# extIPA SYMBOLS FOR DISORDERED SPEECH

(Revised to 2015)

## CONSONANTS (other than those on the IPA Chart)

<table>
<thead>
<tr>
<th></th>
<th>Bilabial</th>
<th>Labio-dental</th>
<th>Labio-alveolar</th>
<th>Dento-labial</th>
<th>Bidental</th>
<th>Lingual-labial</th>
<th>Inter-dental</th>
<th>Alveolar</th>
<th>Retroflex</th>
<th>Palatal</th>
<th>Velar</th>
<th>Velopharyngeal</th>
<th>Upper pharyngeal</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Plosive</strong></td>
<td>p̪</td>
<td>p̪</td>
<td>p̪</td>
<td>b̪</td>
<td>t̼</td>
<td>f̼</td>
<td>f̼</td>
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</tr>
<tr>
<td><strong>Nasal</strong></td>
<td>m̃</td>
<td>m̃</td>
<td>m̃</td>
<td>n̼</td>
<td>n̼̊</td>
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</tr>
<tr>
<td><strong>Trill</strong></td>
<td>r̼</td>
<td>r̼</td>
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</tr>
<tr>
<td><strong>Fricative, median</strong></td>
<td>f̼̊</td>
<td>f̼̊</td>
<td>f̼̊</td>
<td>θ̼</td>
<td>θ̼̊</td>
<td>θ̼̊</td>
<td>θ̼̊</td>
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<tr>
<td><strong>Fricative, lateral</strong></td>
<td>t̼̊</td>
<td>t̼̊</td>
<td>t̼̊</td>
<td>k̼̊</td>
<td>k̼̊</td>
<td>k̼̊</td>
<td>k̼̊</td>
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</tr>
<tr>
<td><strong>Fricative, lat. + med.</strong></td>
<td>k̼̊</td>
<td>k̼̊</td>
<td>k̼̊</td>
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</tr>
<tr>
<td><strong>Fricative, nasal</strong></td>
<td>m̃̊</td>
<td>m̃̊</td>
<td>m̃̊</td>
<td>ɱ̥̊</td>
<td>ɱ̥̊</td>
<td>ɱ̥̊</td>
<td>ɱ̥̊</td>
<td></td>
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<tr>
<td><strong>Approx., lateral</strong></td>
<td>l̼</td>
<td>l̼</td>
<td>l̼</td>
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<tr>
<td><strong>Percussive</strong></td>
<td>w</td>
<td>z</td>
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</tbody>
</table>

## DIACRITICS

- Ω labial spreading: §
- Ω, ¨ denasal, partial denasal: ř̂ ř̄
- ¨ main gesture offset right: §
- @ strong articulation: f
- @ fricative nasal escape: ř̄
- @ main gesture offset left: §
- \ reiteration: p̪̭, p̪̬̬
- \ ingressive airflow: p̪̭̬
- \ sliding articulation: θ̂̂
- @ pre-voicing:
- @ post-voicing:
- @ partial devoicing:
- @ initial partial devoicing:
- @ final partial devoicing:
- @ partial voicing:
- @ initial partial voicing:
- @ final partial voicing:
- @ unaspirated:
- h̊ pre-aspiration:

## CONNECTED SPEECH, UNCERTAINTY ETC.

- ( ) (..) (...) short, medium, long pause
- f, ff loud(er) speech: [l, laud, l]
- p, pp quiet(er) speech: [l, kwaał, p]
- allegro fast speech: [ləgərə, fast_ələgərə]
- lento slow speech: [ləntə, sloʊ_ləntə]
- crescendo, ralentando etc. may also be used
- ○, (○), (○) indeterminate sound, consonant, vowel
- (F), (P) etc. indeterminate fricative, probably [p] etc.
- ( ) silent articulation, e.g. ([ ], (m)
- ((( ))) extraneous noise, e.g. (((2 sylls)))

## VOICING

- * pre-voicing:
- * post-voicing:
- * partial devoicing:
- * initial partial devoicing:
- * final partial devoicing:
- * partial voicing:
- * initial partial voicing:
- * final partial voicing:
- * unaspirated:
- * pre-aspiration:

## OTHER SOUNDS

- ɹ̺= apical-r
- ɹ̺? bunched-r (molar-r)
- § ɻ laminal fricatives (incl. lowered tongue tip)
- ḵ etc. [k] with lateral fricated release etc.
- t̼ʰ d̼ʰ [t, d] with lateral and median release
- t̼ʰ etc. [t] with interdental aspiration etc.
- t̼ʰ lingual-labial affricate etc.
- ɭ velodorsal oral and nasal stops
- i sublaminal lower alveolar percussive
- i alveolar click with sublaminal percussive release
-بع Buccal interdental trill (raspberry)
- * sound with no available symbol