



Administering the *DASH and DASH 17+* measures via telehealth

Special Recommendations for Administering the DASH and DASH 17+ Via Telehealth

The DASH and DASH 17+ can be administered in a telehealth context and a variety of options are available for this. Assessment via telehealth requires competence in the administration of appropriate instruments over online platforms. Examiners planning to use this method of assessment should be familiar with the guidelines about telehealth from their professional organisation and the ethical and legal use of assessments in online telehealth.

The DASH and DASH 17+ each consist of 4 handwriting tasks and one optional graphic speed task, which is scored separately. When in-person assessment is not possible, the graphic speed subtest can potentially be used for providing standardised information about fine motor skills in the absence of other fine motor tests suitable for telehealth. Various options are available for administering the *DASH and DASH 17+* via telehealth. They vary based on the role of the onsite facilitator. If the onsite facilitator is a well-trained professional, telehealth can involve all forms. During the COVID-19 pandemic, however, the only facilitator available may be someone in the examinee's home. If using an onsite facilitator who is not in a professional role (e.g., parent/guardian), the examiner should use their professional judgment about the capacity of the facilitator to perform the required functions correctly and without interfering in the testing session. [This document](#) provides information about the role of the trained facilitator in telehealth assessment.

Both the DASH and DASH 17+ can be administered as a group test or as an individual administration. When administering via telehealth use the manual to determine whether the group administration directions or individual administration directions are the most appropriate for your scenario.

For telehealth, the examiner should photocopy the reproducible test templates A, B, C and D in the same manner that he/she would for an in-person assessment. These materials must be mailed out to the facilitator prior to the assessment session. Ensure enough time for the materials to be delivered when scheduling a time for the evaluation. Have the facilitator open the envelope on camera only after requested to do so. Provide a prepaid envelope for return of the completed sheets to the examiner to enable scoring in a timely manner. Do not email the templates to the facilitator for printing as you will have no way of controlling the quality of the printouts or ensuring that the materials are not shared with others. If your videoconferencing platform does not have a 'whiteboard' option you may choose to draw an example 'slash mark' on one of the sheets of lined paper and complete some of the practice graphic speed circles to demonstrate how to do these correctly, before you mail the materials to the examinee.

For telehealth, the assessment tasks must be completed with the examinee via video-conferencing, with the examiner using the *DASH or DASH 17+* manual to follow the administration directions in Chapter 2. The DASH and DASH 17+ manuals are available in digital form on the Q-global platform if a hard copy is not available.

Conducting a valid assessment in a telehealth service delivery model requires an understanding of the interplay between a number of complex issues. In addition to the general information on our [telepractice overview page](#), professionals should address five themes (Eichstadt et al., 2013) when planning for administering the *DASH or DASH 17+* via telehealth.

Theme-specific information for administering the DASH and DASH 17+ via telehealth

Audio/visual environment

- Two computers with audio and video capability and stable internet connectivity—one for the examiner and one for the examinee—are required. A stationary web camera, microphone, and speakers or headphones are required for both the examiner and the examinee. A third

camera, trained on the examinee's hand, is also strongly recommended to allow the therapist to make qualitative observations during the assessment tasks. [This video](#) provides suggestions about how to set up a third camera. As the examiner is required to demonstrate how to make 'slash marks' as well as correctly complete the graphic speed test task, a videoconferencing platform with whiteboard functionality is desirable.

- Make sure the full face of the examinee and the photocopied pages are in view on the videoconferencing screen.
- High-quality video (HD preferred) is required during the administration.
- For audio interaction during the administration, make sure the audio is working as expected. Test the audio prior to the administration through the examinee's speakers.
- Make sure the examinee's environment has good lighting and is free from distractions as much as possible.

Examiner factors

- Practice administering the *DASH* or *DASH 17+* via telehealth before you begin with an examinee
- Assemble all the materials you will need to administer the test. You will need a copy of the test manual (in either digital or hard copy form) from which to read the instructions. If using the digital manual, have this open somewhere other than on the device you'll be using for the videoconference (e.g. your phone or a second computer screen). Ensure you have digital copies of each stimulus card A-D (available in the Q-global resource library) ready to share on your screen. You will also need a device for timing. If using your phone to access the test manual you should have a stopwatch or additional timer available as you will not be able to use the stopwatch function on your phone. Ensure you have an examiner Record Form in front of you so that you can jot down observations during the test.
- Set aside time in advance of the session to train the onsite facilitator. If using an onsite facilitator who is not in a professional role (e.g., parent/guardian), the examiner should use their professional judgment about the capacity of the facilitator to perform the required functions correctly and without interfering in the testing session. The examiner should communicate expectations about the facilitator's role in testing tasks immediately prior to the testing session. Do not allow the facilitator to show or warn the examinee about any portion of the test. Instruct the facilitator not to open any materials until you provide instructions to do so, if applicable. Expect to provide verbal guidance to the facilitator during the testing session.
- Make a clinical judgment, similar to an in-person session, whether or not you are able to gather the examinee's best performance. Report your clinical decision(s) in your report and

comment on the factors that led to this decision and your reporting or lack of reporting of the scores

- If there is a problem with the video-conferencing quality, make sure all other non-essential applications on your computer are closed. Likewise, ask the examinee to close all other applications on their computer, laptop, or other device for faster administration performance.
- Note all technology related issues that occur during administration and consider these when interpreting results.

