Defining expressions
Muscles

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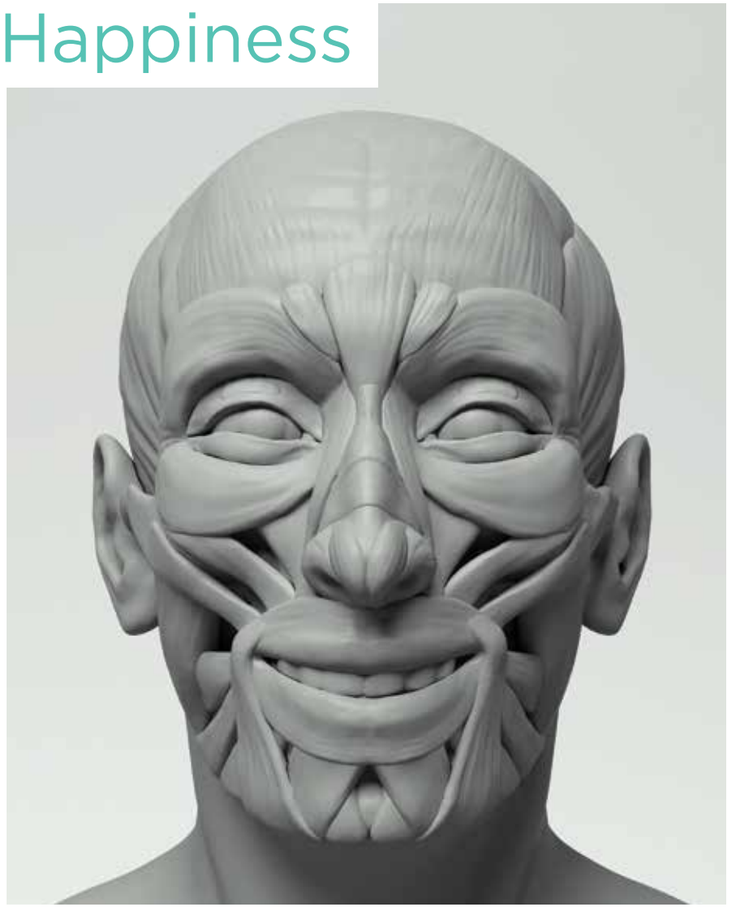
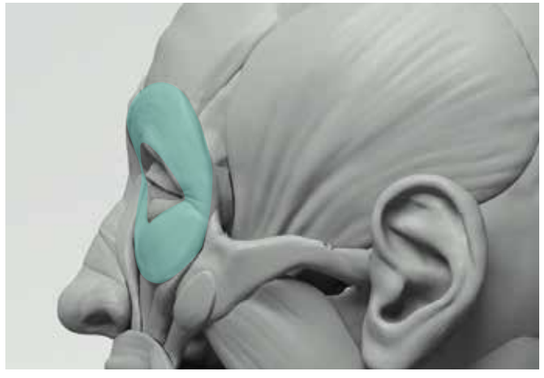
In this chapter we will take a closer look at the muscle actions that can be involved in expressing that emotion. Different actions can be used with different intensities, and in different combinations to produce various nuances of each emotion. We will go through the key actions involved in creating happy, sad, disgusted, surprised, angry, and fearful expressions. For each emotion you will be able to see the muscles of the face as a whole in that pose, then a closer look at the upper and lower halves of the face so you can think about the movements in more detail. Skin versions of each detail are provided alongside these so that you can compare them to the surface effect.

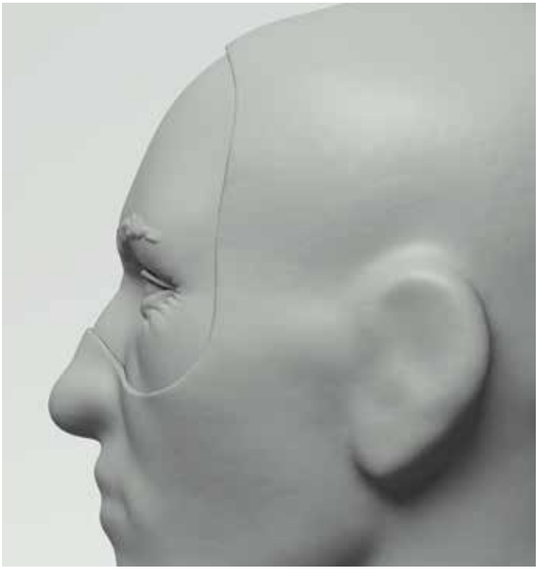
Happiness

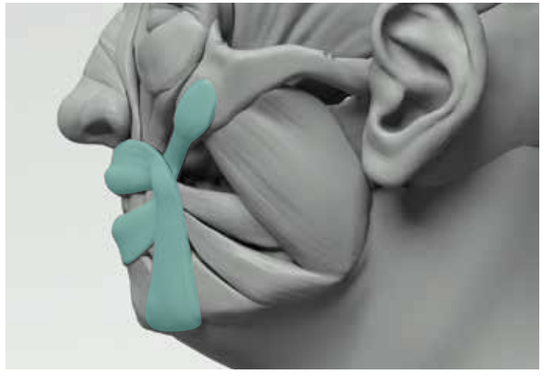


One of the main characteristics of happiness is the corners of the lips pulling upwards. For a sincere and involuntary (or Duchenne) smile you will also see the cheeks being raised, which causes the narrowing of the eyes and the appearance of “crow’s feet” wrinkles in the skin at the corners of the eyes. If these elements are missing the expression of happiness is insincere, often called a Pan Am smile.

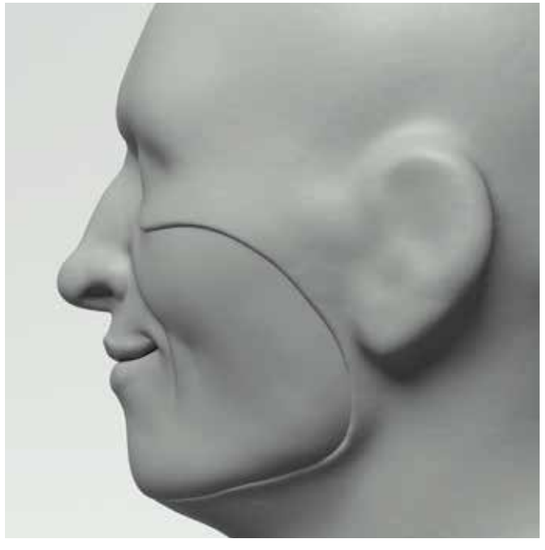


The cheeks are raised by the activation of the orbicularis oculi pars orbitalis muscles, which pull up the cheeks and the lower eyelids, causing the wrinkles at the corner of the eyes.

