

Neck disability index

Howard Vernon developed the neck disability index (NDI) in 1989. The NDI was developed as a modification of the Oswestry low back pain disability index with the permission of the original author (J. Fairbank, 1980). In 1991, Vernon and Mior published the results of a study of reliability and validity in the Journal of Manipulative and Physiologic Therapeutics. Since then, approximately ten articles have appeared in the indexed literature on the NDI. All of these studies have confirmed the original reports of a high level of reliability and validity. We know that the NDI consists of one factor – physical disability – although NDI scores correlate well with the SF-36 mental component scores as well. We know that the minimum detectable score and the minimal clinically important difference amounts to the same figure – 5 NDI points.

The NDI has become a standard instrument for measuring self-rated disability due to neck pain and is used by both clinicians and researchers.

Each of the 10 items scores from 0 to 5. The maximum score is 50. The obtained score can be multiplied by two to produce a percentage score. Occasionally, a respondent will not complete one question or another. The average of all other items is then added to the completed items.

The original report provided scoring intervals for interpretation, as follows:

0 to 4 = no disability

5 to 14 = mild

15 to 24 = moderate

25 to 34 = severe

Above 34 = complete

Please note: The means 15 – 24 out of 50 (the RAW SCORE) equates with moderate disability.

Use the NDI at baseline and for every two weeks thereafter within the treatment program to measure progress. As noted, at least a 5-point change is required to be meaningful clinically. Patients often do not score the items as zero, once they are in treatment. In other words, it is common to find that patients will continue to score between 5 – 15 despite having made excellent recovery (i.e., they may be back to work). Avoid the trap of treating until zero, as this is not supportable based on current evidence.



Neck pain disability index (Vernon-Mior)

NDI

Please read the instructions before answering.

Name: _____ Date: _____

This questionnaire is designed to give the health care provider information as to how your neck pain has affected your ability to manage in your every day life. In each section, mark only the ONE box that applies to you. We realize that you consider that two of the statements in any one section relates to you, but just mark the one that most closely describes your problem today.

Section 1 - Pain intensity

- | | |
|--------------------------------------------------------------|------------------------------------------------------------------------------|
| <input type="checkbox"/> I have no pain at the moment | <input type="checkbox"/> The pain is fairly severe at the moment |
| <input type="checkbox"/> The pain is very mild at the moment | <input type="checkbox"/> The pain is very severe at the moment |
| <input type="checkbox"/> The pain is moderate at the moment | <input type="checkbox"/> The pain is the worst pain imaginable at the moment |

Section 2 - Personal care (e.g., washing, dressing, etc.)

- I can look after myself normally without causing extra pain
- I can look after myself, but it causes extra pain
- It is painful to look after myself and I am slow and careful
- I need some help but manage most of my personal care
- I need help every day in most aspects of self-care
- I do not get dressed; I wash with difficulty and stay in bed

Section 3 - Lifting

- I can lift heavy weights without extra pain
- I can lift heavy weights, but it gives me extra pain
- Pain prevents me from lifting heavy weights off the floor, but I can manage if they are conveniently positioned (like on a table)
- Pain prevents me from lifting heavy weights, but I can manage light-to-medium weights if they are conveniently positioned
- I can lift very light weights
- I cannot lift or carry anything at all

Section 4 - Reading

- | | | | | | |
|-------------------------------------------------------------------------|-----------------------------------------------------------------------------|-------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-----------------------------------------------|
| <input type="checkbox"/> I can read as much as I want with no neck pain | <input type="checkbox"/> I can read as much as I want with slight neck pain | <input type="checkbox"/> I can read as much as I want with moderate neck pain | <input type="checkbox"/> I can't read as much as I want because of moderate neck pain | <input type="checkbox"/> I can hardly read at all because of severe pain in my neck | <input type="checkbox"/> I cannot read at all |
|-------------------------------------------------------------------------|-----------------------------------------------------------------------------|-------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-----------------------------------------------|

Section 5 - Headaches

- | | | | | | |
|-----------------------------------------------------|-------------------------------------------------------------------------|---------------------------------------------------------------------------|-------------------------------------------------------------------------|-----------------------------------------------------------------------|------------------------------------------------------------------|
| <input type="checkbox"/> I have no headaches at all | <input type="checkbox"/> I have slight headaches that come infrequently | <input type="checkbox"/> I have moderate headaches that come infrequently | <input type="checkbox"/> I have moderate headaches that come frequently | <input type="checkbox"/> I have severe headaches that come frequently | <input type="checkbox"/> I have headaches almost all of the time |
|-----------------------------------------------------|-------------------------------------------------------------------------|---------------------------------------------------------------------------|-------------------------------------------------------------------------|-----------------------------------------------------------------------|------------------------------------------------------------------|

Section 6 - Concentration

- I can concentrate fully when I want with no difficulty
- I can concentrate fully when I want to with slight difficulty
- I have a fair degree of difficulty concentrating when I want to
- I have a lot of difficulty concentrating when I want to
- I have a great deal of difficulty concentrating when I want to
- I cannot concentrate at all

Section 7 - Work

- I can do as much work as I want
- I can only do my usual work, but no more
- I can do most of my usual work, but no more
- I cannot do my usual work
- I can hardly do any work at all
- I cannot do any work at all

Section 8 - Driving

- I can drive my car without any neck pain
- I can drive my car as long as I want with slight neck pain
- I can drive my car as long as I want with moderate neck pain
- I can't drive my car as long as I want because of moderate neck pain
- I can hardly drive at all because of severe neck pain
- I can't drive my car at all

Section 9 - Sleeping

- I have no trouble sleeping
- My sleep is slightly disturbed (less than 1 hour sleepless)
- My sleep is mildly disturbed (1 to 2 hours sleepless)
- My sleep is moderately disturbed (2 to 3 hours sleepless)
- My sleep is greatly disturbed (3 to 5 hours sleepless)
- My sleep is completely disturbed (5 to 7 hours sleepless)

Section 10 - Recreation

- I am able to engage in all my recreation activities with no neck pain
- I am able to engage in all my recreation activities with some neck pain
- I am able to engage in most, but not all, of my usual recreation activities because of neck pain
- I am able to engage in a few of my usual recreation activities because of neck pain
- I can hardly do any recreation activities because of neck pain
- I can't do any recreation activities at all because of neck pain

Pain scale

Rate the severity of your pain by checking one box of the scale

No pain	0	1	2	3	4	5	6	7	8	9	10	Excruciating pain
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