

## INSIGHTS

### What Are Digital Screens Doing to Your Eyes?



How much time do you spend in front of a digital screen? According to the most recent studies, the average person spends more than 12 hours a day.

#### What is digital eye strain?

The result of that excessive viewing time is called digital eye strain—a temporary discomfort that follows two or more hours of digital device use. That includes eyeballing desktop and laptop computers, smart phones, e-readers, tablets, televisions and gaming systems.

#### What are the symptoms?

- Eye fatigue
- Blurred vision
- Red, dry or irritated eyes
- Headaches
- Back, neck and shoulder pain

#### How can it be prevented?

The short answer is: Limit your digital use. But for those who can't, there are other ways to lessen screen time's impact on the eyes.

#### Mind your distance

- For computers, extend your arm while seated in front of the computer monitor. The correct distance to be seated from the screen occurs when you can comfortably place your palm flat on the monitor
- For hand-held devices, hold the device just below eye level and at a distance that still enables you to comfortably read the screen

#### Beware the glare

- Adjust the digital screen brightness and change background color from bright white to gray
- Try glare-reduction filters that attach to computer screens
- Dim indoor lights to reduce the amount of light competing with your device's screen

Computer glasses are a popular solution for reducing digital eye strain and the resulting potential eye damage. If you have eye strain, discuss it with your optometrist today.

## EYE CANDY

### Dreamy Eyes



Dream interpretation has been around since the beginning of civilization. Early Egyptians, Mayans, Native Americans, Asians and Europeans derived spiritual insights and omens in dreams. They also saw them as doorways to communicating with spirit guides and the dead.

What do eyes symbolize in our dreams? Here are some interpretations:

#### Eyes:

- Seeing your own eyes represents enlightenment, understanding and intellectual awareness
- Seeing someone else's eyes in your dream indicates an emotional or intimate connection with that person or a mutual understanding
- Dreaming that you have something in your eye represents that there are obstacles in your path

#### Eyeglasses:

- Dreaming that you are wearing eyeglasses, if you do not normally wear them, suggests that you need a clearer view on a situation. There may have been a misunderstanding or a situation was misperceived and needs to be clarified
- Seeing broken eyeglasses indicates that your perception is impaired. You are not seeing the facts correctly

## EYE-Q

**Q: How many times does the human eye blink in one year?**



(See answer on back.)

# Eyesight Is Academic

## Percentage of learning processed in the brain through each of the senses

**Sight: 83.0%**

**Hearing: 11.0%**

**Smell: 3.5%**

**Touch: 1.5%**

**Taste: 1.0%**



More than 80 percent of learning is through the eye. That means ensuring good eye health for children can impact their academic success. It is generally recommended that children have their vision checked at six months, three years and before first grade. Most states require children to have an eye exam prior to beginning public school.

### Symptoms of eye problems

Symptoms of possible vision problems in children can include:

- Poor grades in school
- Not wanting to go to school
- Difficulty in paying attention
- Difficulty with reading and writing
- Trouble seeing writing on the chalkboard
- Blurry or double vision
- Headaches or eye pain
- Taking longer than normal to complete homework

### Common eye problems

Common eye problems in children may include:

- **Amblyopia**—also called lazy eye, there is poor vision in an eye that appears to be normal. If untreated during childhood, amblyopia can lead to permanent vision loss in the affected eye
- **Strabismus**—a misalignment of the eyes, commonly known as cross-eyed, causes eyes to wander. Both eyes do not always aim at the same object. If one eye is misaligned constantly, amblyopia may develop in that eye. Healthy vision can be restored by patching the properly aligned eye and then forcing the misaligned one to work harder
- **Refractive errors**—occur when the eye is incorrectly shaped. Such conditions, which can be treated with corrective lenses, include:
  - Nearsightedness (myopia) is poor distance vision
  - Farsightedness (hyperopia) is poor near vision
  - Astigmatism is an abnormal curve of the eye surface which can distort vision

To ensure your child has the greatest learning potential, schedule an annual exam today.

