اورژانس های محیطی

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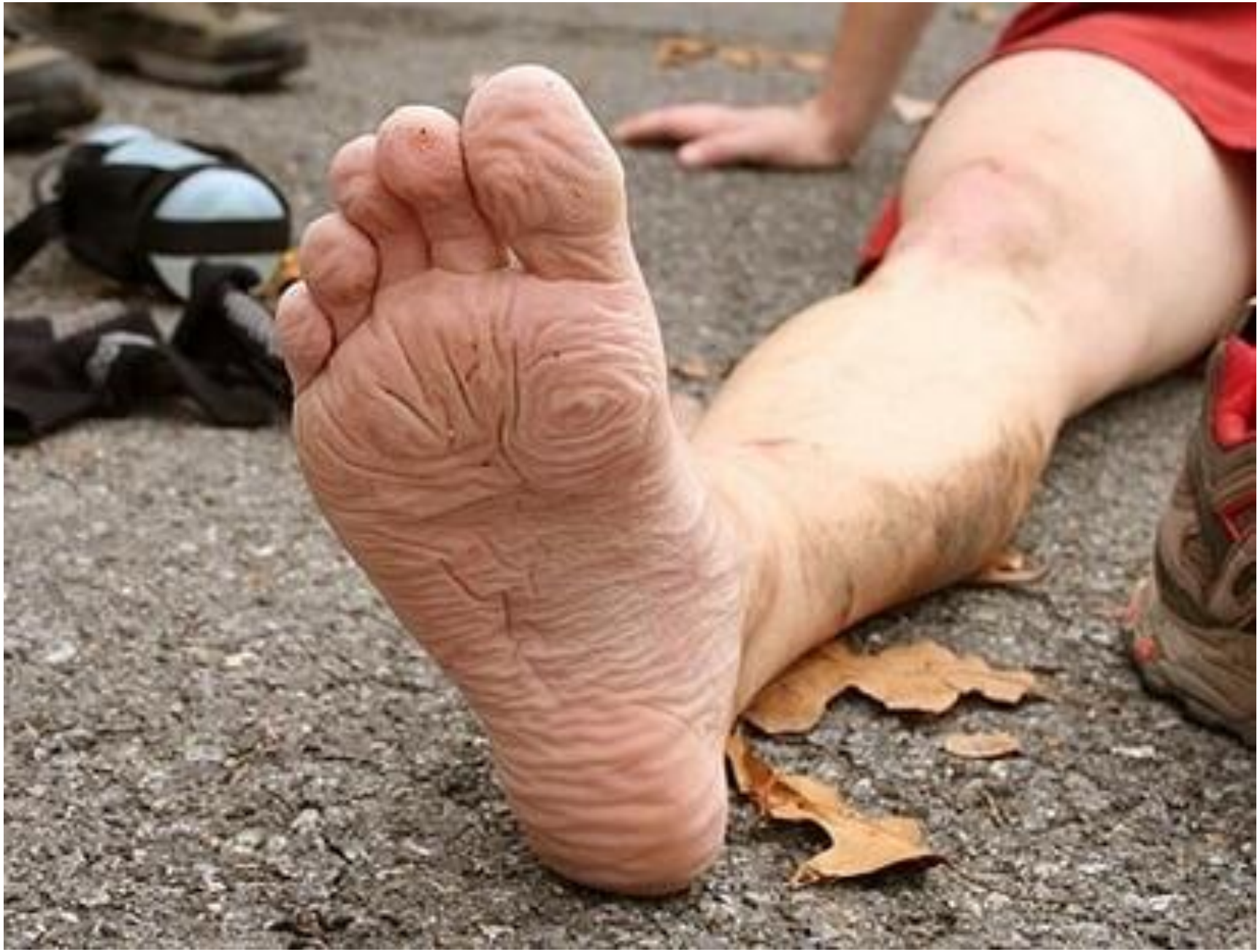
Nonfreezing cold injuries

