

Summary points

Over 90% of pet owners regard their pet as a valued family member

Reluctance to part with a pet may lead to non-compliance with health advice

Pets may be of particular value to older people and patients recovering from major illness

The death of a pet may cause great distress to owners, especially when the pet has associations with a deceased spouse or former lifestyle

Many people would welcome advice and support to enable them to reconcile or manage pet ownership and health problems whenever possible

avoiding medical care through fear of being admitted to hospital or residential care as this often means giving up a pet.⁶

The loss of a pet may be particularly distressing for owners if it was linked with a deceased spouse or if it offered companionship or social contact with people.¹⁸ For these reasons many people may appreciate help and advice on how to manage a pet in the event of a health problem in the family.

Animal welfare organisations cite allergies and the fear of zoonoses as common reasons for people giving up their pets. Yet in some cases this may not be necessary. Research from the University of West Virginia shows that simple, day to day hygiene and pet care can reduce allergic reactions by up to 95%.³ A recent review of pets in nursing homes provides a comprehensive list of potential health problems and steps that can be taken to avoid these.¹⁹

People do not own pets specifically to enhance their health, rather they value the relationship and the contribution their pet makes to their quality of life.²⁰ Greater understanding among health professionals is needed to assure people that they do not need to choose between pet ownership and compliance with health advice.

Contributors and sources: JMcN has special research interests in the influence of pet ownership on health and lifestyle. She was formerly based at the University of Warwick. Her current work is with Dogs for the Disabled, the Society for the Protection of Animals Abroad, and Cats Protection, UK. She is a member of the Society of Companion Animal Studies. AG gained his doc-

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Commentary: Pets—pleasures and problems

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Good health is more than the absence of disease, and the review by McNicholas and colleagues makes a strong argument that the companionship of pets contributes to wellbeing.¹ People decide to keep pets for reasons that go far beyond health, and there are social benefits when animals promote conversation and friendship. The debate about health effects of pet ownership has focused on the major problems of cardiovascular disease, mental health, and allergy. A point to add to the review is that the benefits partly depend on the type of animal. In a

prospective study of one year survival after a myocardial infarct, dog owners were more likely to survive than cat owners and people who did not own pets.² Although exercise from dog walking might be a factor, the improved survival was related to social support independent of physiological status.

On the fringes of the debate about health and pets are some unusual observations about benefits and hazards of pets. The ability of some dogs to give an early warning of an epileptic fit or a hypoglycaemia attack is

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Infections that can be acquired from pets

| Route and type of infection | Animal vector |
|-----------------------------------|-----------------|
| Bites and scratches: | |
| Rabies | Dog, cat |
| <i>Capnocytophaga canimorsus</i> | Dog |
| <i>Pasteurella multocida</i> | Dog, cat |
| Bartonellosis (cat scratch fever) | Cat |
| Gastrointestinal: | |
| Campylobacter | Dog |
| Toxoplasmosis | Cat |
| <i>Toxocara canis</i> | Dog |
| Uncommon salmonella serotypes | Snake, terrapin |
| Skin infections: | |
| Dermatophytosis (ringworm) | Dog, cat |
| <i>Mycobacterium marinum</i> | Tropical fish |
| Airborne: | |
| Psittacosis | Birds |

extraordinary.^{3,4} How this is done is uncertain, perhaps by an acute sense of smell or visual cues from the owner's behaviour and posture. Whether a dog that earns its living, by being an early warning system or guiding a blind person, is a "pet" is a question that can only be answered by the person with whom the animal lives: to be a pet, an animal should be valued for more than its utility.

On the opposite side of the debate are the infection hazards associated with pets (table). The hazards have been well described in a review by Guay.⁵ It is difficult to quantify the risk in relation to the popularity of pets, but the infections are either uncommon or uncommonly acquired from pets. The list could be lengthened to include cryptosporidiosis and

Escherichia coli O157 acquired from lambs and calves if they are treated as pets on farms. Although the incidence may be low, the infections should not be forgotten when recommending pets.

In assessing the risks of infection, the health of the animal should be considered. The probability that a pneumonic illness in a budgerigar owner is due to psittacosis increases when the patient says that a pet bird has recently died. Puppies with diarrhoea are more likely to be a source of campylobacter than a healthy house trained adult dog. Many people will accept the risks of gastrointestinal infection in exchange for the pleasure of watching a young animal at play, and for the bond between pet and owner that grows with time. Risks can be reduced by awareness and hygiene, but adopting a house trained adult pet is an alternative. For an older person worried that a young pet's life expectancy would be much longer than their own, a mature dog or cat adopted from an animal sanctuary can be a happy, and perhaps a health promoting, companion.

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An unusual zoonosis

As a general practitioner and pet owner, I treated my scratching Abyssinian guinea pigs' nits with subcutaneous ivermectin. A few days later, I experienced intense pruritus of the forearms with raised papules surrounded by a histamine-like response. Assuming that the lesions were mosquito bites from warm, humid evening dog walks, I attempted to suppress the irritation with mometasone, but with only partial success. As the days progressed, excoriations developed, without a history of injury, that did not penetrate the epidermis. At last, the penny dropped—burrows. I had scabies. But from where?

I had seen a case recently but had never before caught a parasite from a patient in 25 years of practice. Out came the veterinary textbook to see whether guinea pigs can harbour scabies. The nits had obviously been a red herring (coinfestation). Apparently, the sarcoptic mite *Trisacarus caviae*, which causes guinea pig mange, has zoonotic potential. The family Sarcoptidae also includes *Notoedres cati* (cat mange), *Notoedres muri* (rat ear itch), *Sarcoptes scabiei* (species-specific varieties in dog, squirrel, fox, etc). The cavie species can also cause scabies in humans, but this rarely occurs.

The life cycle begins as the adult female lays its eggs while burrowing into the skin. The eggs hatch to

release larvae, which moult into nymphs. Larvae and nymphs are found in short burrows called moulting pouches. Mating occurs after a male penetrates the moulting pouch of an adult female. Impregnated females extend their moulting pouches into burrows, laying eggs as they go; and so on. Transmission is by person to person and fomites, such as bedding and clothing. Mites are predominantly found between the fingers and on the wrists. Rashes may occur on the abdomen, axillae, pubic area, knees, ankles, buttocks, elbows, and between the shoulder blades. Mites hold onto the skin using suckers attached to the two most anterior pairs of legs.

After making the diagnosis, I visited our local pharmacist, who handed me a bottle of malathion at arm's length.

Since fairly prolonged contact is required to spread scabies, the risks to my patients must be close to zero. It may, however, be worth doctors questioning their patients about small pets if similar unexplained itching occurs.

As for myself, the pruritus persists but is no doubt iatrogenic or, more probably, psychogenic.

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