# What Is a Silicone Hydrogel Lens?

Silicone hydrogel lenses are the latest development in soft contact lens materials. They allow up to five times more oxygen to pass through them to the cornea. Silicone hydrogel lenses are made of plastics that are hard when dry, but readily absorb water and become soft and gel-like when hydrated.

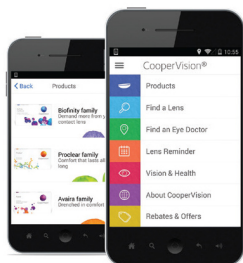
The enhanced oxygen permeability of silicone hydrogel contacts makes them a great fit for special lenses such as bifocals or those correcting astigmatism.

In 2013, silicone hydrogel lenses accounted for 66 percent of contact lens fittings performed in the United States, compared with 24 percent for regular soft lenses, 8 percent for rigid gas permeable contacts and 2 percent for hybrid contact lenses.

Popular brands of silicone hydrogel contact lenses include clariti® 1day and Biofinity® (from CooperVision), Acuvue® Oasys® (Vistakon), Air Optix® (Alcon) and PureVision®2 (Bausch + Lomb).



**Watch an Exciting Video on Eye Health:  
See Your Optometrist Once a Year**  
<https://vimeo.com/96959505>



## APPlE of Your Eyes

Download the app that makes finding and wearing contacts fast, smart and simple—the CooperVision app.

- Find contacts suitable for you and your lifestyle
- Search for an eye doctor near you
- Discover useful tips and info about eye health and vision care
- **Access valuable rebates and discounts**

<https://itunes.apple.com/us/app/coopervision/id687757892?mt=8>



CooperVision™





# A Feast for the Eyes

Dr. Laurie Capogna and Dr. Barbara Pelletier, two optometrists from Ontario, Canada, developed a cookbook called *Eyefoods, A Food Plan for Healthy Eyes*, with recipes that prevent eye disease. Their recipes feature foods that contain the nutrients lutein, zeaxanthin and omega-3 fatty acids, all of which contribute to good eye health.



## Chicken Almond Wraps

(Serves 4)

### Ingredients:

2 boneless, skinless chicken breasts, cooked and pulled into bite-sized pieces

1 tbsp canola or olive oil

1 cup frozen peas, defrosted

1 orange pepper, chopped

2 green onions, chopped

1 large orange, peeled with a knife, quartered and sliced

1/4 cup sliced almonds

1/4 cup fresh cilantro leaves, chopped

Leaf lettuce leaves, romaine lettuce leaves or kale leaves, washed and dried completely

*Optional for a zeaxanthin boost: garnish with goji berries.*

### Dipping Sauce:

4 tbsp natural almond butter (or natural peanut butter)

2 tsp rice vinegar

4 tsp soy sauce

3 tsp honey

Dash hot sauce

Hot water

### Directions:

1. Mix poultry, peas, pepper, green onion, orange, almonds and cilantro in a bowl.
2. In a separate bowl, combine almond butter, rice vinegar, soy sauce, honey and hot sauce.
3. Add 2 tablespoons hot water and stir well. If sauce is too thick, add another tablespoon hot water. Continue until the sauce has the consistency of a thick salad dressing.

4. Use 2 tablespoons of the sauce as dressing for the poultry mix. Toss gently to combine.
5. Separate remaining dipping sauce into an individual bowl or ramekin for each person.
6. Spoon chicken mixture into a lettuce or kale leaf and fold. Enjoy with the dipping sauce.

