



WHIP - PREDICT

WHIPLASH RISK STRATIFICATION TOOL

RECOVER
INJURY RESEARCH CENTRE
RESEARCH DRIVING REHABILITATION

Recover is a joint initiative of the Motor Accident Insurance Commission and The University of Queensland.

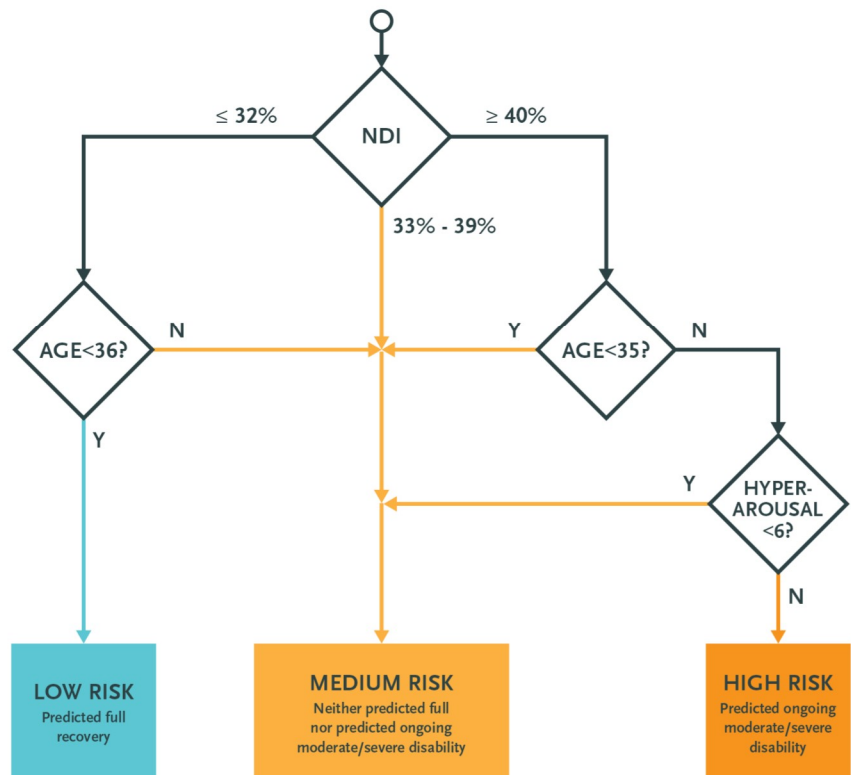
NHMRC CENTRE OF
RESEARCH EXCELLENCE
IN RECOVERY FOLLOWING
ROAD TRAFFIC INJURIES

MAiC Motor Accident
Insurance Commission

 THE UNIVERSITY
OF QUEENSLAND
AUSTRALIA

Recovery following a whiplash injury is varied. While approximately 50% of individuals fully recover, 25% develop persistent moderate/severe pain and disability and 25% experience milder levels of disability.

A risk stratification tool is a research-generated tool used to predict outcomes such as likelihood of developing moderate/severe disability or experiencing full recovery from acute whiplash injury. In our studies we observed increased probability of developing chronic moderate/severe disability in the presence of older age and initially higher levels of NDI and hyperarousal symptoms (positive predictive value [PPV] = 71%) and increased probability of full recovery in younger individuals with initially lower levels of neck disability (PPV = 71%).



The forms in this pad will help you to judge the likelihood of recovery for patients with an acute whiplash injury using the whiplash clinical prediction rule. Once your patient has filled in the form and you have calculated the NDI and the hyperarousal symptoms (if applicable) scores, follow the diagram above for making a prediction about the likelihood of recovery.

WHAT THE RISK CLASSIFICATION MEANS FOR TREATMENT

We are currently undertaking a clinical trial where treatment is provided based on the risk classification of the patient. We are proposing that those classified as 'low risk' will need **minimal intervention comprising of advice and simple exercises**.

Patients classified as 'medium' or 'high risk' require further assessment of physical (movement and muscle control, kinaesthetic awareness, sensory examination) and **psychological factors** such as recovery expectations and post-traumatic stress symptoms. **Treatment will depend upon findings from this more detailed assessment.**

Further information about the whiplash risk stratification tool is available on recover.centre.uq.edu.au
The current (2015) evidence based Clinical Practice Guidelines for Acute Whiplash is available on <https://www.maa.nsw.gov.au/for-professionals/for-health-professionals/acute-whiplash>

¹ Ritchie C, Hendrikz J, Jull G, Elliott J, Sterling M., *External validation of a clinical prediction rule to predict full recovery and ongoing moderate/severe disability following acute whiplash injury*, J Orthop Sports Phys Ther 2015 Apr;45(4):242–50

Ritchie C, Hendrikz J, Kenardy J, Sterling M., *Derivation of a clinical prediction rule to identify both chronic moderate/severe disability and full recovery following whiplash injury*, Pain 2013 Oct;154(10):2198–206.

