



Definition:

NSTIs include necrotizing forms of fasciitis, myositis, and cellulitis. They may be categorized based on microbiology and presence or absence of gas in the tissues.

RISK FACTORS



- Immunocompromised
- Chronic illness
- Skin trauma
- Recent surgery
- Obesity

PATHOPHYSIOLOGY

- Proliferation of bacteria that induces a significant local inflammatory reaction causing tissue necrosis.
- **Common agents:** GAS and Staphylococcus aureus.
- **Other agents:** Haemophilus aphrophilus, mycobacteria, E.coli, fungi.



COMPLICATIONS

Acute:

- ☐ Septic shock
- ☐ Toxic shock syndrome
- ☐ Renal failure
- ☐ Cardiovascular collapse

Long-term:

- ☐ Scarring
- ☐ Functional deformity
- ☐ Limb loss

Septicemia and systemic toxicity commonly occur as infection spreads.

DIAGNOSIS

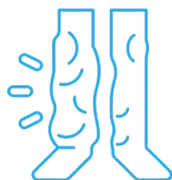
- **Remember: It is a clinical diagnosis!**
- **Labs:** leukocytosis, acidosis, coagulopathy, hyponatremia, elevated CRP/ESR, lactate, CK, and AST.
 - Positive blood and tissue cultures (deeper tissue samples preferred).
- **Imaging:** CT is best initial imaging (not needed if clinically suspicious of NSTI)



PRESENTATION

Unstable Vitals:

- Hypotensive
- Tachycardia
- Tachypnea
- Febrile or hypothermia
- Hypoxia



Clinical manifestations:

- Erythema with indistinct margins
- Edema extending beyond visible erythema
- Severe pain
- Fever
- Crepitus
- Skin bullae, necrosis, or ecchymosis
- Rapid fascial spread

MANAGEMENT

- **Immediate treatment:** begin without delay and admit to the ICU if severely sick.
- **Promptly Initiate Broad Spectrum Antibiotics:**
 - **Pip/Taz** (gram neg, pos, and anaerobes) + **Vancomycin** (MRSA) and **Clindamycin** (anti-toxin agent).
 - Once cultures isolate the microorganism, narrow coverage.
- **Surgical Debridement:** until tissue necrosis stops, and viable tissue grows. Amputation may be required if there's irreversible necrosis.
- Consider **infectious diseases** consult

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