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Safe Driving

Protecting Yourself Behind the Wheel

Driving a car can give you freedom. But it's also one of riskiest things you do every day. More than 36,000 people died in car accidents in the U.S. in 2018. Millions more are injured each year.

Many things can make driving risky. Speeding, not paying full attention to the road, and driving while tired all increase your chances of a crash. Drinking or using drugs can be especially dangerous.

Fortunately, there are things you can do to keep yourself and others safe while in the car. Researchers are working to understand what causes crashes and how to prevent them.

Distracted Driving • You've likely seen ads reminding you to keep your eyes on the road. With cell phones and screens everywhere, distracted driving has become a major problem.

"Because we're so phone driven, the tendency is when somebody calls us or texts us, we want to respond immediately," says Dr. Bruce Simons-Morton, an NIH expert on teen driving. To drive safely, we have to overcome that powerful impulse, he explains.

Texting can take your eyes off the road for seconds at a time. In just five seconds, you travel the entire length of a football field at 55 miles per hour.

Distraction isn't limited to phones. It's anything that takes attention away from driving the car. Eating, playing with the radio, and adjusting your navigation system all distract from safe driving.

"Reaching for objects is also a big problem," says Simons-Morton. You may take your eyes off the road when you reach for your sunglasses or something in the seat next to you.

People of any age can give in to distractions while driving. Many adults admit to texting, answering calls, and other dangerous behaviors. That's a problem because teens are modeling their parents' actions as they learn to drive.

Teen Drivers • Studies show that teen drivers are at greatest risk for crashes. Crashes are higher among 16- to 19-year-olds than any other age group. That's because some driving skills get better with experience. Teens are also prone to distraction, especially with friends in the car.

"The first six months of driving on their own is the most dangerous," says Dr. Ginger Yang, a teen driving expert at Nationwide Children's Hospital and The Ohio State University. The risk of getting in an accident remains high until at least their early 20s.

To help keep new drivers safe, all states now use a graduated licensing system. The system has three stages. Teens first get their learner's permit, where they are supervised by an adult driver. After passing their driving test, they receive a license that comes with restrictions, like limits on nighttime driving and passengers. After maintaining a safe driving record for a set period, they can get a standard driver's license.

Yang explains that parents can sometimes become less engaged when their teens first start driving independently. But even after being handed the keys, teens are still looking to their parents.

"Parents need to be good role models, because teens are still watching and learning from how parents behave," Yang says. She is currently researching how parents can communicate with their teens to help improve their driving.

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Yang and her colleagues have been studying ways to help teens who already have a traffic violation. Her team teaches parents ways to strengthen their child's motivation to drive more safely. Parents learn to use open-ended questions and be active listeners. This technique is called motivational interviewing.

Yang advises parents that "conversations about safe driving need to be small topics each time but be brought up multiple times."

Timing is important. Both parent and teen need to be calm for conversations to be effective.

Her past studies suggest parents can make a difference. By motivating their teens to engage in safe driving behaviors early on, parents can help teens establish safe driving habits that they carry into adulthood.

Older Drivers • Younger drivers aren't the only group at greater risk of crashes. As you age, physical and mental changes can make driving more dangerous.

"There's a number of changes that happen in our vision as we grow older," says Dr. Cynthia Owsley, who studies the impact of aging on vision at the University of Alabama at Birmingham.

Eye diseases, such as glaucoma, naturally get worse with age. Older adults are also more likely to have certain eye conditions that affect sight, like cataracts and age-related macular degeneration.

Problems distinguishing an object from its background, called contrast sensitivity, are also common.

"Think of looking through a dirty windshield: Everything looks kind of washed out," Owsley says.

Vision problems can also affect your ability to see to the side, or peripheral vision. This can make it harder to see cars in the lanes next to you.

For older adults, changes in the brain can make driving riskier, too. Owsley and others have shown that cognitive decline—problems with memory and other brain functions—increases the likelihood of a car crash.

Changes in physical ability, such as strength and reflexes, can also make driving more dangerous as you age. But getting older doesn't necessarily mean you have to stop driving.

