

Action Unit Combinations – 12+23, 12+24

It is easier to learn these two combinations at the same time. Have at hand the images for these combinations and the images for the single AUs 12, 23, and 24.

A. Appearance Changes due to AU Combinations 12+23, 12+24

The changes in appearance associated with 12 are preserved in the combinations, but those associated with 23 and 24 are different because of the effect of 12.

AU 12 (with 23 or 24)

1. Pulls the corners of the lips back and upward (obliquely) creating a  shape in the lips.
2. Deepens the nasolabial furrow, pulling it laterally and up. This change may not be evident in a very weak 12+23, or 12+24. 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 of 12, one or more of the following:
 - a. The infraorbital triangle upwards push 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 the eye corners.
 - f. May raise and widen the nostrils.
 - g. May flatten and stretch the skin on the chin boss.

AU 23 (with 12)

5. Tightens the lips, making the lips appear more narrow, causing the lips to almost disappear from view.
6. May produce small wrinkles in the skin above and below the lips, and muscle bulges below the lower lip. This sign is likely not to be evident if 12 is moderate to strong, stretching out the lips.

AU 24 (with 12)

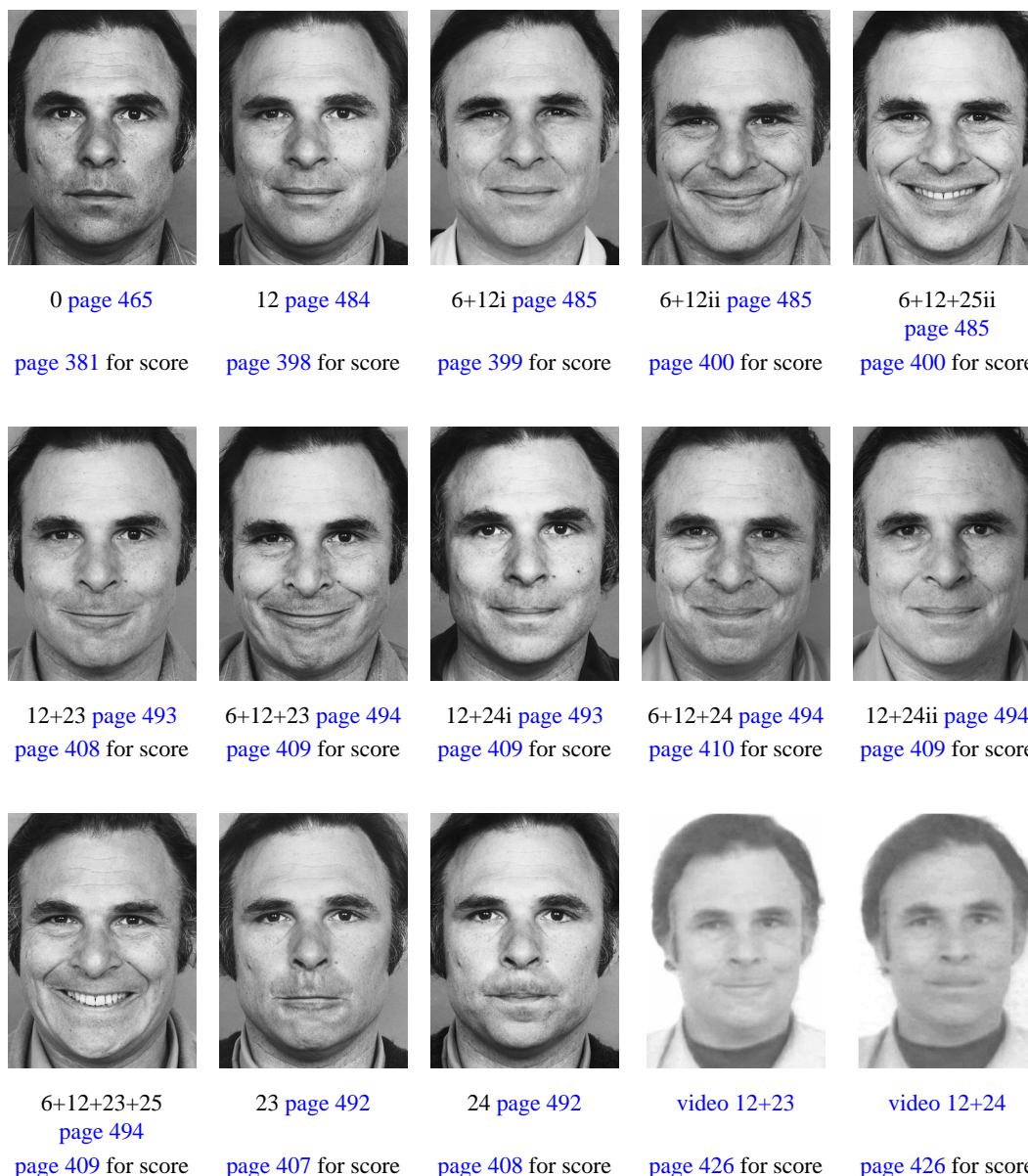
7. Presses the lips together.
8. Makes the lips appear flattened, and somewhat tight or tensed.

