

1

---

---

---

---

---

---

---

---



2

---

---

---

---

---

---

---

---



3

---

---

---

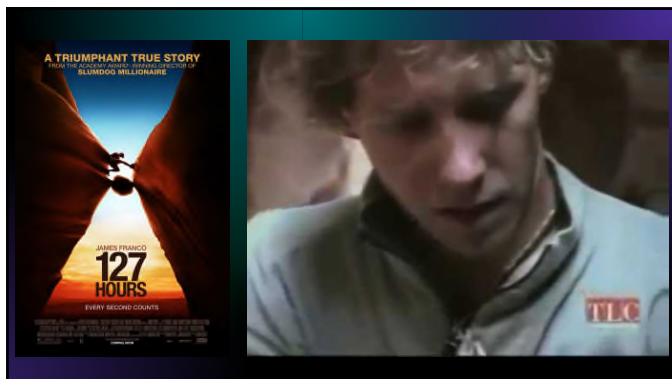
---

---

---

---

---



4

---

---

---

---

---

---

---

---

## Background

- Field Amputation
  - the surgical removal of a limb or a portion of a limb in an out-of-hospital setting
- Categories
  - Traumatic amputation: limb is partially or completely severed due to trauma
  - **Therapeutic amputation:** limb is intentionally removed to prevent further harm or complications
- Rare and heroic procedure seen in various instances:
  - Severe motor vehicle accidents
  - Industrial accidents
  - Natural disasters
- **Primary goal is to preserve the patient's life, rather than to salvage the affected limb**

5

---

---

---

---

---

---

---

---

## Indications

- Life-Threatening Entrapment or Crushing Injuries
  - **Entrapment:** A limb is trapped or pinned and cannot be freed without amputation
  - **Traumatic amputation:** Partial severing of a limb with entrapment of distal segment
  - **Crushing by heavy objects:** A limb is crushed by a heavy object, such as a vehicle or machinery, making it unsalvageable

A photograph showing a rescue scene at night. A person is being freed from a vehicle wreckage. The scene is illuminated by a bright green light, possibly from a rescue team. The person is lying on a stretcher, and the wreckage is visible in the background.

6

---

---

---

---

---

---

---

---



## Preparation & Equipment

- **Communication and Coordination**
  - Call for emergency medical backup
  - Paramedic contacts emergency medicine or trauma physician for guidance and to request backup
- Scene safety assessment: Ensure the scene is safe for the patient, paramedics, and responding physicians
- Stabilization of equipment or other scene hazards

7

---

---

---

---

---

---

---

---

## Preparation & Equipment

Equipment

- PPE
- Oxygen & Monitor
- Sedation medications
- Tourniquet
- Scalpel or surgical knife
- Amputation device (saw)
- Cautery device
- Hemostatic agents & dressing




8

---

---

---


---

---

---

---

---



## Preparation & Equipment

Patient Preparation

- Assess and manage the patient's airway, breathing, and circulation (ABCs).
- Provide pain management and sedation as needed and as directed by medical control
- Position the patient to facilitate the amputation procedure
- Clean and prepare the affected limb as much as possible

9

---

---

---

---

---

---

---

---

**Physician Response and Oversight**

- Emergency medicine, EMS, or trauma physician should respond to the scene to provide medical oversight and guidance
- Physician assesses the patient and confirms the need for amputation
- Physician performs procedure with assistance from paramedics



## Preparation & Equipment

10

---

---

---

---

---

---

---

---

## Technique & Procedure

- Assess patient's ABCs. Obtain IV access and place on monitor (cardiac, SpO<sub>2</sub>, ETCO<sub>2</sub>)
- Ensure all equipment and personnel are available
- Administer appropriate sedation
- Apply proximal tourniquet (earlier if hemorrhage present)



11

---

---

---

---

---

---

---

---

## Technique & Procedure

- **Soft Tissue Dissection**
  - Make a circumferential incision through the skin and subcutaneous tissue, using a scalpel, as distal as possible
  - Dissect through the soft tissues (e.g., muscles, tendons, ligaments) to expose the bone
  - Ligate or cauterize any bleeding vessels
- **Bone Cutting**
  - Use a bone-cutting instrument (e.g., Gigli saw, bone cutter) to transect the bone
  - Cut the bone at a 45-degree angle to facilitate wound closure
  - Control any bleeding from the bone marrow



12

---

---

---

---

---

---

---

---

## Post-amputation Care

- **Wound Care**
  - Debride the wound to remove any devitalized tissue
  - Irrigate the wound with sterile saline solution
  - Apply a dressing to the wound to control bleeding and promote healing
  - Use hemostatic agent as needed
  - Secure the dressing with bandages or tape

13

---

---

---


---

---

---

---

---



## Post-amputation Care

- Monitor the patient's vital signs and manage any post-operative complications
- Re-administer pain management and sedation as needed
- Transport the patient to a Trauma Center for definitive management

14

---

---

---

---

---

---

---

---

## Questions?

15

---

---

---

---

---

---

---

---