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Detecting Language Difficulties DLD Can Have Subtle Signs

Many kids start talking later than expected. Most eventually catch up with other kids their age. But some kids have language difficulties that persist. This can be a sign of a condition called developmental language disorder, or DLD.

DLD is a communication disorder that persists into adulthood. It can interfere with learning, understanding, and using language.

“DLD is incredibly prevalent, but many people don’t know about it,” says Dr. Mary Alt, a speech and language expert at The University of Arizona.

It’s one of the most common developmental disorders. DLD can affect a child’s speaking, listening, reading, and writing.

The exact causes of DLD aren’t known. It tends to run in families. But both genes and other factors are thought to play a role in changing how the brain develops.

Building stronger language skills is key for kids with DLD. Scientists are developing ways to boost their learning. They’re also trying to identify kids with DLD earlier to get them support sooner.

Noticing Signs • Late talking can be one of the earliest signs of DLD. Young kids with DLD may struggle learning words. They might have difficulty talking.

“If you have a young child who isn’t using a language to communicate,



but is more using body language and gestures, that’s a sign that they’re having difficulty with learning language,” says Dr. Jim Montgomery, a professor of communication sciences at Ohio University.

Another early sign of DLD is using simple language. By the time they reach preschool, most kids start using sentences.

“The sentences that a child with DLD might use are much simpler,” says Alt. “Instead of saying, ‘Look, the dog is running,’ the child with DLD might say, ‘Him run.’”

Alt’s team recently tracked the progress of kids who were late talkers at ages 2 to 3 years. Her study showed that late talking can be a red flag for language and reading struggles later on.

Over one-half of the late-talking kids in her study were diagnosed with a learning disability once they reached school. DLD is a risk factor for developing a learning disability, but it’s not the same.

DLD affects basic language skills, which can affect a child’s school performance. Kids with DLD may struggle to learn vocabulary. They may have difficulty structuring sentences. Or they may not be able to tell or write stories in an organized way.

“Signs of DLD fall along a continuum, from quite mild to pretty profound,” Montgomery explains.

Kids with a learning disability struggle with skills, such as reading,

writing, or math. Dyslexia is one example. Kids with dyslexia struggle with linking speech sounds to letters and words. They have difficulty with sounding out letters and spelling or recognizing words.

“Dyslexia and DLD often go hand in hand because both involve language,” Alt explains. “Dyslexia is the problem with written language. DLD is a problem with oral language. Often, once a child gets the dyslexia label, they’re never tested for oral language. There is a difference between kids who have dyslexia only and kids who have dyslexia and DLD.”

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Many kids show signs of both DLD and dyslexia. People with DLD are six times more likely to be diagnosed with reading and spelling disabilities by the time they're adults. Difficulties with understanding language can make math more challenging, too. Kids with DLD are four times more likely to have a math disability.

Screening for Differences • DLD can be difficult to recognize, as the signs aren't the same for every child.

"A very mild case of DLD might be something that may not affect a child that much in their everyday conversation or in everyday functioning," Alt explains.

But it may become apparent as reading and writing get more complex in school. "More severe DLD could mean having difficulty getting your basic needs met because you can't express them," she adds.

"Language differences can be subtle to notice for those with mild DLD," says Dr. Suzanne Adlof, a speech-language researcher at the University of South Carolina.

"But school is a place the impact of DLD is going to be noticed. Right

now, schools don't have systems that assess oral language before the academic impacts are noticed."

Adlof's team is developing oral language screening tests for schools. To do so, her group is first tracking how language typically develops across school-aged children. They're looking at kids from kindergarten through 3rd grade.

The team will use their findings to develop standards to design a screening test. Such a test could identify kids whose language skills are falling behind their peers. The test could also be used to measure if treatments are helping kids catch up with their peers.

Personalizing Progress • Certain specialists can help kids with DLD improve their language skills. Speech-language pathologists are experts in communication. They can test for DLD and provide treatment. Interventions are tailored to support a child's individual challenges.

"The nature of the treatment is going to change as kids get older because their language changes and their deficits change," Montgomery says.