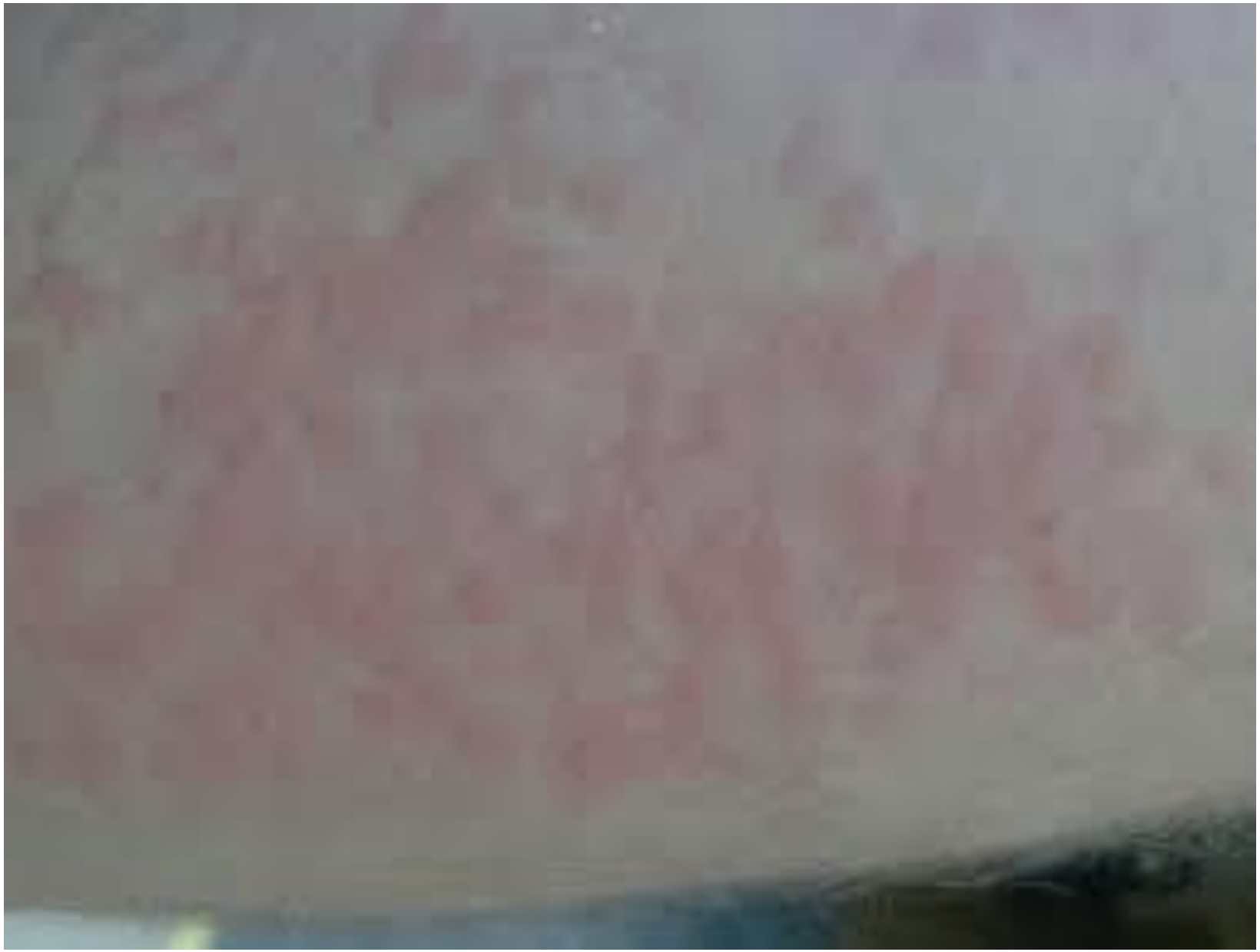
- **Trench foot**
- Direct injury to soft tissue and peripheral nerves
- Subject tingling to numbness, pale, mottled, anesthetic, pulseless, immobile, no immediate change after rewarming
- Hyperemic phase hours after rewarming
- Edema, bullae, anesthesia, tissue sloughing, gangrene
- Hyperhidrosis, cold sensitivity
- Treatment is supportive, vasodilator



