

Procedures

Diagnostic lumbar puncture for CSF collection may be performed any time of day and fasting is not required.

1. A volume of CSF is first collected into standard diagnostic tubes for routine biochemical and microscopic assessments. A minimum of 2 ml (preferably up to 5 ml) is then collected directly into a **polypropylene tube** (see suggestions below),¹ and stored in the same tube for transportation. The container must not contain any additives and must be labelled with patient identifier. Do NOT centrifuge prior to shipping. Record the time of collection on the tube.
2. A copy of the referring doctor's request form, the referral laboratory request form and the specimen data sheet (download from the website) must accompany the sample. Please provide billing details with the accompanying documentation.
3. Courier the non-centrifuged CSF sample, doubly contained, ensuring that the sample arrives at the NDDL within 24 hours from sampling. Cooling of the sample is not required during transport but it is important to avoid high temperature exposure during summer months. The referring laboratory is responsible for organizing a courier service to collect and deliver the sample to the NDDL. If the CSF sample cannot be delivered within 24 hours, freeze the sample and store at -20°C and then send the sample batched with other samples on dry ice within 2 months of lumbar puncture.
4. Please provide routine cell counts and biochemistry results as soon as possible to facilitate interpretation of the assay results and also avoid testing unsuitable CSF samples.
5. **Please notify the NDDL that the CSF sample is being sent.**

Information about the test

1. The CSF samples will be tested in batches to minimise costs. Current estimates are a fortnightly turn around time.
2. **Unsuitable samples:** CSF samples may be unsuitable for testing if they display any of the following²: Elevated protein levels (>1g/L); Evidence of pleocytosis; Significant blood contamination (>500 RBCs/µl), macroscopically haemorrhagic; or if there is greater than 24 hours delay between lumbar puncture and receipt of the specimen with the sample not being stored according to the sampling protocol. The referring laboratory/clinician will be contacted upon receipt of such samples and advised.
3. **Fees:** AUD\$190 for evaluating Amyloid 1-42, Total-tau and Phospho-tau proteins per CSF sample. Costing is based on batching of samples. Testing may be possible prior to routine batching however the costs will increase. If required contact the laboratory for a quotation.

Reporting Results

Result will be distributed by email and/or mail to the referring laboratory and medical practitioner.

Contact/Courier details:

National Dementia Diagnostics Laboratory, The Florey Institute of Neuroscience and Mental Health, Kenneth Myer Building (Melbourne Brain Centre), 30 Royal Parade (corner of Genetics Lane), Gate 11, Rear loading dock, The University of Melbourne, Parkville, VIC 3010, email: enquires-nddl@unimelb.edu.au, Phone: (03) 9035 7243, Facsimile: (03) 9035 8768.

¹ Disclaimer: Other polypropylene tubes are available and the choice of product is at the discretion of the consumer, eg Starstedt yellow cap, with label, sterile (63.9921.816 PP, 62.610.201 PP, or 15ml polypropylene, graduated, conical bottom, blue screw cap tube (Greiner Bio-One188271 Cellstar centrifuge tubes, sterile). Tubes that are not suitable include polystyrene or glass tubes.

²Vanderstichele et al. Alzheimer's and Dementia 2012; 8:65–73.

Specimen Data Sheet
 (This form is to accompany CSF samples)

NATA Accreditation Number 19256

Delivery Address:	National Dementia Diagnostics Laboratory The Florey Institute of Neuroscience and Mental Health Kenneth Myer Building (Melbourne Brain Centre) 30 Royal Parade, corner Genetics Lane Gate 11, Rear loading Dock The University of Melbourne Parkville, VIC 3010	Enquiries:	Tel: (03) 9035 7243 Fax: (03) 9035 8768 Email: enquiries-nddl@unimelb.edu.au
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REFERRING LABORATORY DETAILS

Contact Name & email: _____
Phone : () _____ **Fax: ()** _____
Laboratory/Hospital: _____
Street Address: _____
City/Suburb: _____ **State:** _____ **Post Code:** _____

Billing Address: As Above
 Other (please specify): _____

Referring Laboratory Sample Number: _____
Collection Date: _____

HOW WAS THE SAMPLE STORED AND TRANSPORTED?

(PLEASE ENSURE SAMPLE IS COLLECTED AND STORED IN A POLYPROPYLENE TUBE)

Room Temperature (18-24°C) (if delay >24 hours anticipated, freeze at -20°C) Frozen -20°C (shipped in dry ice)

Biochemistry	Microbiology
Protein: g/L	Red Cell Count: x10 ⁶ /L (must be < 500)
Glucose: mmol/L	White Cell Count: x10 ⁶ /L (must be < 10)
Tube No. being sent for CSF AD testing:	Tube No. microbiology performed on:

CHECKLIST REQUIRED PRIOR TO SENDING CSF SAMPLE:

- Polypropylene Tube used for specimen collection & storage?
- Specimen has not been spun
- Check routine biochemistry & microbiology results are within specified limits and record in spaces provided above

RBC must be less than 500 x 10⁶/L	Protein level <1g/L
WBC must be less than 10 x 10⁶/L	CSF must be clear and colourless
- Provide a copy of original doctor's request form and referral laboratory request form with the sample
- Ensure specimen is double bagged and packed securely
- Has the NDDL been contacted on enquires-nddl@unimelb.edu.au or (03) 9035 7243 for the specimen delivery?
- Ensure specimen is correctly addressed to the delivery address above