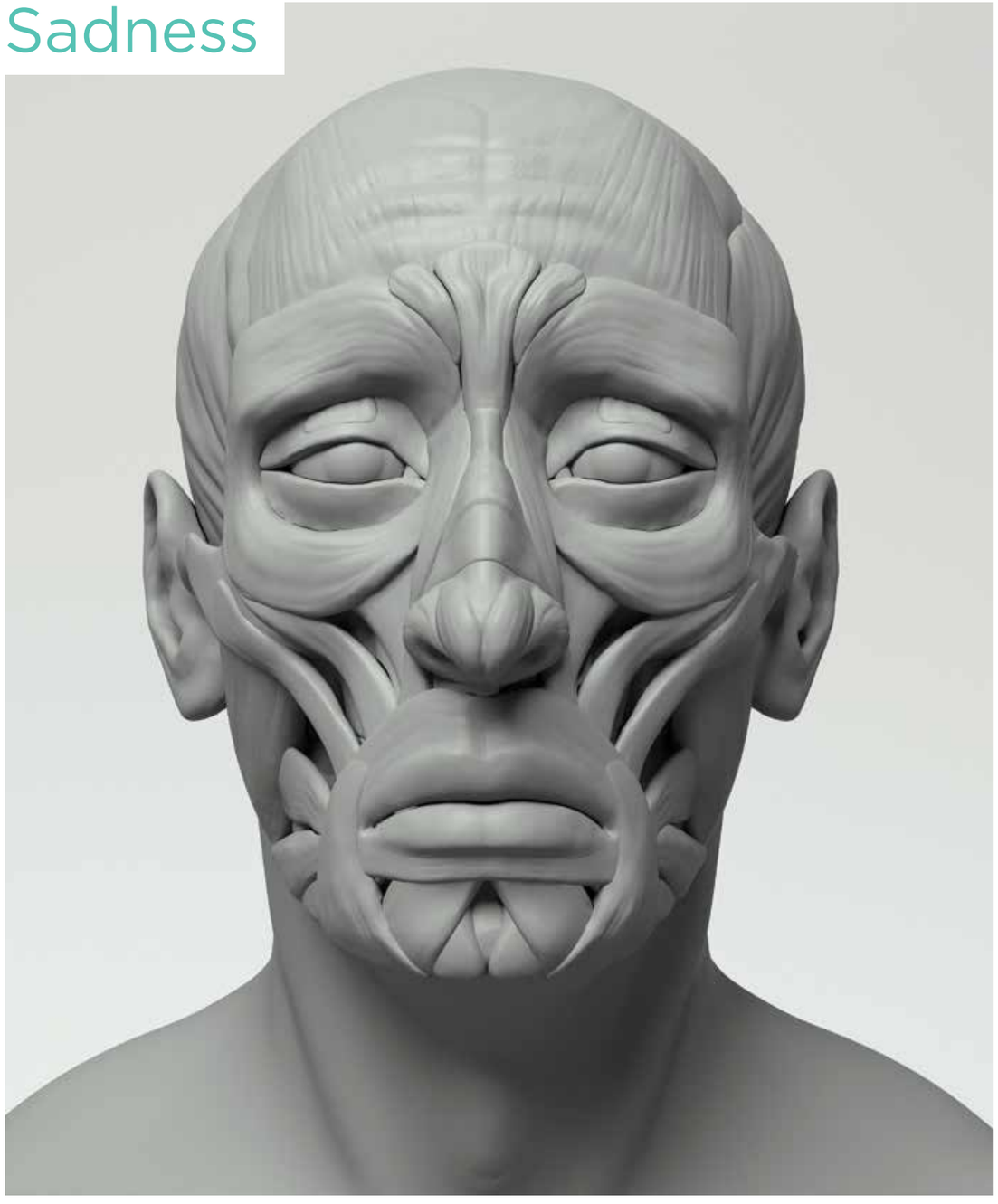




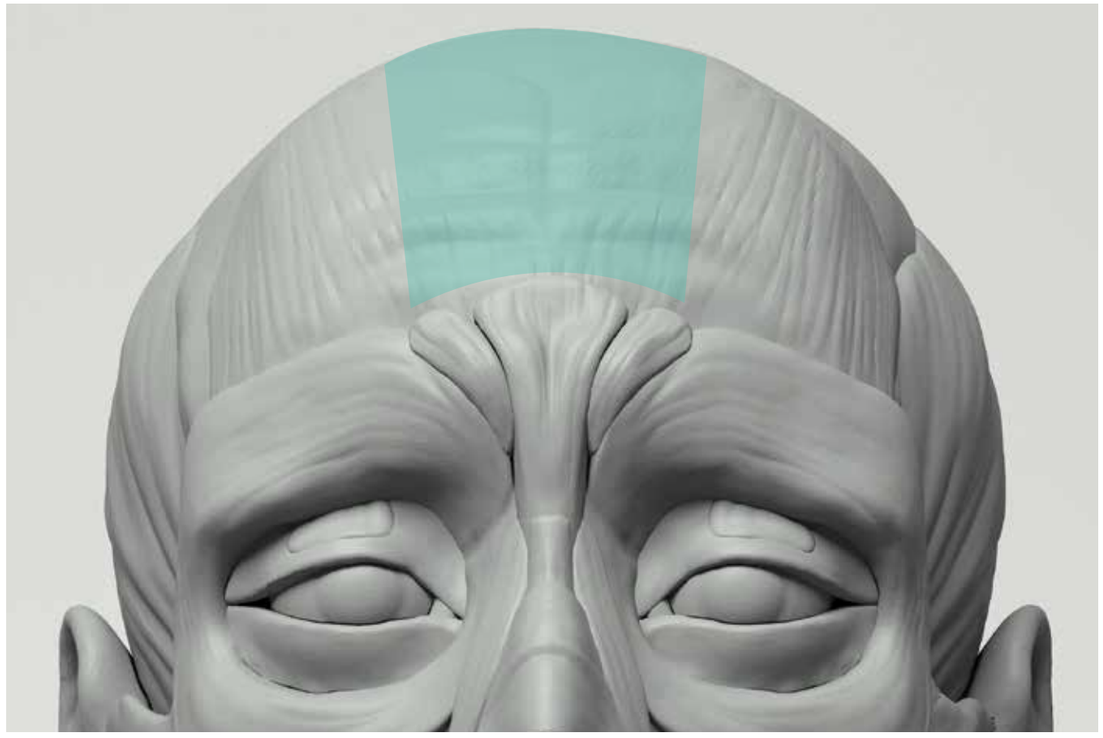
The corners of the mouth are pulled obliquely by the zygomaticus major muscle. This also causes a deepening in the nasolabial fold. If the lips are parted then the depressor anguli oris is engaged and the band of muscle that surrounds the mouth (orbicularis oris) is relaxed.



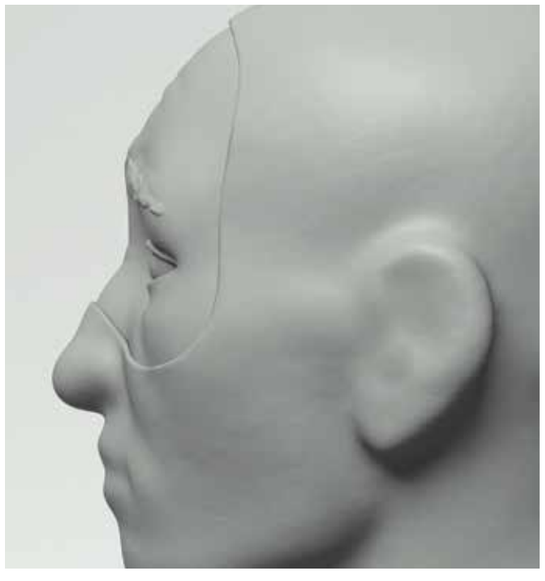
Sadness



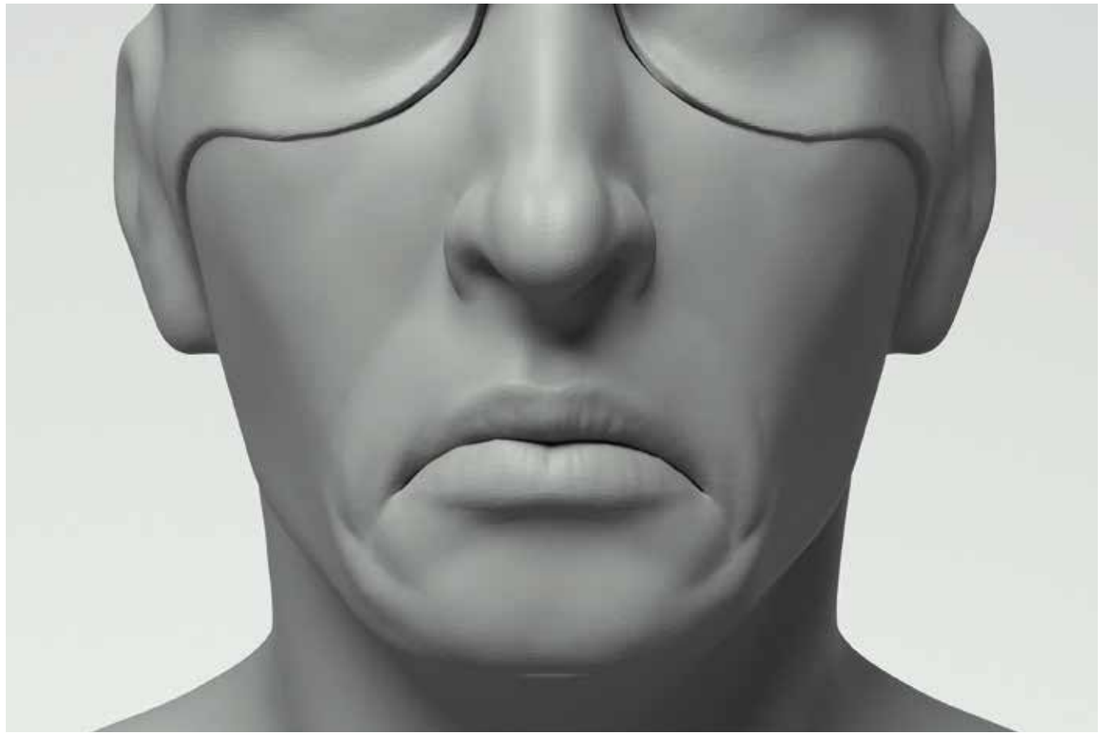
When sadness is expressed the inner corner of the eyebrows are raised and the corner of the lips are pulled downwards. When you feel sad you will automatically express it on your face; however, faking the expression will generate physiological changes in your body and produce the emotion too. Essentially, if you make the movement, the feeling will follow. Try it yourself: hold the sadness expression for thirty seconds and see how you feel.

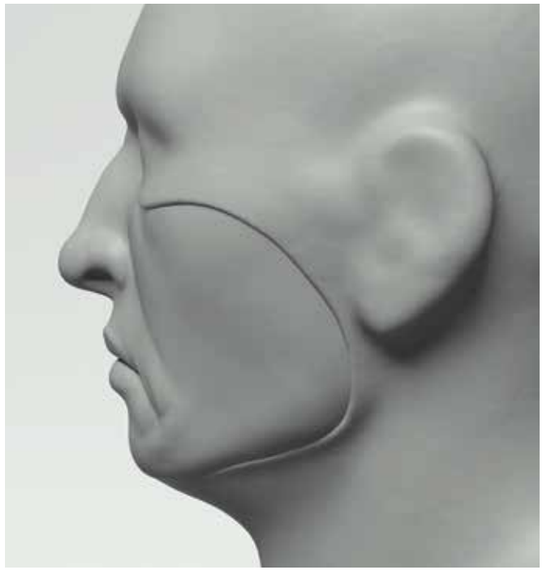


The raising of the inner brow is controlled by the frontalis. You will find that the frontalis muscle is generally treated as one sheet of muscle. However, it is best to think of the frontalis as having two functional strands: pars medialis (the inner strand) and pars lateralis (the outer strand). The inner strand pulls the inner eyebrows up, which results in them creating an oblique angle pointing inward and wrinkles forming horizontally across the forehead.

