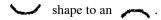
# Action Unit 7 – Lid Tightener

Figure 2-1 shows a muscle that circles the eye orbit that is the basis for AU 7. This muscle runs in and near the eyelids. When it is contracted, AU 7 pulls both upper and lower eyelids and some adjacent skin below the eye together and towards the inner eye corner.

## A. Appearance Changes due to AU 7

- 1. Tightens eyelids.
- 2. Narrows eye aperture.
- 3. May be more apparent in lower eyelid area than in upper eyelid.
- 4. Raises the lower lid so it covers more of the eyeball than is usually covered.
- 5. The raised lower lid may become more straight than curved in shape; or, just the medial portion inverted, e.g. from a

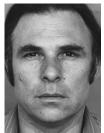


- **6.** The raising of the skin below the lower eyelid causes a bulge to appear in the lower lid.
- **7.** May cause the lower eyelid furrow to become evident as a line or wrinkle, or if the furrow is a permanent part of the face, it becomes deeper.
- **8.** If AU 6 is evident on one side of the face and 7 on the other side, score bilateral 6, unless you are scoring asymmetry.
- **9.** When 7 is *maximum*, the appearance of a squint results.

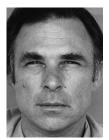
Compare images 7 and w7 with 0 and w0. Note that in image 7E, the eyes remain open a slit; if closed, 7E+43E would be scored. Note that in w7 there is a *trace* of brow lowering, sufficient to score 4A. Inspect the video of AU 7.



0 page 465 page 381 for score



7 page 468 page 384 for score



7E page 469 page 385 for score



w0 page 465 page 382 for score



w7 page 468 page 384 for score



video 7i page 414 for score

## B. How to do AU 7

This movement is fairly easy to do. Tense your eyelids but not enough to close your eyelids completely. Do it as weakly as you can. If you have difficulty, think about narrowing your eye aperture to a slit so that you can see your eyelashes. Be careful you are not also lowering your eyebrow (AU 4). Be careful you are not also wrinkling your nose (AU 9). Be careful you are not also raising your cheeks (AU 6).

### C. Intensity Scoring for AU 7

#### AU 7A

The appearance changes for AU 7 are sufficiently present to indicate AU 7, but are insufficient to score 7B (e.g., a *trace* of narrowing not due to other AUs).

#### **AU 7B**

- 1. There is a *slight* narrowing of the eye aperture (due primarily to lower lid raise) that is not produced by:
  - AU 4, which in lowering the brow may also narrow the eye aperture. If AU 4 is present you must be certain the lower lid has also been raised in order to score AU 7.
  - AU 6, which narrows the eye aperture, and obscures the presence of AU 7. Later, you will learn that if the signs of AU 6 are present, it is difficult to see the signs of AU 7, especially without motion that allows you to see the addition or subtraction of the 7 action.
  - AU 12 or 13, which can be strong enough to have narrowed the eye aperture. More specifically, when the actions of 12 or 13 are strong, 6 is likely to be scored as well. With a weak to moderate 12 where AU 6 is not evident, AU 7 is easier to score separately from AU 6. You will learn AU 12 and 13 in Chapter 6.
  - AU 9, which can be strong enough to narrow the eye aperture. AU 9 can obscure the presence of 7, and unless the actions of 7 and 9 are sequential in a motion record, it is difficult to see the signs of 7, especially if AU 9 is strong. You will learn about AU 9 in Chapter 4.
  - AU 43, which in addition to drooping the upper lid may also entail a small lower lid raise; if AU 43 can be scored, then to score 7 criterion 2 or 3 below must be met (i.e., mere narrowing is insufficient for scoring AU 7 when AU 43 is narrowing the eye). For scoring 7 in the combination of 7+43E, see the section on Action Unit Combination 7+43E on page 62.

or

**2.** The lower lid is raised and the skin below the eye is drawn up and/or medially towards the inner corner of the eye *slightly*.

or

3. Slight bulge or pouch of the lower eyelid skin as it is pushed up.

Note that images 7 and w7 meet both criteria 1 and 3.

