Med-Sense Guaranteed Association

JOURNAL

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The Problem That Piles Up - When Hoarding is a Disorder

You may have seen reality TV shows about people who hoard mail, gadgets, cats, and even trash. Or, maybe for you, the reality is a little closer. It could be a neighbor or a family member. When people aren't able to throw things away, piles can grow to the ceiling. These piles can make it impossible to use bathrooms, bedrooms, and kitchens. The piles may fall over, trap, and injure people. They can catch on fire. Cluttered homes and yards may attract pests. Neighbors may call the police. Parents may lose custody of children.



People don't choose to be hoarders ...

... and they aren't being sloppy or lazy. "This is a very real mental disorder," says hoarding disorder expert Dr. David F. Tolin of Hartford Hospital's Institute of Living. "It is important to recognize that people with hoarding disorder have lost control of their decision-making abilities."

Dr. David F. Tolin's NIH-funded research suggests why it's hard for people with this disorder to part with items, even things with no real-world value. He found that brain activity was different between people with hoarding disorder and healthy people.

"We're always puzzled by the fact that many people with hoarding disorder often don't seem terribly bothered by their circumstance," he says. "If they don't have to make a decision, the parts of their brain that are largely in charge of becoming bothered are underactive." But if they are forced to decide about whether to discard something, that part of the brain becomes overactive. "And so, the brain is essentially screaming that everything is important."

Doctors don't know what causes hoarding disorder. There's no X-ray or blood test for a diagnosis. Instead, doctors assess how well people are functioning in their lives.

Hoarding disorder can start during a person's teens or later. It may grow more severe over the decades.

Do you know someone who may need help? For ideas about how to bring up the topic, see the box on page 2. Try to be gentle, calm, and patient. It may take several conversations before the person agrees to work on the problem.

Try not to start an argument. "If a person is not really motivated to do something about the problem, they can dig in their heels. Arguing can even make the problem worse," Tolin warns.

There's no effective medication for hoarding disorder, although studies

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are in progress. Tolin says, "Right now, cognitive behavioral therapy is the only evidence-based treatment we have for hoarding." This is a type of talk therapy that teaches people how to change their thinking patterns and react differently to situations.

Tolin's team hopes to improve cognitive behavioral therapy so that it's even better at helping people to discard items. They're analyzing the brain activities of people before and after they're successfully treated for hoarding disorder. If the research team can identify the biological mechanisms of successful treatments, they may be able to develop treatments that are even better. Some people with hoarding disorder are helped by joining a support group with others who have the disorder. There are also organizing professionals who specialize in helping people get rid of clutter. To find more resources for this and other mental health issues, visit www.nimh.nih.gov/health/find-help.

References

Hoarding disorder and obsessive-compulsive disorder show different patterns of neural activity during response inhibition. Tolin DF, Witt ST, Stevens MC. Psychiatry Res. 2014 Feb 28;221(2):142-8. doi: 10.1016/j.pscychresns.2013.11.009. Epub 2013 Dec 7. PMID: 24389161.

Neural Mechanisms of Decision Making in Hoarding Disorder. Tolin DF, Stevens MC, Villavicencio AL, Norberg MM, Calhoun VD, Frost RO, Steketee G, Rauch SL, Pearlson GD. Arch Gen Psychiatry. 2012 Aug 1;69(8):832-41. PMID: 22868937.

How to Help a Person Who Hoards

Explain why you're concerned:

"I'm worried that you could fall or become trapped."

"I'm concerned that you may lose custody of your children."

"I'm afraid your home will catch on fire."

Then say how to get help:

"I can help you find a therapist who specializes in hoarding."

"We can look for a self-help program on how to let things go."

"We can find support groups for people who hoard."

"We can ask the county for resources."

Experts Lower "High" Blood Pressure Numbers



You probably get your blood pressure checked every time you go to the doctor. Having high blood pressure increases your chances of heart attacks, strokes, kidney disease, and other serious health problems.

After studying the results from hundreds of studies, experts recently changed the definition of high blood pressure.

