

Children, pets, and allergies

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To many of us, children and pets just seem to go together. People who have raised both puppies and children sometimes wonder which is more work, but generally agree that in both cases, it's all worth it.

According to the SPCA, 30% of Canadian families own a dog and 28% own at least one cat. This does not include other furred and feathered friends, from hamsters to budgies to tropical fish. Obviously, kids and pets mix well. And there are some surprising benefits to the blend that go beyond the obvious.



Illustration by Catherine Lepage

How pets can benefit children

Researchers are beginning to study the role pets play in children's social and emotional development. All pets provide companionship and affection, and they can be an important part of a child's social network. Pets do not replace friends and family; it's a different kind of relationship. But even close friends or siblings may fight, have an off day, or need to be by themselves from time to time. Pets do not judge; they don't care what a child looks like or how she is dressed; they are always happy to see their people. The unconditional acceptance and love pets offer can be of tremendous value to children.

A small study by June McNicholas, a British psychologist who is interested in the influence of pet ownership on human health and lifestyle, and her colleague Glyn M. Collis looked at children's relationships with their pets. The researchers found that children with pets would prefer to share secrets with their pet than with another person, and would rather go to their pet for comfort when they were sick. Pets were also sources of comfort and companionship for children. In another study, McNicholas and colleagues found that children with pets were less likely to be absent from school due to illness.

On the other side of the ledger, though, doubters point to the various health hazards associated with pets -- from allergies, asthma, and dog bites, to parasitic infections and, in countries such as Thailand where birds are popular pets, avian flu.

"Pets are important to children, but no health professional would wish to make too light of any health risks," says McNicholas in an e-mail. "However, these are often overstated. In some cases simple

measures can overcome fears of problems associated with pet ownership, so that the benefits of pets vastly outweigh the potential problems."

Do pets cause allergies and asthma?

Sharon Dell, a staff respirologist and asthma specialist at The Hospital for Sick Children, notes that it is important to distinguish between trying to prevent symptoms or exacerbations of asthma and allergies, and trying to prevent children from developing asthma and allergies to start with. While the evidence is very clear-cut for the first, it is inconclusive for the second.

"If you have asthma and you are sensitized to a pet, especially a cat, there is no doubt that it will be very bad for you to have a cat in the house," she says. "Where there is lots of controversy is in the area of primary prevention. If you have a pet in your home, are you less likely to develop asthma? I think the jury's still out -- there isn't enough data to say one way or the other."

Pets and allergic sensitization

Almost any furred or feathered pet can cause allergies. Allergies, in turn, can be a trigger for asthma. People with a pet allergy react to proteins the animal produces, which can be carried on shed skin (dander) and hair, saliva, or other secretions. Pet owners are exposed to these substances in higher concentrations than those without pets in the house; however, not every pet owner has allergies.

Why some people develop allergies and others do not is still not fully understood. In some people, exposure to small amounts of a particular substance (an allergen) teaches the body's immune system to react any time it encounters that allergen in the future. This is called sensitization. But not everyone gets this immune response; the tendency to become allergic depends on genetics, the timing of the exposure, and the type and amount of allergens involved.

There is some evidence that exposure to larger amounts of allergen early in life, for example because of pet ownership or living on a farm, may actually protect against allergies. This is the basis of the "hygiene hypothesis," which suggests that early exposure to allergens and bacteria reduces allergies and improves a child's resistance to disease. According to this theory, children who grow up in environments that are too clean develop allergies to harmless substances like pet dander because their immune systems have not had enough to fight against. Other studies, though, have found that exposure to pets increases allergic sensitization.

To complicate the issue further, parents with allergies are both more likely to have children with allergies and less likely to have pets. So do their children develop allergies because their immune systems have not had enough to do, or because they inherited a tendency to be allergic from their parents? Should allergic parents make an effort to expose their children to animals, or keep them away? And exactly how much allergen exposure is enough to stop causing allergies and start preventing them? The available evidence is far from conclusive.

Certainly, not having a pet is no guarantee of remaining allergy-free. Cat dander, in particular, is light and travels easily; it is found almost everywhere, including homes without pets and public spaces such as schools. For this reason, "if you are programmed to be sensitized to cat dander, you will be sensitized

sooner or later," Dell says. Living with a cat will expose a child to higher quantities of cat dander, and the child may become sensitized a few years earlier than she otherwise would have been.

So, should you buy a pet? Will it cause allergies or prevent them? "I don't think we have enough data to give public health advice," Dell says. "The evidence is not yet there one way or the other."

