Ankle Injury

Schmitt-Thompson Clinical Content

DEFINITION

- Injury to a bone, muscle, joint, or ligament of the ankle.
- Associated skin and soft tissue injuries are also included.

PAIN SEVERITY is defined as:

- **None (0):** No pain.
- **Mild (1-3):** Doesn't interfere with normal activities.
- **Moderate (4-7):** Interferes with normal activities (e.g., work or school), awakens from sleep, or limping.
- **Severe (8-10):** Excruciating pain, unable to do any normal activities, unable to walk.

INITIAL ASSESSMENT QUESTIONS

1. MECHANISM: "How did the injury happen?" (e.g., twisting injury, direct blow)
2. ONSET: "When did the injury happen?" (e.g., minutes or hours ago)
3. LOCATION: "Where is the injury located?"
4. APPEARANCE of INJURY: "What does the injury look like?"
5. WEIGHT-BEARING: "Can you put weight on that foot?" "Can you walk (four steps or more)?"
6. SIZE: For cuts, bruises, or swelling, ask: "How large is it?" (e.g., inches or centimeters; entire joint)
7. PAIN: "Is there any pain?" If Yes, ask: "How bad is the pain?" "What does it keep you from doing?" (Scale 0-10; or none, mild, moderate, severe)
   - NONE (0): No pain.
   - MILD (1-3): Doesn't interfere with normal activities.
   - MODERATE (4-7): Interferes with normal activities (e.g., work or school), awakens from sleep, limping.
   - SEVERE (8-10): Excruciating pain, unable to do any normal activities, unable to walk.
8. TETANUS: For any breaks in the skin, ask: "When was your last tetanus booster?"
9. OTHER SYMPTOMS: "Do you have any other symptoms?"
10. PREGNANCY: "Is there any chance you are pregnant?" "When was your last menstrual period?"

TRIAGE ASSESSMENT QUESTIONS (TAQs)

Call EMS 911 Now

Serious injury with multiple fractures (broken bones)

CA: 40, 1

[1] Major bleeding (e.g., actively bleeding or spurting) AND [2] can't be stopped

FIRST AID: Apply direct pressure to the entire wound with a clean cloth.

CA: 40, 1046, 1

Amputation

FIRST AID: Apply direct pressure to the entire wound with a clean cloth.

CA: 40, 1046, 3241, 23, 1

Bone sticking through the skin

R/O: open fracture

CA: 40, 127, 23, 1

Looks like a dislocated joint (very crooked or deformed)

Reason: If dislocated, adult will be unable to walk at all. Possible vascular compromise. Needs reduction.

CA: 40, 16, 23, 1

Sounds like a life-threatening emergency to the triager

CA: 40, 1

See More Appropriate Guideline

Ankle pain from overuse (e.g., sports, running, physical work)

Go to Guideline: Ankle Pain (Adult)

Ankle pain not from an injury

Go to Guideline: Ankle Pain (Adult)

Foot injury is main concern

Go to Guideline: Foot Injury (Adult)

Wound looks infected (e.g., spreading redness, pus)

Go to Guideline: Wound Infection Suspected (Adult)

Caused by an animal bite or claw wound

Go to Guideline: Animal Bite (Adult)

Caused by a human bite

Go to Guideline: Human Bite (Adult)

Cast problems or questions

Go to Guideline: Cast Symptoms and Questions (Adult)

Splint or elastic bandage problems or questions

Go to Guideline: Splint Symptoms and Questions (Adult)

Go to ED Now

Bullet wound, stabbed by knife, or other serious penetrating wound

FIRST AID: If penetrating object still in place, don't remove it. Reason: Removal could increase bleeding.

CA: 41, 93, 1042, 127, 83, 23, 1

[1] Bleeding AND [2] won't stop after 10 minutes of direct pressure (using correct technique)

Reason: May need laceration repair (e.g., sutures).

CA: 41, 160, 116, 80, 1

[1] Dirt in the wound AND [2] not removed with 15 minutes of scrubbing

Reason: Needs irrigation and/or additional wound care.

CA: 41, 160, 127, 1

Can't stand (bear weight) or walk

R/O: Achilles tendon rupture, fracture

CA: 41, 160, 93, 23, 1

Sounds like a serious injury to the triager

R/O: fracture, dislocation

CA: 41, 93, 23, 83, 1

Go to ED/UCC Now (or PCP Triage)

Cut (laceration) is gaping (split) OR length is > 1/2 inch (12 mm)

Reason: Cut (laceration) may need laceration repair (e.g., sutures, staples, skin glue). Notes: A small cut does not need sutures (or repair with skin glue or staples) if the skin edges are closed (not gaping open). A typical scratch does not need sutures. Triager may wish to refer in for evaluation if unsure.

