



Pets and Community Health

*How do companion
animals
help improve
the lives of
people?*

A research summary prepared by
**Petcare Information and
Advisory Service**
2012

Humans have been living with domestic animals for thousands of years. Our most ancient animal companions are dogs and the relationship stretches back at least 12,000 years;¹ probably even up to 100,000 years. In fact, human civilisation has been accompanied by, and in many ways was dependent on, the animals that lived within our communities. Researchers have even suggested that an ability to empathise with animals may have provided an evolutionary advantage in hunting, and subsequently herding and domesticating, animals.² It has also been suggested that the rise of technology and civilisation over the last 12,000 years would not have been possible without the “lucky break” of living near animals suitable for domestication.³ Put in this context, the modern popularity of pet keeping, at a time when most people no longer have regular contact with other animals, is hardly surprising. The most interesting fact about modern pet keeping, however, is that it can actually improve our lives.

1

Physiological Effects and Cardiovascular Health

The impact of animal companions on cardiovascular health was first recognised in the early 1980s, and it is the area of research which really made the medical community take notice of the “pets are good for you” premise. It also appears that the impacts are not just about the increased exercise associated with dog ownership, cat owners also record better heart health than those who do not own a cat.

- In a 20-year study of nearly 4,500 people undertaken in the United States, people who had never owned a pet cat were found to be 40% more likely to die of a heart attack than those who owned a cat. They were also 30% more likely to die of any cardiovascular disease; including stroke, heart failure and chronic heart disease. The results held true even after the researchers took into account other risk factors for heart disease and stroke including age, gender, race, blood pressure, and smoking.⁴
- Stroking a pet has been proven as an antidote to stress; with researchers finding that people talking to and petting a dog have lower blood pressure than when they interact with another person.⁵
- American psychiatrist Aaron Katcher examined the effect of social support on the survival of people one year after suffering a heart attack, and found to his surprise that pets made a significant difference. Analysis of variables, including severity of initial disease, showed pet ownership contributed an additional 4% to the patient's chance of survival.⁶ The results have since been replicated in a larger study of 369 subjects.⁷
- Allen et al reported in the journal *Hypertension*, that pet ownership reduced blood pressure responses to mental stress.⁸ In the study, researchers evaluated the effects of pet ownership on blood pressure responses to mental stress before and during ACE inhibitor therapy (medication for blood pressure). Blood pressure medication lowered resting blood pressure, but responses to mental stress were significantly lower among pet owners relative to those who only received medication. The conclusion was that ACE inhibitor therapy alone lowers resting blood pressure, whereas increased social support through pet ownership lowers blood pressure response to mental stress – providing a buffering effect against stress.
- Anderson et al's study of 5,741 participants attending a free screening clinic at the Baker Medical Research Institute in Melbourne found that pet owners had lower levels of risk factors for cardiovascular disease, including lower systolic blood pressure and plasma triglycerides, and in men, lower cholesterol than non pet owners.⁹ These results held true even after controlling for cigarette smoking, diet, body mass index or socioeconomic profile.





2

General Health

There is a wide range of research that points to the positive impact pets have on our general health but not all of it is able to prove cause and effect. For example, with some of the research, it could be possible to argue that people who are healthy are more likely to own a pet, rather than their health benefits being the result of pet ownership. However, longitudinal research which examines the health of an individual before and after pet acquisition is able to establish the case more clearly.

- English scientist James Serpell conducted a longitudinal intervention study where three groups of people were recruited and the first given dogs, the second cats, and members of the third did not receive a pet. Before the intervention, all three groups had similar results for a self reported assessment of general health. One month later, the reports of minor illnesses and complaints had substantially reduced in the pet groups, and in the case of the dog group (but not the cat), this remained true for the ten month duration of the study.¹⁰ The difference between the dog and cat effect may be because dog owners take more exercise.
- In a German longitudinal study of 225 occupants in nursing homes, half the group were given pet budgerigars. The conclusion six weeks later was that “budgerigars can effectively intervene in processes of aging, not only delaying deficitary processes, but also increasing the physical, social and psychological quality of life in old age.”¹¹

Several studies have shown that pet ownership may reduce the need for medical services.
- In a United States study of 938 Medicare enrollees, pet owners reported fewer doctor contacts during a one year period than non-owners.¹²
- Jorm et al’s subsequent examination of Australian Medicare records of elderly subjects (mean age 79.9) which found no difference in use of health services between pet owners and non-pet owners¹³ indicates that the health benefits may not extend equally to all members of the community. It still seems, however, that animal companionship may have a significant positive impact on the nation’s health.
- German, Australian and Chinese data indicate that pet owners make fewer annual doctor visits than non-owners, and that the relationship remains statistically significant after controlling for gender, age, marital status, income and other variables associated with health. Research by Headey et al has compared Australian pet owners to pet owners in Germany and China, and found that the health benefits of pet ownership for the general community exist in the populations of all three countries, particularly for the long term pet owners.¹⁴ The German and Australian results were the first national representative surveys to show that (1) people who continuously own a pet are the healthiest group (2) people who acquire a pet after not previously owning one are the second healthiest group and (3) people who cease to have a pet or never had one are the least healthy groups.

