if so modified (equipped with the upgrade kit)?

- Uncertain
- No
- Yes ***If yes, Modified?*** No Yes

4. At the time of accident, were you wearing Kevlar body armor?

- Uncertain
- No
- Yes

5. After the injury did you see a physician, trainer, medic or other trained personnel?

- Uncertain
- No
- Yes

6. Did you experience a disruption of duty after the accident?

- Uncertain
- No
- Yes ***If Yes:***

For how long were you pulled from duty? _____

Did you return to active duty? _____

Did this event lead to medical hold? _____

Sick leave? _____

Discharge? _____

EVALUATE MILITARY OTHER #1:

Using the questions above, or in spontaneous dialogue, evaluate the following:

Alteration of mental status:

NO YES

If yes, enter the estimated duration of the AMS? _____ hr / min / sec

*AMS = AMS + PTA + LOC

PTA:

NO YES

If yes, enter the estimated duration of the PTA? _____ hr / min / sec

*PTA = PTA + LOC

LOC:

NO YES

If yes, enter the estimated duration of the LOC? _____ hr / min / sec

Substance Related:

- NO
- YES

Setting of Injury:

- Combat
- Non-Combat Military (e.g., training)

Emotional Context of Injury:

- Traumatic
- Non-traumatic

Does the patient actually recall this information themselves? (e.g., can provide specific information regarding what they were doing when injury occurred, etc., or was knowledge gained from the reports of witnesses?)

- Uncertain
- No
- Yes

MILITARY OTHER #2 (Second Most Severe):

Age (or best estimate) at time of occurrence: _____

1. What type of accident was it?

- | | |
|------------------------------------------------|---------------------------------------------|
| <input type="checkbox"/> MVA | <input type="checkbox"/> Physical assault |
| <input type="checkbox"/> Fall | <input type="checkbox"/> Penetrating injury |
| <input type="checkbox"/> Sports-related injury | <input type="checkbox"/> Other: _____ |

2. Do you remember the event itself? ***If yes***, Can you describe it to me? If you don't remember, can you tell me what other people said happened?

a. Were others seriously injured?

- Uncertain No Yes

b. What is the last thing you can remember just before the event?

c. What is the first thing you can remember just after the event? *Following pt's response ask, How long do you think that was after the event?*

d. Did you experience any changes in your vision or hearing after the event? *Establish that the pt is not reporting mental status change when was in fact hearing/vision change.*

e. Did you experience confusion or disorientation (not sure where you were, what day or time it was) after the event? If so, for how long? *With this and the following question, try to determine if the pt experienced an actual change in mental status vs. vision/hearing difficulty associated with the blast/accident and the chaos surrounding the event.*

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f. Did you experience a loss of consciousness at the time of the blast/accident (were you 'knocked out')? If so, for how long? If yes, was LOC witnessed (were you told by others you were knocked out/unconscious)?
Probe to ensure LOC is not due to anoxia/alcohol/substance overdose.

g. Did you experience any of the following immediately after the event? *Note Sx duration.*

- | | |
|----------------------------------------------------------------------------------------|-----------------|
| <input type="checkbox"/> Headaches | Duration: _____ |
| <input type="checkbox"/> Trouble thinking | Duration: _____ |
| <input type="checkbox"/> Nausea | Duration: _____ |
| <input type="checkbox"/> Dizziness | Duration: _____ |
| <input type="checkbox"/> Fatigue | Duration: _____ |
| <input type="checkbox"/> Poor coordination, balance problems, or slowed reaction times | Duration: _____ |
| <input type="checkbox"/> Sensory changes (Hearing/Vision/Taste/Smell) | Duration: _____ |
| <input type="checkbox"/> Numbness or tingling | Duration: _____ |
| <input type="checkbox"/> Mood changes (Anxiety/Depression/Irritability) | Duration: _____ |
| <input type="checkbox"/> Sleep trouble | Duration: _____ |
| <input type="checkbox"/> Other: _____ | Duration: _____ |

3. At the time of the accident, were you wearing a helmet, and if so modified (equipped with the upgrade kit)?

- Uncertain
 No
 Yes ***If yes, Modified?*** No Yes

4. At the time of accident, were you wearing Kevlar body armor?

- Uncertain
 No
 Yes

5. After the injury did you see a physician, trainer, medic or other trained personnel?

- Uncertain
 No
 Yes

6. Did you experience a disruption of duty after the accident?

- Uncertain
 No
 Yes ***If Yes:***
For how long were you pulled from duty? _____
Did you return to active duty? _____
Did this event lead to medical hold? _____
Sick leave? _____
Discharge? _____

EVALUATE MILITARY OTHER #2:

Using the questions above, or in spontaneous dialogue, evaluate the following:

Alteration of mental status:

NO YES

If yes, enter the estimated duration of the AMS? _____ hr / min / sec

*AMS = AMS + PTA + LOC

PTA:

NO YES

If yes, enter the estimated duration of the PTA? _____ hr / min / sec

*PTA = PTA + LOC

LOC:

NO YES

If yes, enter the estimated duration of the LOC? _____ hr / min / sec

Substance Related:

- NO
- YES

Setting of Injury:

- Combat
- Non-Combat Military (e.g., training)

Emotional Context of Injury:

- Traumatic
- Non-traumatic

Does the patient actually recall this information themselves? (e.g., can provide specific information regarding what they were doing when injury occurred, etc., or was knowledge gained from the reports of witnesses?)

