

# Nature, Health & Human Wellbeing

A summary of current evidence on the relationship between immersion in natural environments and improved health outcomes.

 Conservation Council ACT Region



**98%**

Of studies showed improved  
mental health outcomes

**68%**

Of humans projected to live in  
urban areas by 2050

**39%**

Higher risk of mood disorders in  
urban dwellers

## 1 Executive summary

*There is a growing body of scientific evidence confirming that regular, meaningful contact with natural environments produces measurable, sustained improvements across physical, mental, and social health. This document is a synthesis of that evidence for practitioners, policymakers, and the public alike.*

The increasing urbanisation of humankind, whilst providing many benefits, has also resulted in more people being physically and emotionally disconnected from the natural world. This has manifested in a range of different negative impacts, including psychological and physical burnout. The trend of ‘othering’ humans from nature only seems to be increasing as societies continue to develop, showing little sign of slowing down.

However, a growing wealth of contemporary scientific study is identifying and developing ways in which reconnecting with the nature that surrounds us, at any scale, can truly help ameliorate mental, physical, and cognitive wellbeing. ‘Touching grass’ is truly beneficial.

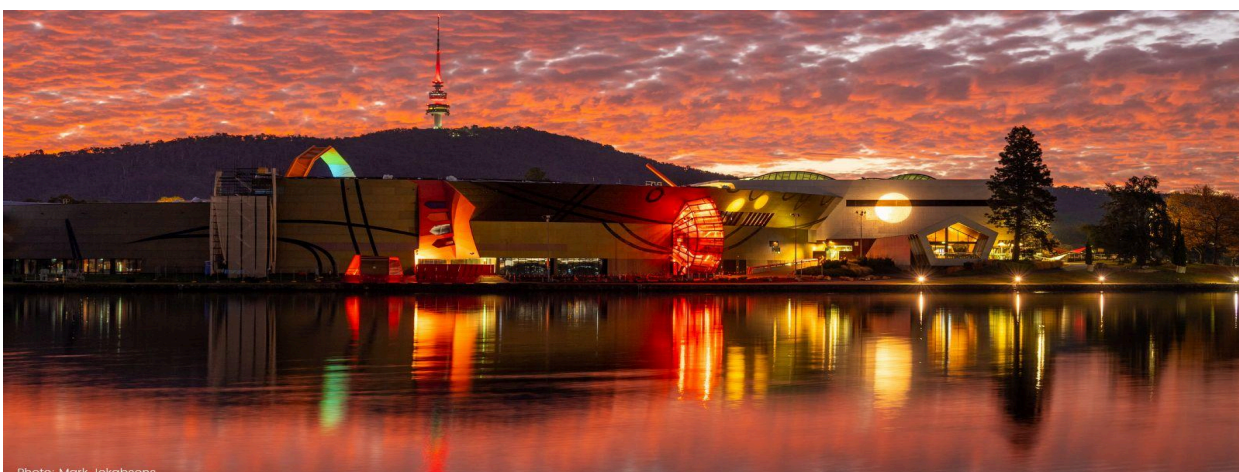
This summary aims to present a brief, digestible synopsis of the cutting-edge evidence that suggests immersion in nature has quantifiable benefits for those who, whether subconsciously or actively, choose to utilise green spaces.

## 2 Background & context

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Urbanisation and city living represent arguably the single-greatest demographic shift in the history of humankind. By 2050, it is projected that almost 70% of humans will live in urban areas (UN, 2018). The UN also predicts that in that same time frame, two-thirds of population growth will originate from cities, with much of the rest of the growth concentrated in towns (UN, 2025). Due to the inherent distancing from nature that arises from urban living, this presents a world in which up to 7 billion people will live in areas that remove them from physical, emotional, and spiritual connection to nature, using figures from the UN’s 2017 world population projection. Severance from nature feels almost inevitable as a result of urban living, unless there is a paradigm shift in daily urban life, with surveys revealing American adults spend >90% of their time indoors on average (Frumkin, H. et al., 2017).

Another important factor in modern life is the incidence of poor mental health. Poor mental health is not a purely contemporary phenomenon; recent methodologies and greater societal interest mean that we are paying more attention to the issue and how it manifests. Data shows that almost half of Australian adults have experienced a mental health disorder at some point in their lives (ABS, 2023), meaning this is an issue that will affect all of us, either directly or someone that we care about. Increased rates of urban living have often been linked to comparatively poor mental health. A 2011 study investigating such relationships found that risk for mood and anxiety disorders is 39% and 21% higher in urban settings, respectively (Lederbogen, F. et al., 2011). Whilst it is important to appreciate that the underlying causes for worsening mental health should not be oversimplified, it is equally important to explore potential tools to help those suffering from poor mental health.