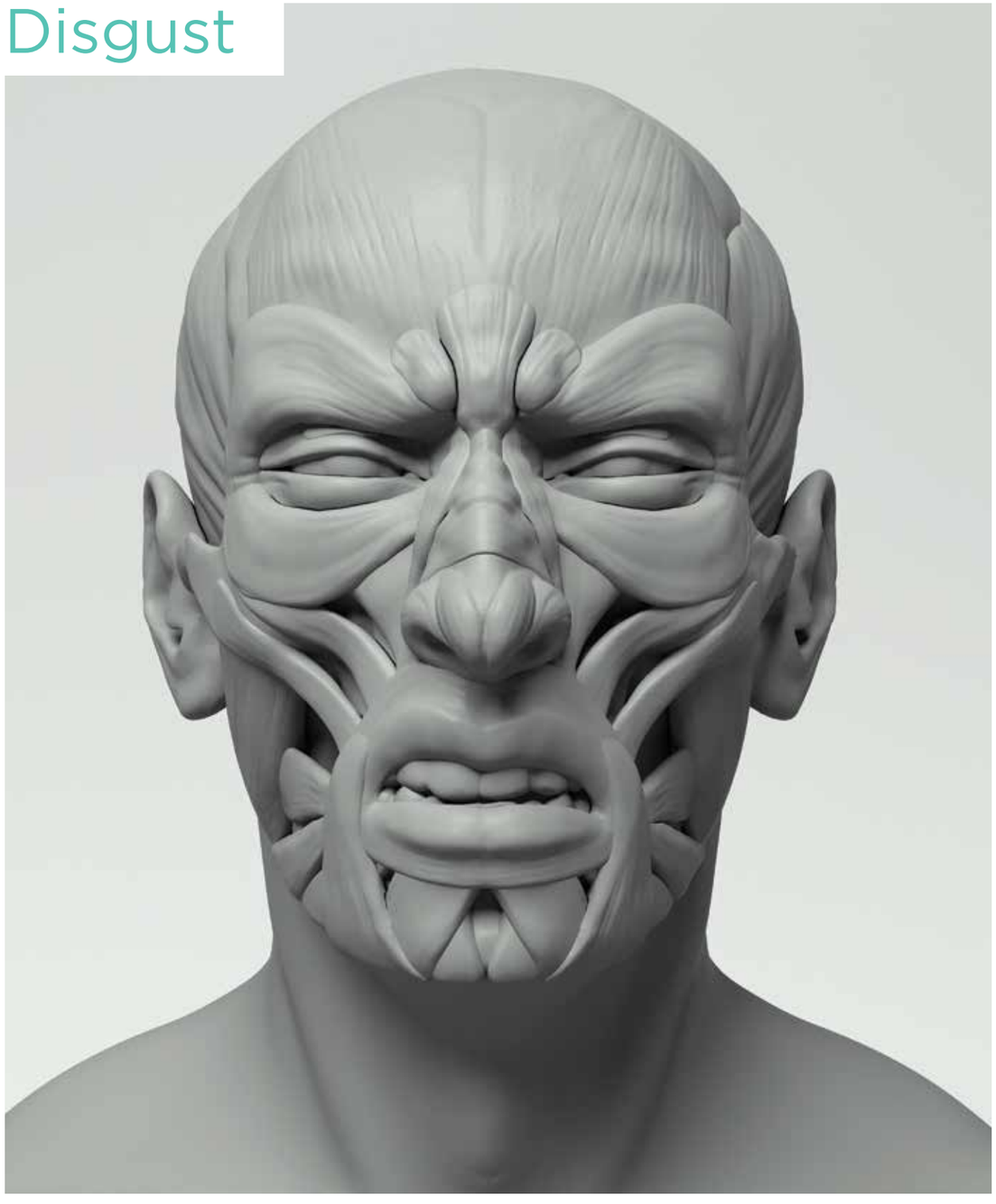


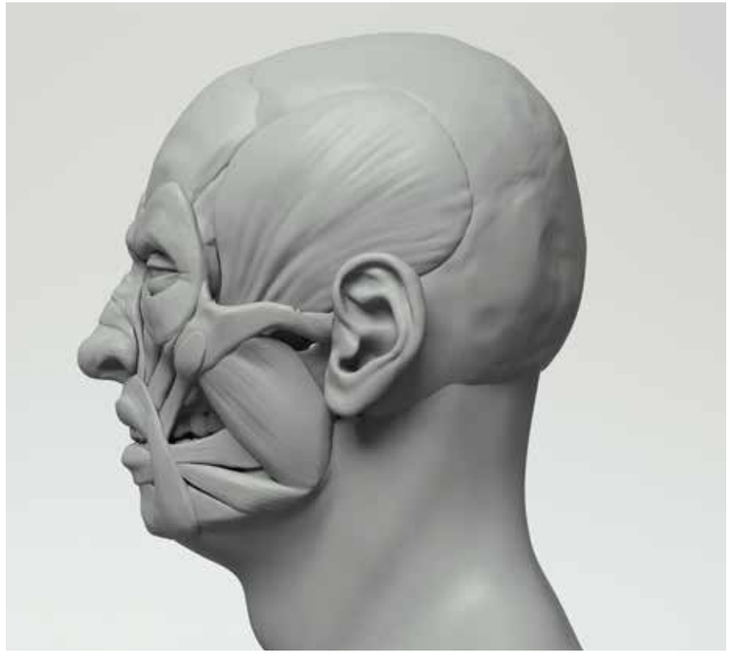
The corners of the lips are pulled downward as the depressor anguli oris contracts; there may also be some horizontal stretching of the lips and wrinkling of the skin below the lip corners.