- Uncertain
- No
- Yes

MILITARY OTHER #3 (Third Most Severe):

Age (or best estimate) at time of occurrence: _____

1. What type of accident was it?

- | | |
|------------------------------------------------|---------------------------------------------|
| <input type="checkbox"/> MVA | <input type="checkbox"/> Physical assault |
| <input type="checkbox"/> Fall | <input type="checkbox"/> Penetrating injury |
| <input type="checkbox"/> Sports-related injury | <input type="checkbox"/> Other: _____ |

2. Do you remember the event itself? ***If yes***, Can you describe it to me? If you don't remember, can you tell me what other people said happened?

a. Were others seriously injured?

- Uncertain No Yes

b. What is the last thing you can remember just before the event?

c. What is the first thing you can remember just after the event? *Following pt's response ask, How long do you think that was after the event?*

d. Did you experience any changes in your vision or hearing after the event? *Establish that the pt is not reporting mental status change when was in fact hearing/vision change.*

e. Did you experience confusion or disorientation (not sure where you were, what day or time it was) after the event? If so, for how long? *With this and the following question, try to determine if the pt experienced an actual change in mental status vs. vision/hearing difficulty associated with the blast/accident and the chaos surrounding the event.*

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f. Did you experience a loss of consciousness at the time of the blast/accident (were you 'knocked out')? If so, for how long? If yes, was LOC witnessed (were you told by others you were knocked out/unconscious)?
Probe to ensure LOC is not due to anoxia/alcohol/substance overdose.

g. Did you experience any of the following immediately after the event? *Note Sx duration.*

- Headaches *Duration:* _____
- Trouble thinking *Duration:* _____
- Nausea *Duration:* _____
- Dizziness *Duration:* _____
- Fatigue *Duration:* _____
- Poor coordination, balance problems, or slowed reaction times *Duration:* _____
- Sensory changes (Hearing/Vision/Taste/Smell) *Duration:* _____
- Numbness or tingling *Duration:* _____
- Mood changes (Anxiety/Depression/Irritability) *Duration:* _____
- Sleep trouble *Duration:* _____
- Other: _____ *Duration:* _____

3. At the time of the accident, were you wearing a helmet, and if so modified (equipped with the upgrade kit)?

- Uncertain
- No
- Yes ***If yes, Modified?*** No Yes

4. At the time of accident, were you wearing Kevlar body armor?

- Uncertain
- No
- Yes

5. After the injury did you see a physician, trainer, medic or other trained personnel?

- Uncertain
- No
- Yes

6. Did you experience a disruption of duty after the accident?

- Uncertain
- No
- Yes ***If Yes:***
For how long were you pulled from duty? _____
Did you return to active duty? _____
Did this event lead to medical hold? _____
Sick leave? _____
Discharge? _____

EVALUATE MILITARY OTHER #3:

Using the questions above, or in spontaneous dialogue, evaluate the following:

Alteration of mental status:

NO YES

If yes, enter the estimated duration of the AMS? _____ hr / min / sec

*AMS = AMS + PTA + LOC

PTA:

NO YES

If yes, enter the estimated duration of the PTA? _____ hr / min / sec

*PTA = PTA + LOC

LOC:

NO YES

If yes, enter the estimated duration of the LOC? _____ hr / min / sec

Substance Related:

- NO
- YES

Setting of Injury:

- Combat
- Non-Combat Military (e.g., training)

Emotional Context of Injury:

- Traumatic
- Non-traumatic

Does the patient actually recall this information themselves? (e.g., can provide specific information regarding what they were doing when injury occurred, etc., or was knowledge gained from the reports of witnesses?)

- Uncertain
- No
- Yes

NON-MILITARY HEAD INJURIES

In this next section I am going to ask you about any head injuries you experienced either prior to your military service or following your discharge from the military.

PRE-MILITARY:

Have you experienced other blows to the head before your time in the military? (*Patient report, you will evaluate below*)

Uncertain

No *If no, query further losses of consciousness or PTA, then discontinue questionnaire if none.*

Yes *If yes, What was the cause of the injury?*

MVA

Fall

Sports-related injury (e.g., football, hockey, baseball, basketball, soccer, lacrosse, boxing, wrestling, martial arts)

Physical assault/fights

Penetrating injury

Other: *Type* _____

Next, I am going to ask you about the [number 1 – 3] worst or most severe head injuries you experienced before your military service.

PRE-MILITARY #1 (Most Severe):

Age (or best estimate) at time of occurrence: _____

1. What type of accident was it?

MVA

Physical assault

Fall

Penetrating injury

Sports-related injury

Other: _____

2. Do you remember the event itself? *If yes, Can you describe it to me? If you don't remember, can you tell me what other people said happened?*

a. Were others seriously injured?

