

Functional groupings of tests used in the assessment of Dry Eye

1. Symptoms tests

Questionnaires

NEI-VFQ25
McMonnies
Schein
McCarty
OSDI
DEQ
IDEEL

Visual function

LogMar acuity
Contrast sensitivity
Functional visual acuity

2. Aqueous tears

Tear volume

Fluorimetry
Hamano thread
Periotron test – “basal tear volume”

Tear meniscus

Radius of curvature
Height
Area of cross-section

Tear film thickness

Tear flow

Fluorimetry
Schirmer test
 Schirmer I
 Dynamic Schirmer
 Schirmer II
 Reflex Schirmer
 Electronic

Tear turnover

Dye dilution
Tear clearance
Fluorimetry

Tear evaporation

Evaporimetry

3. Tear stability and visual function

Visual acuity

ETDRS
Functional visual acuity

Tear stability

Breakup time (BUT)
SBUT: Symptomatic BUT
Tear film BUT fluorescein
Noninvasive BUT (NIBUT)
Tear thinning time
Topographic analysis
Tear stability analysis system

- Wavefront analysis
- 4. **Tear composition**
 - Biological fluids*
 - Aqueous tears
 - Lactoferrin
 - Lysozyme
 - Peroxidase
 - Immunoglobulin A
 - Ceruloplasmin
 - Inflammatory mediators
 - Matrix metalloproteinases
 - Other proteins
 - Mucins
 - Lipids
 - Cells in biofluids*
 - Inflammatory cells
 - Epithelial cells
 - Tear debris
 - Surface cells*
 - Impression cytology
 - Flow cytometry
 - Brush cytology
 - Confocal microscopy
 - Meibomian lipids*
 - Evaporimetry
 - Interferometry
 - Thickness
 - Grading
 - Meibometry (casual delivery)
 - Meibography
 - Morphology in MGD
 - Expressed oil quality
 - Lipid chemistry
 - Tears: physical*
 - Osmolarity
 - Depression of freeze point
 - Vapor pressure osmometry
 - Conductivity OcuSense
 - Electrolyte composition
 - Tear ferning
 - Surface damage*
 - Grading staining
 - Fluorescein stain
 - Rose Bengal stain
 - Lissamine green
 - Double staining
- 5. **Other criteria**
 - Tear function index (TFI)
 - Ocular protection index (OPI)
 - Conjunctivochalasis score
 - Blink characteristics
 - Distinction from allergy
 - Lid margin disease criteria
 - Microbiology and lid disease
- 6. **Sjogren syndrome**
 - Serological tests
 - Anti-Ro

Anti-La
Anti-M3 receptor
Anti-fodrin
Minor salivary gland biopsy
Lacrimal gland biopsy
Systemic endocrine findings
Tests of salivary function
Biscuit test
Sialography

7. Tests for assorted disorders

Wegener's: Positive ANCA
Rheumatoid arthritis: Positive Rh-F
Systemic lupus erythmatosus:
LASIK dry eye neuro-epitheliopathy: Composite clinical findings