Note that 12 tends to narrow the upper lip and to hide other signs of 23, such as wrinkling, due to its oblique stretching. Thus, if 23 acts only on the upper lip, it is difficult to detect and score; likewise, the signs of 12 in the upper lip can be confused with those of 23. To ease such decisions between 12 and 23 in the upper lip, the signs of 23 must be present in both lips in order to score 12+23.

Compare 12+23 and 6+12+23 with 12+24i and 6+12+24. Note the difference in how much of the red part of the lips is exposed – more in actions of 12+24 than in 12+23. Also, notice how much more tightened the lips appear in actions of 12+23, as compared to pressed in actions of 12+24.

Compare 12+23 with 6+12+23. Note how the items of appearance change 4 above are evident in 6+12+23. (If you think 6 can be scored in the 12+23 image, check the criteria for scoring 6 in addition to 12 in the Reference for AU 6 on [page 33](#)). Compare 6+12+23+25 with 6+12+25ii. Note how 23 narrows the lips, and this narrowing is most noticeable in the lower lip.

Compare 12+24i with 12+24ii and 6+12+24, noting the increased action of 12 in the latter two images. Compare these images with 12, 6+12i and 6+12ii. Inspect the video of 12+23 and 12+24.



B. How to do AU Combinations 12+23 and 12+24

Follow the instructions, which are all repeated below, for making AU 12, for AU 23, and for AU 24. Try the 12 action first. While holding the 12, add 23 to it, tightening and narrowing your lips. Then hold 12 and add 24 to it, pressing your lips, being careful not to tighten them with 23 or push up with 17.

AU 12 (repeated from [page 179](#)): 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.

AU 23 (repeated from [page 237](#)): This movement is not easy to make. Tighten your lips. Make them thin and tense. Be careful not to press them together (AU 24). Concentrate just on your lips. If you have difficulty, try tightening your lips and pressing them, then release the press holding the tightening action. You may have done or seen this movement when using the phrase “Zip your lip.”

AU 24 (repeated from [page 241](#)): This movement is easy to make. Press your lips together. Be careful not to push up with your lower lip in a hard fashion, as that would involve 17. Also be careful not to tighten your lip corners as that would involve 14.

C. Intensity Scoring for AU Combinations 12+23, 12+24

The intensity criteria for 12 in combinations 12+23 and 12+24 are the same as for 12 alone and are repeated below, except to note that the pressing of 24 and the tightening of 23 tend to reduce the pulling up of the lip corners in 12 alone (criterion 3). The intensity criteria for AU 23 in the combination 12+23 are the same as for 23 alone and are repeated below, except that the criteria must be present in both lips. The intensity criteria for AU 24 in 12+24 are slightly altered from those for 24 alone. The guidelines below show the criteria for 24 with the intensity of 12 unspecified, but any combination of intensities can occur in 12+24.

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*).

AU 23A

The appearance changes for AU 23 are sufficiently present to indicate AU 23, but are insufficient to score 23B (e.g., *slight* tightening of the lips alone).

AU 23B

1. The lips appear *slightly* tightened, and,
2. The red parts are narrowed *slightly* and the narrowing is not due just to 12, 17, 20, 24, or 28.

If you did not see the movement, then the additional criteria must be present:

3. *Slight* wrinkles or bulges in skin above or below at least one lip, or,
4. *Marked* change on either criteria 1 or 2 for 23B and *slight* change on the other.

AU 23C

The lip tightening and narrowing described for 23B are both *marked*, but the evidence is less than the criteria for 23D.

AU 23D

The lip tightening and narrowing described for 23B are both *severe*, but the evidence is less than the criteria for 23E.

AU 23E

The lip tightening and narrowing described for 23B are both in the *maximum* range.

The criteria for 23 must be present on both lips in 12+23.

The criteria for 24 are changed in 12+24.

AU 24A in AU Combination 12+24

The appearance changes for AU 24 are sufficiently present to indicate AU 24, but are insufficient to score 24B in the combination 12+24 (e.g., a *trace* of pressing and flattening and a *trace* of less red part showing).

AU 24B in AU Combination 12+24

1. Lips are pressed and flattened *slightly* and
2. lips may show *slightly* less red than in neutral face.

AU 24C in AU Combination 12+24

The pressing, flattening, and thinning criteria for 24B in 12+24 are both *marked*, but the evidence is less than the criteria for 24D.

AU 24D in AU Combination 12+24

The pressing, flattening, and thinning criteria for 24B in 12+24 are both *severe*, but the evidence is less than the criteria for 24E.

AU 24E in AU Combination 12+24

The pressing, flattening, and thinning criteria for 24B in 12+24 are both in the *maximum* range.