- **Chilblains or pernio**
- Mild but uncomfortable lesion
- Young females with Raynaud's phenomenon or other abnormalities, low body index
- Tingling to numbness, 12 to 24 hour later: localized edema, erythema, cyanosis, plaques, nodules, ulcerations, vesicles and bullae.
- Rewarming result in the formation of tender blue nodules.
- Supportive, nifedipine, pentoxifylline, topical corticosteroids.

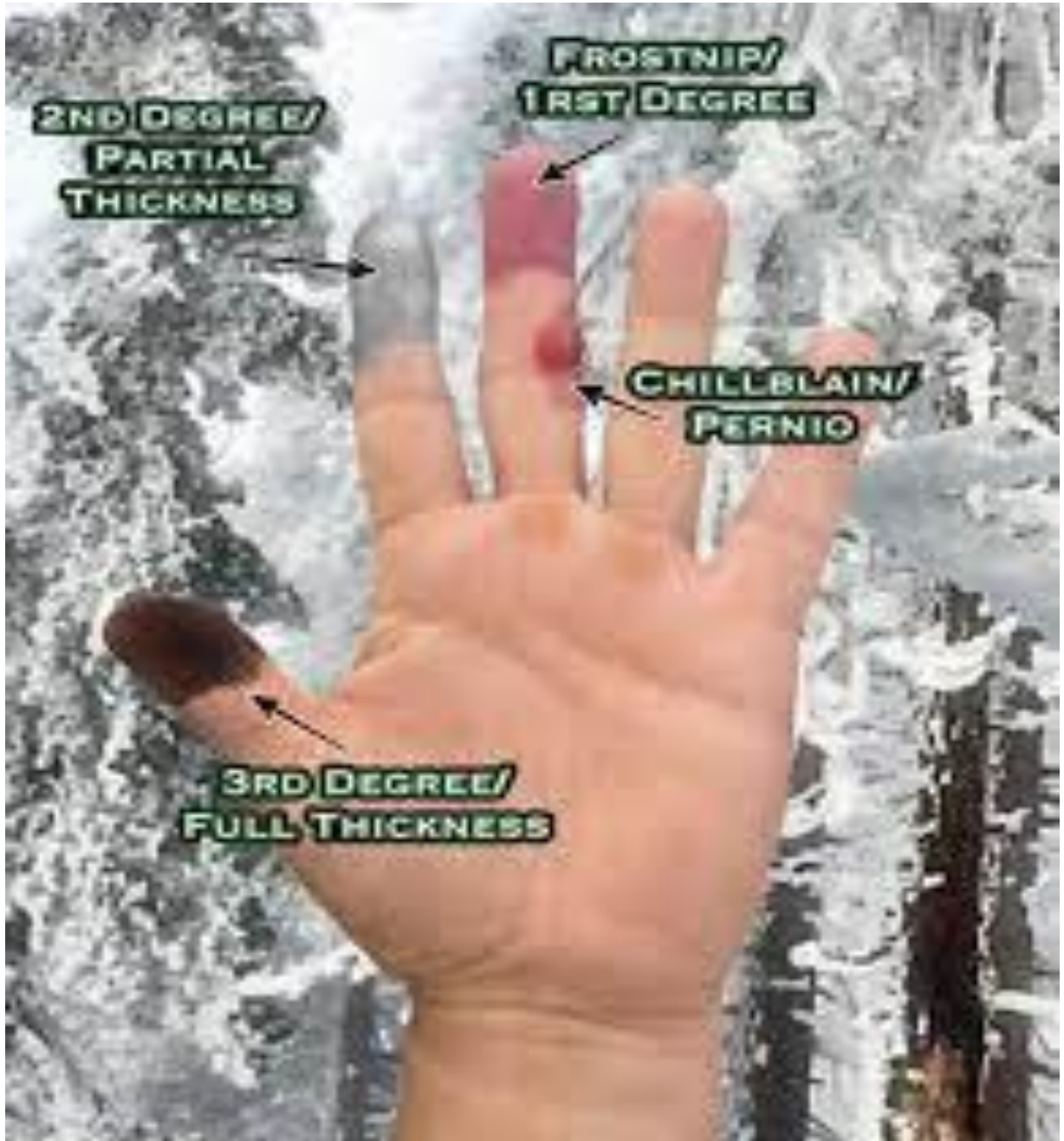
- **Panniculitis**
- Mild degrees of necrosis of subcutaneous fat tissue.
- Prolonged exposure
- Mild inflammation result in adipose fibrosis
- No effective treatment