"I think the public worries about older drivers, but actually most older drivers are quite safe," Owsley says. It's older drivers with visual and cognitive impairments that are at greatest risk.

If you're concerned about an older person's driving, it's important to start a conversation with them. Experts advise watching for the signs that driving is getting unsafe, like getting lost on familiar routes, experiencing a near-miss, or receiving a traffic ticket.

You can contact a driving assessment clinic as well. These clinics can provide a professional evaluation of a person's driving ability. If driving is no longer safe, work with the older adult to develop a plan for getting around without a car.

Wise Choices
Safe Driving Tips

- Always keep your eyes on the road and your hands on the wheel.
- Don't multi-task, like talking or texting, eating and drinking, or fiddling with the stereo, entertainment, or navigation system.
- Wear your safety belt.
- Drive at the speed limit. It's unsafe to drive too fast or too slowly.
- Obey all traffic signs.
- Keep enough distance between you and the car in front of you to avoid a crash.
- Don't drink and drive.
- When you take a new medicine, ask your doctor or pharmacist about side effects. Some can affect your driving.
- If you have glasses or contact lenses, make sure you have a current prescription and wear them while driving.
- Don't wear sunglasses or tinted lenses at night.

Safer Driving • Whether you're a new driver or have been driving for decades, it's important to think about safe driving.

The good news is that advances in car design and safety technology are helping protect you behind the wheel. You can also do several things to reduce your risk of an accident. Always stay alert. Resist the urge to text or talk on the phone. For more safe driving tips, see the Wise Choices box. ■

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Web Links

For more about safe driving, see "Links" in the online article: newsinhealth.nih.gov/2020/06/safe-driving

Communication Breakdown

How Aphasia Affects Language

Language sets humans apart from other species. We use it constantly to tell each other what we feel, think, and need.

Losing the ability to communicate can be devastating. But that's what happens in a condition called aphasia. Aphasia occurs when a part of the brain that helps process language is damaged.

The most common cause of aphasia is **stroke**. But a head injury, infection, brain tumor, and other brain disorders can also cause the condition. Almost 180,000 people in the U.S. develop aphasia every year.

Different types of aphasia affect language in different ways. For example, people with Wernicke's aphasia can still speak. But they produce long sentences that don't make sense and often aren't aware of their mistakes. People with Broca's aphasia understand most language and know what they want to say, but struggle to produce even a few words.

Other types of aphasia affect reading, writing, and other aspects of expressing and understanding language. The type depends on which area of the brain is damaged.

"Language is not located in just one place in the brain. It's really distributed," says Dr. Leora Cherney, an NIH-funded aphasia researcher at the Shirley Ryan AbilityLab.

That's helpful for recovery because the brain can often be trained to use different parts to process language in new ways. "You can think of language as an electrical circuit," Cherney explains. "If you break one part of the circuit, you can create pathways to reconnect it."

Health care professionals called speech-language pathologists can help people with speech, language, and related problems to retrain their brains. Therapy may start very soon after the loss of language.

"For the best outcomes, we want to jump in straight away to work with the person who has aphasia," says Cherney.

Some types of therapy for aphasia focus on re-learning one word at a time. Cherney and other researchers have been testing a different type of speech therapy called script training. This technique involves repeating sentences or even whole conversations over and over.

"We apply this training very intensively, for hours a day," says Cherney. "There's a growing amount of research that shows intensive practice is important for changing the brain."

Researchers, including Cherney, are also testing the use of brain stimulation in addition to speech-language therapy. They use magnets or electrodes placed on the head to temporarily alter brain activity.

Even with treatment, some people with aphasia won't be able to gain back their language skills. But they may benefit from learning other communication strategies, such as using gestures or drawing, Cherney says.

Technology can also help. "There's so much just on a smartphone that can help facilitate communication," Cherney explains. "For example, you can take a picture on your phone. That can help people understand the topic that you want to communicate."

