



## An Advocacy towards 'Green Podiatry' – Call for Change to save our Planet!

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**Received:** December 18, 2023

**Published:** January 11, 2024

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### Abstract

Healthcare aims to promote good health and yet contributes to climate change. Striving for a healthier planet translates to keeping people healthier. Health care professionals including podiatrists should strive hard to help promote environmental awareness. We have a responsibility to act now to achieve a more resilient and sustainable healthcare industry for our future generations. We need new solutions and new social structures to help solve this global crisis. Changes in clinical practice adopted by all health care professions could bring about a sustainable future!

**Keywords:** Green Podiatry; Health; Climate Emergency; Climate Change; Healthcare; Greenhouse Gases; Sustainability

### Background

Climate change is a growing health threat around the world contributing to food insecurity, cardiorespiratory ailments, and many other health issues. Although the health care industry aims to promote good health one could argue against its green credentials and this industry is part of this growing problem. It accounts for over 4% of global CO2 emissions [1].

The effect of climate change will affect people's health in the next decades putting the lives and livelihoods of millions of people around the globe at risk [2] Reports also show that climate change has been responsible for the loss of 5.5 million disability adjusted life years (DALYs) in the year 2000. This relates to deaths caused by cardiovascular diseases, diarrhoea, malaria and accidental injuries amongst others [2]. Many health conditions could be prevented through a healthy environment and good behaviours. One of the recent reports indicates that in London, the combined number of admissions for air pollution-related asthma and COPD across the studied population exceeds 1,700. Among these admissions, more than one-third are for children with asthma. This highlights the fact that less pollution would translate into fewer asthma attacks and cardiovascular diseases [3].

The current awareness and action amongst the healthcare community regarding the negative impact that this sector is imposing on the natural environment and society, is very low both in Europe and around the globe [4]. Sustainable healthcare can be defined as - "a complex system of interacting approaches to the restoration, management and optimisation of human health that has an ecological base, that is environmentally, economically and socially viable indefinitely, that functions harmoniously both with the human body and the non-human environment, and which does not result in unfair or disproportionate impacts on any significant contributory element of the healthcare system" [5].

The World Health Organization [WHO] has been working on climate change and health for over 25 years - advocating, collecting evidence and providing comprehensive support to countries in dealing with health effects of climate change. Furthermore, every two years, the WHO organizes dedicated Global Conferences on Health and Climate Change. In this regard, global leaders, policy makers and medical professional associations are advocating for environmental sustainability [6]. Everyone is encouraging the incorporation of climate change into their strategic plan. With a bit of

help from everybody we can try to save our planet. Governments, non-governmental organisations (NGOs), communities, and academics from all disciplines need to come together to discuss the effects of climate change on health and propose a solution to fight this before it is too late and more devastating problems and damage occur [7].

The WHO [6] has also suggested how the health sector can contribute to the global climate crises and that a multidisciplinary approach is needed to reduce the adverse health effects of climate change. Podiatrists, as part of the multidisciplinary team, can help fight this global concern by encouraging positive environmental practices, which may be effective in changing the wider community behaviours'. This paper focuses primarily on the role of the Podiatrist to help fight the biggest global health threat of the 21<sup>st</sup> century by giving examples of changes in work practice.

A new advocacy and public health movement is needed urgently to bring together governments, international agencies, non-governmental organisations (NGOs), communities, and academics from all disciplines to adapt to the effects of climate change on health. A new advocacy and public health movement is needed urgently to bring together governments, international agencies, non-governmental organisations (NGOs), communities, and academics from all disciplines to adapt to the effects of climate change on health.

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### Call for action.

No country will remain unaffected by the ill effects of climate change. Therefore, action must be taken before it is too late. Podiatrists are widely engaged within the community due to the nature of their profession, hence they can act as advocates to bring about behavioral changes amongst their patients by introducing sustainable clinical practices and foot products. They should also aim to deliver 'healthcare without harm' [7]. A few main areas in which the Podiatric profession can contribute towards sustainable out-

reach includes telehealth, sustainable footwear, empower patients towards a healthier lifestyle and encourage physical activity.

Podiatrists could also adopt a 'green environment' in their clinics by introducing solar energy to generate electricity saving on emissions. Reducing and proper disposal of healthcare waste such as sharps waste, infectious waste and pharmaceutical waste will reduce toxic contaminants in air emissions and ash which are known to harm the environment. A call for change in the Podiatry Curriculum to educate undergraduate health care professionals towards this positive change in work practice together with professional development courses to advocate on the importance of this change together with patient education are needed if we want to move towards a 'greener planet'.