**Tip: The chicken mixture can be refrigerated for up to two days. Serve cold or warm.**

## Green Salad and Dressing

(Serves 2 as a side dish)

### Ingredients:

2 cups romaine lettuce cut in bite-sized pieces

1 cup radicchio, cut into bite-size pieces

1 cup fennel bulb finely sliced

Fresh cracked pepper and sea salt to taste

### Herb Dressing:

1/4 cup olive oil

1/4 cup canola oil

3 tbsp apple cider vinegar

1 tbsp lemon juice

1 tbsp Dijon mustard

1 tbsp maple syrup

2 tbsp each chopped fresh parsley, thyme and fennel leaves

1 tsp sea salt

Black pepper to taste

### Directions:

1. Toss ingredients together and add 1/4 cup salad dressing. Serves 2 as a hearty side dish.

*Keep remaining salad dressing in the fridge for up to two weeks.*

Recipes from: <http://www.eyefoods.com>, which features eye-healthy foods from *Eyefoods, A Food Plan for Healthy Eyes* by Dr. Laurie Capogna and Dr. Barbara Pelletier.



## Why is omega 3 important?

Just when you thought fat was something you should avoid, along comes omega-3 essential fatty acids (EFAs), an important component to overall health.

Fatty acids are the “building blocks” of fat. These important nutrients are critical for the normal production and functioning of cells, muscles, nerves and organs. They also help regulate blood pressure, heart rate and blood clotting. For eye health, they are essential to normal infant eyesight development and also may help protect adult eyes from age-related macular degeneration, dry-eye syndrome and glaucoma.

Food sources of omega-3 EFAs are wild-caught, cold-water fish (sardines, herring, salmon and tuna). Or omega-3s can be taken as fish oil supplements. Make sure you get a top-quality brand from your local health-food store or your optometrist. Vegetarian sources of omega-3 fatty acids include flaxseeds, flaxseed oil, raw walnuts and dark green leafy vegetables like spinach, kale and collard greens.

# Do You Have Clouds in Your Eyes?

## What are cataracts?

Imagine your eyesight slowly getting cloudier over time. That's what happens with cataracts. A normally clear lens that allows light to pass through to the back of the eye develops a thick film, making eyesight seem blurry. Because cataracts develop very slowly, and are not associated with any discomfort, most people don't know they have them at first.

## Who's at risk?

Risk factors for developing cataracts may include:

- Age
- Close relatives who have or had cataracts (family history)
- Diabetes
- Ionizing radiation exposure—airline pilots have an increased risk of cataracts due to cumulative exposure to cosmic radiation
- Long-term use of statins or corticosteroids
- Long-term exposure to bright sunlight
- Previous eye inflammation or injury
- Exposure to lead

## What are the symptoms?

Common symptoms include:

- Blurry, cloudy or misty vision
- Vision may be affected by small spots
- Vision gets worse when light is dim or when light is very bright (glare)
- Colors may appear faded
- Reading becomes very difficult, and eventually impossible
- Glasses need to be changed more frequently

## Can cataracts be prevented?

Surgery may help correct cataracts, but prevention is the best approach. Here are some ways to reduce your risk:

- If you smoke cigarettes, quit
- Eat plenty of fruits and vegetables, whole grains, unrefined carbohydrates, good quality fats (avocado, olive oil, omega oils), and plant-sourced proteins or lean animal-sourced proteins
- Wear sunglasses that help block the sun's ultraviolet B rays
- Get at least seven hours of good-quality, continuous sleep every night
- If you have diabetes, be careful to keep it under control
- Exercise regularly

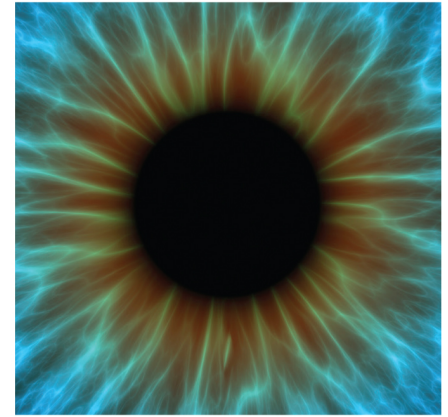
## How are cataracts diagnosed?

