

Creating Eyeball Pop Cakes

The idea behind creating these cakes was to promote thinking about the various axes of rotation that exist for the eyeball and how the muscle placement allows for the various motions available. It is hard to understand that while the lateral and medial rectus allow for lateral and medial movement on their own, the superior and inferior rectus do not act alone to create elevation and depression.

The construction of the cake allows the constructor to think about these issues.



1 – I started by cooking cake pops with a basic sponge recipe in a cake pop maker. These are available for under £10 or silicone moulds for use in the oven can be purchased on amazon for under £5. There is an alternative method of making a normal cake, crumbing it and then mixing it with butter icing and moulding it into balls but this produces really sweet cakes.

2 – Positioning of the cake pop stick is key to this activity and it must be placed as the optic nerve would be placed in relation to the eyeball. i.e. it must be placed at an angle such that if you were producing two eyeballs, their sticks would cross as the optic nerves do whilst the front of the cake would still look forward. The stick can be held in place with a small amount of royal icing or chocolate – you need something that is going to set.

3 – A circle of fondant icing is rolled out. This should be kept as thin as possible 2-3mm. I used a cannelloni cutter but anything that produces a circle about 8cm circle will do.

4 – The cake pop is covered in jam and the icing circle is then used to cover the ball. If the whole circle is used then there will be quite an accumulation of fondant around the stick. This can be reduced if scallop shapes are cut into the circle edge.

5 – A small circle of fondant icing is stuck onto the cake pop to mark the iris and pupil. This is stuck in place with royal icing or chocolate. The circle has been pre-painted with food colouring to show the iris colour and the pupil. Remember that this should not be directly opposite the stick. The iris and pupil need to point forward as the stick cross over where the optic chiasm would be.

6 – The muscles are added by using maoam strips – or a similar sweet. Depending upon the size of your cake pop you may need to stretch the maoam strip so that it is long enough to reach the stick from the front of the eye. Each maoam strip can be cut into thirds lengthways.

7 – The maoam strips need to be pushed into the icing towards the front of the eyeball so that any contraction of them would affect the rotation of the eyeball.

8 – The first muscle to add is the superior oblique as it passes under the superior rectus. This is a muscle that originates on the lateral surface of the eye, passes towards the medial where it would pass around the trochlear before continuing posteriorly. Pay attention to make sure this first muscle is correctly placed in relation to the cake pop stick.



9 – The superior rectus, lateral rectus, medial rectus and inferior rectus can then be added by pushing one end of the maoam strip into the icing and taking the other end of the strip back to the stick. The four ends can then be squeezed together to form the common tendinous ring.

10 – The final muscle to attach is the inferior oblique. This originates close to the superior oblique but passes medially under the eyeball. You may want to push it into the icing under the lateral rectus. In these cakes I used half a maoam strip and attached it to the surface of the inferior rectus just to save having the end flopping around.

I hope you enjoy making these cakes. It certainly made me think about the axis of rotation and the fact that I have just typed out the instructions without reference to a text book proves that at least some information went in.