If you did not see the lower lid <u>move</u> up, then criterion 1 must be *marked* not *slight* and criterion 3 must be met.

#### AU7C

At least two of the criteria for AU 7B, narrowing of the eye aperture, raising of the lower lid, or bulging/pouching of the lower eyelid are present and at least one is *marked*, but the evidence is less than the criteria for 7D.

## AU 7D

Narrowing of the eye aperture, raising of the lower lid, and bulging/pouching of the lower eyelid are all present and at least one of these is *severe*, but the evidence is less than the criteria for 7E.

## AU 7E

- **1.** The narrowing of the eye aperture and raising and stretching of the lower lid are present and in the *maximum* range, hiding most of the iris and pulling skin below the lower eyelid towards the root of the nose. and
- 2. Tension in the eyelids and the bagging, bulging, or tensing of the lower eyelid is present and severe.

## Reference: AU 7

#### Actions of Special Relevance to AU 7

Certain head and eye movements or position changes have special significance in regard to AUs 4, 5, or 7, and you should carefully inspect the face for these actions when you score 4, 5, or 7, even when not otherwise scoring head/eye positions. Use the definitions of these AUs when AUs 4, 5, and 7 occur, either separately or in combination with other AUs.

AU	Summary of AU	See Description for Details
M69	Head and/or Eyes Look at Other Person	"Eye Movement Codes M68, 69, and M69" on page 321
69	Eyes Positioned to Look at Other Person	"Eye Movement Codes M68, 69, and M69" on page 321

One or more of the appearance changes due to AU 7 can be produced by several other AUs. For example, bunching and wrinkling of the lower eyelid can be produced by 6, 9, 10, 12, and 13. Narrowing of the eye aperture can be produced by 4, 6, and 43. These signs can hide the signs of a co-occurring 7, but typically, AU 7 can be discerned by its production of additional signs, e.g., eyelid straightening, or by wrinkling, bagging, or narrowing that is beyond what might be produced by the masking AU alone. It is important to discern whether 7 is present or not in combinations with these other AUs, and you must be certain about its presence, so while you will not score 7 based merely on evidence that some other AU might produce, you will look for these additional signs that reveal its presence when scoring 7 in combination with these AUs.

Action Units or Combinations That Change the Intensity Scoring for AU 7

Problematic Combination of AUs	Target Action of Adjusted Criteria	Use These Criteria or See the Section Indicated
1+4+7	To score 7B with 1+4	Use the criteria for 7B alone on page 28.
4+5+7	To score 7B with 4+5	Use the criteria for 5+7B on page 49.
4+7	To score 7B with 4	If you use criterion 1 for 7B in 7secC, the evidence must be more than just the narrowing due to AU 4.
5+7	To score 7B with 5	You cannot use criterion 1 for 7B in 7secC – narrowing of the eye aperture – since AU 5 widens the eye. Criterion 2 for 7B in 7secC calls for lower lid raise and the skin pulled up and/or medially. AU 5 can cause a <i>trace</i> of lower lid raise and upward pull on the skin below the lid (but not medial pull), so be careful if using this criterion.
		If you see the movement: Criterion 2 or 3 for 7B in 7secC, being cautious about AU 5's contribution to criterion 2.
		If you do not see the movement: Criterion 3 for 7B must be met – <i>slight</i> bulge or <i>slight</i> pouching of the lower eyelid skin as it is pushed up.
6+7	To score 7B with 6	Use criteria for 7B+12 in this table below.
6+7+12	To score 7B with 6+12	Use criteria for 7B+12 in this table below.
6+7+13	To score 7B with 6+13	Use criteria for 7B+12 in this table below.
7+12	Criteria for 7B in 7+12:	Criterion 3 (bulging/pouching) for 7B in 7secCon page 28 cannot be used: criterion 1 (narrowing) or 2 (raising) must be <i>marked</i> . See the description of the 7+12 combination on page 188.
7+13	To score 7B with 13	Use criteria for 7B+12 in this table above.
7+43	Criteria for 7B in 7+43:	Marked tightening of the lids.

To score 7B in any combination that includes 4 or 5 with 6, 12 or 13 use the criteria for 7+12 in the table above.