Your optometrist can screen for cataracts during your annual exam using a visual acuity test (eye chart), a slit-lamp exam (shows the structures at the front of the eye), and a retinal exam (eye drops dilate the pupils, providing a bigger window to the back of the eyes). If you are experiencing any of the symptoms of cataract development, schedule an exam with your optometrist as soon as possible.

**Cataracts** can make eyesight appear cloudy.



# What Is the Pupil?



The pupil of the eye is the black circle found in the middle of the iris (the blue-, brown- or hazel-colored part of your eye). After light passes through the clear surface of the eye (the cornea), a portion of it passes through the pupil.

Rather than being a part of the eye's anatomy, the pupil is actually just an opening. It appears black because the light it allows into the eye is absorbed. As you look at another person's pupil opening, no light is exiting their pupil and coming to your eye; subsequently, the pupil appears black.

Like the aperture of a camera, the size of the pupil opening can be adjusted by the dilation of the iris. Outdoors in the sun, the pupil is small because there is plenty of light. But in a darker, indoor environment, the pupil becomes larger to let in more light. The pupil is constantly adjusting—day or night—to ensure your eye has just the right amount of lighting for you to see the world around you.



## Lying Eyes: Celebrities and Color Contacts



**Bette Davis Eyes:** Imagine if Hollywood diva, Bette Davis, wore colored contact lenses.

Celebrities have closeups that require flawless features. Colored contact lenses help them out.

Several actors, including **Mila Kunis** (*That Seventies Show*), **Kate Bosworth** (*Superman Returns*), **Josh Henderson** (*Dallas*), **Alice Eve** (*Star Trek Into the Darkness*), **Henry Cavill** (*Man of Steel*) and **Simon Pegg** (*Star Trek, Shaun of the Dead*) have a condition called heterochromia iridum—eyes that don't match in color. Fortunately, color contact lenses provide them with the matching color that nature neglected.

Colored contacts can also serve as part of a character's costume. While playing the role of Legolas in *Lord of the Rings*, **Orlando Bloom** used contacts to switch his deep brown eyes to elfin blue. Actor **Brent Spiner** wore yellow contact lenses for his role as android Data in *Star Trek*. And for classic movie buffs, there's the unforgettable red contact lenses worn by **Christopher Lee** in the 1958 Hammer movie *The Horror of Dracula*. The more recent *Twilight* movies featured a red-eyed **Kristen Stewart**. Orange-, gold- and black-colored contacts were also

used to emphasize the eeriness of the vampires in this series.

Sometimes colored contacts are used to enhance beauty. Famous personality **Paris Hilton** has brown eyes, but she is often seen sporting her favorite pair of blue contacts featuring black edging. Model **Tyra Banks** changes her eye color as often as some people change socks. Most of her photo shoots feature greenish-amber contacts which emphasize hazel eyes; in others she poses with deep brown eyes. **Jennifer Aniston** of *Friends* fame is known for her stunning blue eyes, but her natural eye color is brown. Singer **Christina Aguilera** already has natural dark-blue eyes. But rather than change the color of her eyes, she uses colored contacts to enhance and lighten their color.

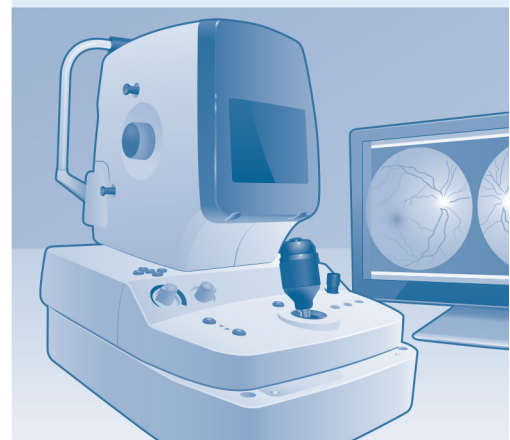
While celebrities' color contact lenses could be considered "lying eyes," it's all in good fun! Ask your optometrist about color contact lenses, but make sure the ones you wear are sold by a reputable eye specialist so they are safe to wear.