CA: 42, 109, 127, 1

New numbness (loss of sensation) of foot or toe(s)

R/O: nerve injury. Note: The purpose of this triage question is to identify true nerve damage. Symptoms of throbbing or mild tingling can occur after an ankle or foot injury and are not specific for nerve damage.

CA: 42, 160, 93, 1

See HCP (or PCP Triage) Within 4 Hours

[1] SEVERE pain (e.g., excruciating) AND [2] not improved 2 hours after pain medicine/ice packs

R/O: fracture, severe sprain

CA: 43, 111, 2, 1001, 3521, 23, 89, 1

See PCP Within 24 Hours

[1] MODERATE pain (e.g., interferes with normal activities, limping) AND [2] high-risk adult (e.g., age > 60 years, osteoporosis, chronic steroid use)

Reason: There is greater risk of fracture in patients with osteoporosis (bone thinning).

CA: 44, 111, 112, 2, 1001, 3521, 23, 89, 1

A "snap" or "pop" was felt (or heard) at the time of injury

R/O: Achilles tendon rupture. Note: With an Achilles tendon rupture there is weakness or inability to extend the foot (e.g., can't stand on tiptoes).

CA: 44, 8, 1001, 3521, 89, 1

Large swelling or bruise (> 2 inches or 5 cm)

R/O: minor fracture, muscle hematoma

CA: 44, 111, 112, 1001, 3521, 2215, 1

[1] No prior tetanus shots (or is not fully vaccinated) AND [2] any wound (e.g., cut, scrape)

Note: A full tetanus vaccination series consists of 3 shots. Nearly all adults born in North America have received a full 3-tetanus shot series in childhood.

CA: 44, 113, 109, 118, 1001, 3521, 107, 1

[1] HIV positive or severe immunodeficiency (severely weak immune system) AND [2] DIRTY cut or scrape

Reason: May need Tetanus Immune Globulin (TIG). Referral to the emergency department may likely be required as doctors' offices usually do not stock TIG.

CA: 44, 109, 118, 1001, 3521, 107, 1

Suspicious history for the injury

R/O: domestic violence, elder or vulnerable adult abuse. Note: Triager should consider risk of immediate danger, injury severity, and time needed for caller to safely arrange for medical visit. In some cases, a more urgent disposition is warranted.

CA: 44, 111, 112, 89, 1

See PCP Within 3 Days

[1] MODERATE pain (e.g., interferes with normal activities, limping) AND [2] lasts > 3 days

R/O: contusion, sprain, minor fracture

CA: 45, 112, 1001, 3521, 2216, 1

[1] After 3 days AND [2] pain not improved

R/O: sprain, minor fracture

CA: 45, 1001, 3521, 112, 2216, 1

[1] After 2 weeks AND [2] still painful or swollen

CA: 45, 1001, 3521, 2216, 1

[1] Last tetanus shot > 5 years ago AND [2] DIRTY cut or scrape

Reason: May need a tetanus booster shot (vaccine).

CA: 45, 108, 109, 118, 1001, 3521, 107, 1

[1] Last tetanus shot > 10 years ago AND [2] CLEAN cut or scrape (e.g., object AND skin were clean)

Reason: May need a tetanus booster shot (vaccine).

CA: 45, 108, 109, 118, 1232, 1001, 3521, 107, 1

Home Care

Minor injury or pain from twisting or over-stretching

Reason: Probably a minor sprain.

CA: 48, 6, 8, 112, 1001, 3521, 4, 103, 1

Minor injury or pain from direct blow

Reason: Probably a minor contusion (bruise).

CA: 48, 3, 7, 111, 112, 1001, 3521, 2101, 103, 1

Small cut (scratch) or abrasion (scrape) is also present

Reason: Minor superficial cut or abrasion.

CA: 48, 104, 1272, 1273, 1274, 1232, 1001, 3521, 107, 1

CARE ADVICE (CA)

1. **Care Advice** given per Ankle Injury (Adult) guideline.

2. **Elevate the Injured Ankle:**
   • Try to rest and elevate injured ankle elevated until seen.