Blood pressure is measured in two numbers, like 120/80 mm Hg. The first number is the pressure that the heart uses to push blood through your arteries. The second number is the pressure when the heart is at rest between beats. Normal blood pressure for an adult is below 120/80.

NIH-sponsored research played an important role in providing evidence that the definition of high blood pressure should be changed. Before the guideline changed in November, the definition of high blood pressure was 140/90. Now, high blood pressure is defined as 130 or higher for the first number, or 80 or higher for the second number.

If you have high blood pressure, your doctor may suggest changes to your diet and physical activity. If lifestyle changes don't work, medicines can help.

"Only about half the people in the country who have high blood pressure are controlled to recommended levels," says NIH heart disease expert Dr. David C. Goff, Jr. "We could prevent a lot more heart attacks and strokes if more people had their blood pressure well controlled."

References

2017 ACC/AHA/AAPA/ABC/ACPM/AGS/APhA/ASH/ ASPC/NMA/PCNA Guideline for the Prevention, Detection, Evaluation, and Management of High Blood Pressure in Adults: A Report of the American College of Cardiology/American Heart Association Task Force on Clinical Practice Guidelines. Whelton PK, Carey RM, Aronow WS, Casey DE Jr, Collins KJ, Dennison Himmelfarb C, DePalma SM, Gidding S, Jamerson KA, Jones DW, MacLaughlin EJ, Muntner P, Ovbiagele B, Smith SC Jr, Spencer CC, Stafford RS, Taler SJ, Thomas RJ, Williams KA Sr, Williamson JD, Wright JT Jr. J Am Coll Cardiol. 2017 Nov 7. pii: S0735-1097(17)41519-1. doi: 10.1016/j.jacc.2017.11.006. [Epub ahead of print]. PMID: 29146535.

The Power of Pets

Health Benefits of Human–Animal Interactions

Nothing compares to the joy of coming home to a loyal companion. The unconditional love of a pet can do more than keep you company. Pets may also decrease stress, improve heart health, and even help children with their emotional and social skills.



Interacting with animals has been shown to decrease levels of cortisol (a stress-related hormone) and lower blood pressure. Other studies have found that animals can reduce loneliness, increase feelings of social support, and boost your mood.

An estimated 68% of U.S. households have a pet. But who benefits from an animal? And which type of pet brings health benefits?

Over the past 10 years, NIH has partnered with the Mars Corporation's WALTHAM Centre for Pet Nutrition to answer questions like these by funding research studies.

Scientists are looking at what the potential physical and mental health benefits are for different animals—from fish to guinea pigs to dogs and cats.

Possible Health Effects

Research on human-animal interactions

is still relatively new. Some studies have shown positive health effects, but the results have been mixed.

The NIH/Mars Partnership is funding a range of studies focused on the relationships we have with animals. For example, researchers are looking into how animals might influence child development. They're studying animal interactions with kids who have autism, attention deficit hyperactivity disorder (ADHD), and other conditions.

"There's not one answer about how a pet can help somebody with a specific condition," explains Dr. Layla Esposito, who oversees NIH's Human AnimalInteraction Research Program. "Is your goal to increase physical activity? Then you might benefit from owning a dog. You have to walk a dog several times a day and you're going to increase physical activity. If your goal is reducing stress, sometimes watching fish swim can result in a feeling of calmness. So there's no one type fits all."

NIH is funding large-scale surveys to find out the range of pets people live with and how their relationships with their pets relate to health.

"We're trying to tap into the subjective quality of the relationship with the continued on page 4

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animal-that part of the bond that people feel with animals—and how that translates into some of the health benefits," explains Dr. James Griffin, a child development expert at NIH.

Animals Helping People

Animals can serve as a source of comfort and support. Therapy dogs are especially good at this. They're sometimes brought into hospitals or nursing homes to help reduce patients' stress and anxiety.

"Dogs are very present. If someone is struggling with something, they know how to sit there and be loving," says Dr. Ann Berger, a physician and researcher at the NIH Clinical Center in Bethesda, Maryland. "Their attention is focused on the person all the time."