Pets as asthma triggers

Once upon a time, a family whose child developed asthma would automatically be told to get rid of the family pet. However, that is not always necessary. Allergies can certainly trigger asthma, but not every child who has asthma is allergic to pets. "Each child with asthma has their own individual triggers," Dell explains. "We used to make these blanket statements, but now we're a little more selective... If the child is not allergic, it's traumatic to get rid of the cat."

Children with asthma should be carefully evaluated to see what triggers their asthma, and their exposure to those triggers should be reduced as much as possible. Other common triggers include cigarette smoke and dust mite allergy.

Dell notes, though, that if a young child already has severe asthma without a pet, "we would probably recommend against getting a cat." The risk that the pet will serve as yet another trigger is just too high.

Reducing the impact of pet allergies

When one or more family members is allergic to the family pet, getting rid of the pet is, unfortunately, the best way to reduce exposure to those allergens (see "The last resort," below). However, many families can't bear to do this. As the joke goes, "Tell an allergy sufferer to get rid of his cat and he'll probably get rid of his doctor."

If your family wants to keep your pet, the following options may help to reduce the pet's impact on allergies:

- Keep the pet out of bedrooms. Do not allow it on the furniture or on other soft surfaces where allergens can build up.
- Have somebody who is not allergic brush the pet out of doors. Wash the pet at least once a week.
- Carpets and fabric can store allergens. Remove carpeting and other upholstered items from the home, and use impermeable covers for mattresses and cushions.
- Vacuum thoroughly and regularly, using a vacuum with a high-efficiency particulate air (HEPA) filter. Note, though, that vacuuming may stir up allergens for a short time, so it may be best if someone without allergies does the vacuuming.
- Move the pet's litter tray and bed away from air vents.
- The allergy sufferer should avoid kissing and hugging the pet, and should wash his or her hands after touching it.
- If a family member is allergic to pets, it is best not to bring a new pet into the home.

The last resort: Surrendering your pet

Sadly, many pets are euthanized (put to sleep) or simply abandoned because their owners cannot or do not want to care for them any longer. If your family has to give up your pet, here are some options for finding it a new home:

- Try to find a friend or family member who can adopt the pet.
- If your pet came from a breeder, contact the breeder to ask if he or she can take the animal back or can place it in a good home.
- A rescue group may be able to help you screen potential adopters.
- Some "free to a good home" pets are later abandoned or abused. For this reason, animal welfare organizations suggest charging at least a nominal fee for your pet if the new owner is someone you do not know.
- In all cases, please screen your pet's new home carefully. Your pet and your family deserve it!

Finally, do not forget that giving up a pet or losing it to sickness or old age is very upsetting for everyone in the family, especially children. Be honest with your children about what happened to your pet. Be prepared for feelings of grief and guilt. Help children work through their feelings, perhaps by making a scrapbook or album containing photographs and stories about the pet.

Sources

Asthma Society of Canada. Lifestyle: Pets & other animals. Available from: <http://www.asthma.ca/adults/lifestyle/pets.php> [accessed 2006 Feb 22].

Becker A, Lemièrre C, Bérubé D, et al. Summary of recommendations from the Canadian Asthma Consensus Guidelines, 2003. *Canadian Medical Association Journal*. 2005;173(6 suppl):S3-S11.

Becker A, Bérubé D, Chad Z, et al. Canadian Pediatric Asthma Consensus Guidelines, 2003 (updated to December 2004). *Canadian Medical Association Journal*. 2005;173(6 suppl):S12-S55.

Eggleston PA. Improving indoor environments: Reducing allergen exposures. *Journal of Allergy and Clinical Immunology*. 2005;116(1):122-126.

Frew AJ. Advances in environmental and occupational diseases 2004. *Journal of Allergy and Clinical Immunology*. 2005;115(6):1197-1202.

McNicholas J, Collis GM. Children's representation of pets in their social networks. *Child: Care, Health and Development*. 2001;27(3):279-294.

McNicholas J, Collis GM, Gilbey AP, Seghal J. Beneficial effects of pet ownership on child immune function. Paper presented at the 10th Annual Conference on Human-Animal Interactions, Glasgow, October 2004.

McNicholas J, Gilbey A, Rennie A, Ahmedzai S, Dono J-A, Ormerod E. Pet ownership and human health: a brief review of evidence and issues. *British Medical Journal*. 2005;331(7527):1252-1254.

Nash H. Grief and the loss of a pet. PetEducation.com. Available from:

<http://www.peteducation.com/article.cfm?cls=0&cat=1494&articleid=635> [accessed 2006 Feb 27].

O'Connor GT. Allergen avoidance in asthma: What do we do now? *Journal of Allergy and Clinical Immunology*. 2005;116(1):26-30.

Platts-Mills TAE. Paradoxical effect of domestic animals on asthma and allergic sensitization. *Journal of the American Medical Association*. 2002;288(8):1012-1014.