3 Psychological Health: Loneliness and Companionship

Research has established that pets are able to create a connection with patients in a range of therapeutic settings. In a now famous case from the 1960s, American psychiatrist Boris Levinson established a connection with a particularly withdrawn boy by bringing his dog to the sessions. So successful was this approach that this form of Animal Assisted Therapy was subsequently used by Levinson to establish a “bridging” relationship with most of his young patients. Animal Assisted Therapy (AAT) and Animal Assisted Activities (AAA) are now used in a wide range of therapeutic and institutional settings.

- A three part study of the wellbeing pets provide in everyday life found that pet owners had greater self esteem, undertook more exercise, fared better on measures of wellbeing and were better able to cope with social rejection than non-pet owners. The US study also found that the support that pets provide complemented, rather than competed with, human sources of support; meaning that pets may support wellbeing in an everyday environment as well as helping individuals facing significant life stressors.¹⁵
- An Australian study of the impact of cat ownership on mental health by Cheryl Straede and Richard Gates found that “cat owners had significantly (better) scores for psychological health, indicating a lower level of psychiatric disturbance, and could be considered to have better psychological health than the non-pet subjects.”¹⁶
- Psychiatrist and Professor Emeritus at the University of Pennsylvania, Aaron Katcher, has pointed to the importance of touch in people’s lives and the scarcity, other than with pets, of socially accepted situations in which we may touch others.¹⁷
- In one American study of elderly persons who had recently lost a spouse, pet ownership and strong attachment to pets were associated with significantly less depression.¹⁸ Pets appear to provide a powerful buffering effect against grief and stress.
- Another US study of widows found non-pet owners reported a deterioration in health after death of a spouse, whereas pet owners did not.¹⁹





4

Children, Social Development and Family Life

Pets are an integral part of Australian childhood. Research shows that families with children are in fact the most likely group within the community to have a pet. More than being a simple playmate and confidante, research shows that pets can also aid childhood development, particularly the development of nurturing and social skills, and reduce the feelings of stress experienced by children. Pets have also been proven to increase the levels of exercise undertaken by families.

- A study of school children by Guttman et al showed that pet owners were not only more popular with their classmates, but seemed to be more empathetic as well.²⁰
- Self esteem has been shown by researchers to be higher in children and adolescents who have a pet.²¹ All these factors may help explain the finding by Reinhold Bergler that in a group of German teenagers, feelings of loneliness, restlessness, boredom, despair, depression and futility did not arise so often in dog owners, while this group also thought life was more fun, and had a more positive outlook on life.²²
- As part of a large study of the physical activity and sedentary behaviours of Australian children by Salmon et al, it was found that young children in families with pets – particularly dogs – took more family walks than those without pets.²³ Older children in families with pets rated outdoor play with pets second only to play with friends. And young teenage girls reported feeling safer when walking alone with their family dog, an important finding when we are more and more concerned about community safety. Even the incidental play children participated in with the family dog increased their levels of exercise.
- The presence of a pet dog during routine physical examination of pre-school aged children was found to reduce heart rate and behavioural distress, indicating the potential for companion animals to provide support to children in stressful situations.²⁴
- New Australian research by Dr Kelly Thompson and Professor Eleonora Gullone from the Department of Psychology at Monash University, shows that children with a well developed sense of empathy and attachment behave better towards other people and animals. Empathy towards others is one of the important characteristics of a healthy emotional state. Children that are involved in looking after pets gain a sense of responsibility and an understanding of what it takes to care for an animal and this helps them to treat others around them with the same sense of care.²⁵

5

Pets and the Immune System

Western cultures report increasing rates of asthma and allergic disease, with pets sometimes implicated as a causal factor. An interesting research development in recent years however, has demonstrated the opposite may in fact be the case; the presence of cats and dogs in the home from an early age may actually 'acclimatise' the developing immune system so that it is less sensitive to allergens in later life. It appears that the presence of pets in the home has some regulatory or stabilising influence on the immune functioning of children.

- Using longitudinal studies of urban populations, researchers found that exposure to pets, especially dogs, in the perinatal period may reduce the development of allergic disease in children without a family history of allergy.²⁶
- Gern et al published in the *Journal of Allergy & Clinical Immunology*, that having a dog in infancy is associated with reduced allergic sensitisation and atopic dermatitis.²⁷
- Dr June McNicholas from Warwick University UK found that children from pet owning families have less school absenteeism through illness, and are more likely to have normal levels of immune function than children from non-owning families.²⁸ Dr McNicholas measured levels of salivary immunoglobulin A in children of pet owning and non-pet owning households. Salivary immunoglobulin A was selected because of its ease of collection and because it is regarded as an indicator of immune function. 'Health' was also measured in behavioural terms through percentage attendance at school. It was found that pet ownership was significantly associated with better attendance rates across all primary/junior classes at school in one Warwickshire school, but was especially evident in lower school classes (ages 5-8 years). Translated into school attendance, this difference was up to 18 half-days more school attendance for children aged 7-8 years. Examination of salivary immunoglobulin A levels suggests that levels found in pet owning children were more likely to be within normal ranges at all times of testing than were those from non-pet owning children whose levels showed significantly more variability below and above normal range of function.