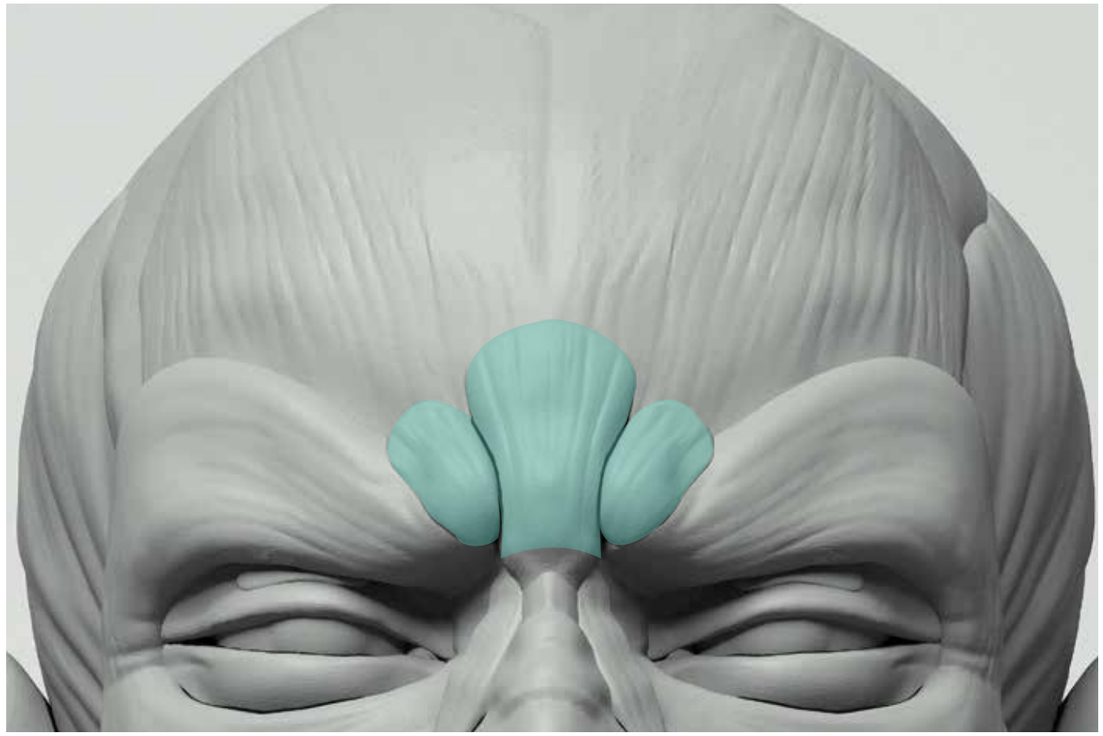


Disgust

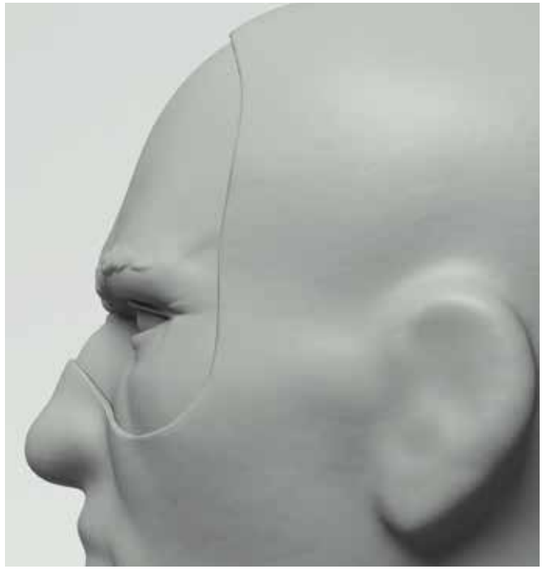




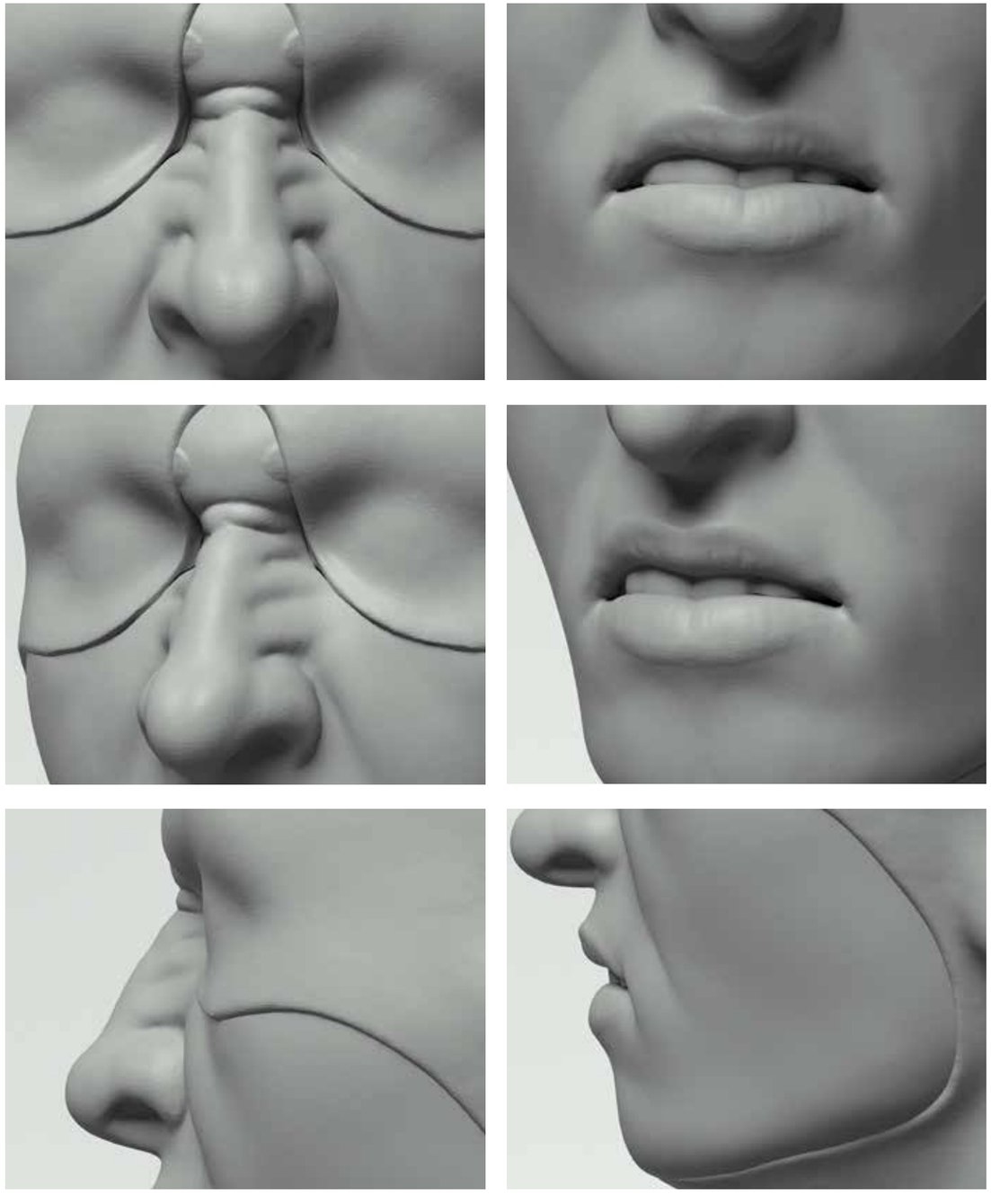
Disgust is formed by a combination of the brow being lowered, the nose wrinkling, and the upper lip being pulled upwards. Some parting of the lips and revealing of the teeth may also be present depending on the intensity of the expression.



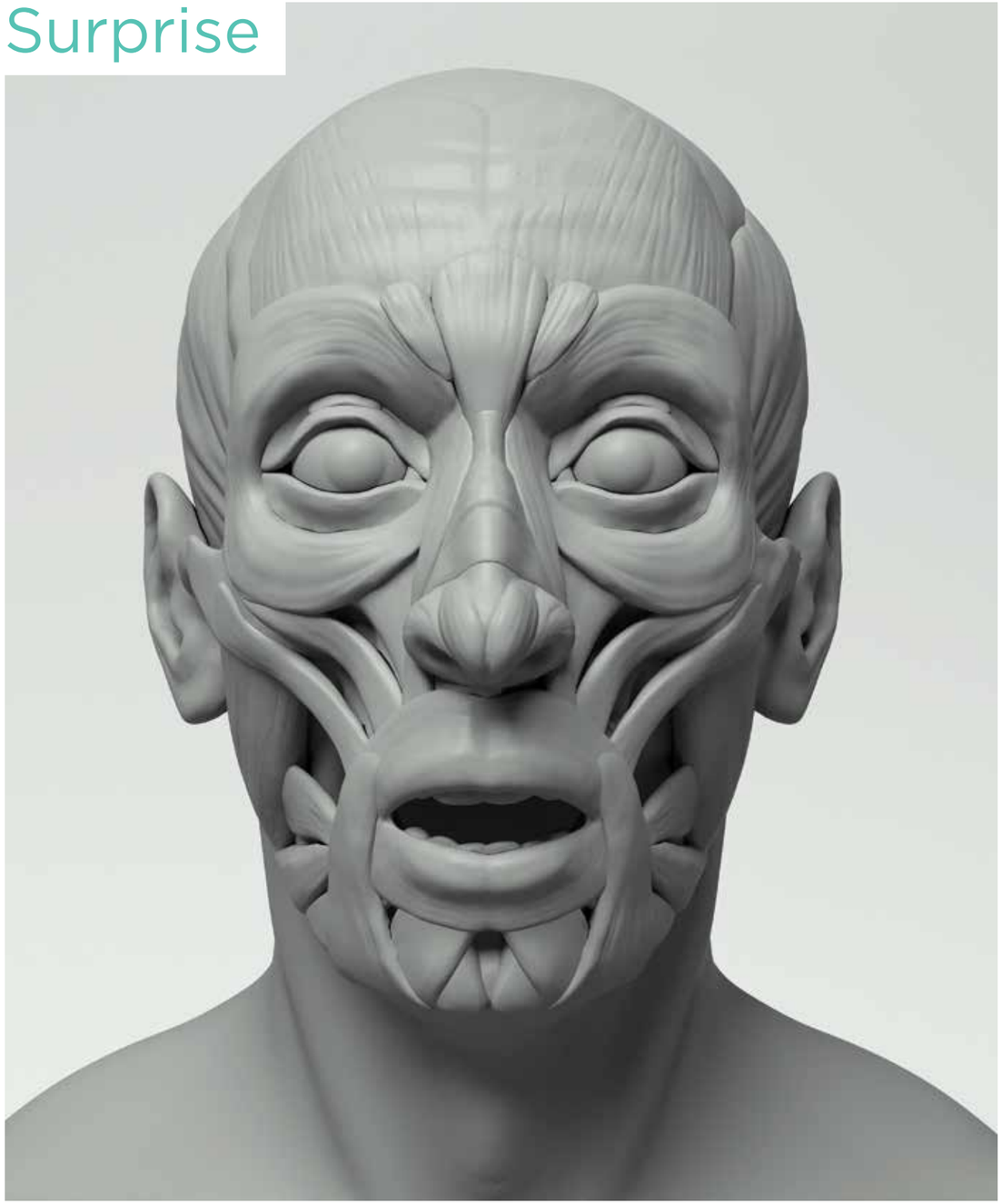
The eyebrows are pulled down by the depressor glabella (proceros) and the corrugator supercilii muscles. This causes the furrowed look of the brows and the eyes to narrow.