3. **Reassurance and Education - Direct Blow (Contusion, Bruise):**
   • A direct blow to your ankle can cause a contusion. Contusion is the medical term for bruise.
   • Symptoms are mild pain, swelling, and/or bruising.
   • *Here is some care advice that should help.*

4. **Expected Course:**
   • Pain and swelling usually peak on day 2 or 3.
   • Swelling is usually gone by 7 days.
   • Pain may take 2 weeks to completely resolve.

6. **Reassurance and Education - Bending or Twisting Injury (Strain, Sprain):**
   • Strain and sprain are the medical terms used to describe over-stretching of the muscles and ligaments of the ankle or foot. A twisting or bending injury can cause a strain or sprain.
   • The main symptom is pain that is worse with movement and walking. Swelling can occur. Rarely there may be slight bruising.
   • *Here is some care advice that should help.*

7. **Treatment of Mild Contusions (Such as Direct Blow to Ankle):**
   • Use R.I.C.E. (rest, ice, compression, and elevation) for the first 24 to 48 hours.
   • **Rest:** After 24 hours of rest, allow any activity that doesn't cause pain.
   • **Ice:** Put a cold pack or an ice bag (wrapped in a moist towel) on the area for 20 minutes. Repeat in 1 hour, then every 4 hours while awake. Continue this for the first 48 hours (2 days) after an injury.
   • **Compression:** Wrap the ankle and foot with a snug, elastic bandage for 48 hours. Numbness, tingling, or increased pain means the bandage is too tight.
   • **Elevation:** Keep the injured ankle elevated and at rest for 24 hours.

8. **Treatment of Mild Sprains (Such as Mild Sprained Ankle):**
   - Use R.I.C.E. (rest, ice, compression, and elevation) for the first 24 to 48 hours.
   - **Rest:** After 24 hours of rest, allow any activity that doesn't cause pain.
   - **Ice:** Put a cold pack or an ice bag (wrapped in a moist towel) on the area for 20 minutes. Repeat in 1 hour, then every 4 hours while awake. Continue this for the first 48 hours (2 days) after an injury.
   - **Compression:** Wrap the ankle with a snug, elastic bandage for 48 hours. Numbness, tingling, or increased pain means the bandage is too tight.
   - **Elevation:** Keep the injured ankle elevated and at rest for 24 hours.

16. **First Aid Advice for Suspected Ankle Fracture (Broken Bone) or Dislocation (Out of Joint):**
   - Do not remove the shoe.
   - Immobilize the ankle and foot by wrapping them with a soft splint (such as a pillow or a rolled-up blanket).
   - Use tape to keep this splint in place.

23. **Limit Weight-Bearing on Injured Ankle:**
   - Try not to put any weight on the injured ankle.
   - *Reason:* To prevent pain and in case there is a more serious injury.

40. **Call EMS 911 Now:**
   - Immediate medical attention is needed. You need to hang up and call 911 (or an ambulance).
   - *Triager Discretion:* I'll call you back in a few minutes to be sure you were able to reach them.

41. **Go to ED Now:**
   - You need to be seen in the Emergency Department.
   - Go to the ED at _____ Hospital.
   - Leave now. Drive carefully.

42. **Go to ED/UCC Now (or PCP Triage):**

• If No PCP (Primary Care Provider) Second-Level Triage: You need to be seen within the next hour. Go to the ED/UCC at _____ Hospital. Leave as soon as you can. **Caution:** See Sources of Care below when considering where to send the patient.

• If PCP Second-Level Triage Required: You may need to be seen. Your doctor (or NP/PA) will want to talk with you to decide what's best. I'll page the provider on-call now. If you haven't heard from the provider (or me) within 30 minutes, go directly to the ED/UCC at _____ Hospital.

Note to Triager:

• Use nurse judgment to select the most appropriate source of care.

• Consider both the urgency of the patient's symptoms AND what resources may be needed to evaluate and manage the patient.

• Do not send these patients to Retail Clinics. Retail Clinics have limited services and are not able to manage these patients.

Sources of Care:

• ED: Patients who may need surgery, need hospitalization, sound seriously ill or may be unstable need to be sent to an ED. Likewise, so do most patients with complex medical problems and serious symptoms.

• UCC Is Open: Some Urgent Care Centers (UCCs) can manage patients who are stable and have less serious symptoms or minor injuries. The triager must know the UCC capabilities before sending a patient there. If unsure, call ahead.