Name: _____ ID: _____

Age: _____ Date: _____ / _____ / _____

Practitioner: _____

This questionnaire has been designed to give us information as to **how your neck pain has affected your ability to manage in everyday life. Please answer every section and mark in each section only the one box that applies to you.** We realise you may consider that two or more statements in any one section relate to you, but please just mark **the box that most closely describes your problem right now.**

Pain intensity	<input type="checkbox"/> I have no pain at the moment.	<input type="checkbox"/> The pain is mild at the moment.	<input type="checkbox"/> The pain comes and goes and is moderate.	<input type="checkbox"/> The pain is moderate and does not vary much.	<input type="checkbox"/> The pain is severe but comes and goes.	<input type="checkbox"/> The pain is severe and does not vary much.
Personal care	<input type="checkbox"/> I can look after myself without causing extra pain.	<input type="checkbox"/> I can look after myself normally but it causes extra pain.	<input type="checkbox"/> It is painful to look after myself and I am slow and careful.	<input type="checkbox"/> I need some help, but manage most of my personal care.	<input type="checkbox"/> I need help every day in most aspects of self-care.	<input type="checkbox"/> I do not get dressed, I wash with difficulty and stay in bed.
Lifting	<input type="checkbox"/> I can lift heavy objects without extra pain.	<input type="checkbox"/> I can lift heavy objects but it causes extra pain.	<input type="checkbox"/> Pain prevents me from lifting heavy objects off the floor, but I can if they are conveniently positioned, for example on a table.	<input type="checkbox"/> Pain prevents me from lifting heavy objects, but I can manage light to medium weights if they are conveniently positioned.	<input type="checkbox"/> I can lift very light weights.	<input type="checkbox"/> I cannot lift or carry anything at all.
Reading	<input type="checkbox"/> I can read as much as I want to with no pain in my neck.	<input type="checkbox"/> I can read as much as I want with slight pain in my neck.	<input type="checkbox"/> I can read as much as I want with moderate pain in my neck.	<input type="checkbox"/> I cannot read as much as I want because of moderate pain in my neck.	<input type="checkbox"/> I cannot read as much as I want because of severe pain in my neck.	<input type="checkbox"/> I cannot read at all.
Headache	<input type="checkbox"/> I have no headaches at all.	<input type="checkbox"/> I have slight headaches which come infrequently.	<input type="checkbox"/> I have moderate headaches which come infrequently.	<input type="checkbox"/> I have moderate headaches which come frequently.	<input type="checkbox"/> I have severe headaches which come frequently.	<input type="checkbox"/> I have headaches almost all the time.
Concentration	<input type="checkbox"/> I can concentrate fully when I want to with no difficulty.	<input type="checkbox"/> I can concentrate fully when I want to with slight difficulty.	<input type="checkbox"/> I have a fair degree of difficulty concentrating when I want to.	<input type="checkbox"/> I have a lot of difficulty concentrating when I want to.	<input type="checkbox"/> I have a great deal of difficulty concentrating when I want to.	<input type="checkbox"/> I cannot concentrate at all.
Work	<input type="checkbox"/> I can do as much work as I want to.	<input type="checkbox"/> I can only do my usual work, but no more.	<input type="checkbox"/> I can do most of my usual work, but no more.	<input type="checkbox"/> I cannot do my usual work.	<input type="checkbox"/> I can hardly do any work at all.	<input type="checkbox"/> I cannot do any work at all.
Driving	<input type="checkbox"/> I can drive my car without neck pain.	<input type="checkbox"/> I can drive my car as long as I want with slight pain in my neck.	<input type="checkbox"/> I can drive my car as long as I want with moderate pain in my neck.	<input type="checkbox"/> I cannot drive my car as long as I want because of moderate pain in my neck.	<input type="checkbox"/> I can hardly drive my car at all because of severe pain in my neck.	<input type="checkbox"/> I cannot drive my car at all.
Neck pain and sleeping	<input type="checkbox"/> I have no trouble sleeping.	<input type="checkbox"/> My sleep is slightly disturbed (less than 1 hour sleepless).	<input type="checkbox"/> My sleep is mildly disturbed (1-2 hours sleepless).	<input type="checkbox"/> My sleep is moderately disturbed (2-3 hours sleepless).	<input type="checkbox"/> My sleep is greatly disturbed (3-5 hours sleepless).	<input type="checkbox"/> My sleep is completely disturbed (5-7 hours sleepless).
Recreation	<input type="checkbox"/> I am able to engage in all recreational activities with no pain in my neck at all.	<input type="checkbox"/> I am able to engage in all recreational activities with some pain in my neck.	<input type="checkbox"/> I am able to engage in most, but not all recreational activities because of pain in my neck.	<input type="checkbox"/> I am able to engage in a few of my usual recreational activities because of pain in my neck.	<input type="checkbox"/> I can hardly do any recreational activities because of pain in my neck.	<input type="checkbox"/> I cannot do any recreational activities at all.

