

DEFINITION

1. **Immersion foot** is no-freezing cold injury of the lower extremity in wet conditions.

CLINICAL FEATURES

2. **Pre-hyperaemic phase.** This lasts 6-24 hours. The feet are white and cold with paraesthesiae. The toes and ankles are stiff, and walking is difficult. Ankle jerks and deep tendon sensation are reduced or lost. Peripheral pulses may be impalpable. The tissues feel resilient.
3. **Hyperaemic phase.** This lasts up to 2 months. The feet are hyperaemic, hot, painful and oedematous. The swelling is aggravated by heat, movement and the dependant position. Haemorrhagic or serious blebs appear, sometimes also with acchymoses and petechiae. Gangrene may supervene but, if it does so, then it is usually superficial. Complications are lymphangitis, cellulitis and thrombophlebitis. Pain and anaesthesia gradually recede. Muscle atrophy and osteoporosis may follow. Mild cases recover but severe cases progress to Phase c.
4. **Post-hyperaemic phase.** This is a chronic late vasospastic phase with increased and exaggerated sensitivity to cold. The foot may become permanently cold, with pain on warming, hyperhidrosis and paraesthesiae. There is a secondary Raynaud's syndrome.

AETIOLOGY

5. Prolonged exposure of the lower extremities in cold wet conditions such as wearing wet socks or shoes, standing in flooded trenches or immobilization in cramped wet cold conditions such as lifeboats.
6. Risk and exacerbating factors are sleep deprivation, starvation, smoking, peripheral atherosclerosis and immobility.

CONCLUSION

7. **Immersion foot** is an injury to the lower extremities brought about by prolonged exposure to cold water. Various risk and aggravating factors have been identified above.

REFERENCE

Kontos H A. Vascular Disease of the Limbs – Immersion Foot (Trench Foot). In: (Eds) Wyngaarden J B, Smith L H and Bennett J C. Cecil Textbook of Medicine. Philadelphia. W B Saunders Company. 19th Ed. 1992:359.

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