Berger works with people who have cancer and terminal illnesses. She teaches them about mindfulness to help decrease stress and manage pain.

"The foundations of mindfulness include attention. intention. compassion, and awareness," Berger says. "All of those things are things that animals bring to the table. People kind of have to learn it. Animals do this innately."



Researchers are studying the safety of bringing animals into hospital settings because animals may expose people to more germs. A current study is looking at the safety of bringing dogs to visit children with cancer, Esposito says. Scientists will be testing the children's hands to see if there are dangerous levels of germs transferred from the dog after the visit.

Dogs may also aid in the classroom. One study found that dogs can help children with ADHD focus their attention. Researchers enrolled two groups of children diagnosed with ADHD into 12-week group therapy sessions. The first group of kids read to a therapy dog once a week for 30 minutes. The second group read to puppets that looked like dogs.

Kids who read to the real animals showed better social skills and more sharing, cooperation, and volunteering. They also had fewer behavioral problems.

Another study found that children with autism spectrum disorder were calmer while playing with guinea pigs in the classroom. When the children spent 10 minutes in a supervised group playtime with guinea pigs, their anxiety levels dropped. The children also had better social interactions and were more engaged with their peers. The researchers suggest that the animals offered unconditional acceptance, making them a calm comfort to the children.

"Animals can become a way of building a bridge for those social interactions," Griffin says. He adds that researchers are trying to better understand these effects and who they might help.

Animals may help you in other unexpected ways. A recent study showed that caring for fish helped teens with diabetes better manage

Health Risks from Your Pet

Kids, pregnant women, and people with weakened immune systems are at greater risk for getting sick from animals. Take these steps to reduce vour risk:

Wash your hands thoroughly after contact with animals.

Keep your pet clean and healthy, and keep vaccinations up to date. **Supervise children** when they're

interacting with animals. Prevent kids from kissing pets

or putting their hands or other objects in their mouths after touching animals.

Avoid changing litter boxes

during pregnancy. Problems with pregnancy may occur from exposure to toxoplasmosis, a parasitic disease spread through the feces of infected cats.

their disease. Researchers had a group of teens with type 1 diabetes care for a pet fish twice a day by feeding and checking water levels. The caretaking routine also included changing the tank water each week. This was paired with the children reviewing their blood glucose (blood sugar) logs with parents.

Researchers tracked how consistently these teens checked their blood glucose. Compared with teens who weren't given a fish to care for, fish-keeping teens were more disciplined about checking their own blood glucose levels, which is essential for maintaining their health.

While pets may bring a wide range of health benefits, an animal may not work for everyone. Recent studies suggest that early exposure to pets may help protect young children from developing allergies and asthma. But for people who are allergic to certain animals, having pets in the home can do more harm than good.

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Helping Each Other

Pets also bring new responsibilities. Knowing how to care for and feed an animal is part of owning a pet. NIH/Mars funds studies looking into the effects of human-animal interactions for both the pet and the person.

Remember that animals can feel stressed and fatigued, too. It's important for kids to be able to recognize signs of stress in their pet and know when not to approach. Animal bites can cause serious harm.

"Dog bite prevention is certainly an issue parents need to consider, especially for young children who don't always know the boundaries of what's appropriate to do with a dog," Esposito explains.

Researchers will continue to explore the many health effects of having a pet. "We're trying to find out what's working, what's not working, and what's safe—for both the humans and the animals," Esposito says.

References

American Pet Products Association. Household penetration rates for pet ownership in the United States from 1988 to 2013. Statista - The Statistics Portal. 2014 Jul; Retrieved October 24, 2014, from www.statista.com/statistics/198086/us-household-penetration-rates-for-pet-owning-since-2007 (link is external).

Canine-assisted therapy for children with ADHD: preliminary findings from the positive assertive cooperative kids study. Schuck SE, Emmerson NA, Fine AH, Lakes KD. J Atten Disord. 2015 Feb;19(2):125-37. doi: 10.1177/1087054713502080. Epub 2013 Sep 23. PMID: 24062278.

