



Brain Injury Screening Tool (BIST)

A guide to traumatic brain injury assessment

The BIST was developed to be a brief tool for use on initial presentation after injury to guide health care pathway decision making and to monitor symptoms and recovery over time. Its purpose is to help guide the clinical assessment conversation by operationalising current international best practice guidelines.¹

The BIST has been developed for health professionals working across primary and secondary health care and for sports and other contexts where traumatic brain injuries (TBI) can occur.

The BIST can facilitate clinical decision making through identification of people who are at low, medium or high risk of longer-term difficulties.

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 9 questions in the BIST are designed to assist if there are clinical indicators that the person is at high risk of complications or poor recovery and requires hospital evaluation. The 15-item symptom scale is designed to assist in identifying patients at moderate risk of poor recovery who may benefit from early specialist treatment and low risk patients who are likely to recover well, supported within primary care.

Date of Injury:

Time of Injury:

Date of Consultation:

Age¹:

Gender/Sex:

1. If over 65 years, socially isolated or living alone, consider referral to the Emergency Department.

Ethnicity:

If your answer is OTHER please specify:

1. Please tell me about what happened² (Observe for 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))

2. If high risk indicators present, consider referral to Emergency Department.

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

3. Have you been sick/vomited?³

Yes No a. If yes, how many times

3. If >1 vomiting episode, consider referral to Emergency Department.

4. Were you knocked out (or did you lose consciousness)?⁴

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

4. If loss of consciousness >brief, consider referral to Emergency Department.

5. Did you have a fit or seizure straight afterwards? E.g. go stiff or shake violently?⁵

Yes No Unknown

5. If yes, consider referral to Emergency Department.

6. Are you feeling better, worse or about the same since the injury?⁶

Better Worse About the same

6. If symptoms have worsened, consider referral to Emergency Department.

7. Have you hit your head or had a concussion/brain injury before ?⁷

Yes No a. If yes, how many times

b. when was the last injury?

7. If recent or unrecovered previous injury, consider referral to Emergency Department.

If recent injury but recovered the person may be moderate risk of poor recovery and early specialist input may be required. Consider referral to concussion service.

8. Are you currently taking any medications that thin the blood e.g. anti-coagulants?Yes⁸ No

8. If yes, consider referral to emergency department.





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

Yes⁹ No

9. If yes, the person may be at moderate risk of poor recovery and early specialist input may be required. Consider referral to concussion service.

Please ask the patient the following question.

Compared with before the accident, please rate how much you experience the following right now (at this point in time);

												
		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) ¹⁰											
	My neck hurts											
	I don't like bright lights											
	I don't like loud noises											
Total physical score (out of 40)												
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											
Total vestibular score (out of 40)												
Cognitive	It takes me longer to think											
	I forget things											
	I get confused easily											
	I have trouble concentrating											
Total cognitive score (out of 40)												
If more than 24 hours post-injury, please also rate these physical symptoms												
	I get angry or irritated easily											
	I feel restless											
	I feel tired during the day											
	I need to sleep a lot more or find it hard to sleep at night											

10. If severe headache, consider referral to Emergency Department.

Total symptom severity score within 24 hours (out of 120 ¹¹)		Total symptom severity score >24 hours (out of 160 ¹²)	
Number of symptoms endorsed within 24 hours (out of 12)		Number of symptoms endorsed >24 hours (out of 16)	
What is the dominant symptom cluster? (High proportion or most severe symptoms reported (e.g. physical, vestibular or cognitive?))			

11. If 50 or more consider referral to specialist concussion clinic, as this person is likely to be at moderate risk of poor recovery. If <50 this person is at low risk, monitor and follow up in 7-10 days.

12. If 66 or more consider referral to specialist concussion clinic, as this person is likely to be at moderate risk of poor recovery. If <66 this person is at low risk, monitor and follow up in 7-10 days. If minimal improvement in scores since previous visit, consider referral to concussion clinic.

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 100, where 0 means that you do not feel the injury has had any impact on you at all and 100 means you feel that injury stops you from doing anything, how much do you feel your injury is impacting on you at this point in time?



Acknowledgements

This tool has been developed by the ACC Concussion Clinical Expert Group: Alice Theadom, Natalie Hardaker, Penelope Day, Kris Fernando, Katherine Forch, Kevin Henshall, Doug King, Mark Fulcher, Renata Gottgroy, Sam Jewell, Stephen Kara, 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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