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# **Addressing Childhood Obesity**

Give Kids a Healthy Start

Obesity affects about 1 out of every 5 kids. Carrying too much body fat can affect almost every system in your body. It can contribute to many long-term health problems. These include heart disease, diabetes, and mental health issues.

"Prevention and detection of childhood obesity is important because the longer you have it, the more at risk you are of developing related complications," explains Dr. Stavroula

Osganian, an NIH scientific advisor on childhood obesity.

If you think your child has obesity, see their doctor. The doctor can calculate your child's body mass index, or BMI. BMI is a measure that helps determine if your child's weight is within a healthy range for their height, age, and sex. It's not a direct measure of body fat. But it's a useful way for doctors to screen for obesity. If your child's BMI is high, the doctor can help you plan how to lower it.

"The earlier you take action, the better," says Dr. Leonard Epstein, a psychologist at University at Buffalo. "It's easier to help a child who's young to make changes. And it's easier for the parent, too."

NIH studies are now testing ways to prevent and treat obesity in kids.



#### Metabolism

Chemical changes in the body that create the energy and substances you need to grow, move, and stay healthy.



Starting Early • Researchers are studying interventions for child-hood obesity as early as preconception and pregnancy, Osganian says. Studies have found that a mother's weight, diet, and physical activity during pregnancy can affect a child's risk of obesity. Scientists are trying to unravel how diet and exercise during pregnancy influence an infant's weight, body fat, and metabolism.

Infants who have a high birth weight or gain weight too fast have an increased risk for childhood obesity. NIH research has also shown a link between obesity and a lack of sleep that begins as early as infancy.

An NIH-funded program called INSIGHT tested ways to address these early risk factors. The program taught first time moms healthy feeding and sleeping behaviors for their infants. Moms learned how to put their baby to sleep and calm them when fussy without using feeding to soothe them. They also learned how to use growth charts and how to limit sedentary time. Children of these parents showed healthier

weight status through age 3 years compared with kids in the control group.

Having childhood obesity increases your chances of having obesity as an adult, says Dr. Charlotte Pratt, an NIH expert on child nutrition. Giving kids a healthy early start can help set them on the right path. But they also need to learn how to build healthy habits for themselves as they grow.

Growing Healthy Habits • Obesity comes from taking in more energy, or calories, than your body uses. So it's important for kids to choose both healthy foods and appropriate portion sizes. Getting enough physical activity helps their bodies use more of the calories they take in.

"Parents can help prevent childhood obesity by focusing on their child's diet, activity, and sleep within the home through the teenage years," Pratt says. They can teach kids healthy habits by modeling these behaviors themselves. But helping kids keep up with healthy habits can get harder as they age.

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"When kids are really young, all they want to do is run around," Epstein says. "But something happens around ages 9 to 10. Their motivation to be active decreases, while their motivation to be sedentary increases. And being physically active as you get older means shifting from playing on the playground to more organized activities, like sports."

Once a child develops obesity, "the lifestyle treatment that's required to take a child who has obesity to a normal healthy weight is much different and more intensive than for prevention," explains Dr. Sarah Armstrong, a pediatrician at Duke University. "You need at least 26 hours of intensive face-to-face nutrition and physical activity guidance for a child over [a] three to 12 month [period]."

That amount of time can be hard for a doctor to deliver. Armstrong's team has developed an intensive obesity treatment program called Fit Together. It partners pediatricians with local parks and recreation centers. In the program, doctors screen kids for obesity and counsel on lifestyle changes. The parks and recreation centers provide physical activity options.

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Office of Communications & Public Liaison Building 31, Room 5B52 Bethesda, MD 20892-2094 email: nihnewsinhealth@od.nih.gov phone: 301-451-8224 Kids who participated in the program were able to reach lower BMIs. Armstrong's team is now trying to create more partnerships between doctors and local parks and recreation centers across the country.

Getting Healthy Together • Diet and physical activity are both key for obesity treatment. Epstein's work has shown that treating the whole family can have added benefits. His group has developed family-based behavioral interventions. These target both parent and child for healthy eating and more physical activity. They also include guidance for parents on modeling healthy behaviors and positive parenting tools.