• Office Is Open: If patient sounds stable and not seriously ill, consult PCP (or follow your office policy) to see if patient can be seen NOW in office.

43. **See HCP (or PCP Triage) Within 4 Hours:**

• If Office Will Be Open: You need to be seen within the next 3 or 4 hours. Call your doctor (or NP/PA) now or as soon as the office opens.

• If Office Will Be Closed and No PCP (Primary Care Provider) Second-Level Triage: You need to be seen within the next 3 or 4 hours. A nearby Urgent Care Center (UCC) is often a good source of care. Another choice is to go to the ED. Go sooner if you become worse.

• If Office Will Be Closed and PCP Second-Level Triage Required: You may need to be seen. Your doctor (or NP/PA) will want to talk with you to decide what's best. I'll page the on-call provider now. If you haven't heard from the provider (or me) within 30 minutes, call again. **Note:** If on-call provider can't be reached, send to UCC or ED.

Note to Triager:

• Use nurse judgment to select the most appropriate source of care.

• Consider both the urgency of the patient's symptoms AND what resources may be needed to evaluate and manage the patient.

Sources of Care:

• ED: Patients who may need surgery or hospital admission need to be sent to an ED. So do most patients with serious symptoms or complex medical problems.

• UCC: Some UCCs can manage patients who are stable and have less serious symptoms (e.g., minor illnesses and injuries). The triager must know the UCC capabilities before sending a patient there. If unsure, call ahead.

• OFFICE: If patient sounds stable and not seriously ill, consult PCP (or follow your office policy) to see if patient can be seen NOW in office.

44. **See PCP Within 24 Hours:**

• **If Office Will Be Open:** You need to be examined within the next 24 hours. Call your doctor (or NP/PA) when the office opens and make an appointment.

• **If Office Will Be Closed:** You need to be seen within the next 24 hours. A clinic or an urgent care center is often a good source of care if your doctor's office is closed or you can't get an appointment.

• **If Patient Has No PCP:** Refer patient to a clinic or urgent care center. Also try to help caller find a PCP for future care.

Note to Triager:

• Use nurse judgment to select the most appropriate source of care.

• Consider both the urgency of the patient's symptoms AND what resources may be needed to evaluate and manage the patient.

45. **See PCP Within 3 Days:**

• You need to be seen within 2 or 3 days.

• **PCP Visit:** Call your doctor (or NP/PA) during regular office hours and make an appointment. A clinic or urgent care center are good places to go for care if your doctor's office is closed or you can't get an appointment. **Note:** If office will be open tomorrow, tell caller to call then, not in 3 days.

• **If Patient Has No PCP:** A clinic or urgent care center are good places to go for care if you do not have a primary care provider. **Note:** Try to help caller find a PCP for future care (e.g., use a physician referral line). Having a PCP or "medical home" means better long-term care.

46. **See PCP Within 2 Weeks:**

• You need to be seen for this ongoing problem within the next 2 weeks.

• **PCP Visit:** Call your doctor (or NP/PA) during regular office hours and make an appointment.

• **If Patient Has No PCP:** A primary care clinic is where you need to be seen for chronic health problems. **Note:** Try to help caller find a PCP (e.g., use a physician referral line). Having a PCP or "medical home" means better long-term care.

47. **Home Care - Information or Advice Only Call.**

48. **Home Care:**

• You should be able to treat this at home.

49. **Call PCP Now:**

• You need to discuss this with your doctor (or NP/PA).

• I'll page the on-call provider now. If you haven't heard from the provider (or me) within 30 minutes, call again.

50. **Call PCP Within 24 Hours:**

• You need to discuss this with your doctor (or NP/PA) within the next 24 hours.

• **If Office Will Be Open:** Call the office when it opens tomorrow morning.

• **If Office Will Be Closed:** I'll page the on-call provider now. **Exception:** from 9 pm to 9 am. Since this isn't urgent, we'll hold the page until morning.

51. **Call PCP When Office Is Open:**
- You need to discuss this with your doctor (or NP/PA) within the next few days.
- Call the office when it is open.

52. **Go to L&D Now:**
- You need to be seen.
- Go to the Labor and Delivery Unit or the Emergency Department at _____ Hospital.
- Leave now. Drive carefully.

80. **Another Adult Should Drive:**
- It is better and safer if another adult drives instead of you.

83. **Nothing by Mouth:**
- Do not eat or drink anything for now.
- *Reason:* Condition may need surgery and general anesthesia.

