

Action Unit 12 – Lip Corner Puller

Figure 6-1 shows that the muscle underlying AU 12 emerges high up in the lower face by the cheek bones and attaches at the corner of the lips. In AU 12, the direction of the action is to pull the lip corners up towards the cheek bone in an oblique direction.

A. Appearance Changes due to 12

1. Pulls the corners of the lips back and upward (obliquely) creating a  shape to the mouth.
2. Deepens the nasolabial furrow, pulling it laterally and up. The skin adjacent to the nasolabial furrow is raised up and laterally.
3. In a weak to moderate 12, there is some raising of the infraorbital triangle and there may be some deepening of the infraorbital furrow.
4. In a strong action, one or more of the following:
 - a. The infraorbital triangle push upwards is more evident.
 - b. The infraorbital furrow deepening is more evident.
 - c. Bags the skin below the lower eyelid.
 - d. Narrows the eye aperture by pushing up the cheek and skin below the lower lid.
 - e. Produces crow's feet at eye corners.
 - f. May raise and widen the nostrils.
 - g. May flatten and stretch the skin on the chin boss.
5. Almost all of the appearance changes listed under 4 above (with the exception of changes f. and g.) can also be produced by AU 6 in the upper face. When you see a strong action of 12, often it is difficult to be certain whether the changes listed under change 4 above are due to 12 alone or to the combination of 6 plus 12 because a strong 12 hides many of the effects of 6. When the action of 12 is weak to moderate the appearance changes under 4 above do not occur, unless AU 6 has been added. With such weak to moderate actions of 12 you score 12 or 6+12 based upon whether the evidence of AU 6 is apparent. In either case, it is important to determine whether the appearances should be scored as 12 or 6+12. See the description of AU Combinations 6+12, 7+12, and 6+7+12 on [page 188](#) for further details.

Use the examples in the images below to explore the changes produced by 12 with and without 6. A separate section on [page 188](#) presents a more detail discussion of combinations of AUs 6, 7, and 12. Contrast image 12 with 6+12i; also contrast 12+25 with 6+12+25i. All of these images show a weak to moderate action of 12, not sufficient to produce the changes in appearance listed under appearance change 4 above. It is the actual addition of AU 6, producing the crow's feet wrinkles and the raised infraorbital triangle, that produces these changes and mandates scoring the action of 6 in images 6+12i and 6+12+25i as 6+12 and 6+12+25, respectively. Note that to score 6B when 12 is present there must be *marked* crow's feet wrinkles and *slight* infraorbital triangle raise and slight additional evidence of the constricting action of AU6 and explained in the description of the 6+12 combination on [page 188](#) (see also the Reference section for AU 6 beginning on [page 33](#)).

Adding AU 6 to AU 12B changes the shape of the upper lip to a small extent. This happens because AU 6 pulls the portions of the upper lip on either side of the philtrum upward (medial to the pull of 12). Note in the 12 and 6+12i images that AU 12 has pulled the lip corners obliquely about the same amount, yet the upper lip shape is different due to AU 6. Adding AU 6 to AU 12B also deepens the nasolabial furrow, which is more evident in image 6+12i than in image 12. These differences between images 12 and 6+12i can also be found comparing images 12+25 and 6+12+25i, but it is harder to see, in part because there is a little more 12 action in image 6+12+25i than in image 12+25.

