Professor Christopher H E Imray

MB BS, DiMM, Clin Med Sci, PhD, FRCS, FRCP(Hon), FFSEM, FRGS.

Background and Expertise

Clinical medicine and surgery

Professor Chris Imray is a vascular, renal transplant and trauma surgeon based at University Hospitals Coventry and Warwickshire NHS Trust.

He is a fully registered medical practitioner (GMC 2837372) and holds the degrees of MBBS (London), FRCS (Edinburgh), and PhD (University of Glamorgan). I hold the Diploma in Mountain Medicine (University of Leicester) and a Diploma in Clinical Science (University of Leicester).

He was awarded a personal chair at Warwick Medical School in April 2009, an Honorary Fellow of the Royal College of Physicians in May 2009 and he holds honorary chairs (professorships) at Coventry University and Exeter University.

He was President of the Vascular Society of Great Britain and Ireland 2019-2020 and is the current Chair of the Professional Standards Committee.

Medico-legal experience

He has undertaken cold related medico-legal work since 2010, and for the past 7 years, he only accepts instructions for cold injury related claims. The division of instructions received from solicitors acting for the claimant and firms acting for the defence is roughly an equal split. Occasionally he is asked to work as a Single Joint Expert (SJE).

He is the only medical expert in the UK to exclusively undertake cold related medico-legal work. With a combination of his lived cold experiences (Everest / South Pole), his peer reviewed cold and altitude research, his textbooks and his extensive and exclusive cold medicolegal practice he is a recognised international expert in this field.

Prof Imray's notable contributions to improving the understanding of cold injury care.

1. He set up the British Mountaineering Council Frostbite Service in 2004. https://www.thebmc.co.uk/en/how-to-get-expert-frostbite-advice
2. He was part of the writing committee for the 'Montgomery' Report: The Non-Freezing Cold Injury (NFCI) Review Group 2013
3. He is a founding member of Non-Freezing Cold Injury (NFCI) Independent Senior Advisory Committee (NISAC*) 2019.* https://www.nisac.org.uk
4. He is the Chair of the International Frostbite Resource Group-UK in 2025. https://www.ifrg-uk.co.uk

Cold and altitude experience

His research interests include frostbite, non-freezing cold injury, high altitude illnesses, neuropathic feet, limb salvage, orthoses in diabetic and other associated neuropathies, carotid surgery, fitness for surgery, and cerebral perfusion at high and extreme altitude. In October 2026, he had 221 peer-reviewed papers listed on PubMed.

He is an active climber and mountaineer being a member of the Caudwell Xtreme Everest Expedition in 2007, successfully summiting both the sixth highest mountain in the world Cho Oyu (8,201m) on 2nd October 2006 and Mount Everest (8,848m) on 23rd May 2007. The expeditions carried out a huge range of highly sophisticated research projects investigating aspects of oxygen delivery to tissues at altitudes as high as 8500m under conditions of extreme cold and hypoxia. We published over 50 high impact papers following this expedition.
He regularly teaches on national and international courses to post-graduates on frostbite and high altitude. Whilst many of these are classroom courses, many are field courses. He teaches regularly on the Extreme Medicine Polar Course in Norway. This is an immersive course where we take beginners and educate them in how to live, move and sleep outdoors safely in polar conditions. We experienced temperatures as low as -35°C on the last course in 2025.
In January 2019, he completed a 30-year quest to climb the highest peak on each of the seven continents – the Seven Summits. On Mount Vinson in Antarctica, we experienced temperatures as low as -37 to -40°C with 25 mph winds giving a wind chill factor of -60°C.
In January 2023, he completed a 950km ski expedition to the South Pole in temperatures which at times dropped down to -50°C. He lost 12kg in weight despite eating >5,500Cals /day. This was part of the Inspire 22 Medical Research Expedition which has so far published 8 peer review papers. https://www.inspire22.co.uk
I am one of the authors of the British Medical Journal's 'Book of the Year' in 2016 and 2023 (4th edition in preparation):
Chris Johnson, Sarah Anderson, Jon Dallimore, Chris Imray, Shane Winser, James Moore, David Warrell. Oxford Handbook of Expedition and Wilderness Medicine. 2nd Edition 2015. ISBN-13: 978-0199688418

