Bullying can have life-long consequences. NIH research is yielding new insights into how to prevent and stop bullying behaviors.

A Cycle of Hurt • Kids who are seen as different from their peers in some way are more likely to be the target of bullying behaviors. Being bullied can cause lasting harm. Kids who experience bullying are at higher risk for mental health conditions, like depression and anxiety, and for dropping out of school.

The reasons why some kids bully others are numerous. Some kids who bully may be dealing with aggression or violence at home. Others may struggle with social skills and have trouble understanding others’ emotions. Some may bully to fit in or gain social status.

Being bullied can sometimes start a cycle of bullying. Kids who are bullied will often go on to bully others.

“Victims learn from those experiences and can become the aggressors,” Ostrov explains. This puts them at risk for other problems, too.

Kids who engage in bullying in elementary and middle school are more likely to develop other harmful behaviors as they get older, says Dr. Dorothy Espelage, a psychologist who studies peer aggression at the University of North Carolina.

“They have the greatest odds of engaging in sexual harassment and sexual violence later on,” she explains.

Kids who bully also have an increased risk of mental health conditions and problems in school, adds Ostrov. And those who are both bullied and bully others are at the greatest risk for mental health conditions and school behavior problems.

Stepping In • What can you or your kids do if a child is being bullied? For kids who witness bullying, speaking up in the moment can feel risky, says

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Dr. Michele Ybarra, a child mental health expert at the Center for Innovative Public Health Research. “Kids don’t want to be the next target—that’s a real fear,” she says.

But there are other things kids can do if they want to help someone. “If it feels too big, too scary, and not safe for a child to speak up when they witness bullying, then maybe they can get a group of their friends who, together, can stick up to the bully. Or see if a trusted adult can help,” she explains.

Kids can also do other things to offer support, Ybarra adds, “like sitting with the person who was bullied at lunch. Or just saying something nice to them at their locker can sometimes make a big difference.”

While parents may want to confront a child who is bullying their kid, or the parents of the child who is doing the bullying, “that can also escalate problems,” says Ostrov. “It’s better to calmly but assertively report the incidents to the school.”

He also recommends listening to your children and being careful not to dismiss their concerns. You can also try roleplaying with your kids to practice how to respond when being bullied.

“Roleplaying with children to help them figure out how to solve these situations can really have an impact,” he says.

A lot of bullying happens face to face. But it is happening online more and more. This is called cyberbullying. Cyberbullying isn’t much different from in-person bullying, Ostrov says. It’s just happening in a different place. And they often occur together.

“What’s happening online typically mirrors what happens offline, and vice versa,” Ostrov says.

Cyberbullying can happen through email, text messaging, social media, and even chat rooms in online video games. Parents may have no idea their child is being bullied online.

For signs that a child may be experiencing bullying, see the Wise Choices box. You can learn more about responding to bullying at StopBullying.gov.

Preventing Bullying • Ybarra and Espelage are testing a new anti-bullying program for schools to use. For their study, they’re sending texts about how to handle bullying to kids outside of school hours.

“This way, kids get to interact with the content on their phone, on their own, when and where it’s safe for them,” Ybarra explains.

The research team is currently testing a nine-week program in a group of middle-school students. The program is designed to increase social and emotional skills. First, the team is testing whether kids will use the program. Next, they want to see if it leads to a decrease in bullying behaviors.

Ostrov’s team is testing a program for a very different group of kids—those still in preschool. The team has built a program for classrooms that uses puppets to let kids practice problem solving and making friends.
Recognizing POTS
Learn to Spot This Mysterious Condition

A condition called POTS can have a huge impact on a person’s life. People with POTS often feel lightheaded or dizzy when standing up from a lying position. Their heart tends to race. They may even faint. Other symptoms can include extreme fatigue, shortness of breath, and trouble thinking.

“POTS can be quite debilitating. It can make it hard to do everyday activities, like attending work or school,” says Dr. Cheryl L. McDonald, who helps oversee NIH’s POTS research programs. “Some people even require the use of a wheelchair because they can’t stand or walk for long periods.”

POTS is an abbreviation for Postural Orthostatic Tachycardia Syndrome. Postural means it’s linked to your body’s position.

Orthostatic is related to standing. Tachycardia means rapid heart rate. And syndrome means it’s a group of symptoms. (See the Wise Choices box.)