- Cold urticaria
- Hypersensitivity to cold air or water, even anaphylaxis.
- Antihistamines, desloratadine, loratadine.



Frostbite

- First degree : numbness, central pallor with surrounding erythema and edema, desquamation, dysesthesia. Prognosis is excellent.
- Second degree : blisters of the skin with surrounding edema and erythema, extend to the end of the digit. Prognosis is good.
- Third degree : tissue loss involving the entire thickness of the skin, hemorrhagic blisters, skin necrosis, blue-gray discoloration. Prognosis is poor.
- Fourth degree : tissue loss involving the entire thickness, including muscle, bone, tendon. Little edema, mottled, nonblanching cyanosis. Prognosis is extremely poor.


FROSTNIP/
1RST DEGREE
2ND DEGREE/
PARTIAL
THICKNESS
CHILBLAIN/
PERNIO
3RD DEGREE/
FULL THICKNESS

Prehospital care

- Prevention of further cold injury, hypothermia, dehydration.
- Remove wet clothing, cover dry clothing.
- Protect against wind.
- Do not heat the frozen area.
- Do not attempt rewarming until the risk of frozen eliminated.
- Provide analgesia.
- Immobilize and elevate frozen extremities.
- Do not ambulate on edematous or blistered feet.
- Do not applied topical agents such as cream or lotions.

ED Management

- Rapid rewarming in circulating water (37-39 c) for 20-30 min.
- Parenteral opioids prior rewarming
- Hemorrhagic blisters should not be debrided.
- Both blisters treated topical aloe vera cream.
- Affected digits should be separated.
- Tetanus immunize.

HEAT EMERGENCIES

- Heat edema
- Heat cramps
- Heat stress
- Heat stroke

Heat edema

- Is self-limited
- Only in hands and feet (below the wrists and ankles)
- Happens in first days of heat exposure
- In elderly people, DVT and CHF should be excluded
- Elevate the limb
- Diuretics have no role in treatment

Heat cramps

- Painful, involuntary, spasmodic contractions
- Usually in calves
- May cause during exercise but most times during rest
- Are self-limited
- May cause rhabdomyolysis but its very uncommon
- Caused by a relative deficiency of sodium, potassium, or magnesium
- treatment: fluid and salt replacement/ rest in cool environment

Heat stress

- Headache, nausea, vomiting, malaise, dizziness, muscle cramps and signs of dehydration : tachycardia, orthostatic hypotension or near-syncope. Rhabdomyolysis in rare cases.
- Temperature may be normal or elevated.
- Not manifest signs of CNS impairment.
- Treated with volume and electrolyte replacement.

Heat stroke

- Heat stress + hyperthermia >40c and altered mental status.
- Seizure is common. Cerebellum is highly sensitive to heat and ataxia can be early neurologic finding.

- Prehospital care :

- remove the patient immediately.
- Check point-of-care glucose.
- Start colling, remove clothes and spray cool water and provide airflow
- Or place wet towels on the patient or ice on the body.
- Administer bolus of normal saline

- Ed resuscitation :
- Immediate cooling and support of organ system function.
- Cooling methods : goal is reduce core temperature to 39c
- Evaporative cooling, immersion cooling