### 3 The evidence: mechanisms & key findings

Several well-established theoretical frameworks explain the pathways through which contact with nature produces health benefits.

<b>Attention Restoration Theory</b>	<b>Stress Recovery Theory</b>	<b>Biophilia hypothesis</b>
Natural environments restore directed attention by engaging involuntary attention, allowing cognitive fatigue to recover (Kaplan & Kaplan, 1989).	Nature triggers psychophysiological stress recovery via reduced sympathetic nervous system arousal and lowered cortisol (Ulrich, 1983).	Humans possess an innate affinity for living systems; contact with nature fulfils a fundamental biological need (Wilson, 1984).

Evidence for the mental health benefits of connection to nature is becoming increasingly robust and well-documented. A systematic review of 39 studies examining individuals with poor mental and/or physical health found that 92% reported improvements in outcomes following engagement with natural outdoor environments. Mental health outcomes specifically improved in 98% of studies reviewed, with physical and cognitive health outcomes improving in 83% and 75% of cases, respectively (Nejade, R.M. et al., 2022). These figures present a glowing endorsement of nature-based solutions as a low-cost tool to help combat poor individual health, especially from a mental health perspective.

The strength of an individual's connection with nature also acts as a multiplier for any received benefits from spending time outdoors. A 2024 Australian study found that individuals who spend more time in green spaces score lower for stress, anxiety, and depression, but crucially, the magnitude of that benefit was directly related to how strong their pre-existing connection with nature was (Chang, C.C. et al., 2024). Not only does this imply that positive effects from guided nature exposure could extend long beyond a single outing, but also that encouraging genuine understanding and connectedness are invaluable for long-term programme success.

There are significant implications for young people, too. Research indicates that teenagers and young adults are increasingly disconnected from nature, with connections declining from as young as age 10 and not recovering until as late as their 30s (Richardson, M. et al., 2019). Yet the evidence also shows that young people aged 11–15 who perceived connection to nature as important demonstrated markedly better psychological well-being than those who did not (Capaldi, C. et al., 2014). Early engagement at a time when young people are particularly vulnerable could yield real, long-lasting benefits and even provide a genuine step to heal the divide between humans and the natural world we are removing ourselves from, both on an individual and societal scale.

Exposure to natural environments also leads to increased care for environmental causes. One study demonstrated this by giving participants different stimuli that varied in natural exposure strength and a €10 endowment; the results indicated that those who were exposed to stronger stimuli were more likely to donate their €10 to conservation charities, when given a choice whether to keep it or donate (Flecke, S. L., et al., 2024). Furthermore, a similar study

found that exposure to nature not only led to increased generativity towards environmental issues, but also increased generativity towards prosocial causes (Korlat, S. et al., 2025), highlighting how encouraging nature connectedness can improve conservation efforts, as well as help foster tighter-knit communities.

Nature immersion has been shown to increase life satisfaction and prosocial behaviour, with exposure to natural environments found to increase generosity and interpersonal trust (Zhang, J.W. et al., 2014; White, M.P. et al., 2013). The evidence base also extends, with varying strength, to cardiovascular health (eg. Scott, E. et al., 2020), cognitive function (McDonnell & Strayer, 2024), immune response (Andersen, L. et al., 2021), and early years development (Johnstone, A. et al., 2022), though these domains are less extensively studied than mental health outcomes.



*“According to the best available evidence, nature contact offers considerable promise in addressing a range of health challenges, including many, such as obesity, cardiovascular disease, depression, and anxiety, that are public health priorities.”*

Frumkin, H. et al., p. 10, 2017

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## **4 Implications & conclusion**

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Despite only touching on a fraction of the available evidence base, it is clear to see that the potential benefits of getting people outside are as diverse as they are numerous. The Anthropocene is here, and with it comes unprecedented challenges; at a time when we are extracting so much from nature, ‘touching grass’ is a rare example of something we can take that is wholly beneficial. As shown, there are a whole host of benefits for individuals, but moreover, the more people who are empowered to get outside, the more allies nature has to fight its corner at a time when it truly needs them.

We are at a crossroads. The “further the imbalance in the human–nature relationship, the greater the 'madness' found amongst human beings, and greater the likelihood of ecological destruction” (Divya, C., & Naachimuthu, K. P., p. 84. 2020, Naoufal, N., 2016). We have the opportunity to reestablish a more symbiotic relationship with the outdoors, where we reap the mental, physical, and societal benefits, and in turn inspire previously othered individuals to steward nature. Looking forward, genuine value should be placed in developing and strengthening systems that enable more people to connect with nature, both for their own health and the health of the planet.



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