Animals may act as social buffers: Skin conductance arousal in children with autism spectrum disorder in a social context. O'Haire ME, McKenzie SJ, Beck AM, Slaughter V. Dev Psychobiol. 2015 Jul;57(5):584-95. doi: 10.1002/dev.21310. Epub 2015 Apr 27. PMID: 25913902.

A novel behavioral intervention in adolescents with type 1 diabetes mellitus improves glycemic control: preliminary results from a pilot randomized control trial. Maranda L, Lau M, Stewart SM, Gupta OT. Diabetes Educ. 2015 Apr;41(2):224-30. doi: 10.1177/0145721714567235. Ēpub 2015 Jan 22. PMID: 25614529.

Early-life home environment and risk of asthma among inner-city children.O'Connor GT, Lynch SV, Bloomberg GR, Kattan M, Wood RA, Gergen PJ, Jaffee KF, Calatroni A, Bacharier LB, Beigelman A, Sandel MT, Johnson CC, Faruqi A, Santee C, Fujimura KE, Fadrosh D, Boushey H, Visness CM, Gern JE.J Allergy Clin Immunol.2017 Sep 12. pii: S0091-6749(17)31204-6. doi: 10.1016/j.jaci.2017.06.040. [Epub ahead of print]. PMID: 28939248

Unexplained Cases of Allergic Reactions Linked to Red Meat

A rare red meat allergy that starts after being bitten by a lone star tick may cause unexplained cases of recurrent anaphylaxis. Researchers found that some people's repeated, severe allergic reactions stemmed from a red meat allergy linked to a specific type of tick bite.

Doctors analyzed 70 patients who had repeated episodes of a severe allergic reaction, called anaphylaxis, from unknown causes. Anaphylaxis can cause a host of problems, such as trouble breathing and passing out. It requires immediate medical attention to prevent severe consequences, even death.

The researchers found that six of the patients had an allergy to a sugar molecule called alpha-gal, which is



found in red meats. Most food allergy symptoms develop within a half hour. People with the alpha-gal allergy showed symptoms between three to six hours after eating meat.

Previous studies have linked lone star tick bites to this unusual food allergy. The patients with the alpha-gal allergy lived in the central and southern United States, where lone star ticks thrive. All six confirmed that they had been bitten by ticks in the past.

"Alpha-gal allergy appears to be yet another reason to protect oneself from tick bites," says Dr. Anthony S. Fauci, director of NIH's National Institute of Allergy and Infectious Diseases (NIAID).

References

Identification of alpha-gal sensitivity in patients with a diagnosis of idiopathic anaphylaxis. Carter MC, Ruiz-Esteves KN, Workman L, Lieberman P, Platts-Mills TAE, Metcalfe DD. Allergy. 2017 Nov 21. doi: 10.1111/all.13366. [Epub ahead of print] PMID: 29161766.

MSGA Helping Students Succeed

Being on the forefront of health, fitness and diet information for our 100k+ growing members, Med-Sense Guaranteed Association intimately understands both the importance and shortage of registered nurses in our country. RNs are on the frontline of administering care, monitoring treatment effectiveness, being advocates and providing emotional support to patients. Nurses typically spend more time with patients than doctors and thus play a critical role helping patients get better. They are truly the heart and soul of the healthcare system.



The path to becoming a Registered Nurse requires successful graduation from one of the nearly 2,000 nursing programs in the US. However, the cost of the education can be a serious impediment for aspiring nurses. Costs vary depending on the school, type of nursing degree program, geographic location, and more. Community colleges may cost anywhere from \$3,000 to \$5,000 per year and a private 4-year college can cost more than \$20,000 per year.

To help ease the financial burden nursing students face, MSGA has both contributed to nursing school scholarship programs and provided a significant number of scholarships directly to students. In 2017, MSGA provided a total of \$175,000 in gifts to St. Louis University School of Nursing, St. John's School of Nursing and the College of St. Mary's. Additionally, MSGA provided more than \$417,000 in direct Scholarships.

