



# Nature and health research overview

# Nature and Health

## In brief

The understanding that spending time in nature is good for us is long established. There is a substantial and growing body of research that demonstrates this in both general health terms and with regard to a wide range of health conditions. In this resource, we focus on the wide body of evidence which looks at the relationship between nature and health.

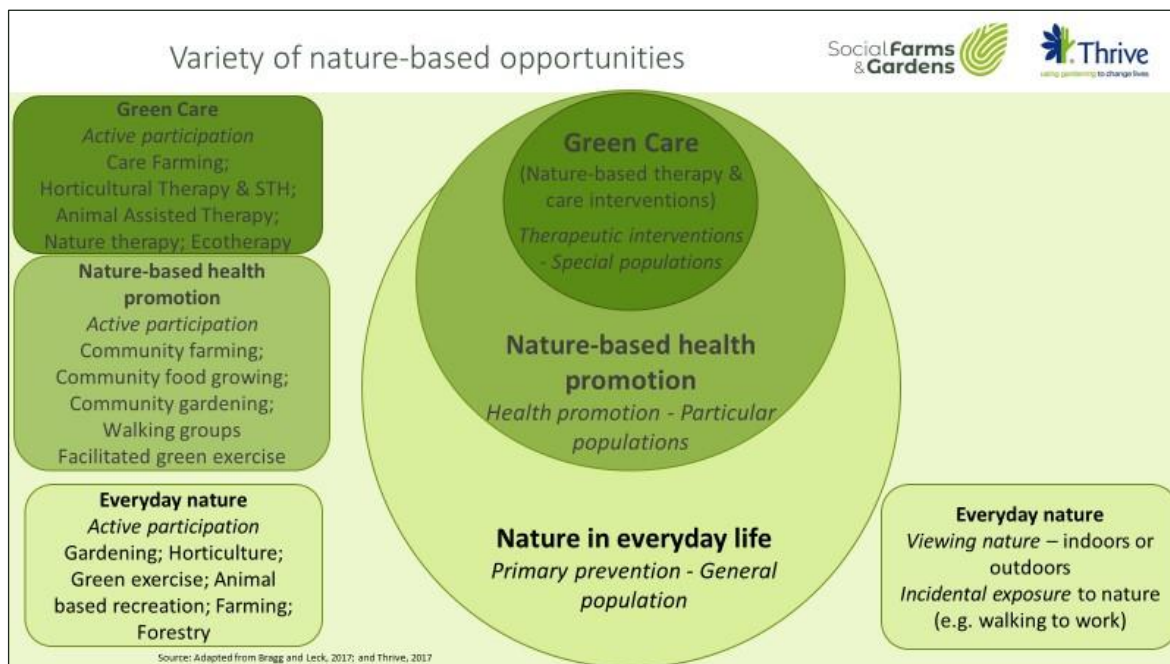
Spending time in nature can happen in many ways. We can have incidental contact with nature or choose to actively engage with it. From green exercise, to gardening for leisure, or to simply looking out on a natural view from a window, the research is clear. All types of nature contact can benefit our health and wellbeing in complex and interrelated ways. Benefits can be physical like reductions in levels of obesity and cardiovascular disease. Nature contact can also improve mental health and wellbeing with improved self-esteem, mood and an increased sense of calm.

Another benefit of contact with nature includes the development of a [connection to nature](#). This means the degree to which we include nature as part of our personal identities. It is our emotional relationship with the natural world, our knowledge and behaviour. Connection to nature is also linked with increased wellbeing. People who feel a stronger sense of nature connection are more likely to feel happy and fulfilled.

## Research overview

The research covering this subject area is broad. A rich and varied published evidence base covers UK and international populations. Many distinctions can be made within such a large body of evidence. One distinction is between '**passive**' and '**active**' exposure to nature.

