What are contact lenses?

Contact lenses are thin, clear plastic disks you wear in your eye to improve your vision. Contacts float on the tear film that covers your cornea (the clear, curved surface of your eye).

Like eyeglasses, contact lenses correct vision problems caused by refractive errors. A refractive error is when the eye does not refract (bend) light properly into the eye resulting in a blurred image. Contacts can improve vision for people with these refractive errors:

- myopia (nearsightedness)
- hyperopia (farsightedness)
- astigmatism (distorted vision)
- presbyopia (changes to near vision that normally happen with age)

Types of contact lenses

Contacts are made from many kinds of plastic. The two most common types of contact lenses are hard and soft.

Hard contact lenses. The most common type of hard contact lens is a rigid gas-permeable (RGP) lens. These lenses are usually made from plastic combined with other materials. They hold their shape firmly, yet they let oxygen flow through the lens to your eye.

RGP lenses are especially helpful for people with astigmatism and a condition called keratoconus. This is because they provide sharper vision than soft lenses when the cornea is unevenly curved. People who have allergies or tend to get protein deposits on their contacts may also prefer RGP lenses.

Soft contact lenses. Most people choose to wear soft contact lenses. This is because they tend to be more comfortable and there are many options. Here are some types of soft lenses.

- Daily wear contacts. You wear these when you are awake and remove them when you go to sleep. Many are disposable, meaning that you wear a new pair of contacts each day. Or you might choose contacts that last longer and only need to be replaced once a week, every two weeks or every month. Some ophthalmologists recommend disposable daily wear contacts if you use them just once in a while.

- Extended wear contacts. You can wear these while you sleep, but they need to be removed for cleaning at least once a week. Fewer eye doctors recommend these contacts because they increase the chance of getting a serious eye infection.

- Toric contacts. These can correct vision for people with astigmatism, though not as well as hard contact lenses. Toric lenses can be for daily or extended wear. But they often cost more than other types of soft contact lenses.

- Colored (tinted) contacts. Vision-correcting contact lenses can be tinted to change the color of your eye. You can get them as daily wear, extended wear, and toric lenses.

- Decorative (cosmetic) contacts. These lenses change the look of your eye but do not correct vision. They include colored contacts and lenses that can make your eyes look like vampires, animals or other characters. Even though they do not correct vision, you need a prescription for decorative contacts. To avoid getting dangerous eye infections, these lenses must be treated like prescription contacts. This means cleaning them regularly and thoroughly as directed.
Other types of contact lenses

Contacts for presbyopia. These are designed to correct the normal vision problems people get after age 40, when it becomes harder to see close objects clearly. There are different options for these corrective lenses.

These options include: bifocal or multifocal contact lenses, and monovision correction, where one eye wears a near vision lens and the other eye wears a distance vision lens.

Bandage lenses. These contacts do not have a prescription built into them. Instead, they cover the surface of your cornea for comfort after an injury or surgery.

Contact lens risks

You can get a serious eye infection if you do not clean and disinfect your contact lenses exactly as directed.

Contact lenses that are old or that do not fit well can scratch your eye. They can also cause blood vessels to grow into your cornea, a dangerous condition that threatens your vision.

Eye drops can cause problems with your contact lenses. It is best to avoid using any kind of eye drop when wearing contacts. However, you can use wetting drops as recommended by your eye doctor.

Remove your contact lenses and call your eye doctor right away if your eyes are very red, painful, watery or sensitive to light. Do the same if you have blurry vision or notice discharge (ooze or pus) coming from your eye. These can be symptoms of serious eye problems.
**Take proper care of your contacts**

You must clean and disinfect any contact lens you remove from your eye before you put the lens back in. There are many types of cleansing systems. The choice depends on the type of lens you use, if you have allergies or if your eyes tend to form protein deposits. Ask your eye doctor what kind of cleaning solutions you should use.

Take special care to clean and store your lenses correctly to avoid dangerous eye infections. Here is what you should do.

- Follow the schedule your eye doctor gives you for wearing and replacing your lenses. You should not wear daily wear lenses while you sleep.
- Remove contact lenses before taking a shower, using a hot tub, swimming, or doing anything where water gets in your eyes.
- Before touching your contact lenses, wash your hands with soap and water and dry them with a lint-free towel.
- Never put contacts in your mouth to wet them. Saliva (spit) is not a sterile solution.
- Do not rinse or store contacts in water (tap or sterile water). Also, never use a homemade saline solution.
- Do not use saline solution or rewetting drops to disinfect your lenses. They are not disinfectants.
- Follow directions from your doctor and from the lens cleaning solution manufacturer to clean and store your lenses.
- No matter what type of lens cleaning solution you buy, use a “rub and rinse” cleaning method. Rub your contact lenses with clean fingers, then rinse the lenses with solution before soaking them. Use this method even if the solution you are using is a “no-rub” type.
- Use new solution each time you clean and disinfect your contact lenses. Never reuse or “top off” with old solution. Also, do not pour contact lens solution into a different bottle. The solution will no longer be sterile.
- Make sure the tip of the solution bottle does not touch any surface. Keep the bottle tightly closed when you are not using it.
- Rinse your contact lens case with sterile contact lens solution (not tap water). Then leave the empty case open to air dry.
- Keep your contact lens case clean. Replace the case at least every 3 months, or right away if it gets cracked or damaged.
- If you store your lenses in the case for a long time, check the contact lens instructions or the lens solution directions to see if you should re-disinfect them before wearing them. Never wear your contact lenses if they have been stored for 30 days or longer without re-disinfecting.
- Contact lenses can warp over time, and your cornea can change shape. To make sure your lenses fit properly and the prescription is right for you, see your eye doctor regularly.

**Are contacts right for you?**

Millions of people choose to wear contact lenses. However, they are not for everyone. You might not be able to wear them for the following reasons:

- You get a lot of eye infections.
- You have severe allergies or dry eyes that are hard to treat.
- You work or live where it is very dusty.
- You are not able to properly care for your contact lenses.
Summary

Millions of people choose to wear contact lenses, rather than eyeglasses, to correct vision problems. There are many different types of lenses available to help correct refractive errors.

It is important to remember that contacts are not fashion accessories or cosmetics. They are medical devices that require a prescription from an eye care professional. If contacts are right for you, you must clean and care for these lenses exactly as directed. This is vital to preventing eye infection.

If you have any questions about your eyes or your vision, speak with your ophthalmologist. He or she is committed to protecting your sight.

Your cornea and tear film must be healthy for you to be comfortable and see clearly with contact lenses.

Get more information about contact lenses from EyeSmart—provided by the American Academy of Ophthalmology—at aao.org/contacts-link.