6

Pets and the Elderly

The role of pets in the lives of the aged is particularly significant for those who live in a nursing home or in some situation of assisted care. Numerous studies show pets provide one of the few interventions capable of permanently lifting the atmosphere of hospices and nursing homes. Despite all this evidence, many nursing homes still do not allow pets, and fear of giving up their animal companion is a serious concern for many in the community. For older people still living in their own home, pet ownership has many benefits including social facilitation and companionship as well as increased activity levels.

- An intervention study using Animal Assisted Therapy (AAT) was conducted by Richeson et al to measure the effects on the subjective wellbeing of 37 nursing home residents. The residents, with no recorded cognitive impairments (mean age 82.5 years), were randomly assigned to one of three groups: control, AAT, or student visitors. The AAT group showed statistically significant increases in overall satisfaction with life when compared to the control and student-visitors groups, and statistically significant increases on the feelings 'enthusiastic', 'attentive', 'interested', and 'inspired' when compared to the control group.²⁹
- An Australian study by Patricia Crowley found that 18 months after acquiring a Whippet, residents of a nursing home had reduced tension and confusion and reported less fatigue.³⁰
- Associate Professor of Nursing at the University of Michigan, Mara Baun, has demonstrated that pets can induce a social response from people with advanced Alzheimer's disease, even those who do not respond to people.³¹
- A study of a dog in a hospice showed that patients spent less time alone than before the dog arrived, and staff members reported it gave everyone something to talk about.³²
- A substantial Canadian study by Professor Parminder Raina of 1,054 elderly citizens aged over 65, revealed pet owners are more able to maintain activities of daily living (ADL) over a one year period.³³ Dogs in particular help keep people active and provide a routine and a reason to get up in the morning.
- Similar findings came from a Japanese study which investigated the relationship between pet ownership and the level of daily activity (used as a measure of general health) in elderly women living at home. They found that there was a positive correlation between pet ownership and the level of instrumental activity of daily living (IADL). Saito et al concluded that it is possible that keeping a companion animal may be linked to better overall health in the elderly.³⁴

7

Dogs and Exercise

With concern growing about the level of obesity in children and adults, the role of dogs in increasing exercise levels has become an important area of research. Australian researchers have been at the forefront of this area and there is a growing body of evidence demonstrating that the improved health status of dog owners may, in part, be explained by the increased walking facilitated by dog ownership.

- A longitudinal study of over 14,000 pregnant women in England found a positive association between participation in activity at least once a week and dog ownership. In fact, dog owners were 50% more likely to achieve the recommended three hours of activity most days of the week. Dog owners were also more likely to participate in brisk walking.³⁵
- Australian researcher, Dr Hayley Christian (nee Cutt) from The University of Western Australia, identified that people who acquired a dog increased their recreational walking by 48 minutes per week compared with an increase of only 12 minutes per week for people who did not acquire a dog during the period of the study. She also found that dog owners are more likely to meet the recommended levels of exercise than non-dog owners.³⁶





8

Pets in the Community

Research interest regarding pets and health is now exploring the idea that pets may help people to build social bridges in our communities by acting as social lubricants with neighbours or strangers, or even as motivators for walking and use of parks. This in turn facilitates exchanges of greetings and other interactions between people who may not otherwise interact with each other. These social bridges can be collectively thought of as the 'glue that holds society together', also known as *social capital*. This area of social research is only beginning to be uncovered and promises to yield some fascinating findings on the role of pets in people's lives and in their community.

- Health researchers in Western Australia have investigated the positive role that pets play in our local communities. Through a random telephone survey of 339 Perth residents, they found that pet ownership was positively associated with social contact and interaction, and with perceptions of neighbourhood friendliness.³⁷ This building of social capital through greater interaction between members of the community is known to have positive effects on the health and economic viability of a society.
- Peter Messent, in his study of people walking with and without a dog in an urban park, has shown that the presence of a dog dramatically increases the number and length of conversations with other people.³⁸ Other research shows pets provide a focus for conversation and a means of 'breaking the ice', especially important for some elderly people, or for those with disabilities such as people in wheelchairs.³⁹ This effect is often referred to in the literature as 'social facilitation'.

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More information

This paper presents only a few examples from the history of research into the relationship between people and companion animals. Hundreds more scientific articles can be searched online at www.anthrozoology.org, a website portal to the world of human animal interaction research.

Australia – A nation of pet lovers

Australia is a nation of pet lovers. It is estimated that 63% of Australian households have some type of pet with 53% of households owning a dog or a cat.

The Petcare Information & Advisory Service (PIAS) provides non-commercial information on socially responsible pet ownership.

www.petnet.com.au