**Passive** exposure can include viewing natural scenes outdoors or indoors. It can also be experiencing nature as you go about daily life, i.e., 'incidental' exposure. **Active** engagement includes being active in nature as a conscious decision. It could mean 'green exercise' or nature interaction through gardening, farming or conservation. All these nature experiences can be undertaken by individuals or groups. They can also be utilised as a nature-based intervention with intended health, social care or educational outcomes, i.e., green care. There is significant overlap between these approaches as shown in the diagram.



Active engagement with the natural world through activities like gardening and conservation is frequently found to have both positive physical and mental health implications. There are also wider interlinked societal benefits such as improved social inclusion. Activities such as gardening and horticulture have been shown to improve health and wellbeing both in general terms and for people with a range of pre-existing health conditions, the evidence for which is reviewed in Howarth (2017). The findings of research into the effects of gardening within a community setting on a variety of health conditions are also listed in Sustain (2016).

Many reviews of this nature and health literature exist (see Mitchell and Popham, 2008; Pretty et al 2016, Martin et al, 2020 for example). At a population level too, research shows higher levels of exposure to natural environments is associated with lower rates of mortality and higher rates of positive mental health. There is also a positive association between natural environments and lower obesity levels.

### Physical health

Increasingly sedentary lifestyles and the decreasing interaction with nature linked to Western cultures have resulted in a plethora of associated health conditions. This includes respiratory and circulatory diseases, obesity, type 2 diabetes and coronary heart disease. Taking part in activities in nature such as walking, cycling and gardening have been shown to have a more positive effect on physical health than exercise alone. The review by green exercise research from University of Essex and Lahart et al 2019 is a good example of this. Access to green spaces for urban residents is also a factor and is a particularly important consideration for children. Children’s physical activity levels and their lifelong relationship with the outdoors can be strongly influenced by early experiences.

The links between nature and physical health are complex with many interrelated factors. These can include proximity to nature, lifestyle and socio-economic influences. However,

the data consistently shows that larger amounts of green space generally equates to lower rates of mortality from all physiological causes.

## Mental health and wellbeing

The links between natural spaces and improved wellbeing are well established. We frequently 'escape' to natural environments for rest, relaxation, and restorative qualities. These help us destress from our daily lives. Time spent in nature increasingly forms part of social prescriptions for mental health. Theories such as Attention Restoration, PsychoEvolutionary and Biophilia agree that nature contributes to enhanced wellbeing, mental development and personal fulfilment. Three broad outcomes for spending time in nature have been identified. Each of these contribute to positive mental health:

- i) improvement of psychological wellbeing by enhancing mood and self-esteem, whilst reducing feelings of anger, confusion, depression and tension
- ii) generation of physical health benefits by reducing blood pressure, lowering cortisol and burning calories
- iii) facilitation of social networking and connectivity by enhancing social capital and reducing social isolation.

The evidence is clear that exposure to nature provides opportunities for multiple health benefits, both mental and physical.

## Sources

- Evidence Briefings – Natural England 2016
- Ecominds – Bragg 2013
- Howarth 2017
- Gladwell et al 2013
- Sustain 2016
- Mitchell and Popham 2008
- Pretty et al 2016
- Martin et al 2020
- White et al 2019
- Lahart et al 2019

## Further reading

- Sustain 2016
- Bragg 2012
- Bragg and Atkins 2016
- Lister 2019
- White et al, 2019
- Barton and Pretty 2010
- [Green Exercise Research](#) at the University Essex
- [European Centre for Environment and Human Health](#)

## More information

Find out more about [nature and health](#) on our website. This resource is produced by the Growing Care Farming team at Social Farms & Gardens.

Growing Care Farming aims to increase access to health, care and educational services on care farms. Growing Care Farming is part of the Government's Children & Nature programme and is delivered by Social Farms & Gardens, in partnership with Thrive.

Visit [www.farmgarden.org.uk/gcf](http://www.farmgarden.org.uk/gcf) for more details or follow our latest updates on Twitter [@GrowCareFarming](#).

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