Uncertain

No

Yes

b. What is the last thing you can remember just before the event?

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- c. What is the first thing you can remember just after the event? *Following pt's response ask, How long do you think that was after the event?*
- d. Did you experience any changes in your vision or hearing after the event? *Establish that the pt is not reporting mental status change when was in fact hearing/vision change.*
- e. Did you experience confusion or disorientation (not sure where you were, what day or time it was) after the event? If so, for how long? *With this and the following question, try to determine if the pt experienced an actual change in mental status vs. vision/hearing difficulty associated with the blast/accident and the chaos surrounding the event.*
- f. Did you experience a loss of consciousness at the time of the blast/accident (were you 'knocked out')? If so, for how long? If yes, was LOC witnessed (were you told by others you were knocked out/unconscious)? *Probe to ensure LOC is not due to anoxia/alcohol/substance overdose.*
- g. Did you experience any of the following immediately after the event? *Note Sx duration.*
- | | |
|----------------------------------------------------------------------------------------|------------------------|
| <input type="checkbox"/> Headaches | <i>Duration: _____</i> |
| <input type="checkbox"/> Trouble thinking | <i>Duration: _____</i> |
| <input type="checkbox"/> Nausea | <i>Duration: _____</i> |
| <input type="checkbox"/> Dizziness | <i>Duration: _____</i> |
| <input type="checkbox"/> Fatigue | <i>Duration: _____</i> |
| <input type="checkbox"/> Poor coordination, balance problems, or slowed reaction times | <i>Duration: _____</i> |
| <input type="checkbox"/> Sensory changes (Hearing/Vision/Taste/Smell) | <i>Duration: _____</i> |
| <input type="checkbox"/> Numbness or tingling | <i>Duration: _____</i> |
| <input type="checkbox"/> Mood changes (Anxiety/Depression/Irritability) | <i>Duration: _____</i> |
| <input type="checkbox"/> Sleep trouble | <i>Duration: _____</i> |
| <input type="checkbox"/> Other: _____ | <i>Duration: _____</i> |

3. After the injury did you see a physician, trainer, or other trained personnel?

- Uncertain
- No
- Yes

4. After the injury were you restricted from school, work, or physical exertion?

- Uncertain
- No
- Yes

If Yes:

For how long were you away from work/school/duties? _____

Did you return to work/school/duties? _____

Did this event lead to medical leave of absence? _____

EVALUATE PRE-MILITARY #1:

Using the questions above, or in spontaneous dialogue, evaluate the following:

Alteration of mental status:

- NO
- YES

If yes, enter the estimated duration of the AMS? _____ hr / min / sec

*AMS = AMS + PTA + LOC

PTA:

- NO
- YES

If yes, enter the estimated duration of the PTA? _____ hr / min / sec

*PTA = PTA + LOC

LOC:

- NO
- YES

If yes, enter the estimated duration of the LOC? _____ hr / min / sec

Substance Related:

- NO
- YES

Does the patient actually recall this information themselves? (e.g., can provide specific information regarding what they were doing when injury occurred, etc., or was knowledge gained from the reports of witnesses?)

- Uncertain
- No
- Yes

Emotional Context of Injury:

- Traumatic
- Non-traumatic

PRE-MILITARY #2 (Second Most Severe):

Age (or best estimate) at time of occurrence: _____

1. What type of accident was it?

- MVA Physical assault
 Fall Penetrating injury
 Sports-related injury Other: _____

2. Do you remember the event itself? ***If yes***, Can you describe it to me? If you don't remember, can you tell me what other people said happened?

a. Were others seriously injured?

- Uncertain No Yes

b. What is the last thing you can remember just before the event?

c. What is the first thing you can remember just after the event? *Following pt's response ask, How long do you think that was after the event?*

d. Did you experience any changes in your vision or hearing after the event? *Establish that the pt is not reporting mental status change when was in fact hearing/vision change.*

e. Did you experience confusion or disorientation (not sure where you were, what day or time it was) after the event? If so, for how long? *With this and the following question, try to determine if the pt experienced an actual change in mental status vs. vision/hearing difficulty associated with the blast/accident and the chaos surrounding the event.*

f. Did you experience a loss of consciousness at the time of the blast/accident (were you 'knocked out')? If so, for how long? If yes, was LOC witnessed (were you told by others you were knocked out/unconscious)? *Probe to ensure LOC is not due to anoxia/alcohol/substance overdose.*

g. Did you experience any of the following immediately after the event? *Note Sx duration.*

- Headaches Duration: _____
- Trouble thinking Duration: _____
- Nausea Duration: _____
- Dizziness Duration: _____
- Fatigue Duration: _____
- Poor coordination, balance problems, or slowed reaction times Duration: _____
- Sensory changes (Hearing/Vision/Taste/Smell) Duration: _____
- Numbness or tingling Duration: _____
- Mood changes (Anxiety/Depression/Irritability) Duration: _____
- Sleep trouble Duration: _____
- Other: _____ Duration: _____

3. After the injury did you see a physician, trainer, or other trained personnel?

- Uncertain
- No
- Yes

4. After the injury were you restricted from school, work, or physical exertion?

- Uncertain
- No
- Yes

If Yes:

For how long were you away from work/school/duties? _____
 Did you return to work/school/duties? _____
 Did this event lead to medical leave of absence? _____

EVALUATE PRE-MILITARY #2:

Using the questions above, or in spontaneous dialogue, evaluate the following:

Alteration of mental status:

NO YES

If yes, enter the estimated duration of the AMS? _____ hr / min / sec

*AMS = AMS + PTA + LOC

PTA:

NO YES

If yes, enter the estimated duration of the PTA? _____ hr / min / sec

*PTA = PTA + LOC

LOC:

NO YES

If yes, enter the estimated duration of the LOC? _____ hr / min / sec

Substance Related:

- NO
- YES

Does the patient actually recall this information themselves? (e.g., can provide specific information regarding what they were doing when injury occurred, etc., or was knowledge gained from the reports of witnesses?)

- Uncertain
- No
- Yes

Emotional Context of Injury:

- Traumatic
- Non-traumatic

PRE-MILITARY #3 (Third Most Severe):

Age (or best estimate) at time of occurrence: _____

1. What type of accident was it?

- MVA Physical assault
 Fall Penetrating injury
 Sports-related injury Other: _____

2. Do you remember the event itself? ***If yes***, Can you describe it to me? If you don't remember, can you tell me what other people said happened?

a. Were others seriously injured?

- Uncertain No Yes

b. What is the last thing you can remember just before the event?

c. What is the first thing you can remember just after the event? *Following pt's response ask, How long do you think that was after the event?*

d. Did you experience any changes in your vision or hearing after the event? *Establish that the pt is not reporting mental status change when was in fact hearing/vision change.*

e. Did you experience confusion or disorientation (not sure where you were, what day or time it was) after the event? If so, for how long? *With this and the following question, try to determine if the pt experienced an actual change in mental status vs. vision/hearing difficulty associated with the blast/accident and the chaos surrounding the event.*

f. Did you experience a loss of consciousness at the time of the blast/accident (were you 'knocked out')? If so, for how long? If yes, was LOC witnessed (were you told by others you were knocked out/unconscious)? *Probe to ensure LOC is not due to anoxia/alcohol/substance overdose.*

g. Did you experience any of the following immediately after the event? *Note Sx duration.*

- Headaches Duration: _____
- Trouble thinking Duration: _____
- Nausea Duration: _____
- Dizziness Duration: _____
- Fatigue Duration: _____
- Poor coordination, balance problems, or slowed reaction times Duration: _____
- Sensory changes (Hearing/Vision/Taste/Smell) Duration: _____
- Numbness or tingling Duration: _____
- Mood changes (Anxiety/Depression/Irritability) Duration: _____
- Sleep trouble Duration: _____
- Other: _____ Duration: _____

3. After the injury did you see a physician, trainer, or other trained personnel?

- Uncertain
- No
- Yes

4. After the injury were you restricted from school, work, or physical exertion?

- Uncertain
- No
- Yes

If Yes:

For how long were you away from work/school/duties? _____
 Did you return to work/school/duties? _____
 Did this event lead to medical leave of absence? _____

EVALUATE PRE-MILITARY #3:

Using the questions above, or in spontaneous dialogue, evaluate the following:

Alteration of mental status:

NO YES

If yes, enter the estimated duration of the AMS? _____ hr / min / sec

*AMS = AMS + PTA + LOC

PTA:

NO YES

If yes, enter the estimated duration of the PTA? _____ hr / min / sec

*PTA = PTA + LOC

LOC:

NO YES

If yes, enter the estimated duration of the LOC? _____ hr / min / sec

Substance Related:

- NO
- YES

Does the patient actually recall this information themselves? (e.g., can provide specific information regarding what they were doing when injury occurred, etc., or was knowledge gained from the reports of witnesses?)

- Uncertain
- No
- Yes

Emotional Context of Injury:

- Traumatic
- Non-traumatic

POST-MILITARY:

Have you experienced other blows to the head after your time in the military? (*Patient report, you will evaluate below*)

Uncertain

No *If no, query further losses of consciousness or PTA, then discontinue questionnaire if none.*

Yes *If yes, What was the cause of the injury?*

MVA

Fall

Sports-related injury (e.g., football, hockey, baseball, basketball, soccer, lacrosse, boxing, wrestling, martial arts)

Physical assault/fights

Penetrating injury

Other: *Type* _____

Next, I am going to ask you about the [*number 1 – 3*] worst or most severe head injuries you experienced after your military service.

POST-MILITARY #1 (Most Severe):

Age (or best estimate) at time of occurrence: _____

1. What type of accident was it?

MVA

Physical assault

Fall

Penetrating injury

Sports-related injury

Other: _____

2. Do you remember the event itself? *If yes, Can you describe it to me? If you don't remember, can you tell me what other people said happened?*

a. Were others seriously injured?