Montgomery's group is testing ways to teach complex sentences to school-aged kids with DLD. They're comparing two strategies. One explicitly teaches kids about grammar. The kids learn specific rules about the different parts of a sentence. The other gives lots of examples of complex sentences verbally. This taps into the kids' natural ability to learn the sentence structures. Montgomery is testing which teaching strategy works better for kids with DLD.

"Typically, kids learn grammar without trying. You don't have to teach them," Alt says. "Kids with DLD aren't always going to pick up on that naturally."

Alt's team is studying which treatment strategies work best for kids aged 2 to 5. And they're trying to understand why some kids don't respond to current interventions.

Researchers are continuing to develop better ways to support kids with DLD. But there are many interventions a child can get right now. If you have concerns about your child's speaking or language abilities, talk with their doctor.

"Anytime a child is showing difficulty with reading and writing in the classroom, it is important to check how their oral language skills are progressing," Adlof advises. "It could be a sign of DLD." ■



Wise Choices Signs of DLD

Younger kids may have DLD if they:

- are late to put words together into sentences.
- struggle to learn new words and make conversation.
- have difficulty following directions because they do not fully understand the words spoken to them, not because they are stubborn.
- make frequent grammatical errors when speaking.

Older kids and adults may have DLD if they:

- are limited in using complex sentences.
- have difficulty finding the right words and making conversation.
- have difficulty understanding figurative language.
- show reading problems.
- make frequent grammatical and spelling errors.

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**Web
Links**

For more about developmental language disorder, see "Find More Information" in the online article: newsinhealth.nih.gov/2026/04/detecting-language-difficulties

Protect Against Air Pollution

Breathe Better Indoors and Out

You can't see most air pollution. You can't smell much of it, either. But polluted air—both outdoors and indoors—can still affect your health.

“Nearly everyone on the planet is exposed to unhealthy air at least some of the time,” says Dr. Stavros Garantziotis, a lung doctor and researcher at NIH.

Breathing polluted air doesn't just affect the lungs. Because the lungs connect directly to the bloodstream, pollutants can travel through the body. Once there, they can cause **inflammation**, which raises the risk of many health problems. These include asthma, heart disease, stroke, brain disorders, and some cancers.

“The same air pollution exposure doesn't affect everyone the same way,” says Garantziotis. This is especially true for people with asthma.

Asthma is a disease that makes breathing hard. It can be worsened by polluted air. Children, older adults, and people with heart disease or diabetes can also be affected more seriously.

After a high-pollution day, asthma attacks increase in children. Hospital visits for heart attacks and strokes in older adults also go up. Some pollutants may even increase the risk of cancer.

Air pollution today looks different than it did decades ago. Regulations have helped reduce some harmful emissions. Lead pollution decreased after it was removed from gasoline. Levels of sulfur dioxide have fallen

because of cleaner power plants. But other sources of pollution remain.

Particulate matter is a major component of air pollution. These are tiny particles in the air that can get deep into the lungs. These particles come from vehicles, power plants, and industrial processes.

Another problem pollutant is ozone. Ozone is a gas that can irritate and damage the airways. It forms when sunlight reacts with certain pollutants.

Wildfire smoke is also a growing concern. Wildfires are happening more often and burning more intensely. They release tiny particles, metals, and chemicals that can travel hundreds of miles.

“Smoke doesn't stay where the fire is,” Garantziotis explains. “It goes wherever the wind takes it.”

Outdoor pollution doesn't stop at your front door. It seeps inside your home. Indoor air can also be polluted by everyday sources, such as gas stoves, fireplaces, cigarette smoke, mold, dust, pet dander, and pests.

“Indoor air quality is often overlooked, but it's something people can actually do something about,” Garantziotis says. As a lung doctor, he tells his patients to take simple steps to reduce exposure. See the Wise Choices box for tips.

Garantziotis and his research team are studying how lung cells heal after exposures. They found that air pollution can break apart supportive material around lung cells. The loose material irritates the lung cells and makes it harder to breathe. His work suggests that giving a healthy form of this material, called hyaluronan, may help restore lung health.