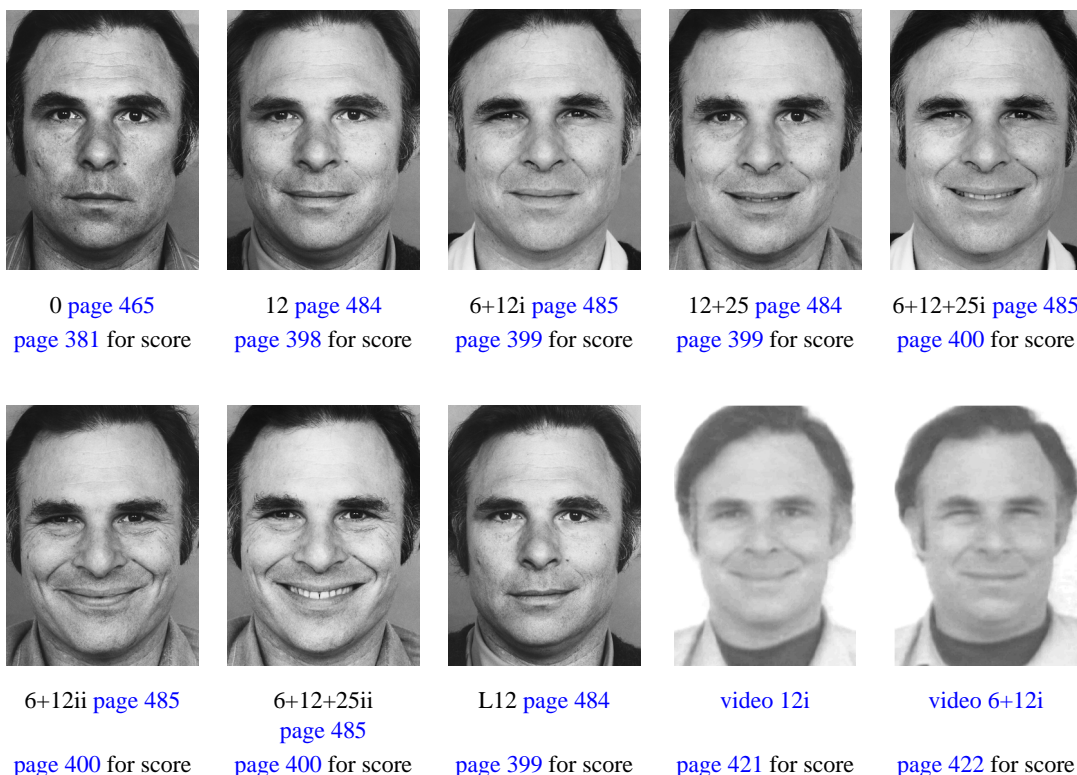
Examine images 6+12ii and 6+12+25ii, which are scored as showing 6 with a strong action of 12. It is difficult to attribute the appearance changes listed under appearance change 4 above to 12, to 6, or to 6 and 12. High intensity contractions of AU 12 dominate the effects of 6, hiding many of the changes due to AU 6. However, the distinction between 12 with or

without 6 is very important. A clue of the presence of 6 with any contraction of 12 is that the outer corners of the eyebrows are lowered slightly because 6 constricts the skin around the eye aperture, and this constriction may also produce crow's feet wrinkles above those produced by 12 alone. Only AU 6 can lower the outer corners of the eyebrows. Another clue that may help is that AU 6 raises the inner portion of the cheek along the entire lower edge of the eye socket, but AU 12 only raises the lateral part. Also look for the eye cover fold pushed down somewhat, wrinkled, or changed in shape due to the action of 6 constricting the skin between it and the eyebrows.

The intensity of action of 12 is quite independent of whether or not the lips are open. Compare images 6+12ii and 6+12+25ii, noting that the intensity of the 12 action is about the same.

Note that 12 stretches the lower lip laterally but that sign is not sufficient for scoring 16 with 12+25. (See the Reference for AU 16 on [page 115](#) for intensity criteria guidelines for 16 with 12.)

Examine the image L12, comparing the unilateral version of this AU with the bilateral 12. Inspect the 12i and 6+12i videos. The 12i video starts with a trace of 12 already evident.



B. How to do AU 12

This movement is an easy to do. Smile. Imitate image 12i. Holding a weak version on your face, slowly increase the extent of action and watch as your face begins to resemble 6+12ii and 6+12+25ii.

C. Intensity Scoring for AU 12

AU 12A

The appearance changes for AU 12 are sufficiently present to indicate AU 12, but are insufficient to score 12B (e.g., a *trace* of raising of skin in the lower/middle nasolabial furrow area and a *trace* of lip corners elongated and angled up).