## What Is Retinal Fundus Photography?

You may be a fundus photographer without even knowing it.

If you've taken pictures of your family or friends using flash photography and noticed a phenomenon called "red eye," then you're looking at a form of fundus photography. Photographic red eye is nothing more than a reflection of light off of the fundus (inside surface) of the eye.

In your optometrist's office, fundus photography offers a detailed look at the retina, optic disc and macula of the eye. Fairly simple in design, it consists of a specialized low-power microscope with an attached camera. When you have an annual eye exam, fundus photography of your eye provides detailed information about the retina and optic nerve. These images are used for the diagnosis of glaucoma, macular degeneration, diabetic eye disease, high blood pressure-related conditions and other retinal diseases. Yearly photos can reveal information about disease progression.





**Q:** My daughter says she gets more value from her contacts by wearing them longer than is recommended. Can that harm her eyes?

**A:** Disposable contacts are only made to last as long as their labels indicate you should use them. No matter how carefully you clean them, dirt or buildup from your eye (protein or calcium in your tears) can coat the lens, which makes it less comfortable. This in turn leads to touching the eyes, which is the most common cause of eye infections. So, if you wear contacts any longer than instructed, you are at a higher risk of getting eye infections as well as corneal ulcers.

If you do not wear them every day, you can extend their wear time a little depending on how often you do wear them. If you wear your contacts on a daily basis (even if you keep them clean), you should dispose of them properly. Your eyes are very important so it's essential to take care of them.

To prevent eye infections, I always recommend the following:

- Wash hands with soap and water before touching contact lenses
- Remove contacts before sleeping, showering or swimming
- Rub and rinse contacts in disinfecting solution after taking them out
- Rub and rinse the contact lens case with contact lens solution, drying it and keeping it upside down with the caps off
- Replace lens cases every month

I also recommend owning a current pair of glasses should contact lenses have to be removed.

**Q:** What is the best way to clean my eyeglasses?

**A:** Natural oils from your hands, eyelashes and face can lead to buildup on your eyeglasses. Other environmental factors, such as workplace dust and chemicals, and outdoor pollutants add to the residue. The American Optometric Association recommends washing your glasses every morning, paying special attention to the frames and earpieces, where hair product and makeup tend to build up.

While it may be tempting to wipe your lenses on the end of your shirt, this can do more harm than good. Your shirttail likely carries dust, potentially scratching your lens. The best way to clean your glasses is to run them under warm water and use a spray cleaner specifically designed for eyeglass lenses. Dry with a clean, soft cotton cloth.

Tissues and paper towels are comprised of rough fibers that may scratch your lenses. Special microfiber cloths are a good option for occasional touch-ups, but are not a replacement for regular cleaning. Pre-moistened towelettes are a convenient option as well.



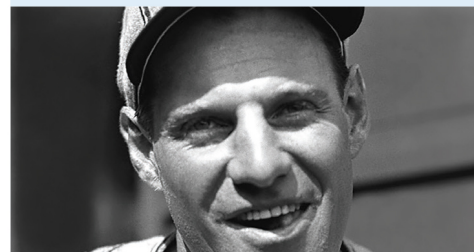
# 20/20/20

## Follow the 20/20/20 rule

Whether you're sitting at a desk working, spending hours playing video games, texting nonstop on your cell phone or just watching television, your eyes need a break. If you want to spare them fatigue, optometrists have a special rule they recommend. It's called the **20/20/20 rule**.

1. Every **20** minutes, look away from the screen
2. Focus on an object at least **20** feet away
3. Do so, for **20** seconds or more

If you can remember this simple rule, your eyes will appreciate it!



## Eye Talk:

*"I never questioned the integrity of an umpire. Their eyesight, yes."*

—Leo Durocher

Baseball player and manager

## Answer to Eye-Q (from page 1)

**A:** The human eye blinks an average of 4.2 million times a year.

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