Scientists are also studying why some people are more susceptible



to the health effects of air pollution. Understanding why could help doctors prevent and treat related illnesses. ■



Wise Choices

Limit Exposure to Air Pollution

- Check daily air quality forecasts at airnow.gov.
- Limit outdoor activity when pollution levels are high.
- Keep windows closed during wildfire smoke events and poor air quality days.
- Use exhaust fans when cooking, especially with gas stoves.
- Change HVAC filters about every three months.
- Ventilate your home when outdoor air quality is good.
- Avoid indoor smoking and secondhand smoke.
- Consider portable HEPA air cleaners for rooms with higher pollution sources.
- Ask your doctor about how air pollution at home, school, or work may affect your health.



Definitions

Inflammation

Heat, swelling, and redness caused by the body's protective response to injury or infection.



Web Links

For more about air pollution, see “Find More Information” in the online article: newsinhealth.nih.gov/2026/04/protect-against-air-pollution





Health Capsules

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

New Test May Find Early Pancreatic Cancer

Pancreatic cancer is one of the deadliest types of cancer. Part of why it's so deadly is that doctors usually don't find it until it has spread to other parts of the body. After cancer has spread, treatment is less likely to work.

Currently, there are no screening tests to find pancreatic cancer at its early stages. A recent study tested new ways to detect early-stage pancreatic cancer.

Researchers looked at blood samples from 672 patients. These included people with pancreatic can-

cer and healthy people. The research team also looked at blood samples from people with other conditions of the pancreas, like pancreatitis.

The team found that people with early-stage pancreatic cancer had higher levels of two proteins in their blood. The new test looks for these two proteins. It also detects two other proteins that can be a sign of pancreatic cancer in some people.

The combined test was able to distinguish between patients with cancer and noncancer patients. It correctly identified those with

cancer about 92% of the time. The test was also able to find early-stage cancers in about 87% of cases.

"Pancreatic cancer usually doesn't present with symptoms until it's too late for surgery," says Dr. Kenneth Zaret of the University of Pennsylvania. A test that finds pancreatic cancer early on could increase a person's chances of getting treatment and surviving.

More research is needed to confirm this study's results in larger groups of people. ■

Certain Medications Riskier for People With Dementia

Some medications affect your brain and nervous system. Side effects can include an increased risk of confusion, falls, and hospitalization. This risk is higher for people with dementia—a brain disorder that causes memory loss and difficulty thinking clearly. A new study showed that many people with dementia are taking medicines that may not be safe for them.

Researchers studied medical records of about 4,800 people aged 65 and older. They looked at how many people took at least one medicine

that can affect the brain and nervous system for at least 28 days.

The medicines included certain drugs that treat depression, anxiety or panic attacks, and sleeping problems. They also looked at some drugs that cause drowsiness. The researchers wanted to understand who was taking these drugs and why.

In people with dementia, 25% took at least one of these medicines. Only 17% of people without dementia took one of these medications.

The findings show that many older adults may be taking medications

that might not be safe for them. Many did not have a medical reason to use them. Lowering the use of these medications could lead to better, safer care.

But prescriptions that affect the brain and nervous system may sometimes be needed.

"It is important for older patients and their caregivers to work closely with their physicians to ensure that these medications are appropriate to their cases," says Dr. Annie Yang of Yale University. ■



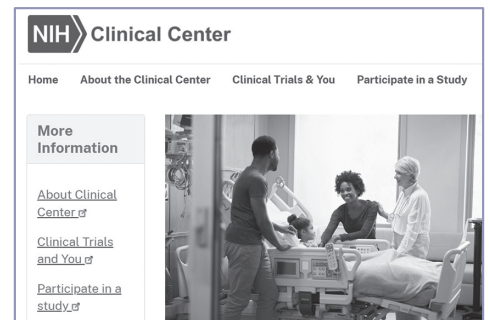
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NIH Clinical Center Research Studies

clinicalstudies.info.nih.gov

Find clinical research studies taking place at NIH's Clinical Center. The Clinical Center hosts a wide range of studies from rare diseases to chronic health

conditions. Volunteers are needed for conditions being studied and healthy volunteers. Search by diagnosis, sign, or symptom.



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