



wave

Into The Blue

**Blue Health and Surfing
in the 21st Century
EXECUTIVE SUMMARY**

A Report by The Wave
March 2020

For the full report, all references and bibliography visit
www.thewave.com/blog/health/blue-health-report

Research has shown blue environments might allow us to tackle major public health challenges such as obesity, physical inactivity and mental health disorders.

About Blue Health,
Bluehealth2020.eu

Blue Health - a bit of history

There is a growing body of scientific evidence to support the belief, which many people instinctively have, that spending time near or in water is good for us. More and more studies are being carried out to look at how and why being near water has a positive impact on our mental and physical health and wellbeing.

Research in 'green health' started back in the 1980s. This is a branch of medicine that includes sustainability, philosophy, and the relationship between human health and the environment. There is now a growing consensus that being in contact with nature contributes to good physical and mental health; once seen as an eccentric concept in the UK, green health is now a part of the NHS strategy.

Over time researchers began to also look at the specific impact of water environments on human health and an off-shoot of 'green health' research emerged called 'blue health'.

In the mid-2010s, a team from the Barcelona Institute for Global Health analysed the 35 best investigations of blue space and health and wellbeing, and concluded that blue space had been shown to instill positive feelings and a sense of wellbeing.

At the start of 2020 there are dozens of other independent researchers investigating blue spaces and blue health. Exposure to blue space has been clearly linked to improvements in physical and mental health and wellbeing, and there are more and more organisations offering forms of 'blue care' to help improve health and wellbeing.



Blue Care and Surfing Therapy

Today more and more people are using water-based activities as therapy, or blue care, to help people with various health issues or other challenges. Surf-therapy is particularly common and is currently being used to help people with physical disabilities, military veterans with Post-Traumatic Stress Disorder (PTSD) and young people with mental health problems, among others.

Despite its reputation as an activity requiring high levels of skill, inexperienced participants take to surfing with great enthusiasm. This seems to be in keeping with an old surfing saying that 'The best surfer is the one having the most fun.' In other words, having fun in the water quickly becomes as important as, or perhaps more important than, surfing ability.

Surf-therapy has been used with great success as a way to help military veterans suffering from PTSD in both the USA and UK. Surf-therapy schemes for UK veterans have found that it's well suited to help with particular problems experienced by men and women suffering from PTSD and depression, as well as helping recovery of balance and control over limbs.

The UK – particularly the southwest of England – has been among the world leaders in exploring the potential of blue health, and in 2010 it saw the launch of the world's first surf-therapy course, funded by the National Health Service. The course was entitled The Wave Project and began at Watergate Bay in Cornwall in September 2010, with a group of 20 young people who all had mental health disorders, such as depression, self-harm, schizophrenia and severe anxiety. It was a big success and the final report concluded that it 'demonstrated a valuable and cost-effective way to deliver mental health care, to mentor and encourage social integration of young people'.

In 2017, The Wave Project joined a group of six other surf-therapy organisations from different countries to form the International Surf Therapy Organisation (ISTO). ISTO now has more than 30 members worldwide, each using surfing for social good.

There are dozens of other blue care initiatives around the world, including projects for children suffering from autism, physical disabilities, women who have survived breast cancer, and adults coping with drug and alcohol addiction.

U Surfer really does teach you resilience, strength, confidence and courage. The Water has been hugely empowering, and I've seen it change other people's lives. I've seen people who thought they could never go in the water, and then they do, and they feel that 'If I can do this, I can do anything'.

Sophie Hellyer
Former UK Pro Surfer

Why do blue spaces make us feel good

One theory about why blue spaces might make us feel good involves a concept called 'biophilia' proposed in 1984 by a biologist called E. O. Wilson. This suggests that there is a bond with nature and animals that evolution has left in humans' genetic make-up. Wilson argues that because elements in nature were so vital to us as we evolved, we have retained a built-in impulse to interact with nature and we feel good when we do. Water was especially important to us, as it was a source of food and drink. Advances in neuroscience seem to support Wilson's idea, with recent research showing that natural environments directly affect our nervous system, triggering nerve impulses that make us feel more positive and less stressed.

Blue spaces can be said to affect our mental health and wellbeing in three ways: boosting us when we're OK; helping to prevent mental distress, and finally, restoring wellbeing when we're having problems.