Uncertain

No

Yes

b. What is the last thing you can remember just before the event?

c. What is the first thing you can remember just after the event? *Following pt's response ask, How long do you think that was after the event?*

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d. Did you experience any changes in your vision or hearing after the event? *Establish that the pt is not reporting mental status change when was in fact hearing/vision change.*

e. Did you experience confusion or disorientation (not sure where you were, what day or time it was) after the event? If so, for how long? *With this and the following question, try to determine if the pt experienced an actual change in mental status vs. vision/hearing difficulty associated with the blast/accident and the chaos surrounding the event.*

f. Did you experience a loss of consciousness at the time of the blast/accident (were you 'knocked out')? If so, for how long? If yes, was LOC witnessed (were you told by others you were knocked out/unconscious)? *Probe to ensure LOC is not due to anoxia/alcohol/substance overdose.*

g. Did you experience any of the following immediately after the event? *Note Sx duration.*

- Headaches *Duration:* _____
- Trouble thinking *Duration:* _____
- Nausea *Duration:* _____
- Dizziness *Duration:* _____
- Fatigue *Duration:* _____
- Poor coordination, balance problems, or slowed reaction times *Duration:* _____
- Sensory changes (Hearing/Vision/Taste/Smell) *Duration:* _____
- Numbness or tingling *Duration:* _____
- Mood changes (Anxiety/Depression/Irritability) *Duration:* _____
- Sleep trouble *Duration:* _____
- Other: _____ *Duration:* _____

3. After the injury did you see a physician, trainer, or other trained personnel?

- Uncertain
- No
- Yes

4. After the injury were you restricted from school, work, or physical exertion?

- Uncertain
- No
- Yes

If Yes:

For how long were you away from work/school/duties? _____
Did you return to work/school/duties? _____
Did this event lead to medical leave of absence? _____

EVALUATE POST-MILITARY #1:

Using the questions above, or in spontaneous dialogue, evaluate the following:

Alteration of mental status:

NO YES

If yes, enter the estimated duration of the AMS? _____ hr / min / sec

*AMS = AMS + PTA + LOC

PTA:

NO YES

If yes, enter the estimated duration of the PTA? _____ hr / min / sec

*PTA = PTA + LOC

LOC:

NO YES

If yes, enter the estimated duration of the LOC? _____ hr / min / sec

Substance Related:

NO
 YES

Does the patient actually recall this information themselves? (e.g., can provide specific information regarding what they were doing when injury occurred, etc., or was knowledge gained from the reports of witnesses?)

Uncertain No Yes

Emotional Context of Injury:

Traumatic
 Non-traumatic

POST-MILITARY #2 (Second Most Severe):

Age (or best estimate) at time of occurrence: _____

1. What type of accident was it?

- MVA Physical assault
 Fall Penetrating injury
 Sports-related injury Other: _____

2. Do you remember the event itself? ***If yes***, Can you describe it to me? If you don't remember, can you tell me what other people said happened?

a. Were others seriously injured?

- Uncertain No Yes

b. What is the last thing you can remember just before the event?

c. What is the first thing you can remember just after the event? *Following pt's response ask, How long do you think that was after the event?*

d. Did you experience any changes in your vision or hearing after the event? *Establish that the pt is not reporting mental status change when was in fact hearing/vision change.*

e. Did you experience confusion or disorientation (not sure where you were, what day or time it was) after the event? If so, for how long? *With this and the following question, try to determine if the pt experienced an actual change in mental status vs. vision/hearing difficulty associated with the blast/accident and the chaos surrounding the event.*

f. Did you experience a loss of consciousness at the time of the blast/accident (were you 'knocked out')? If so, for how long? If yes, was LOC witnessed (were you told by others you were knocked out/unconscious)? *Probe to ensure LOC is not due to anoxia/alcohol/substance overdose.*

g. Did you experience any of the following immediately after the event? *Note Sx duration.*

- Headaches Duration: _____
- Trouble thinking Duration: _____
- Nausea Duration: _____
- Dizziness Duration: _____
- Fatigue Duration: _____
- Poor coordination, balance problems, or slowed reaction times Duration: _____
- Sensory changes (Hearing/Vision/Taste/Smell) Duration: _____
- Numbness or tingling Duration: _____
- Mood changes (Anxiety/Depression/Irritability) Duration: _____
- Sleep trouble Duration: _____
- Other: _____ Duration: _____

3. After the injury did you see a physician, trainer, or other trained personnel?

- Uncertain
- No
- Yes

4. After the injury were you restricted from school, work, or physical exertion?

- Uncertain
- No
- Yes

If Yes:

For how long were you away from work/school/duties? _____
 Did you return to work/school/duties? _____
 Did this event lead to medical leave of absence? _____

EVALUATE POST-MILITARY #2:

Using the questions above, or in spontaneous dialogue, evaluate the following:

Alteration of mental status:

- NO YES

If yes, enter the estimated duration of the AMS? _____ hr / min / sec

**AMS = AMS + PTA + LOC*

PTA:

- NO YES

If yes, enter the estimated duration of the PTA? _____ hr / min / sec

**PTA = PTA + LOC*

LOC:

- NO YES

If yes, enter the estimated duration of the LOC? _____ hr / min / sec

Substance Related:

- NO
 YES

Does the patient actually recall this information themselves? (e.g., can provide specific information regarding what they were doing when injury occurred, etc., or was knowledge gained from the reports of witnesses?)

