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# Successful Delayed Hyperbaric Oxygen Therapy and Iloprost Treatment on Severe Frostbite at High Altitude

[Dre Marie-Anne Magnan](#)<sup>1</sup>, [Marco Gelsomino](#)<sup>2</sup>, [Pierre Louge](#)<sup>1</sup>, [Rodrigue Pignel](#)<sup>1</sup>

Affiliations [expand](#)

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## Abstract

Magnan, Dre Marie-Anne, Marco Gelsomino, Pierre Louge, and Rodrigue Pignel. Successful delayed hyperbaric oxygen therapy and iloprost treatment on severe frostbite at high altitude. *High Alt Med Biol.* 23:294-297, 2022.-Frostbite is an injury caused when tissues freeze. Severe frostbite can result in amputation. Hyperbaric oxygen therapy (HBO) may improve frostbite outcome. The patient, a 36-year-old man, was climbing above 6,000 m in Kyrgystan when he fell into a crevasse and lost his gloves. The outside temperature was -30°C. He sustained grade 3 frostbite of both hands, which carries a high amputation risk. He was rescued by local responders and transported to the local hospital: neither rapid rewarming in warm water nor other specific frostbite treatment was given. The patient was repatriated to Geneva (day 2). On day 3, he received medical care including iloprost infusion for 7 days and daily HBO for 3 weeks. His hands healed in <1 month. He suffered no amputation. At 6-month follow-up, no early arthritis was found. Three years later he was able to climb again and play volleyball. He still does not have any clinical arthritis at 4-year follow-up. Iloprost is less effective when initiated longer than 48 hours after frostbite injury. Despite the delay, the patient did not require amputation, as might have been predicted by the injury. The combination of HBO and iloprost may have contributed to this favorable outcome.