We don't have to be suffering from extreme stress or poor mental health to benefit from blue spaces. 'Stress Recovery Theory' suggests that after suffering stress, humans have a biological impulse to go to another place where we can recharge our energy levels, renew our positivity and ease the effects of the stress on our bodies. In natural environments we take more notice of things and respond more positively to them, and so seem to recover better from stress in these settings.

Researchers have identified two kinds of human attention: 'directed', which is strongly focused (the kind of concentration we might use driving a car); and 'involuntary' or 'non-directed', which is the kind we might give to distant noises or passing clouds, for example. It appears that nature gently stimulates our involuntary attention, while giving our directed attention a rest, allowing our minds to relax and restore themselves.

Sound is also thought to be a big part of why being near water and in nature is relaxing. The sounds made by water in natural settings, such as gentle river currents and the soft sound of waves washing ashore, fall into the category of 'pink noise'. This is the name given to a range of sound made up equally of all the sound frequencies that humans can hear, but with more volume at the lower frequencies - 'white noise with the bass turned up' as it's sometimes called! The sounds of water alone can be enough to reduce stress in people.

The calmness that people seem to feel when they are close to water has been shown to be generally more pronounced in surfers. Compared to the general population, they are more likely to show significantly lower levels of depression and anxiety, and to be less likely to get emotionally upset by stress. Researchers suggest that this is down to the nature of surfing, specifically its combination of physical exercise and the absorption people experience when riding waves. More research is needed in this area before we can explain certainly why surfing makes us calmer, but we do know that exercise lowers stress levels and is more effective when done in the presence of water.

Surfers often say that riding a wave enables them to momentarily become 'at one' with the powerful combination of natural forces that make up a wave coming into shore. This feeling seems similar to the 'Flow' mindstate identified by psychologists, which makes us more productive. It is thought that having experiences in which we are completely absorbed to the exclusion of all else – such as surfing – can benefit our overall sense of wellbeing.

Surfers also often talk about therapeutic feelings of awe and smallness in the face of natural forces that some researchers refer to as the 'small self'. These feelings of awe when interacting with nature and their effects on our wellbeing have been investigated by several researchers in recent years. An influential 2015 study found that feelings of awe induced by nature appeared to boost the immune system.





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Surfing to me is more than just a sport, a culture, a way of life. It's my medicine, my reset button, the thing I do to rediscover the best version of myself.

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Nick Hounsfield
The Wave Founder

Why cold is good

Research has also shown that there may be particular physical and mental health benefits from spending time in cold water. Cold-water surfing has similarities with other activities grouped together under the banner of cold-water immersion, from cold-water surfing and wild swimming, to simply taking cold showers. Our bodies react to cold water in the short term, but research seems to show there may also be important long-term health benefits.

Repeated cold-water immersion can reduce the body's likelihood to become inflamed and people with low inflammation have been shown to be more likely to live up to 100 years or longer. Low inflammation has also been associated with lower rates of depression, and in addition colder water appears to trigger the release of the chemicals dopamine and serotonin, and endorphins which are linked to improved mood and reduced feelings of depression.



Blue Health and The Wave

The Wave was created to make the benefits of surfing and green and blue health accessible to everyone. It was conceived by its founder, Nick Hounsfield, as a restorative space, which would benefit mental health and wellbeing.

In 2020, The Wave is working with the Avon and Wiltshire Mental Health Partnership NHS Trust to run a pilot trial looking at the impact of introducing surfing, as part of the Trust's Recovery Through Sport Programme, which is run by the Early Intervention in Psychosis team. It will also be running a surf therapy programme with The Wave Project to help improve mental wellbeing and resilience for vulnerable children in Bristol.



In Conclusion

It appears that interest in blue spaces and blue health is so strong that people are innovating and experimenting more quickly than experts and scientists can formulate hard evidence and policy. Blue health, blue care and surf-therapy are in the early stages of development as serious treatments, but the field is all the more exciting for that; discoveries that will be made in the next few years may well improve the lives of countless people in years to come. For millions around the world, blue health is a journey, and one that is only just beginning.

For more information, images or interviews contact abby@thewave.com

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Overall, the studies suggest that blue care can have direct benefit to health especially mental health and psycho-social wellbeing



Blue care: a systematic review of blue space interventions for health and wellbeing, 2018 (E. Britton, G. Kindermann, C. Domegan and C. Carlin)



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