MSGA worked with St. Louis University to establish the MSGA Nursing Scholarship Fund and has gifted a total of \$75,000 into this fund in 2017. The Go Further Scholarship initiative via St. Louis University has a matching program that doubled the impact of the gifts. Thanks to donations from MSGA and the matching funds, the scholarship fund grew to \$150,000 and is awarded to those nursing students who show financial need and academic success.

Located in Omaha, Nebraska, the College of Saint Mary is a Catholic women's university and has an outstanding nursing program. MSGA has provided gifts totalling \$75,000 to the school which in turn has provided 15 students with \$5,000 scholarships.

St. John's School of Nursing is located in Springfield, IL and offers upper division bachelor nursing degree programs to those who have already



College of St. Mary

completed their liberal arts and science courses at other institutions. The St. John's School of Nursing is associated with the Hospital Sisters of St. Francis and offers students hands on experience to accompany their nursing program. MSGA provided a gift of \$25,000 to th St. John's School of Nursing to be used for student scholarships.

In addition to the Nursing School Gifting Program, MSGA provided \$2,500 scholarships to 167 students in the fall of 2017. While the MSGA Nursing School Gifting program is focused on nursing schools, the MSGA scholarships are available to students in any field. Our selection committee poured over the many applications and accompanying referral letters for several weeks. They looked at a number of different aspects when choosing each scholarship recipient, including their community involvement, work history, and their overall GPA. In addition, the applicants must have demonstrated how the scholarship funds would be used to help their academic progress and/or enhancement of their skills. Applicants were limited to MSGA members and their immediate families, and applications were due by September 15, 2017.

St. John's School of Nursing

Through the Nursing School Gifting Program and the MSGA Scholarship Program, we at MSGA have been able decrease the financial burden for hundreds of students and help them achieve their educational goals. Overall, we have been able to contribute more than \$592,000 in the form of gifts and scholarships. We are certainly proud that Med-Sense Guaranteed Association has been able to touch the lives of so many students.



Infant Formula Not Linked to Diabetes

For decades, researchers have puzzled over why type 1 diabetes is becoming more common. Type 1 diabetes is a serious disease. People who have it can't produce insulin. Insulin tells your cells to take up sugar from your blood. People with type 1 diabetes need to take insulin every day to stay alive.

Researchers have wondered whether infant formula made from cow's milk might cause children to develop type 1 diabetes. Cow's milk is similar to human milk, but it does have different proteins. Some studies suggest that early exposure to the complex proteins in cow's milk might lead the body's defense system to mistakenly attack the cells that make insulin.

To test whether the proteins in cow's milk could cause this reaction, researchers tested two formulas. One group of infants received a formula made from cow's milk. The other received a formula made from cow's milk that was processed to break complex proteins into small pieces. All the infants selected for the study had a genetic makeup that put them at higher risk of developing type 1 diabetes.

Some children in both groups developed type 1 diabetes by the time they were 10 years old. The results showed that the chance of developing the disease was the same for children in both groups.



"This study puts to rest the controversy regarding the potential role of cow's milk formula in the development of type 1 diabetes," says Dr. Dorothy Becker at the University of Pittsburgh, who led the study in the United States.

References

Effect of Hydrolyzed Infant Formula vs Conventional Formula on Risk of Type I Diabetes: The TRIGR Randomized Clinical Trial. Writing Group for the TRIGR Study Group, Knip M, Åkerblom HK, Al Taji E, Becker D, Bruining J, Castano L, Danne T, de Beaufort C, Dosch HM, Dupre J, Fraser WD, Howard N, Ilonen J, Konrad D, Kordonouri O, Krischer JP, Lawson ML, Ludvigsson J, Madacsy L, Mahon JL, Ormisson A, Palmer JP, Pozzilli P, Savilahti E, Serrano-Rios M, Songini M, Taback S, Vaarala O, White NH, Virtanen SM, Wasikowa R. JAMA. 2018 Jan 2;319(1):38-48. doi: 10.1001/jama.2017.19826. PMID: 29297078.

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