Though aphasia affects language, Cherney stresses that it doesn't impact intelligence. Even though your loved one might have difficulty communicating, they can still be part of the conversation. See the Wise Choices box for tips. ■

Wise Choices

Helping Those With Aphasia Be Heard

To help someone with aphasia feel more comfortable communicating:

- Ask for and value the opinion of the person with aphasia.
- Minimize distractions, such as a loud radio or TV.
- Use short, uncomplicated sentences when speaking.
- Write down key words to clarify meaning as needed.
- Avoid correcting their speech.
- Allow them plenty of time to talk.
- Encourage any kind of communication, including speaking, gesturing, pointing, or drawing.

Definitions

Stroke
When normal blood flow to the brain is interrupted, often due to blocked or broken blood vessels.

Web Links

For more about aphasia, see "Links" in the online article: newsinhealth.nih.gov/2020/06/communication-breakdown

Health Capsules

For links to more information, please visit our website and see these stories online.

Comparing Heart Disease Treatments

Heart disease is the leading cause of death in the U.S. Some people don't have symptoms until they have chest pain or a heart attack. A new study found that invasive treatments may not work much better than medication and lifestyle changes alone.

The study followed more than 5,000 patients with stable moderate to severe heart disease for about three years. The people were divided into two groups. One was given medications to control blood pressure, cholesterol, and chest pain (or angina). The other received surgery or other invasive procedures. All patients in both groups received counseling about diet and exercise.

After five years, the two groups had similar numbers of deaths: 145 in the invasive procedure group and 144 in the medication one. Heart attacks and other heart-related events were slightly higher for those only receiving medication. The invasive procedures did provide better symptom relief for people with chest pain.

"Taken together, the ... results suggest that there is no need for invasive procedures in patients without symptoms," says Dr. David Maron at Stanford University. "For those with angina, our results show it is just as safe to begin treating with medication and lifestyle change, and then if symptoms persist, discuss invasive treatment options." ■

How Cataracts Cloud Your Vision

As we age, our vision changes. Cataracts are one such common change. A cataract is a cloudy area in the lens of your eye. By age 80, most people either have cataracts or have had surgery to remove them.

Around age 40, the proteins in the lens of your eye start to break down and clump together. This clumping makes a cloudy area on your lens that gets worse over time.

At first, you may not have any symptoms. But eventually your vision becomes blurry and colors seem faded. You may also have trouble seeing at night.

Luckily, cataracts can be corrected with surgery. Cataract surgery is one of the most common operations in the U.S. Your doctor may recommend surgery if your cataracts start getting in the way of everyday activities like reading, driving, or watching TV.

During cataract surgery, the doctor removes the clouded lens and replaces it with a new, artificial lens. Surgery is very safe. Nine out of 10 people who get it can see better afterwards. But most people don't need to rush into surgery. Talk with your health care provider if you're having vision problems.

There are things you can do to delay cataracts. Wear sunglasses and a hat to block the sun. Quit smoking. Eat plenty of fruits and vegetables—especially dark, leafy greens like spinach and kale. And if you're age 60 or older, get a dilated eye exam at least once every two years.

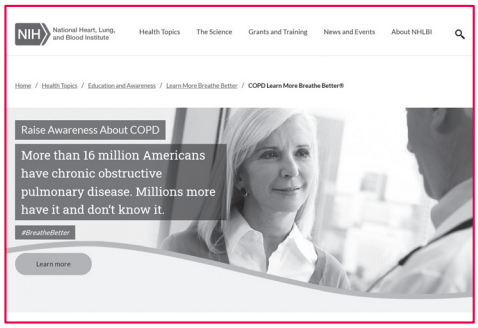
For more information on cataracts, visit www.nei.nih.gov/learn-about-eye-health/eye-conditions-and-diseases/cataracts. ■

Featured Website

COPD: Learn More Breathe Better

https://copd.nhlbi.nih.gov

Chronic obstructive pulmonary disease (COPD) is a serious lung condition that gets worse over time. Find resources about COPD and how to manage the condition. Start to breathe better by quitting smoking and avoiding exposure to things that irritate your lungs.



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