89. **Call Back If:**
- You become worse

93. **Note to Triager - Driving:**
- Another adult should drive.
- If there are any problems with automobile transport (e.g., unable to get to the car), then ambulance transport may be necessary.
- The patient, caregiver, or family members can arrange ambulance transport via private ambulance company or via EMS 911.

103. **Call Back If:**
- Severe pain lasts over 2 hours after pain medicine and ice pack
- Pain not improved after 3 days
- Pain or swelling lasts over 2 weeks
- Swelling or bruise becomes over 2 inches (5 cm)
- You become worse

104. **Reassurance and Education - Small Cut or Scratch:**
- It sounds like a small cut or scratch that you can treat yourself.
- A small cut does not need sutures (or repair with skin glue or staples) if the skin edges are closed (not gaping open).
- A shallow scratch does not need sutures.
- However, it is important to keep the wound clean and watch for infection.
- *Here is some care advice that should help.*

107. **Call Back If:**
- Dirt still in the wound after scrubbing
- Looks infected (pus, redness)
- Doesn't heal within 10 days
- You become worse

108. **Tetanus Shot:**
- You should get a tetanus booster shot in the next 3 days.
- Most doctor's offices give tetanus shots. You can also get a tetanus shot at retail clinics (drugstore clinics) and at urgent care centers.

109. **Clean the Wound:**
- Wash the wound with soap and water.
- For any dirt, scrub gently with a washcloth.
- *Bleeding:* Put direct pressure on the wound for 10 minutes to stop any bleeding. Place a clean cloth or gauze pad over the wound. Press down firmly with your fingers over the bleeding area.

111. **Use a Cold Pack for Pain, Swelling, or Bruising:**
- Put a cold pack or an ice bag (wrapped in a moist towel) on the area for 20 minutes.
- Repeat in 1 hour, then every 4 hours while awake.
- Continue this for the first 48 hours (2 days) after an injury.
- This will help decrease pain, swelling, and bruising.
- *Caution:* Avoid frostbite.

112. **Use Heat on Area After 48 Hours:**
- If pain, swelling, or bruising lasts more than 48 hours (2 days), then use heat on the area.
- Use a heat pack, heating pad, or warm wet washcloth.
- Do this for 10 minutes three times a day.
- This will help increase blood flow and improve healing.
- *Caution:* Avoid burn. Do not sleep on a heating pad.

113. **Tetanus Shot Series:**
- If you have never gotten a tetanus shot, then you will need to get the full three-shot tetanus series.
- The full tetanus shot series is a shot now, a shot in 4 to 8 weeks, and a shot in 6 to 12 months.
- *You should try to get the first tetanus shot in the next 24 hours.*

116. **Continue Direct Pressure for Bleeding:**
- Put direct pressure on the wound to stop any bleeding.
- Use a clean cloth or gauze pad. Press down firmly with your fingers over the bleeding area.
- Continue doing this until seen.

118. **Dressing the Wound:**
- Cover the wound with a dressing.
- Use a sterile gauze or an adhesive bandage (such as a Band-Aid).
- Change the dressing daily or if it gets dirty.

127. **Cover the Wound:**
- Cover the wound with a dressing.
- Use a sterile gauze, an adhesive bandage (such as a Band-Aid), or a clean cloth.

160. **Alternate Disposition - Urgent Care Center:**

• An Urgent Care Center can usually manage this problem, **IF** one is available in the caller's area.

1001. **Pain Medicines:**

• For pain relief, you can take either acetaminophen, ibuprofen, or naproxen.

• They are over-the-counter (OTC) pain drugs. You can buy them at the drugstore.

• **Acetaminophen - Regular Strength Tylenol:** Take 650 mg (two 325 mg pills) by mouth every 4 to 6 hours as needed. Each Regular Strength Tylenol pill has 325 mg of acetaminophen. The most you should take is 10 pills a day (3,250 mg total). *Note:* In Canada, the maximum is 12 pills a day (3,900 mg total).

• **Acetaminophen - Extra Strength Tylenol:** Take 1,000 mg (two 500 mg pills) every 6 to 8 hours as needed. Each Extra Strength Tylenol pill has 500 mg of acetaminophen. The most you should take is 6 pills a day (3,000 mg total). *Note:* In Canada, the maximum is 8 pills a day (4,000 mg total).