### Telehealth

Telemedicine is the remote delivery of medical care through information and communication technologies [8]. The introduction of telehealth was challenging at first to both patients and clinicians since there was belief that a virtual appointment is not as effective as a face-to-face appointment. However, telehealth has been found to not only help people from a medical aspect but also reduce greenhouse gas emissions, thereby reducing the negative impact on our planet. Advances in telehealth technology have made it possible to see a podiatrist from the safety and comfort of your home when an in-person consultation is not required, thus saving time from travelling to health clinics, especially for those persons who either live in remote locations or due to poor health or disability issues cannot commute easily when required. Whenever one experiences symptoms, telehealth can facilitate a quick diagnosis through a detailed discussion of symptoms and medical history. Telehealth also allows a patient to share photos describing symptoms and have prescriptions electronically sent. Educational videos can also be shared by using this method of communication and technology. Thus, telehealth can help reduce carbon emissions, specifically allowing patients to connect with healthcare providers without relying on a car. It has been calculated that the carbon footprint savings ranged between 0.70 -372kg CO<sup>2</sup> per consultation. It also reduces driver stress for all that time not spent on the road, thus also reducing traffic congestion. Telehealth helps save energy and raw materials such as paper, plastic and fuel thereby lowering the carbon footprint of the health industry [9]. The COVID 19 pandemic has shown even meetings and conferences could be delivered utilizing an online platform and thus reduce the carbon footprint by 94% [10].

### Sustainable footwear and orthosis

Nowadays, footwear brands are trying to reduce environmental impact by offering the option of sustainable footwear better known as 'green shoes'. These shoes are today being made from materials including recycled plastics, durable canvas, eco-friendly glues and plant-based products. To give a few examples, the soles of the shoes are generated from the natural rubber from rubber trees and the uppers are made from organic cotton, 100% recycled plastic bottles, bamboo and Eucalyptus bark. The outers of the shoe are being manufactured from algae foam and shoe boxes from post-consumer waste. Materials like vegan and eco-friendly materials like hemp, cork and denim are also being used. Some shoes are also made from bio-based material [cyclon], no dyes and thermoplastic polyurethane [TPU]. Certain companies are also offering the possibility to return shoes when 'worn out' where they are washed, munched to pellets and melted into a material to make a new pair of shoes – *zero waste!* [11]. Furthermore, it has been suggested that orthoses packaging and mode of delivery of these products should move towards a reduction of single-use plastics and packaging, the introduction of biodegradable bags, the introduction of a large reusable box instead of cardboard boxes and the substitution of company cars from diesel to utilizing electric vehicles could all help to reduce carbon emissions.

### Increase physical activity

Podiatrists should encourage patients to increase their physical activity on a daily basis. This will not only improve their health outcomes such as obesity, diabetes, stroke, heart attacks amongst others but walking or cycling instead of driving or even taking public transport decreases greenhouse gas emissions. Increased physical activity results in reduced risk of overweight and chronic diseases and has the potential to reduce transport's major contribution to global CO2 emissions. The COVID 19 pandemic showed that when our lifestyles slowed down due to lockdowns, *the planet started to heal!* Less traffic on land, sea and sky led to less air pollution and nature became more active [12]. People engaged more in walking and cycling during that period thus individuals should start to rethink their mobility choices rather than opting once again for transport. Walking and cycling relieve stress and improve general fitness levels.

### Conclusion

Striving for a healthier planet translates to a healthier population. Health care professionals including podiatrists should strive hard to help promote a 'greener' environmental awareness. We have a responsibility to act now to achieve a more resilient and sustainable healthcare industry for future generations. By spreading awareness on climate change to healthcare professionals,

students and patients we can help save our planet! We need new solutions, new social structures, and new economics and a change in culture to help solve this crisis. Such changes in clinical practice adopted by all health care professions could bring about a sustainable future!

### Statements and Declarations

The authors have nothing to declare. All authors contributed to the study conception and design. Material preparation was performed by Professor Cynthia Formosa. The first draft of the manuscript was written by Professor Cynthia Formosa and all authors commented on previous versions of the manuscript. All authors read and approved the final manuscript.

### Competing Interests and Funding

No competing interests and no funding was received.

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