Pneumatic retinopexy is a technique used to treat retinal detachment in the office, thereby avoiding a trip to the operating room.

Retinal detachment occurs when the gel inside the eye (the vitreous gel) pulls away from the retina and causes a retinal tear. Sometimes this occurs because of trauma but most of the time it is a natural age-related process. Once the retina is torn, fluid can move from the middle of the eye through the tear into the space between the retina and the eye wall. As more fluid enters this space, the retina cleaves (or “detaches”) from the eye wall. If the retinal detachment extends into the central part of the retina, central vision may be damaged.

Pneumatic retinopexy consist of at least procedures. 1. The tear in the retina needs to be sealed to the eye wall. This is usually done with cryotherapy, a freezing treatment applied to the outside of the eye after numbing medications are given. 2. Gas is injected into the back part of the eye (vitreous cavity). When the head is later positioned appropriately, this bubble pushes the fluid out from under the retina and pushes the retinal tear closed. 3. Fluid is removed from the eye in order to make place for the gas. This can be done before the gas is injected, after the gas is injected, or both before and after.

Positioning by the patient immediately after this procedure is critical. Make sure you understand your doctor’s positioning instructions before leaving the office. You will see your doctor frequently in the weeks following the procedure in order to monitor the process of retinal reattachment and assess the need for further intervention, such as repeating the steps described above or going to the operating room for surgical repair.

Not all retinal detachments can be fixed using pneumatic retinopexy. For those retinal detachments which are amenable to pneumatic retinopexy, the chance of successful repair depends on patient positioning, patient cooperation during the procedure, and characteristics of the retina and other eye tissues. Your doctor will discuss with you the various options available for repair of retinal detachment, depending on the specifics of your detachment.

The greatest risk of pneumatic retinopexy is infection, which occurs in less than 1 in 2,000 procedures. This risk is still present if surgical repair is chosen rather than pneumatic retinopexy. Infection can result in permanent vision loss, but retinal detachment almost certainly results in permanent vision loss if left unrepaired.