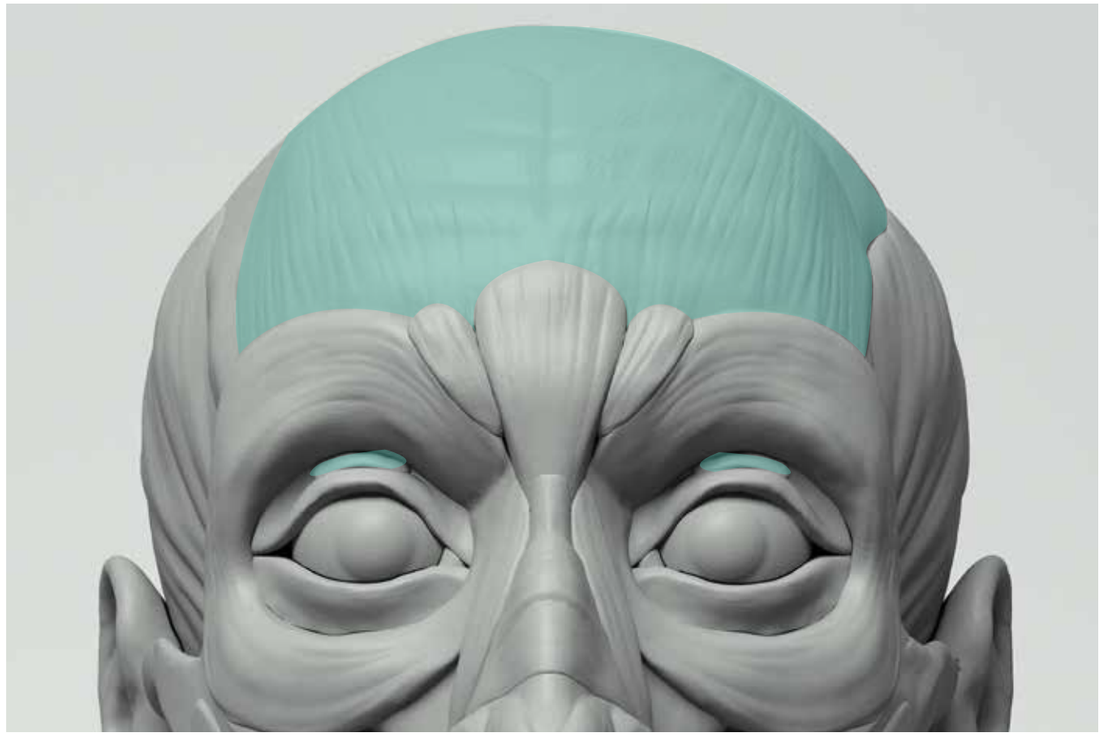
As the levator labii superior alaeque nasi muscle contracts it causes the skin around the nostrils to pull upwards, which in turn creates wrinkles along the sides and root of the nose. To give the classic disgusted sneer, the upper lip is pulled up towards the cheeks by the levator labii superioris. Depending on the level of disgust the lips might part slightly bearing the clenched teeth. This is caused by the depressor anguli oris engaging and the orbicularis oris relaxing.

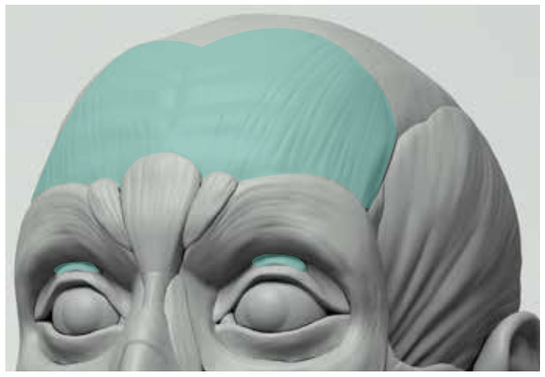


Surprise



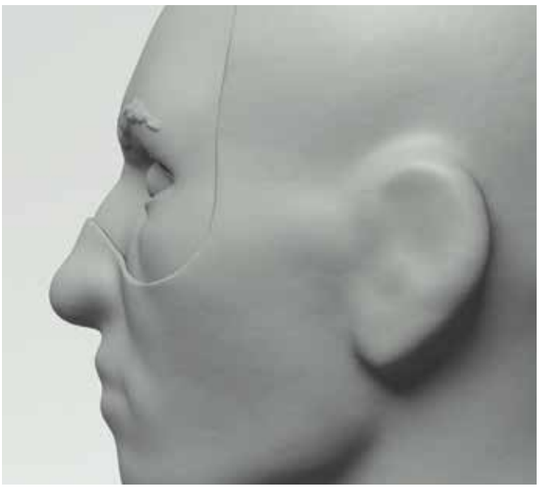
In a surprised face the inner and outer eyebrows are pulled up, the eyes are widened, and the mouth opened.

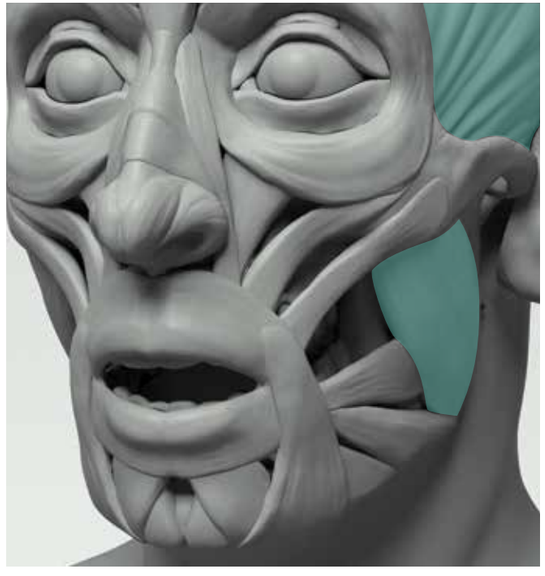




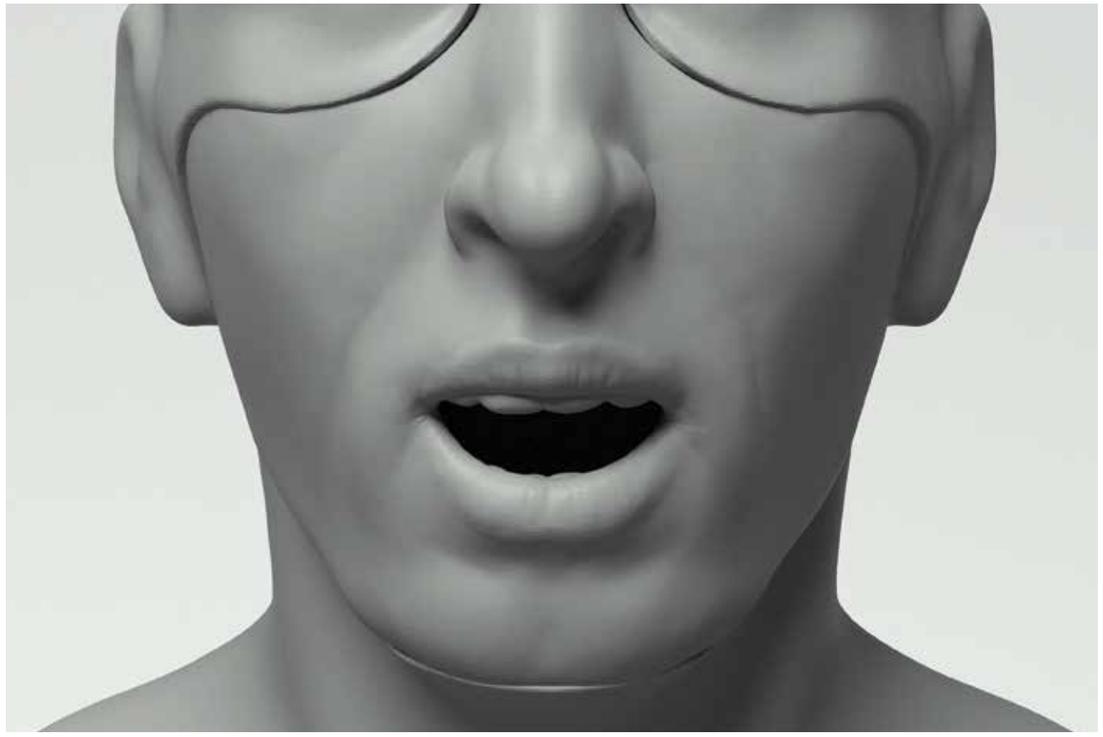
The upper eyelids are also raised as the levator palpebrae superioris muscle contracts, making the eyes wider. This is so we can take in as much light as possible to assess the situation and whether there is a threat.

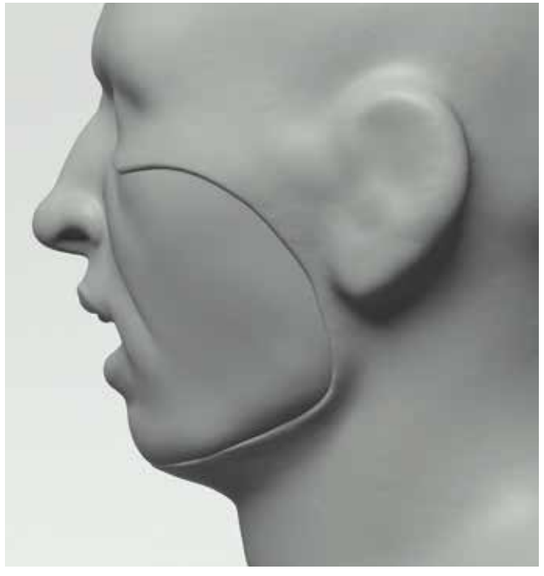
As with sadness, the inner strand of the frontalis muscle pulls up the inner eyebrows; with surprise however the outer strand (pars lateralis) of the frontalis muscle is also engaged. As a result, the eyebrows create an upside-down U-shape.