- Uncertain No Yes

Emotional Context of Injury:

- Traumatic
 Non-traumatic

POST-MILITARY #3 (Third Most Severe):

Age (or best estimate) at time of occurrence: _____

1. What type of accident was it?

- MVA Physical assault
 Fall Penetrating injury
 Sports-related injury Other: _____

2. Do you remember the event itself? ***If yes***, Can you describe it to me? If you don't remember, can you tell me what other people said happened?

a. Were others seriously injured?

- Uncertain No Yes

b. What is the last thing you can remember just before the event?

c. What is the first thing you can remember just after the event? *Following pt's response ask, How long do you think that was after the event?*

d. Did you experience any changes in your vision or hearing after the event? *Establish that the pt is not reporting mental status change when was in fact hearing/vision change.*

e. Did you experience confusion or disorientation (not sure where you were, what day or time it was) after the event? If so, for how long? *With this and the following question, try to determine if the pt experienced an actual change in mental status vs. vision/hearing difficulty associated with the blast/accident and the chaos surrounding the event.*

f. Did you experience a loss of consciousness at the time of the blast/accident (were you 'knocked out')? If so, for how long? If yes, was LOC witnessed (were you told by others you were knocked out/unconscious)? *Probe to ensure LOC is not due to anoxia/alcohol/substance overdose.*

g. Did you experience any of the following immediately after the event? *Note Sx duration.*

- Headaches Duration: _____
- Trouble thinking Duration: _____
- Nausea Duration: _____
- Dizziness Duration: _____
- Fatigue Duration: _____
- Poor coordination, balance problems, or slowed reaction times Duration: _____
- Sensory changes (Hearing/Vision/Taste/Smell) Duration: _____
- Numbness or tingling Duration: _____
- Mood changes (Anxiety/Depression/Irritability) Duration: _____
- Sleep trouble Duration: _____
- Other: _____ Duration: _____

3. After the injury did you see a physician, trainer, or other trained personnel?

- Uncertain
- No
- Yes

4. After the injury were you restricted from school, work, or physical exertion?

- Uncertain
- No
- Yes

If Yes:

For how long were you away from work/school/duties? _____

Did you return to work/school/duties? _____

Did this event lead to medical leave of absence? _____

EVALUATE POST-MILITARY #3:

Using the questions above, or in spontaneous dialogue, evaluate the following:

Alteration of mental status:

- NO YES

If yes, enter the estimated duration of the AMS? _____ hr / min / sec

**AMS = AMS + PTA + LOC*

PTA:

- NO YES

If yes, enter the estimated duration of the PTA? _____ hr / min / sec

**PTA = PTA + LOC*

LOC:

- NO YES

If yes, enter the estimated duration of the LOC? _____ hr / min / sec

Substance Related:

- NO
 YES

Does the patient actually recall this information themselves? (e.g., can provide specific information regarding what they were doing when injury occurred, etc., or was knowledge gained from the reports of witnesses?)

- Uncertain No Yes

Emotional Context of Injury:

- Traumatic
 Non-traumatic

IPV-RELATED:

Have you experienced other blows to the head from an intimate partner? (Patient report, you will evaluate below)

Uncertain

No

If no, query causes below, then discontinue questionnaire if none.

Yes

If yes, What was the cause of the injury and how many times did it occur?

Hit in the head with an object, hand, or fist

0 times

11-49 times

1-3 times

>= 50 times

4-10 times

Pushed or shoved your head into a wall, car, furniture, or other object

0 times

11-49 times

1-3 times

>= 50 times

4-10 times

Broken your teeth or jaw

0 times

11-49 times

1-3 times

>= 50 times

4-10 times

Caused injury to your eye or ear from shoving, hitting, punching or kicking

0 times

11-49 times

1-3 times

>= 50 times

4-10 times

Shook you

0 times

11-49 times

1-3 times

>= 50 times

4-10 times

Strangled or choked you

0 times

11-49 times

1-3 times

>= 50 times

4-10 times

Attacked you with a weapon causing injury to you head, neck, or face

0 times

11-49 times

1-3 times

>= 50 times

4-10 times

Threw you down stair

0 times

11-49 times

1-3 times

>= 50 times

4-10 times

Caused other injury to you head, neck, or face

0 times

11-49 times

1-3 times

>= 50 times

4-10 times

Other: Type _____

0 times

11-49 times

1-3 times

>= 50 times

4-10 times

BOSTON ASSESSMENT OF TBI-LIFETIME

Next, I am going to ask you about the [number 1 – 3] worst or most severe head injuries you experienced from an intimate partner.

