

Gas bubble advice after vitreoretinal surgery

At the end of your eye operation your eye was filled with a medical gas. Gas is commonly used in vitrectomy eye operations to keep the retina in place whilst it is healing.

Why do I have to posture?

For the gas to have the right effect, it is necessary for you to keep your head in a certain position. You have received separate instructions as to what your individually prescribed head posture is. This will depend on where in your retina there is a tear. You must posture in such a way that the gas in your eye rises to cover the retinal tear. This is the only way for the retina to heal properly and for your sight to improve. The commonest postures are right side, left side, or face down.

When will my sight come back?

For the first week you will only be able to see light and dark with your eye. This is because the gas makes everything badly out-of-focus. Some people are able to see objects held very close to the eye.

Later on, your sight will begin to return. The timing depends on the type of gas used: short-acting gas (SF₆) takes 2 to 3 weeks to disappear; long-acting gas (C₃F₈) takes about 2 months.

When the gas bubble is down to half size, you will see a horizontal line across your vision, bobbing up and down with head movement. This is where the gas meets the fluid which is gradually replacing it. It is just like a spirit level. You will have sight above this line, and blackness below it. Day by day the line will move lower down; the seeing area will get bigger, and the black area will get smaller until it is just a circle at the bottom of your vision, and then it disappears.

Do I need to come back?

As the gas is naturally replaced by fluid, you need regular examinations with your eye specialist. This is in order to make sure that those areas of retina no longer covered by gas remain in place. The usual time intervals are weekly for short-acting gas, and once every 3 or 4 weeks for long-acting gas.

Occasionally, the retina can get loose (detached) whilst the gas leaves the eye, or shortly after. So, any time in the next few months, if you notice a worsening in vision in between appointments please call Derwent Eye Specialists urgently.

General anaesthesia

If you need a general anaesthetic for something else whilst you still have gas in your eye, it is very important that you let the anaesthetist know. He or she must not use nitrous oxide gas during the anaesthetic. Nitrous oxide moves into the gas bubble and can cause a dangerous rise in pressure in the eye.

Flying

As long as there is gas in your eye you must not fly in an aircraft. The pressure in the cabin of an aircraft is dropped to about 2/3 of the atmospheric pressure. If there is a gas bubble in your eye, this will expand to 1.5 times its size, with a corresponding rise in pressure in your eye. This would be very painful, and would lead to loss of sight.

Atmospheric pressure

The same thing, but to a lesser extent, happens if you were to travel by road across mountains. You would feel pain in the eye as you reach higher altitudes, and the eye becomes comfortable again as you come down on the other side.