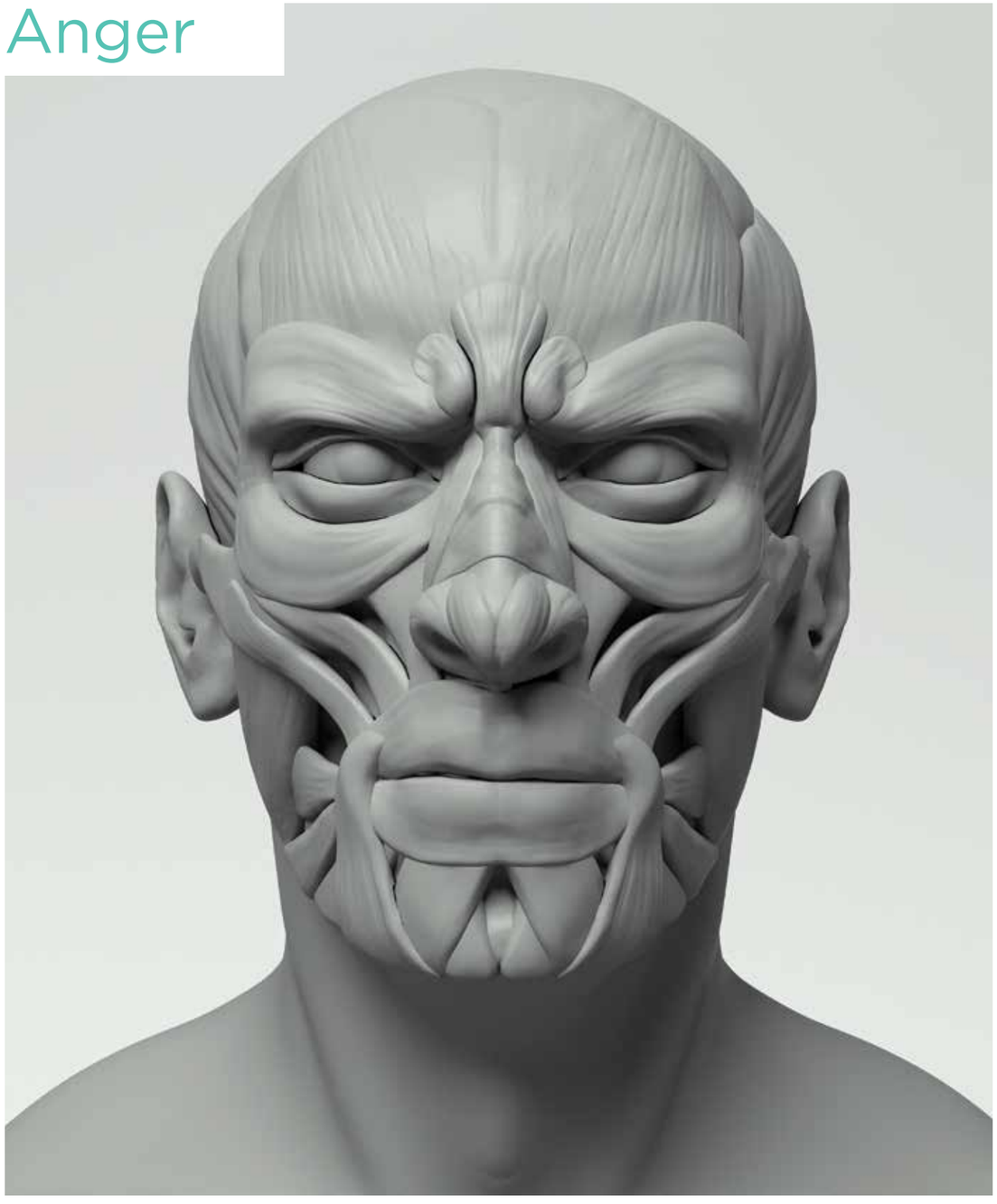


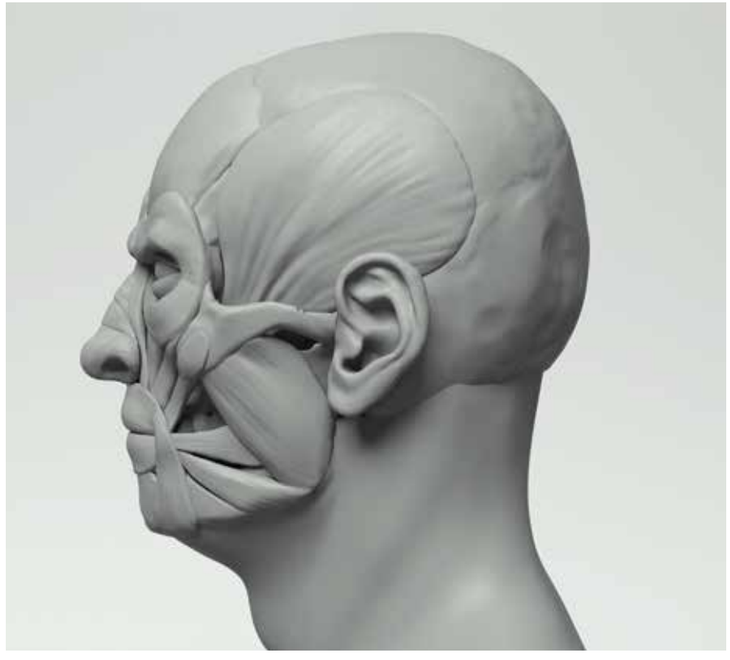
The jaw also drops, allowing the surprised individual to take in more oxygen. This and the widening of the eyes are a result of the fight-or-flight response. The opening of the jaw is driven by the masseter, the relaxed temporalis, and the internal pterygoid muscles.



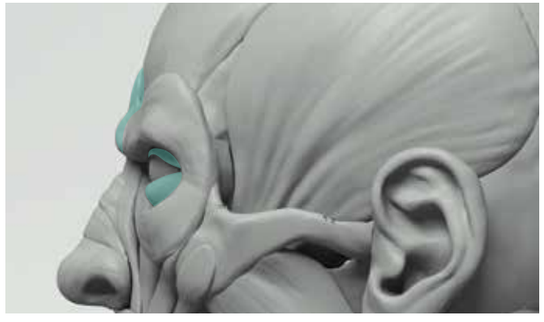


Anger



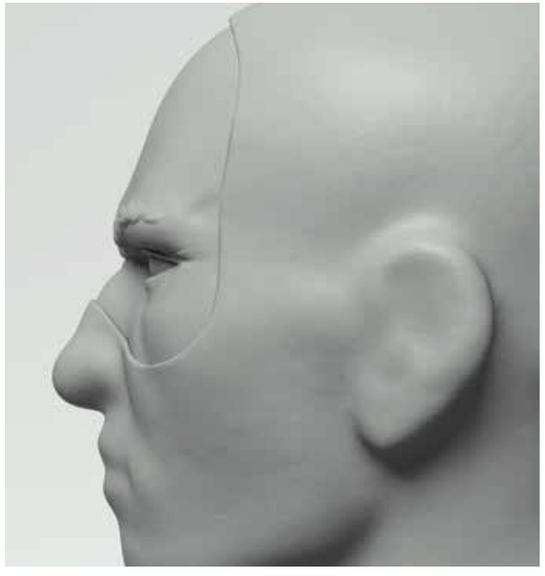


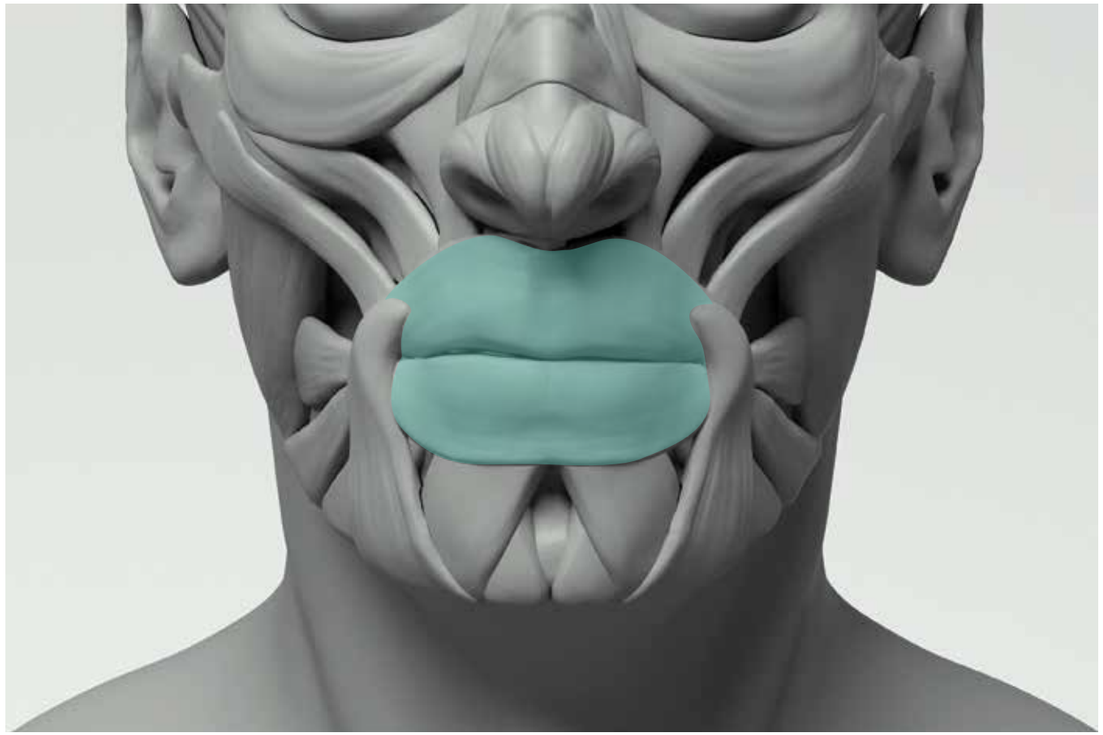
Anger is characterized by the lowering and the pulling together of the eyebrows, the raising of the upper eyelid, and sometimes a tightening of the eyes. You will also notice a narrowing and pressing together of the lips.