"The parenting tools help create a more positive family environment," Epstein says. His studies have shown that family-based interventions help both parents and children lose weight. And the weight loss could be maintained for at least 10 years. The treatment has also helped reduce participants' symptoms of depression and anxiety. And it led to siblings also losing weight, without getting the treatment themselves.

"Kids don't just grow out of obesity," Armstrong explains. "They tend to develop more severe forms of obesity as they get older, and they develop health complications. So we want to offer people the most effective, evidence-based treatments as soon as we can."

Other NIH-funded researchers are assessing how kids' eating behaviors, genetics, environment, and brain structure contribute to weight gain.

"If your child has a high BMI and needs their weight addressed, model those healthy behaviors and have a healthy environment for them," Osganian says. "Be supportive. Talk openly with your child and their primary care provider about weight and staying healthy."

Some kids with severe obesity may be unable to lose weight with intensive lifestyle changes. These kids can be evaluated by an obesity medicine specialist. The specialist can screen them for genetic causes and advise on other treatments.



### Wise Choices

Help Kids Keep a Healthy Weight

- Be a role model. Show your kids what a healthy lifestyle looks like. Eat healthy family meals together. Get moving together. Try family walks or biking.
- Encourage healthy eating.
  Prepare healthy foods that are lower in saturated or unhealthy fats, added sugar, and salt.
  Choose foods high in nutrients.
  Make sure kids eat regular meals, starting with breakfast. Avoid snacking throughout the day.
- Help kids get active. Schoolaged kids should get at least 60 minutes of physical activity a day.
- Ensure kids get enough good-quality sleep. For the recommended hours for children by age, see go.nih.gov/ NIHNiHMay25Sleep.
- Reduce screen time to help free up their time for other activities and improve sleep.
- Use positive parenting to shape kids' healthy behaviors. Use praise to motivate children to engage in healthy behaviors. Don't use food to reward or punish your child.
- Take your child to their health care provider every year for a wellness check-up. They can monitor your child's growth and BMI. Parents can also track their child's BMI at www.cdc.gov/bmi/ child-teen-calculator.



For more about childhood obesity, see "Find More Information" in the online article: newsinhealth.nih.gov/2025/05/addressing-childhood-obesity

# Spotting Borderline Personality Disorder

## Early Signs May Lead to Better Treatment

We all have trouble from time to time managing strong feelings or relationships. But for people with borderline personality disorder (BPD), these are a constant struggle. They cause a lot of distress and can often lead to self-harm and suicidal thoughts. Experts are trying to identify who's at risk for developing BPD early in life, in the hopes of more effective treatment.

"Historically, borderline personality disorder has been viewed as an adult disorder that just appears when someone's 18," says Dr. Diana Whalen, a psychiatry professor at



# Wise Choices

Symptoms of BPD

Not everyone with BPD experiences all of these symptoms. The severity, frequency, and duration depend on the person and their illness.

- Intense mood swings.
- Uncertainty about how they see themselves.
- Feelings for others that change quickly, and swing from extreme closeness to extreme dislike.
- Viewing things in extremes, such as all good or all bad.
- Interests and values changing quickly.
- Acting impulsively or recklessly.
- Plunging headfirst into relationships or ending them just as quickly.
- A pattern of intense and unstable relationships with family, friends, and loved ones.
- A distorted and unstable selfimage or sense of self.
- Recurring thoughts of suicidal behaviors or threats. If you or someone you know is thinking about hurting themselves, call or text 988 or visit 988lifeline.org.

Washington University in St. Louis. "But we know that can't possibly be the case. We know that there are developmental risks or red flags that come well before someone is 18."

Adults with BPD tend to be impulsive. They have frequent changes in their moods and feelings. They struggle to control their emotions. Such challenges can affect how they feel about themselves. They can also affect their relationships with others.

Whalen's team has been studying symptoms in young kids who are at risk for developing BPD. They've found that kids who hide feelings of sadness are more likely to show symptoms of BPD later on. So are kids who have trouble understanding and talking about their emotions. Not wanting friends to have other friends and being more sensitive to social rejection are also early risk factors.

"Everyone should feel some level of rejection if you're excluded from something, and that's normal," Whalen explains. "But kids at risk for BPD feel rejected for longer. They also feel rejected in instances that other people may not—like if somebody didn't say hi to them in the hallway at school. They have a hard time not thinking about it. Other kids might ignore that or just move along."