Normally, when a person stands up, gravity pulls blood down toward the legs and feet. This briefly reduces blood flow to the upper body, including the heart and brain. So the brain immediately sends signals that tighten the body’s lower blood vessels and make the heart pump faster. This pushes blood upward, so it can travel throughout the body.

But for people with POTS, these signals break down. The lower blood vessels don’t tighten enough upon standing, and the heart beats much faster than it should. The brain and other organs may not get enough blood, which can lead to fainting and other symptoms.

POTS can affect anyone at any age. It is most common among women, ages 15 to 50. Its causes are unknown. Researchers suspect there can be different causes, and each might require different treatments. Some data suggest that POTS may arise after major surgery, head injury, pregnancy, or viral illness.

POTS can be diagnosed by looking at your symptoms, heart rate, and blood pressure when you go from lying down to standing. Adults might have POTS if their heart rate rises by more than 30 beats a minute within 10 minutes of standing, without a big blood pressure change. For those under age 20, an increase of at least 40 beats a minute without a major blood pressure change could signal POTS. Symptoms may quickly improve by lying down.

Treatment often involves increasing salt intake and drinking plenty of water, which can boost blood volume. Blood volume is the total amount of fluid circulating around your body. Some patients benefit from medications that help to raise blood pressure or reduce heart rate. Compression socks can help keep blood from pooling in the legs. Exercise training and maintaining a regular sleep schedule may also help.

Many people—even some health care providers—have never heard of POTS. “But awareness has increased in recent years, particularly since POTS has been seen in patients who have had COVID-19,” McDonald says. The links between POTS and COVID-19 are still unclear, and researchers are working to learn more.

Despite increased awareness of POTS, it can be hard for some patients to get a diagnosis. “If you have symptoms that look like they could fit with POTS, it’s a good idea to discuss the possibility with your doctor,” McDonald says. “It’s perfectly acceptable to be your own advocate. You can show an article to your doctor and ask: Do you think I might have POTS?”

Web Links
For more about POTS, see “Links” in the online article: newsinhealth.nih.gov/2023/09/recognizing-pots
How Football Raises the Risk for Brain Injury

Brain injuries can arise from hits to the head during contact sports like football or soccer. Repeated brain injuries can lead to a condition called chronic traumatic encephalopathy, or CTE. CTE is a serious issue for American football players. It can lead to dementia later in life and even premature death.

An NIH-funded research team is working to learn which types of head impacts are most risky. They looked at data from earlier studies that used specialized helmets to measure head impacts during football games. These studies included youth, high school, and college games. From these data, the scientists estimated the number and types of head impacts that different players might have each season. They compared this data with CTE diagnoses from more than 600 former football players.

The team found that the risk of having CTE varied by the person’s highest level of play. It also increased the longer a person played football. For each additional year of play, the risk of CTE rose by 15%. The type and force of head impacts were also stronger predictors of CTE risk than the number of hits to the head a player experienced. In contrast, the number of reported concussions were not linked with CTE. Concussions are hits to the head that result in signs or symptoms of brain injury.

“This study suggests that we could reduce CTE risk through changes to how football players practice and play,” says study co-lead Dr. Daniel Daneshvar of Mass General Brigham. “If we cut both the number of head impacts and the force of those hits in practice and games, we could lower the odds that athletes develop CTE.”

Weather Extremes and Your Health

Weather affects where we live, what we do, and when we can do it. It can also impact our health. Temperature extremes, hot or cold, can harm our bodies in different ways. Harsh conditions and storms may lead to other health dangers, too.

Over the last few years, wildfires began increasing in frequency and size. Smoke from wildfires contains a mix of complex chemicals, and exposure can cause breathing problems. This hazardous smoke can travel long distances from where a wildfire starts. And when fires reach areas where people live, various other chemicals often enter the mix.

Children are especially vulnerable to wildfire smoke. Studies have shown that kids exposed to higher levels of air pollution have reduced lung function and growth. These issues can lead to other problems, like asthma or lung disease, later in life. Because kids are still growing and developing, their bodies are also more vulnerable to the effects of toxins. There is plenty you can do to reduce the risks of smoke exposure. Check air quality reports daily at AirNow.gov. Keep your windows closed on bad air days. You may want to consider air filters and purifiers to limit your exposure indoors. If you need to be outdoors when air quality is poor, consider wearing a medical or surgical mask. Learn more at go.nih.gov/NIHNiHSep23Weather.

Featured Website

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