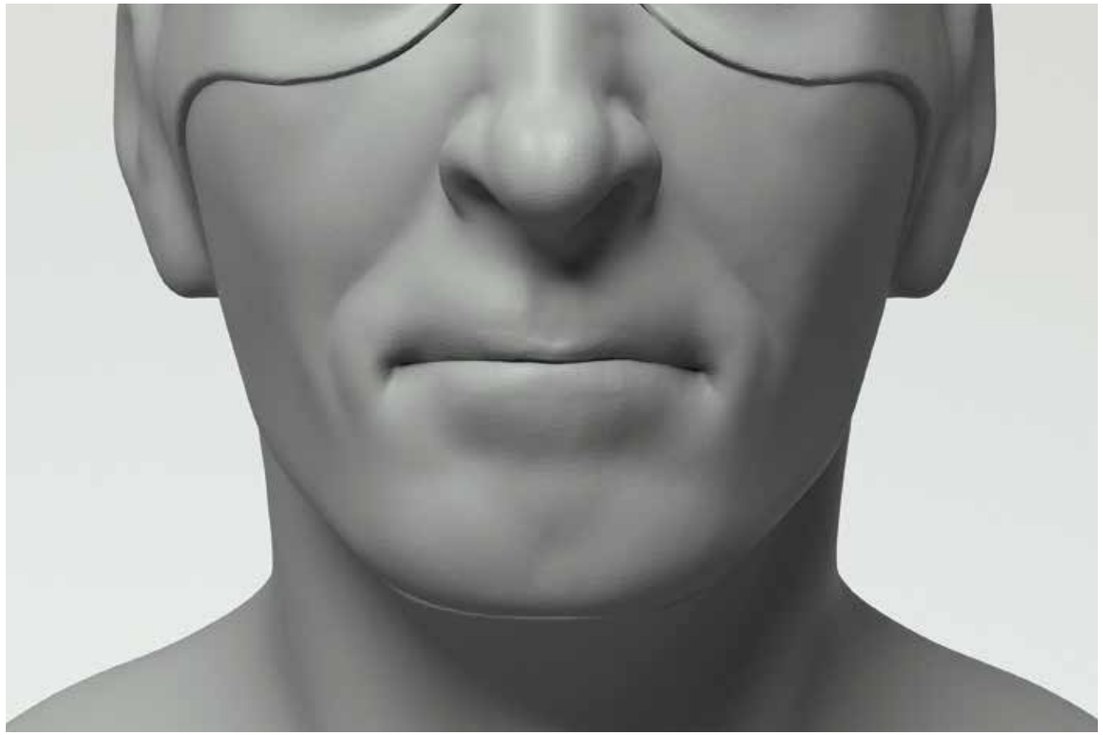
As with disgust, the eyebrows are pulled down by the depressor glabella (proceros) and the corrugator supercilii muscles. This causes the furrowed look of the brows and the eyes to narrow.

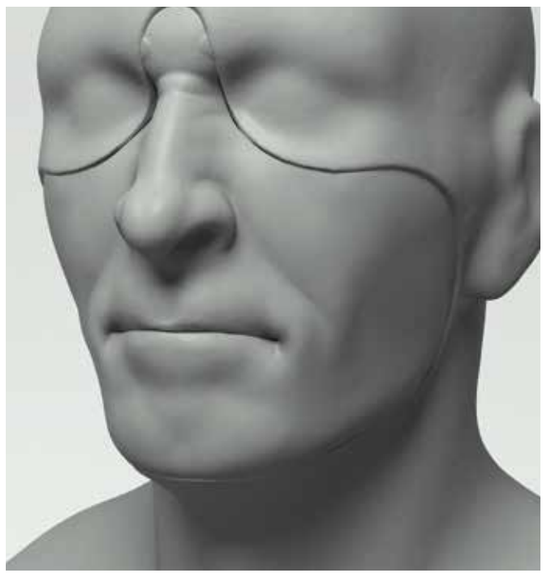
As with surprise, the upper eyelids are raised as the levator palpebrae superioris muscle contracts, making the eyes wider. However, contraction from the orbicularis oculi (pars palpebralis) muscle tightens the eyelids, which causes the aperture of the eye to narrow.

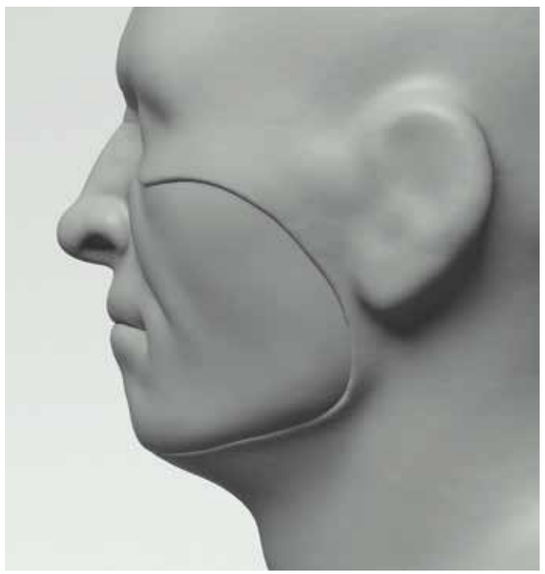




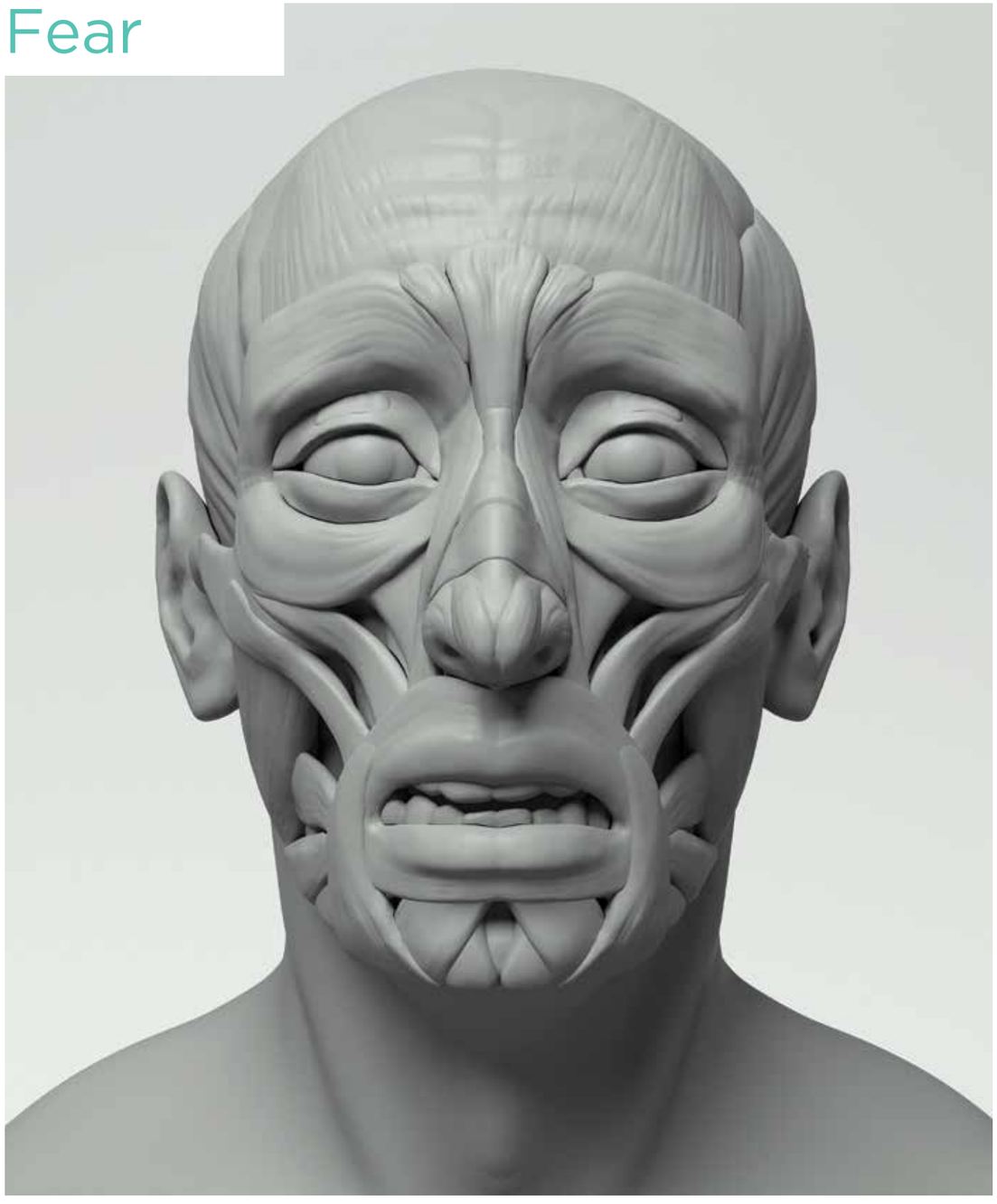
The shape of the lips is the result of the orbicularis oris muscles in action. Together they funnel, tighten, and press the lips together.

