LIPCOF:
Evaluation and Classification

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Definition:

LIPCOF are evaluated in the area perpendicular to the temporal and nasal limbus on the bulbar conjunctiva above the lower lid (temporal and nasal LIPCOF, respectively) with a slit-lamp microscope using 18–27 magnification as necessary – no fluorescein - and classified using the optimized grading scale. A further combined LIPCOF score (LIPCOF Sum) can be calculated by adding together the nasal LIPCOF grade and temporal LIPCOF grade. Care has to be taken to differentiate between parallel, permanent conjunctival folds (LIPCOF) and disrupted micro-folds.

Orientation: Low magnification, project the slit-lamp beam to the limbus
Orientation: Move down to the lower lid margin
Evaluation: Enlarge magnification to maximal 27x when classifying LIPCOF
Evaluation: Regredient illumination by rotating the slit lamp beam to be parallel to the folds might enhance observation.
Important: Distinguish from micro-folds (a) and LIPCOF (b), the latter are parallel to the lid margin and its thickness mostly is 0.08mm (half of a normal tear meniscus height), while microfolds are 0.01mm. LIPCOF is a fold parallel to the lid margin!
Important: Observe temporal and nasal at defined area of observation
# Grading:

<table>
<thead>
<tr>
<th>Description</th>
<th>LIPCOF degree</th>
</tr>
</thead>
<tbody>
<tr>
<td>No conjunctival folds</td>
<td>0</td>
</tr>
<tr>
<td>One permanent and clear parallel fold</td>
<td>1</td>
</tr>
<tr>
<td>Two permanent and clear parallel folds</td>
<td>2</td>
</tr>
<tr>
<td>More than two permanent and clear parallel folds</td>
<td>3</td>
</tr>
</tbody>
</table>


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Dry eye thresholds:

- Temporal LIPCOF ≥ 2
- Nasal LIPCOF ≥ 2
- LIPCOF Sum ≥ 2
  - LIPCOF Sum = nasal LIPCOF + temporal LIPCOF
Do not use vital dyes!

Fluorescein or Lissamine green misleads classification, e.g. highlighting micro-folds!