Selected (from over 100) recent cold peer review papers

1. Imray C, Musto L, Poole A. Frostbite - Time is Tissue: The Modern Vascular Management of Freezing Cold Injuries. Eur J Vasc Endovasc Surg. 2026 Jun 24:S1078-5884(26)00623-4. doi: 10.1016/j.ejvs.2026.06.043.
2. Dodge RE, Zheng H, Windsor JS, Sutherland AI, Imray CH, Moore GWK, Semple JL, Roach RC, Salisbury RA, Firth PG. Updates to mortality on Mount Everest: 1921-2024. J Physiol. 2026 Apr 22. doi: 10.1113/JP290840.
3. Hattersley J, Imray C, Wilson AJ. Changes in peripheral IR thermography and energy expenditure on cooling in men and women following sustained strenuous activity in Antarctica. Sci Rep. 2026 Jan 9. doi: 10.1038/s41598-026-35294-y.
4. Hattersley J, Thake CD, Imray C, Wilson AJ. Changes in metabolic energy measures for daily living activities and exercise in men and women following arduous activity in Antarctica. PLoS One. 2025 Oct 31;20(10):e0335735. doi: 10.1371/journal.pone.0335735. PMID: 41171754; PMCID: PMC12578249.
5. Gifford RM, Taylor N, Kendall J, Hattersley J, Homer NZM, Woods DR, Imray C, Wilson AJ. Preserved circadian variation in cortisol and androgens during a ski traverse of

Antarctica in summer. Sci Rep. 2025 May 22;15(1):17726. doi: 10.1038/s41598-025-01165-1. PMID: 40399306; PMCID: PMC12095593.
6. Dr Chris Imray. Once Bitten. Alpine Club Journal 2024: Vol 128 Number 372 p 187-192. ISBN 978-1-7399535-3-9
7. BMJ Frostbite Best Practice. E Kaufman and C Imray. November 2026. https://bestpractice.bmj.com/topics/en-gb/997
8. Wilson AJ, Gifford RM, Crosby H, Davey S, Taylor N, Eager M, Thake CD, Imray CHE. Changes in body composition and average daily energy expenditure of men and women during arduous extended polar travel. PLoS One. 2024 Oct 10;19(10):e0308804. doi: 10.1371/journal.pone.0308804. PMID: 39388506; PMCID: PMC11466405.
9. McIntosh SE, Freer L, Grissom CK, Rodway GW, Giesbrecht GG, McDevitt M, Imray CH, Johnson EL, Pandey P, Dow J, Hackett PH. Wilderness Medical Society Clinical Practice Guidelines for the Prevention and Treatment of Frostbite: 2024 Update. Wilderness Environ Med. 2024 Jun;35(2):183-197. doi: 10.1177/10806032231222359. Epub 2024 Apr 5.
10. Zafren K, Hollis S, Weiss EA, Danzl D, Wilburn J, Kimmel N, Imray C, Giesbrecht G, Tipton M. Prevention and Treatment of Nonfreezing Cold Injuries and Warm Water Immersion Tissue Injuries: Supplement to Wilderness Medical Society Clinical Practice Guidelines for the Prevention and Treatment of Frostbite. Wilderness Environ Med. 2023 Jun;34(2):172-181. doi: 10.1016/j.wem.2023.02.006. Epub 2023 Apr 30. PMID: 37130771.
11. Tam A, Lyons T, Vennam S, Barnes R, Imray C. Early Use of Iloprost in Nonfreezing Cold Injury. Wilderness Environ Med. 2022 Jul 12:S1080-6032(22)00068-0. doi: 10.1016/j.wem.2022.04.009. Epub ahead of print. PMID: 35840449.
12. Hattersley J, Wilson AJ, Gifford R, Facer-Childs J, Stoten O, Cobb R, Thake CD, Reynolds RM, Woods D, Imray C. A comparison of the metabolic effects of sustained strenuous activity in polar environments on men and women. Sci Rep. 2020 Aug 17;10(1):13912. doi: 10.1038/s41598-020-70296-4.
13. Longman DP, Brown EL, Imray CHE. Nonfreezing Cold Injuries Among Long-Distance Polar Rowers. Wilderness Environ Med. 2020 Apr 16. pii: S1080-6032(20)30008-9. doi: 10.1016/j.wem.2019.12.009.
14. Imray CH. Non-freezing cold injury J R Army Med Corps. 2019 Jan 13. pii: jramc-2018-001145. doi: 10.1136/jramc-2018-001145.

Summary

In summary, I am an active high-altitude climber and researcher, polar explorer and researcher, an academic vascular and transplant surgeon and an acknowledged expert in the prevention and treatment of cold, non-freezing cold and frostbite