Whalen's team is studying whether social media worsens this effect. "We're trying to figure out: 'Does the online context make that worse because it's always there?'" she explains. "In person, interactions start and stop at very specific times."

Treatments are available to help people diagnosed with BPD. One therapy, called dialectical behavior therapy, can help build emotional



and social skills to improve dayto-day life. Some medications have also been shown to help reduce symptoms. A mental health professional can help you find what works best for you.

"We're researching early signs of BPD because we want to try to reduce the suffering of those who have it, and learn how can we intervene sooner," Whalen says. "Adults who have BPD tell us things like, 'I've been suicidal my whole life' or 'I've never had a friend."

If you're concerned that your child is struggling with friendships and managing their feelings, talk with a mental health professional, Whalen advises. They can help create a treatment plan.

"We don't recognize BPD yet as a disorder that can fully emerge in childhood," Whalen says. "But there are risk factors at a young age, and if you're really seeing this at age 8, don't be afraid to mention it to your clinician."



For more about borderline personality disorder, see "Find More Information" in the online article: go.nih.gov/NIHNiHMay25BPD



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

## Midlife Eating Linked to Health Decades Later

As the U.S. population ages, there's growing interest in finding ways to protect our physical and mental health. A new study looked at how what we eat in midlife affects our health later on.

An NIH-funded team analyzed data from more than 105,000 men and women. Participants were 30 to 75 years old at the start. None had a serious chronic disease, like diabetes or heart disease. Participants reported what types of foods they ate every four years, for up to 30 years.

People who ate healthier diets in midlife were more likely to live into

their 70s without major chronic disease. This was about 9% of participants. They also showed good cognitive, physical, and mental health.

Those who ate more healthy foods over time were more likely to show signs of healthy aging. Healthy foods included fruits, vegetables, whole grains, unsaturated fats, nuts, legumes, and low-fat dairy. Healthy aging was less likely for those who ate more trans fats, salt, sugary drinks, and red or processed meats.

People who ate more ultra-processed foods had a 32% reduced chance of healthy aging. These

foods often have ingredients like high-fructose corn syrup, flavoring agents, and emulsifiers. They are also typically high in saturated fat, salt, and added sugars. But more research is needed to find out how these might affect healthy aging.

"Studies have previously investigated dietary patterns in the context of specific diseases or how long people live," says study lead Dr. Frank Hu at Harvard University. "Ours takes a multifaceted view, asking: 'How does diet impact people's ability to live independently and enjoy a good quality of life as they age?"

### What Is Medical Ultrasound?

Medical ultrasound is a noninvasive technique. It uses sound waves to create images to assess or treat certain parts of the body. It's often used as a diagnostic tool during pregnancy. It can help doctors evaluate fetal growth, heart rate, movements, and more. It can also be used to assess other body parts, such as the kidneys, pelvis, or thyroid.

Ultrasound is generally considered safe when it's used as an imaging tool. Unlike X-rays or CT scans, ultrasound doesn't use any radiation. During an ultrasound exam, a technician applies a thin layer of gel to your skin and then passes a device called a transducer or probe over part of your body. In some cases, the probe is placed inside certain body parts, such as blood vessels or the rectum.

The probe produces ultrasound waves. You can't hear these sound waves, but the probe can detect ultrasound echoes that are reflected back. These are then converted into images that can be displayed on a screen. Some ultrasound techniques

can show real-time motions, such as blood flow or movement of the heart. Others can help distinguish healthy from unhealthy tissues, such as tumors or a buildup of scar tissue.

Ultrasound can also be used as a treatment. The sounds waves can help to dissolve blood clots or break up kidney stones so they can pass through the body.

To learn more, visit www.nibib. nih.gov/science-education/science-topics/ultrasound. ■



### Featured Website

Your Healthiest Self: Wellness Toolkits

www.nih.gov/wellnesstoolkits

We each have a unique "healthiest self." We have different minds, bodies, living situations, and people that help to shape our health and well-being. This web-

site has science-based health tips in five different areas, from your surroundings to your relationships and your feelings. Find checklists of tips to improve your well-being.



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