AUT TRAUMATIC BRAIN INJURY NETWORK

Brain Injury Screening Tool (BIST-3)

A guide for traumatic brain injury assessment

The Brain Injury Screening Tool (BIST-3) is a brief tool for use on initial presentation for suspected mild traumatic brain injury/ concussion.

Its purpose is to help guide the clinical assessment by operationalising current international best practice guidelines.[1]

The BIST was developed for health professionals working across primary and secondary health care.

The BIST facilitates clinical decision making through identification of people who are at risk of longer-term difficulties who may benefit from early specialist treatment.

This tool should be used in addition to clinical judgment and other assessments such as the Vestibular/Oculomotor Motor Screening (VOMS), King-Devick or the Romberg's test. Additional questioning to add to the clinical picture is encouraged.

The first 10 questions can be administered in any order to assist flow of the consultation. The symptom scale should be completed as presented.

The symptom scale and impact item can be repeated at follow up to monitor recovery over time.

Click to reset form

Date of Injury (dd/mm/yy):

Time of Injury (HH:MM 24hr):

Date of Consultation (dd/mm/yy):

Age:

Gender:

Ethnicity:

1. Please tell me what happened:

2. Are there high risk indicators such as suspicion of skull fracture, focal neurological deficit, high speed, focal blunt trauma or fall from height?* (e.g. >5 stairs)

Yes ☐ No ☐

*If high risk factors are present consider referral to the ED or further evaluation in hospital

3. Did the incident occur in traumatic circumstances which could result in emotional or psychological reactions? (e.g., assault, domestic violence, fatalities in a car accident)

Yes ☐ No ☐

4. Did anyone with you at the time of the injury say anything else about what happened?

Yes ☐ No ☐

5. Were you sick or did you vomit?

Yes ☐ No ☐ a. If yes, how many times ☐

6. Were you knocked out (or did you lose consciousness)?

Yes ☐ No ☐ Unknown ☐ a. If yes, how long ☐ hrs ☐ mins

7. Are you feeling better, worse or about the same since the injury?

Better ☐ Worse ☐ About the same ☐

8. Have you had a concussion or brain injury before?

Yes ☐ No ☐ If yes, (i) how many times? ☐

(ii) When was the last injury?(dd/mm/yy) ☐

(iii) How long did it take you to recover from your last injury? ☐ Days ☐ Weeks ☐ Months

9. Have you ever experienced any difficulties with your mental health?

Yes ☐ No ☐

10. Do you have a history of migraine? (severe headache with vomiting or extreme sensitivity to light and sound)

Yes ☐ No ☐

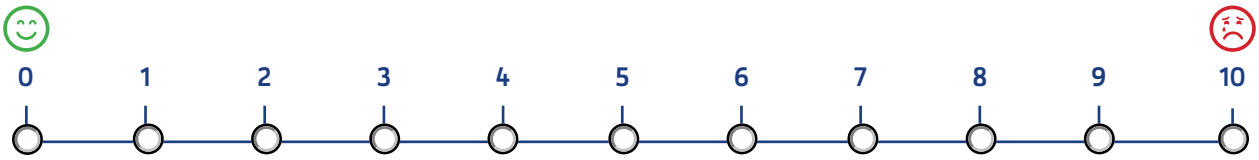
11. Please ask the patient the following question.

Compared with before the accident, please rate how much you experience the following symptoms:

		Not at all	Mild (a little)			Moderate (quite bad)				Severe (very bad)		
		0	1	2	3	4	5	6	7	8	9	10
Physical	Headache (my head hurts)											
	My neck hurts											
	I don't like bright lights											
	I don't like loud noises											
Total physical score (out of 40) 0												
Vestibular-ocular	I feel dizzy or like I could be sick											
	If I close my eyes, I feel like I am at sea											
	I have trouble with my eyesight (vision)											
	I feel clumsy (bumping into things or dropping things more than usual)											
Total vestibular score (out of 40) 0												
Cognitive	It takes me longer to think											
	I forget things											
	I get confused easily											
	I have trouble concentrating											
Total cognitive score (out of 40) 0												
If more than 24 hours post-injury, please also rate these physical symptoms												
	I get angry or irritated easily											
	I just don't feel right											
	I feel tired during the day											
	I need to sleep a lot more or find it hard to sleep at night											

12. **Injuries to the brain can affect how a person feels, behaves, thinks and how able they are to do everyday tasks.**

On a scale of 0 to 10, how much do you feel your injury is impacting on you? Where 0 means that the injury has not had any impact on you and 10 means you feel that injury impacts on everything you do.



Please check if the person needs to go to the Emergency Department or further evaluation in hospital (e.g., suspected skull fracture, severe headache, use of blood anti-coagulants) before considering whether a referral to rehabilitation service is required.

Total symptom severity score less than 24 hours (out of 120)	**0**
Total symptom severity score greater than 24 hours (out of 160)	**0**
Overall score	

What is the dominant symptom cluster?
(High proportion or most severe symptoms reported; e.g., physical, vestibular or cognitive?)

Total physical score: **0** /40
Total vestibular score: **0** /40
Total cognitive score: **0** /40

If the dominant symptom cluster is Vestibular or if a vestibular item is rated >8 at 7-10 days post-injury, consider referral to a physiotherapist or Concussion Service.

Community referral recommendation

(please ensure all questions have been answered to obtain an accurate recommendation)

Acknowledgements

This tool has been developed by the BIST Development Group: Alice Theadom, Natalie Hardaker, Penelope Day, Kris Fernando, Katherine Forch, Kevin Henshall, Doug King, Michelle Wilkinson, Renata Bastos-Gottgtroy, Sam Jewell, Stephen Kara, Jason Chua, Patria Hume.

Reference

Silverberg ND, et al on behalf of the American Congress of Rehabilitation Medicine Brain Injury Interdisciplinary Special Interest Group Mild TBI Task Force.

Management of Concussion and Mild Traumatic Brain Injury: A Synthesis of Practice Guidelines. Archives of Physical Medicine and Rehabilitation, 2020, 101; 382-393

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