

Nordic Dizziness Questionnaire (NDQ): Development and Use

The Nordic Dizziness Questionnaire (NDQ) is a clinical screening questionnaire developed to support the assessment of patients referred to specialist health care for vertigo, dizziness, or imbalance when a vestibular disorder is suspected. This document provides a brief description of the questionnaire's clinical background, development process, structure, and intended use. It is intended as supporting documentation for clinicians and researchers using or adapting the NDQ, and complements the questionnaire files available through the Zenodo repository (DOI: 10.5281/zenodo.19133087).

Purpose and background

Vestibular symptoms, including vertigo, dizziness and imbalance, are—due to their complex and multifactorial nature—common reasons for referral to specialist health care. The diagnosis is often unclear to referrers, and written referrals vary in quality and level of detail with respect to patient-reported symptoms. Yet, with the increasing number of available options for diagnosing and treating vestibular disorders, the symptom description is critical for planning the first clinical visit.

Patient-reported symptoms are also of critical importance to the specialist consultant and to the eventual diagnosis, forming the basis for published consensus criteria by the Bárány Society and others. Systematic recording of patient-reported symptoms using questionnaires prior to the clinical visit may save time and help focus the clinical interview. It may also improve diagnostic quality by ensuring that important symptoms are not overlooked. Finally, a well-prepared specialist, with a good knowledge of the patient history prior to the interview, may greatly improve patient satisfaction.

Questionnaires have long been used to record patient-reported symptoms in the assessment of vestibular disorders. However, many existing questionnaires have limited diagnostic utility for several reasons. First, a major group of questionnaires primarily focuses on grading symptom severity rather than on identifying underlying causes. Second, many clinical questionnaires are designed as general reviews of organ systems and medication use, rather than being specific to vestibular disorders. Finally, commonly used questionnaires are often poorly aligned with current diagnostic criteria, for example by emphasising dizziness characteristics rather than timing and triggers, or by lacking sufficient detail to distinguish triggers that may be superficially similar, such as motion-induced symptoms in persistent postural-perceptual dizziness and those seen in benign paroxysmal positional vertigo.

For these reasons, the Nordic Dizziness Questionnaire (NDQ) was developed as a new diagnostic screening questionnaire for use prior to clinical visits in patients referred for dizziness with suspected vestibular disorders. The NDQ is not intended to replace a thorough clinical interview, but to supplement and guide it, and to support clinical prioritisation with the aim of distinguishing relevant diagnostic subgroups.

Development process

The questionnaire was developed by an expert group of physicians from three Nordic countries with extensive combined experience in vestibular research and clinical management of patients with vestibular disorders. The primary target group comprised patients referred to specialist health care for vertigo, dizziness and imbalance with suspected vestibular disorders. Development began with the identification of clinically relevant diagnostic groups and symptom constellations within this population, including both central and peripheral vestibular disorders.

The questionnaire was designed as a series of statements formulated in the first person. For each statement, patients were asked to indicate their degree of agreement or disagreement on a five-point Likert scale, with the midpoint indicating uncertainty, presented using checkboxes without numerical labels. This format was chosen to allow grading of certainty, which the expert group considered clinically relevant given the complexity of vestibular disorders in terms of symptom characteristics, timing, triggers, and accompanying symptoms.

Relevant consensus criteria published by the Committee for the Classification of Vestibular Disorders, as well as criteria from other professional societies, were reviewed. For each diagnostic group, a corresponding set of statements was formulated to capture diagnostically relevant patient-reported symptoms as closely as possible. Each statement was discussed and reviewed within the expert group with regard to conceptual clarity, diagnostic relevance, and—based on clinical experience—consistency with the wording commonly used by patients to describe their symptoms within the three Nordic languages.

This process resulted in a final set of 48 statements. The order of the statements was randomised to reduce potential response bias associated with grouping questions related to the same disorders.

Preliminary versions of the questionnaire were reviewed by small groups of patients at each clinical site and by two patient organisations, with the aim of identifying linguistic ambiguities and issues related to comprehensibility. Feedback was discussed within the expert group and used to refine the language of the questionnaire. Norwegian, Danish and Swedish versions were developed and harmonised in parallel to ensure consistency across languages.

Structure & content

The NDQ comprises 48 statements addressing vestibular symptoms, including the duration and timing of attacks, triggers, and accompanying symptoms relevant to specific vestibular disorders and syndromes. For each statement, patients are asked to indicate their degree of agreement on a five-point Likert scale. In the wording of some statements, present or past tense is used intentionally to distinguish between symptoms that are ongoing and symptoms that have occurred in the past.

The questionnaire was designed primarily for digital administration. Randomisation of the order of statements was therefore incorporated to reduce potential response bias during completion. For clinical interpretation, however, it is considered valuable that responses can be presented in a structured and clinically meaningful order, independent of the order in which statements are completed. The specific structure used for clinical presentation of responses may vary across implementations and is not defined within the scope of this document.

The statements are intended to support a structured symptom assessment prior to a clinical visit rather than to provide a diagnostic classification.

Language versions

The Nordic Dizziness Questionnaire is available in Norwegian, Danish, and Swedish. The three language versions were developed in parallel and are considered original and equivalent versions, rather than translations from a single source language. Language harmonisation focused on conceptual equivalence and clinically relevant terminology reflecting how patients commonly describe their symptoms in clinical practice.

Clinical use

The NDQ is intended for use prior to the initial clinical specialist consultation in patients referred for vertigo, dizziness, or imbalance due to suspected vestibular disorders. It is designed to be self-administered, preferably in a digital format. When administered digitally, responses can be reviewed by the clinician in a structured format to support efficient clinical assessment.

The questionnaire should preferably be completed in a calm setting and with ample time for patients to reflect on each statement in relation to their own symptom history. This is particularly important for patients with recurrent vestibular symptoms over a long period of time.

The responses are intended to support the clinical interview by highlighting symptom patterns, with particular focus on the timing and triggers of vestibular episodes. However, the NDQ does not provide a diagnosis and should be interpreted in conjunction with clinical assessment and relevant investigations.

Reuse and future development

The Nordic Dizziness Questionnaire is intended for open use both in clinical practice and research. It may be adapted or further developed provided appropriate attribution is given. Future work may include revisions, additional language versions, and formal evaluations of measurement properties and clinical utility.