



## contact lenses

a closer look

### CONTACT LENSES

Millions of people around the world wear contact lenses — more than 24 million in the United States alone.

Depending on your lifestyle, your motivation and the health of your eyes, contact lenses may provide a safe and effective alternative to eyeglasses when used with proper care and maintenance.

### WHAT ARE CONTACT LENSES?

Contacts are thin, clear disks of plastic that float on the tear film that coats the cornea, the curved front surface of the eye. The health of the corneal surface and tear film are very important to your comfort and the clarity of your vision when you are wearing contacts.

Contact lenses are used to correct the same conditions that eyeglasses correct:

- Myopia (nearsightedness);
- Hyperopia (farsightedness);
- Astigmatism;
- Presbyopia.

### WHAT ARE THE DIFFERENT TYPES OF CONTACT LENSES?

Many different plastics are used in the manufacture of contact lenses, but basically there are two general types of lenses: hard and soft.



**Soft contact lens**

**Hard lenses** include the **PMMA** contacts that were first developed in the 1960s but are rarely used today; and **rigid gas-permeable**, or **RGP**, contacts. RGP contacts combine plastics with other materials such as silicone or fluoropolymers to produce a lens that holds its shape, yet allows the free flow of oxygen through the lens to the cornea. These lenses are more “wettable,” easier to adjust to and more comfortable to wear than the old PMMA hard lenses.

RGP lenses may be the best choice when the cornea has enough astigmatism (is shaped like an egg instead of an orange) that a soft lens will not provide sharp vision. They may also be preferable when a person has allergies or tends to form protein deposits on his or her contacts.

**Soft lenses** are the choice of most contact lens wearers for their comfort as well as for the great number of options available. These options include:

- **Daily wear.** These contact lenses are worn only during the day, and removed when sleeping. The lenses may be on a frequent replacement program with new lenses daily, weekly, or monthly, and may also be called “disposable” contact lenses. There are longer-term replacement programs with replacement recommended every three, four or six months.
- **Extended wear.** These lenses are worn overnight, but are removed at least weekly for thorough cleaning and disinfection. They are being recommended less frequently since there is a greater risk of serious corneal infection with any overnight wear of contact lenses.
- **Toric contacts.** These soft contacts can correct astigmatism, though not as well as RGP lenses. Toric lenses usually cost more than other soft lenses and may be prescribed as daily wear or extended wear.
- **Colored or tinted contacts.** Many daily wear, extended wear, and toric lenses come in a variety of colors and tints. These lenses can change the appearance of your eye color to varying degrees.
- **Decorative (plano) contact lenses.** These are lenses that do not correct vision, but rather change the appearance of the eye. For example, these lenses can change the color of the eye from brown to blue, or can make your eyes look strange by portraying Halloween themes. Although these lenses do not correct vision, they carry the same risks as other contact lenses, and should only be worn by prescription. You must thoroughly clean and care for these lenses just like any other contact lens.

As one ages, correction for near vision is often necessary because the lens of the eye can't change shape as easily as it once did. This common condition, called **presbyopia**, can be corrected in one of three ways:

- Wear your distance correction in the contacts, and wear reading glasses when needed;
- Wear one contact for distance vision, and one for near vision. This option is called **monovision**, and it works well for many people but not for everyone. You may need a trial period to decide if monovision is for you;
- Wear bifocal contacts, which are designed to allow both distance and near vision. These lenses are usually more expensive to fit and some people may have difficulty adjusting to them. However, bifocal contacts may provide good vision for most distance and near tasks without the use of glasses.

Special uses for contact lenses include “**bandage**” lenses, to cover the corneal surface and provide comfort after injury or surgery; lenses for infants; RGP lenses, for people with very irregular corneas due to injury or disease; and painted contact lenses, to change appearance or reduce glare after eye trauma.

### WHAT DOES THE PRICE OF CONTACT LENSES INCLUDE?

When comparing the price of contact lenses, it is important to consider what services are included. Does the fitting include a complete eye examination and follow-up? Can you exchange lenses during the initial fitting, and is insurance for lost lenses available?

If you need treatment for an eye condition not directly related to the contact lenses, such as inflamed eyelids or dry eyes, there may be additional charges.

## WHAT ARE THE RISKS OF WEARING CONTACT LENSES?

Lenses that are not properly cleaned and disinfected increase the risk of eye infection. Lenses that are old or not properly fitted may scratch the eye or induce blood vessels to grow into the cornea. Because a lens can warp over time, and the cornea can change shape, the fit of the contact lens and the power should be re-evaluated on a regular basis. Your return visits will be scheduled depending on the condition of your eyes and visual needs.

Any eyedrops can interact with all types of contact lenses. It is best to avoid the use of eyedrops while wearing lenses, except for wetting drops recommended by your eye doctor.

## PROPER CARE OF CONTACT LENSES

Any lens that is removed from the eye needs to be cleaned and disinfected before it is reinserted. Your doctor will discuss the best type of cleansing system for you, depending on the type of lens you use, any allergies you might have, and whether or not your eyes tend to form protein deposits.

Contact lens wearers should follow proper lens care practices to prevent eye infection and maintain healthy eyes. Based on the new guidelines developed by the Centers for Disease Control and Prevention, the following care is recommended:

- Wear and replace your lenses according to the schedule your doctor gives you. Daily wear lenses should not be worn while sleeping.
- Wash your hands with soap and water and dry with a lint-free towel before touching your contact lenses.

- Follow the lens cleaning and storage guidelines from your doctor and the solution manufacturer. Homemade saline solutions should not be used.
- Consider performing a “rub and rinse” lens cleaning method, rather than a no-rub method, regardless of the type of cleaning/disinfecting solution that you use.
- Use fresh cleaning or disinfecting solution each time lenses are cleaned and stored. Never reuse or top off old solution.
- Rinse the contact lens case with sterile contact lens solution and leave open to air dry after each use. Never use tap water.
- Keep the contact lens case clean and replace it at least every three months. Do not use cracked or damaged contact lens cases.
- Remove contact lenses before any activity involving contact with water, including showering, using a hot tub, or swimming.
- Remove the lenses and consult your ophthalmologist immediately if you experience symptoms such as redness, pain, tearing, increased light sensitivity, blurry vision, discharge, or swelling.
- Do not put your lenses in your mouth to wet them. Saliva is not a sterile solution.
- Do not transfer contact lens solution into smaller travel-size containers. This can affect the sterility of the solution, which can lead to an eye infection.
- Do not allow the tip of the solution bottle to come in contact with any surface, and keep the bottle tightly closed when not in use.
- Some experts recommend that if you use contact lenses sporadically you consider using single-use daily disposable lenses.

## WHO SHOULD NOT WEAR CONTACT LENSES?

You may not be a good candidate for contacts if you have:

- Frequent eye infections;
- Severe allergies;
- Dry eye that is resistant to treatment;
- A very dusty work environment;
- An inability to handle and care for the lenses.



## ARE CONTACTS FOR YOU?

Choose an eye care professional who is experienced with contact lenses and with whom you can discuss your needs and expectations. Your eye care professional should diagnose and treat any eye problems that may hinder healthy lens wear and be able to correct problems that arise during lens wear.

You should examine your own motivation for wanting contacts and your commitment to the care and timely replacement of contacts for the optimal health of your eyes.

### COMPLIMENTS OF YOUR OPHTHALMOLOGIST:

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