IPV #1 (Most Severe):

Age (or best estimate) at time of occurrence: _____

1. What type of injury was it?

- | | |
|-------------------------------------------|-----------------------------------------------------------------------------|
| <input type="checkbox"/> Hit in the head | <input type="checkbox"/> Strangled/Choked |
| <input type="checkbox"/> Pushed or shoved | <input type="checkbox"/> Attacked with a weapon: Specify weapon type: _____ |
| <input type="checkbox"/> Broken teeth/jaw | <input type="checkbox"/> Thrown down stairs |
| <input type="checkbox"/> Shaken | <input type="checkbox"/> Other: _____ |

2. Do you remember the event itself? ***If yes***, Can you describe it to me? If you don't remember, can you tell me what other people said happened?

a. What is the last thing you can remember just before the event?

c. What is the first thing you can remember just after the event? *Following pt's response ask, How long do you think that was after the event?*

d. Did you experience any changes in your vision or hearing after the event? *Establish that the pt is not reporting mental status change when was in fact hearing/vision change.*

e. Did you experience confusion or disorientation (not sure where you were, what day or time it was) after the event? If so, for how long? *With this and the following question, try to determine if the pt experienced an actual change in mental status vs. vision/hearing difficulty associated with the blast/accident and the chaos surrounding the event.*

f. Did you experience a loss of consciousness at the time of the blast/accident (were you 'knocked out')? If so, for how long? If yes, was LOC witnessed (were you told by others you were knocked out/unconscious)?
Probe to ensure LOC is not due to anoxia/alcohol/substance overdose.

g. Did you experience any of the following immediately after the event? *Note Sx duration.*

- | | |
|----------------------------------------------------------------------------------------|-----------------|
| <input type="checkbox"/> Headaches | Duration: _____ |
| <input type="checkbox"/> Trouble thinking | Duration: _____ |
| <input type="checkbox"/> Nausea | Duration: _____ |
| <input type="checkbox"/> Dizziness | Duration: _____ |
| <input type="checkbox"/> Fatigue | Duration: _____ |
| <input type="checkbox"/> Poor coordination, balance problems, or slowed reaction times | Duration: _____ |
| <input type="checkbox"/> Sensory changes (Hearing/Vision/Taste/Smell) | Duration: _____ |
| <input type="checkbox"/> Numbness or tingling | Duration: _____ |
| <input type="checkbox"/> Mood changes (Anxiety/Depression/Irritability) | Duration: _____ |
| <input type="checkbox"/> Sleep trouble | Duration: _____ |
| <input type="checkbox"/> Other: _____ | Duration: _____ |

3. After the injury did you seek medical help?

- Uncertain
- No
- Yes

4. After the injury were you restricted from school, work, or physical exertion?

- Uncertain
- No
- Yes

If Yes:

For how long were you away from work/school/duties? _____

Did you return to work/school/duties? _____

Did this event lead to medical leave of absence? _____

EVALUATE IPV #1:

Using the questions above, or in spontaneous dialogue, evaluate the following:

Alteration of mental status:

NO YES

If yes, enter the estimated duration of the AMS? _____ hr / min / sec

*AMS = AMS + PTA + LOC

PTA:

NO YES

If yes, enter the estimated duration of the PTA? _____ hr / min / sec

*PTA = PTA + LOC

LOC:

NO YES

If yes, enter the estimated duration of the LOC? _____ hr / min / sec

Substance Related:

NO

YES

Does the patient actually recall this information themselves? (e.g., can provide specific information regarding what they were doing when injury occurred, etc., or was knowledge gained from the reports of witnesses?)

Uncertain No Yes

Emotional Context of Injury:

Traumatic

Non-traumatic

Please evaluate for Anoxic Injury:

Anoxic Injury: NO YES

If yes, was there LOC?

NO YES

IPV #2 (Most Severe):

Age (or best estimate) at time of occurrence: _____

1. What type of injury was it?

- | | |
|-------------------------------------------|-----------------------------------------------------------------------------|
| <input type="checkbox"/> Hit in the head | <input type="checkbox"/> Strangled/Choked |
| <input type="checkbox"/> Pushed or shoved | <input type="checkbox"/> Attacked with a weapon: Specify weapon type: _____ |
| <input type="checkbox"/> Broken teeth/jaw | <input type="checkbox"/> Thrown down stairs |
| <input type="checkbox"/> Shaken | <input type="checkbox"/> Other: _____ |

2. Do you remember the event itself? ***If yes***, Can you describe it to me? If you don't remember, can you tell me what other people said happened?

a. What is the last thing you can remember just before the event?

c. What is the first thing you can remember just after the event? *Following pt's response ask, How long do you think that was after the event?*

d. Did you experience any changes in your vision or hearing after the event? *Establish that the pt is not reporting mental status change when was in fact hearing/vision change.*

e. Did you experience confusion or disorientation (not sure where you were, what day or time it was) after the event? If so, for how long? *With this and the following question, try to determine if the pt experienced an actual change in mental status vs. vision/hearing difficulty associated with the blast/accident and the chaos surrounding the event.*

f. Did you experience a loss of consciousness at the time of the blast/accident (were you 'knocked out')? If so, for how long? If yes, was LOC witnessed (were you told by others you were knocked out/unconscious)?
Probe to ensure LOC is not due to anoxia/alcohol/substance overdose.

g. Did you experience any of the following immediately after the event? *Note Sx duration.*