Examinee factors

- Ensure that the respondent has access to an adequate internet connection to support video conferencing.
- Before the session, ensure that the examinee has a speaker and a web camera with an embedded microphone with the volume turned up to a comfortable level. Spend some time helping the facilitator set up and position the [third camera](#) (e.g. a smartphone with its own login to the videoconference) so that you can obtain a clear view of the examinee's hand.
- Ensure that the examinee is able and prepared to appropriately engage in the session and that they are well rested.
- Ensure the examinee has appropriate seating with a table and chair, and that the test materials are positioned so that they are centered with the examinee's body and squared on the desk; use a facilitator to support this if necessary.

Test/test materials

- Provide the correct copies of response materials to the facilitator in advance of the testing session and communicate the plan for securing and forwarding/returning materials, real-time and after testing. For example, have the facilitator open the envelope containing test materials on camera only after requested to do so, and return the completed materials to the examiner in a prepaid envelope to ensure test security is not compromised and test records can be maintained. To preserve the integrity of the test, do not email the materials to the facilitator. After the test is completed you might wish to ask the facilitator to hold the completed sheets of writing up to the screen so that you can take a screenshot of each one. While insufficient to properly score the test, this will allow you to gain a first look at the examinee's performance and will provide a record of the results should the materials get lost in the post.

- Ensure the examinee has a sharp pencil or a pen that he/she would normally use for writing.
- Ensure the examinee has received the test materials in the mail.
- Ensure mailing instructions are provided for return of the test materials for scoring.

Other/miscellaneous

- The *DASH and DASH 17+* manuals provide additional guidelines in Chapter 2 for individual and group administration detailing considerations for setting up the environment, developing rapport and managing timing of the tasks.
- Always state in your report that the test was administered via telehealth, and briefly describe the method of telehealth used. Describe any environmental factors or technology factors that may have impacted performance including quality of connections and distractions in the examinee's testing environment.
- Make a clinical judgment, similar to an in-person session, whether or not you are able to gather the best performance from the informant and/or respondents. Report your clinical decision(s) in your report and comment on the factors that led to this decision and your reporting or lack of reporting of the scores.
 - Example for "The remote testing environment appeared free of distractions, adequate rapport was established with the informant via video, and s/he appeared appropriately engaged in the task throughout the session. No significant technological problems were noted during administration, and the results are considered to be a valid estimate of the client's skills/abilities."

Selected research to date

Please refer to the following studies regarding the appropriateness of administering standardised assessments via computer or other electronic means.

Eichstadt, T. J., Castilleja, N., Jakubowitz, M., & Wallace, A. (2013, November). Standardized assessment via telepractice: Qualitative review and survey data [Paper presentation]. Annual meeting of the American-Speech-Language-Hearing Association, Chicago, IL United States.

Temple, V., Drummond, C., Valiquette, S., & Jozsvai, E. (2010). A comparison of intellectual assessments over video conferencing and in-person for individuals with ID: preliminary data. *Journal of Intellectual Disability Research*, 54(6), 573-577.

Please refer to the following studies regarding the appropriateness of neuropsychological assessment via computer or other electronic means:

Brearly, T. W., Shura, R. D., Martindale, S. L., Lazowski, R. A., Luxton, D. D., Shenal, B. V., & Rowland, J. A. (2017). Neuropsychological test administration by videoconference: a systematic review and meta-analysis. *Neuropsychology review*, 27(2), 174-186.

Cullum, C. M., Hynan, L. S., Grosch, M., Parikh, M., & Weiner, M. F. (2014). Teleneuropsychology: Evidence for video teleconference-based neuropsychological assessment. *Journal of the International Neuropsychological Society*, 20(10), 1028-1033.

Jeanine M. Galusha-Glasscock, Daniel K. Horton, Myron F. Weiner, C. Munro Cullum, Video Teleconference Administration of the Repeatable Battery for the Assessment of Neuropsychological Status, *Archives of Clinical Neuropsychology*, Volume 31, Issue 1, February 2016, Pages 8–11, <https://doi.org/10.1093/arclin/acv058>

Conclusion

Assessment via telehealth requires competence in the administration of appropriate instruments over online platforms. Examiners planning to use this method of assessment should be familiar with the guidelines about telehealth from their professional organisation and the ethical and legal use of assessments in online telehealth practice. Provided that the examiner has thoroughly considered and addressed the factors and the specific considerations as listed above, the examiner should be prepared to observe and comment about the reliable and valid delivery of the test via telepractice. Document in your report that the administration was completed by telehealth. You may use the DASH and DASH 17+ via telehealth without additional permission from Pearson when administered via videoconference. Any other use of the DASH or DASH 17+ via telehealth requires prior permission from Pearson. This includes, but is not limited to, scanning the laminated test template cards, digitising the paper record forms, holding the materials physically up in the camera's viewing area to administer the test, or uploading a manual on to a shared drive or site.