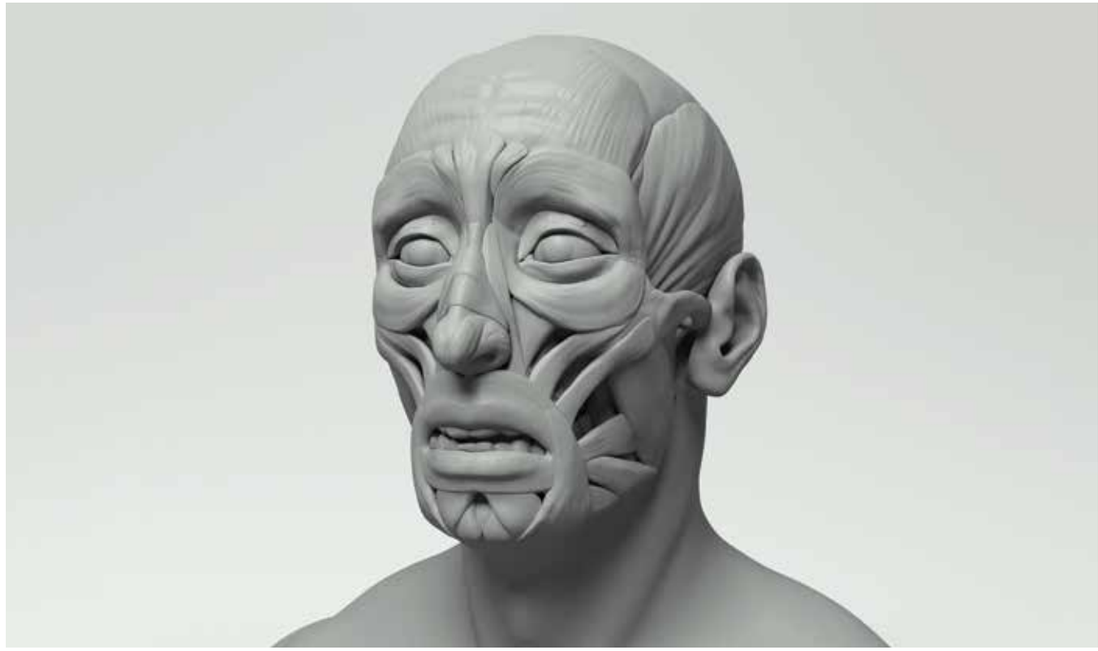




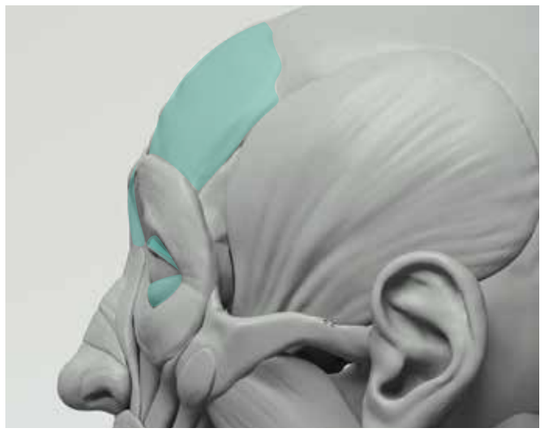


Fear



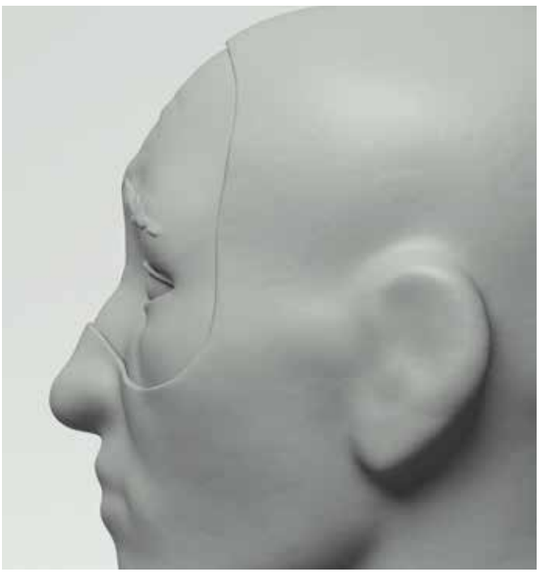


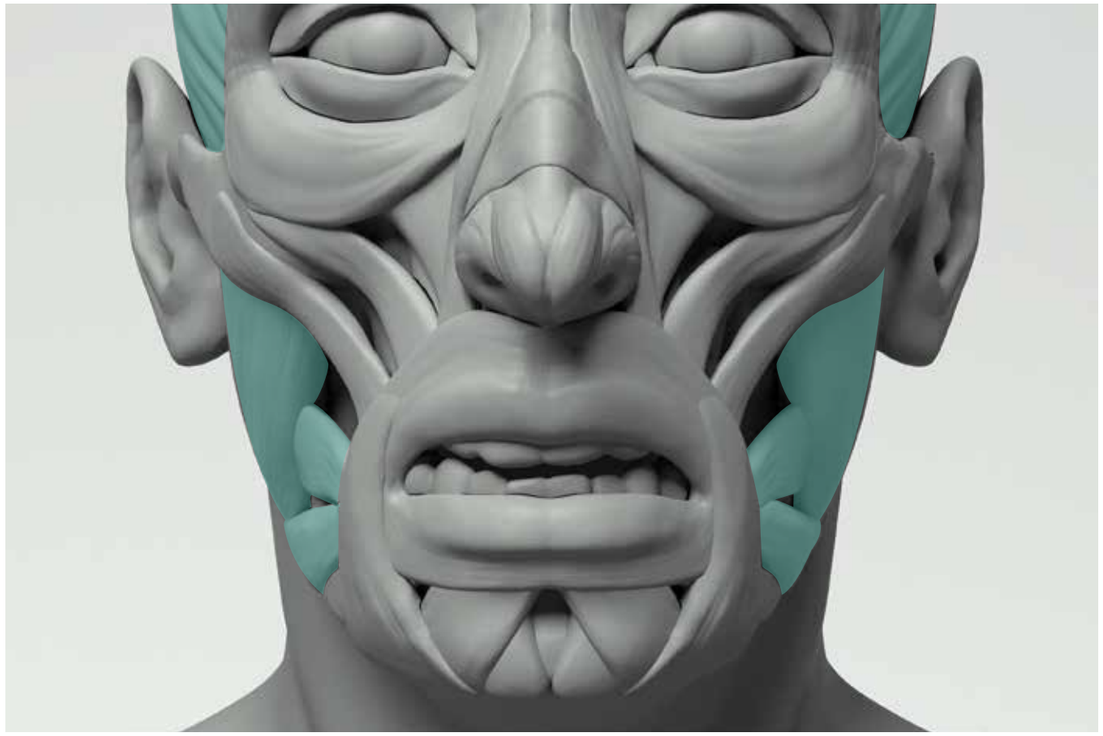
With fear, the eyebrows are pulled up and together, the upper eyelids are pulled up and the lower lids are tensed, the mouth is opened, and the lip corners are pulled down slightly and stretched horizontally. It can also involve jaw dropping.

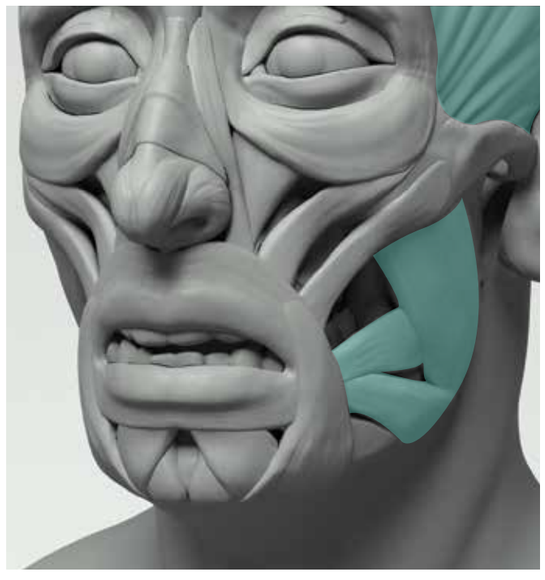


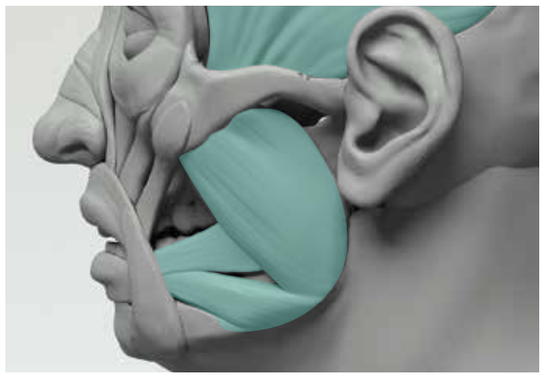
It is very easy to confuse fear with surprise as both expressions have raised brows and open mouths. However, a good way to distinguish between the two expressions is by focusing on the shape of the eyebrows. With surprise, you will find the eyebrows make a distinct upside down u-shape, while with fear the eyebrows are flatter. Both the inner and outer strands of the frontalis are engaged to pull the inner and outer brows upwards, however the depressor glabella and corrugator supercilii are also at work, lowering the brows and bringing them together.

As with surprise, the upper eyelids are raised as the levator palpebrae superioris muscle contracts, making the eyes wider. At the same time, the eyelids are tightened by a contraction of the orbicularis oculi pas palpebral.









The lips are pulled horizontally back towards the ears. The risorius muscle is primarily responsible for this movement. However, as the intensity of the expression increases, the platysma will also play a role. This can be observed by the pull and tightening in the neck. If the jaw is dropped, this will involve the masseter and relaxed temporalis.