- Headaches *Duration:* _____
- Trouble thinking *Duration:* _____
- Nausea *Duration:* _____
- Dizziness *Duration:* _____
- Fatigue *Duration:* _____
- Poor coordination, balance problems, or slowed reaction times *Duration:* _____
- Sensory changes (Hearing/Vision/Taste/Smell) *Duration:* _____
- Numbness or tingling *Duration:* _____
- Mood changes (Anxiety/Depression/Irritability) *Duration:* _____
- Sleep trouble *Duration:* _____
- Other: _____ *Duration:* _____

3. After the injury did you seek medical help?

- Uncertain
- No
- Yes

4. After the injury were you restricted from school, work, or physical exertion?

- Uncertain
- No
- Yes

If Yes:

For how long were you away from work/school/duties? _____

Did you return to work/school/duties? _____

Did this event lead to medical leave of absence? _____

EVALUATE IPV #2:

Using the questions above, or in spontaneous dialogue, evaluate the following:

Alteration of mental status:

NO **YES**

If yes, enter the estimated duration of the AMS? _____ hr / min / sec
**AMS = AMS + PTA + LOC*

PTA:

NO **YES**

If yes, enter the estimated duration of the PTA? _____ hr / min / sec
**PTA = PTA + LOC*

LOC:

NO **YES**

If yes, enter the estimated duration of the LOC? _____ hr / min / sec

Substance Related:

NO
 YES

Does the patient actually recall this information themselves? (e.g., can provide specific information regarding what they were doing when injury occurred, etc., or was knowledge gained from the reports of witnesses?)

Uncertain **No** **Yes**

Emotional Context of Injury:

Traumatic
 Non-traumatic

Please evaluate for Anoxic Injury:

Anoxic Injury: **NO** **YES**

If yes, was there LOC?

NO **YES**

IPV #3 (Most Severe):

Age (or best estimate) at time of occurrence: _____

1. What type of injury was it?

- | | |
|-------------------------------------------|-----------------------------------------------------------------------------|
| <input type="checkbox"/> Hit in the head | <input type="checkbox"/> Strangled/Choked |
| <input type="checkbox"/> Pushed or shoved | <input type="checkbox"/> Attacked with a weapon: Specify weapon type: _____ |
| <input type="checkbox"/> Broken teeth/jaw | <input type="checkbox"/> Thrown down stairs |
| <input type="checkbox"/> Shaken | <input type="checkbox"/> Other: _____ |

2. Do you remember the event itself? ***If yes***, Can you describe it to me? If you don't remember, can you tell me what other people said happened?

a. What is the last thing you can remember just before the event?

c. What is the first thing you can remember just after the event? *Following pt's response ask, How long do you think that was after the event?*

d. Did you experience any changes in your vision or hearing after the event? *Establish that the pt is not reporting mental status change when was in fact hearing/vision change.*

e. Did you experience confusion or disorientation (not sure where you were, what day or time it was) after the event? If so, for how long? *With this and the following question, try to determine if the pt experienced an actual change in mental status vs. vision/hearing difficulty associated with the blast/accident and the chaos surrounding the event.*

f. Did you experience a loss of consciousness at the time of the blast/accident (were you 'knocked out')? If so, for how long? If yes, was LOC witnessed (were you told by others you were knocked out/unconscious)?
Probe to ensure LOC is not due to anoxia/alcohol/substance overdose.

g. Did you experience any of the following immediately after the event? *Note Sx duration.*

- Headaches *Duration:* _____
- Trouble thinking *Duration:* _____
- Nausea *Duration:* _____
- Dizziness *Duration:* _____
- Fatigue *Duration:* _____
- Poor coordination, balance problems, or slowed reaction times *Duration:* _____
- Sensory changes (Hearing/Vision/Taste/Smell) *Duration:* _____
- Numbness or tingling *Duration:* _____
- Mood changes (Anxiety/Depression/Irritability) *Duration:* _____
- Sleep trouble *Duration:* _____
- Other: _____ *Duration:* _____

3. After the injury did you seek medical help?

- Uncertain
- No
- Yes

4. After the injury were you restricted from school, work, or physical exertion?

- Uncertain
- No
- Yes

If Yes:

For how long were you away from work/school/duties? _____

Did you return to work/school/duties? _____

Did this event lead to medical leave of absence? _____

EVALUATE IPV #3:

Using the questions above, or in spontaneous dialogue, evaluate the following:

Alteration of mental status:

NO YES

If yes, enter the estimated duration of the AMS? _____ hr / min / sec

*AMS = AMS + PTA + LOC

PTA:

NO YES

If yes, enter the estimated duration of the PTA? _____ hr / min / sec

*PTA = PTA + LOC

LOC:

NO YES

If yes, enter the estimated duration of the LOC? _____ hr / min / sec

Substance Related:

NO

YES

Does the patient actually recall this information themselves? (e.g., can provide specific information regarding what they were doing when injury occurred, etc., or was knowledge gained from the reports of witnesses?)

Uncertain

No

Yes

Emotional Context of Injury:

Traumatic

Non-traumatic

Please evaluate for Anoxic Injury:

Anoxic Injury: NO YES

If yes, was there LOC?

NO YES