You should emphasize detecting the oblique upward movement of the lip corners in low intensity 12s that changes the angle of the lip corners. Note that neither AU 6 or 11 changes the angle of the lips, as does 12.

AU 12B

1. Skin in the area of the lower-middle portion of the nasolabial furrow or the furrow itself has been raised up and laterally *slightly*. If the nasolabial furrow is permanently etched, it usually deepens with a 12B, but the crucial change is that the skin in this area shifts obliquely. If the nasolabial furrow is not permanently etched, it may not appear with 12B.
and
2. *Slight* evidence that infraorbital triangle has been raised; most likely showing in lifting and puffing out of lateral top corner of infraorbital triangle.
and
3. *Slight* evidence that lip corners elongated and angled up. If upward angle is permanent, it must increase *slightly*.

Note that when 6 is added to 12B there often is more evidence of the nasolabial furrow deepening than in 12B without 6, and the excursion of the lip corners is small in comparison to the extent of crow's feet wrinkles.

Note that appearance changes 1 and 2, as expressed in words, could be due to AU 6, rather than AU 12. However, the appearance of 6 is noticeably different from 12, seen in the images for these AUs. Furthermore, the appearance of 6 and 6+12 also differ. If there are other signs of AU 6, inspect carefully for change 3 to score AU 12.

AU 12C

All three criteria for 12B above are present and all are at least *marked*, but the evidence is less than the criteria for 12D.

AU 12D

Appearance changes 1 (lip corners raised obliquely to make U shape), 2 (deepened nasolabial furrow and oblique movement of skin in that area), and 4 in 12secA are all at least *severe*, but the evidence is less than the criteria for 12E.

AU 12E

Appearance changes 1 (lip corners raised obliquely to make U shape), 2 (deepened nasolabial furrow and oblique movement of skin in that area), and 4 (infraorbital triangle raise, infraorbital furrow deepening, in 12secA must be *extreme to maximum*.

Reference: AU 12

Action Units or Combinations That Change the Intensity Scoring for AU 12

Problematic Combination of AUs	Target Action of Adjusted Criteria	Use These Criteria or See the Section Indicated
10+12	WARNING about scoring 12B in 10+12 or 10+12+16	The criteria for scoring 12 with 10 are the same as for 12 alone, however, when 12 combines with 10 or 10+16 the angling up of the lip corners (criterion 3 for 12B) is not as evident. The more evident sign is that the lips have been stretched laterally and flattened by 12.
10+12+15	To score 12B with 10+15	Use criteria of 12+15secC on page 211 , but heed warning of 10+12 above.
10+12+16	To score 12B with 10+16	See 10+12 in this table above.

10+12+17	To score 12B with 10+17	Heed warning of 10+12 in this table above and 12+17 in this table below.
10+12+27	To score 12B with 10+27	Use criteria of 12+27 in this table below and heed warning of 10+12 in this table above.
12+15	To score 12B with 15	See 12+15secC, Step VII on page 219 .
12+15+17	To score 12B with 12+17	See 12+15+17secC, Step VII on page 219 .
12+15+27	To score 12B with 12+27	Use criteria of 12+27 in this table below, then see 12+15secC, Step VII on page 219 .
12+17	To score 12B with 17	To score 12 with 17 or 17+23 criteria 1 and 2 for 12B in 12secC are the same, plus <i>slight</i> evidence that the downward angle of the lip corners due to 17 has been counteracted by the upwards pull of 12., The angle of the lip corners may not be as upwards as it would be from 12 without 17.
12+17+23	To score 12B with 17+23	See 12+17 in this table above.
12+23	To score 12B with 23	See 12+24 in this table below.
12+24	To score 12B with 24	To score 12B with 24, criteria 1 and 2 for 12B in 12secC are necessary and <i>slight</i> evidence of upward angle to lip corners which may not be as great as with 12 alone due to the straightening of the lips by the press of 24 or the tightening due to 23.
12+27	To score 12 with 27	Same as for 12 alone if movement is observed. If movement is not seen, criteria 1, 2, and 3 for 12B of 12secC must be <i>pronounced</i> .