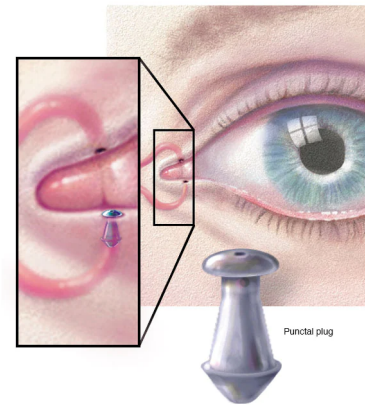


Punctal plugs are used to treat eye dryness that does not adequately respond to lubricating eye drops, gels, or ointments. In order to understand how punctal plugs work, a review of how tears are produced by the eye and how they drain away from the eye is needed.

- Tears are produced by the lacrimal gland, located at the outer aspect of the eye, under the brow bone. Tears enter the eye via an INFLOW duct and across the surface of the eye, keeping the surface of the eye lubricated.
- Tears then drain AWAY from the eye through two openings (called “puncta”) in the inner corners of the eye, near the nose. For each eye there are two punctal openings, one in the lower lid and one in the upper lid. Two-thirds of the tears drain through the lower lid punctum and one-third through the upper.
- Via the punctal openings, tears then drain into the nose and from there into the throat. This is why one’s nose gets “stuffy” when one is crying. It is also the reason one can taste eye medication.

Side Effects of Punctal Plugs:

- Rarely the eyes may experience excessive tearing.
- Silicone plugs may fall out and require replacement.
- Silicone plugs may cause a slight foreign body sensation.



Treatment for Dry Eyes

- Plugs can be placed in these punctal openings. This serves to cause the tears to back-up and therefore to stay on the surface of the eye longer, keeping the eye lubricated. This is akin to putting a stopper in a bathtub drain, thereby not allowing the water to drain out of the bathtub.
- Plugs are placed in the exam room at the slit lamp. The procedure takes approximately 30 seconds to one minute per punctal opening. The procedure is not painful; however, patient may experience a mild “pricking” sensation during placement. No anesthesia is required.
- Punctal plugs are less than 1mm in width. Once placed, they are generally not visible to the naked eye. Upon very close examination, the silicone plugs may be visible as white or clear “dots” in the inner corner of the eye.
- There are 2 main types of plugs:
 - Dissolvable: These are often used to assess whether or not a patient is a candidate for longer-term punctal occlusion. If these are placed for this purpose, it is important for the patient to assess whether or not they are working before they have completely dissolved.
 - Quick-dissolving (also known as “collagen plugs”) last about 4 to 7 days
 - Long-lasting dissolvable plugs last 1 to 2 months
 - Non-dissolvable:
 - Removable (often known as “silicone plugs”)
 - Nonremovable (one type is the “Smart plug”)
- The punctal openings can also be permanently closed by a process of cauterization