If your age is 35 or above, please fill the section on the next page, otherwise please return this form

OFFICE USE ONLY	0	_____x1=_____	_____x2=_____	_____x3=_____	_____x4=_____	_____x5=_____
NDI (Neck Disability Index)		[total] _____ / _____	[5 x total number of answers] _____ x100 = _____%			

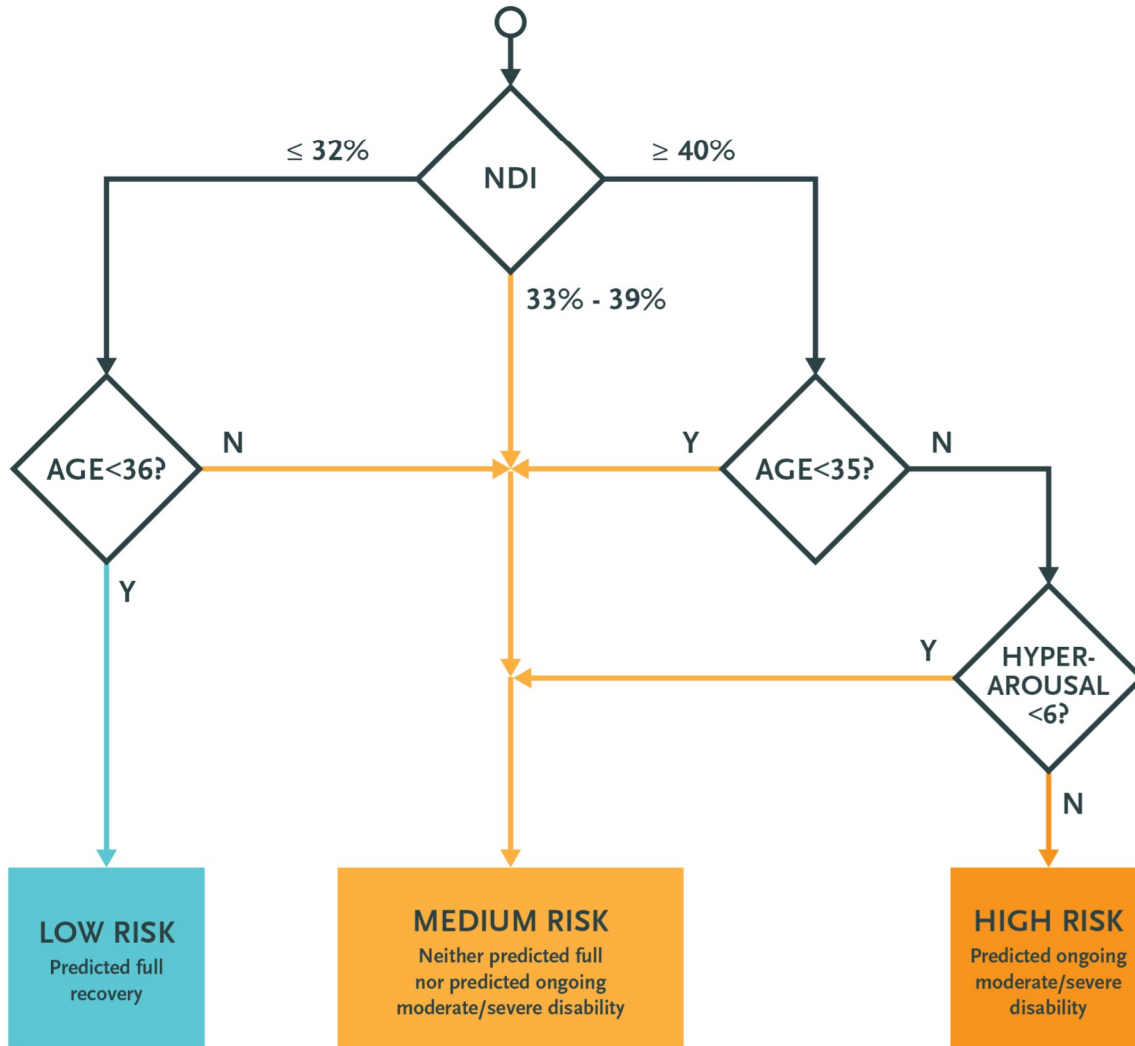
Below is a list of difficulties people sometimes have after stressful life events. Please read each item, and then indicate how distressing each difficulty has been for you **DURING THE PAST SEVEN DAYS with respect to the motor vehicle accident**. How much were you distressed or bothered by these difficulties?

	Not at all or only one time	Once a week or less / once in a while	2 to 4 times a week / half of the time	5 or more times a week / almost always
Do you feel irritable or are you prone to getting angry easily?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Do you have difficulty falling asleep or staying asleep?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Do you have difficulty concentrating?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Are you noticeably overly alert?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Are you noticeably jumpy or are you easily startled?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Thank you – please return this form

	0	$\text{---} \times 1 = \text{---}$	$\text{---} \times 2 = \text{---}$	$\text{---} \times 3 = \text{---}$
OFFICE USE ONLY	HYPER-AROUSAL SYMPTOMS	[total]		
	NDI (REPORT FROM PREVIOUS PAGE)			_____%
	AGE (REPORT FROM PREVIOUS PAGE)			_____
For interpretation of the results, please see the back page of the pad or visit the dedicated page on recover.edu.au				
Predicted outcome (for your own record): _____				

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