

Punctal Plugs

This material will help you understand punctal plugs and how they are used to treat dry eye.

What is dry eye?

People with dry eye are not able to produce enough tears to keep the eye healthy and comfortable. Your eye needs to constantly bathe itself in tears to stay moisturized. Your eye produces tears in two ways. It can make tears at a slow, steady rate to maintain normal eye moisture and it can make larger amounts of tears if you are sad or if something gets into the eye. (These kinds of tears do not moisturize the eye.) Most of the time, dry eye can be treated with artificial teardrops, gels, and ointments that are available over-the-counter. If your dry eye is more severe, your doctor may recommend punctal plugs.

What are punctal plugs?

Punctal plugs are small devices that are used to block the tear drainage channel in the inner corner of your eye. The plugs are inserted into the tear duct opening, which is called the puncta. Tears normally drain out from this channel through the back of your nose and into the back of your throat. The punctal plug acts as a dam by preventing tears from flowing out. This helps keep your eyes moist with your own tears. They can also help artificial tears last longer.

Punctal plugs can be inserted for a short amount of time or permanently. Temporary punctal plugs are typically made out of collagen, a material that is found in bone and skin. These plugs naturally dissolve over time. Permanent punctal plugs are usually made out of silicone.

How are punctal plugs inserted?

Punctal plugs can be inserted in the lower eyelid, upper eyelid, or both. Before your doctor inserts a plug, he/she will measure the opening of your tear duct to determine the size of plug that you will need to block your tear duct. He/she will sometimes use topical anesthetic drops (numbing drops) before the procedure, but in many cases, no anesthesia is needed. The exact way your doctor inserts the plug depends on the design and shape. Some plugs come with special inserters, but other types are inserted with forceps or other instruments. The location of insertion also depends on the type of plug. You can see some plugs after they are inserted. Others are inserted deeper into the tear duct and will not be visible when you look in the mirror.

You may have some mild discomfort while the punctal plugs are inserted, but it will be very brief. Most people cannot feel the plugs once they are in place. If they do feel them, it is a mild sensation that is not bothersome. You can resume normal activities and drive yourself home immediately after the procedure.

How are punctal plugs removed?

Temporary punctal plugs dissolve naturally and do not require removal. Permanent punctal plugs do not need to be removed unless you are bothered by them or develop an infection (which is extremely rare). Removing punctal plugs is usually very easy. Your doctor may take out the plug using forceps. If the punctal plug has migrated deeper into the tear duct and cannot be removed with forceps, the plug can be flushed out using saline solution.

What are the risks of punctal plugs?

Punctal plugs rarely cause serious side effects, but they do have some risks. Possible risks include:

- The plug falling out, this is the most common problem
- Excessive tearing, the plugs can be removed if this happens
- Eye infection, the plug can be removed if this happens
- Migration of the plug, the plug would need to be removed if this happens as this can lead to an infection

Talk to your doctor about any concerns you have about punctal plugs and whether they are good treatment option for you.

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