

NIH News in Health

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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.

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.

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.

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-Animal Interaction 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 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

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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 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.

Helping Each Other • Pets also bring new responsibilities. Knowing



Wise Choices

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 your 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 their 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.

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. ■

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