• **Ibuprofen (such as Motrin, Advil):** Take 400 mg (two 200 mg pills) by mouth every 6 hours. The most you should take is 6 pills a day (1,200 mg total).

• **Naproxen (such as Aleve):** Take 220 mg (one 220 mg pill) by mouth every 8 to 12 hours as needed. You may take 440 mg (two 220 mg pills) for your first dose. The most you should take is 3 pills a day (660 mg total). *Note:* In Canada, the maximum is 2 pills a day (one every 12 hours; 440 mg total).

• Use the lowest amount of medicine that makes your pain better.

1042. **First Aid - Penetrating Object:**

• If penetrating object still in place, don't remove it.

• *Reason:* Removal could increase internal bleeding.

1046. **First Aid - Direct Pressure for Bleeding:**

• Put direct pressure on the entire wound with a clean cloth or gauze pad.

1232. **Liquid Skin Bandage:**

• You can use a liquid skin bandage **instead** of using an antibiotic ointment with an adhesive bandage (such as Band-Aid, Curad) or a dressing.

• **Benefits:** Liquid skin bandage has several benefits when compared to an adhesive bandage (such as Band-Aid) or a dressing. You only need to put a liquid bandage on minor cuts and scrapes one time. Liquid bandage helps stop minor bleeding. It seals the wound and it may promote faster healing and lower infection rates. However, it also costs more.

• **How to Use It:** First clean and dry the wound. You put on the liquid as spray or with a swab. It dries in less than a minute and usually lasts a week. You can get it wet. Don't use antibiotic ointment with a liquid skin bandage.

• **Examples:** Liquid skin bandage is available over-the-counter. Examples include New Skin, Curad Spray Bandage, and 3M No Sting Liquid Bandage Spray.

1272. **Cleaning a Cut or Scrape:**

• Wash the wound with soap and water.

• For any dirt, scrub gently with a washcloth.

• *Bleeding:* Put direct pressure on the wound for 10 minutes to stop any bleeding. Place a clean cloth or gauze pad over the wound. Press down firmly with your fingers over the bleeding area.

1273. **Antibiotic Ointment for a Cut or Scrape:**
- Put a small amount of antibiotic ointment on the wound once a day for 3 days.
- You can get this over-the-counter (OTC) at a drugstore.
- Use Bacitracin ointment (OTC in U.S.) or Polysporin ointment (OTC in Canada) or one that you already have.
- *Read the package instructions on all medicines that you use.*

1274. **Dressing a Cut or Scrape:**
- Cover the wound with a dressing for 3 days.
- Change the dressing daily or if it gets dirty.
- Use a sterile gauze held in place with paper tape or an adhesive bandage (such as a Band-Aid).

2101. **Expected Course:**
- A bruise can continue to look worse for the first 24 hours after the injury. As the bruised skin heals it may turn green and yellow. It can take up to 2 weeks to completely go away.
- Pain and swelling usually peak on day 2 or 3.
- Swelling is usually gone by 7 days.
- Pain may take 2 weeks to go away.

2215. **Call Back If:**
- Severe pain lasts longer than 2 hours after pain medicine and ice
- You become worse

2216. **Call Back If:**
- Severe pain
- Looks infected (pus, spreading redness)
- You become worse

3241. **Transport of Amputated Part:**
- Briefly rinse amputated part with water (to remove any dirt).
- Place amputated part in plastic bag (to protect and keep clean).
- Place plastic bag containing part in a container of ice (to keep cool and preserve tissue).

3521. **Pain Medicines - Extra Notes and Warnings:**

- Follow these dosing instructions unless your doctor (or NP/PA) has told you to take a different dose.
- Acetaminophen is thought to be safer than ibuprofen or naproxen in people over 65 years old. Acetaminophen is in many OTC and prescription medicines. It might be in more than one medicine that you are taking. You need to be careful and not take an overdose. An acetaminophen overdose can hurt the liver.
- McNeil, the company that makes Tylenol, has different maximum dosage instructions for Tylenol in Canada than in the United States. Bayer, the company that makes Aleve, has different dosage maximum instructions for Aleve in Canada and the United States.
- Some people with muscle and joint pain benefit from using OTC topical pain medicines (such as the topical NSAID diclofenac). Do NOT also take NSAIDs by mouth while using a topical NSAID.
- **Caution:** Do not take acetaminophen if you have liver disease.
- **Caution:** Do not take ibuprofen or naproxen if you have stomach problems, kidney disease, are pregnant, or have been told by your doctor to avoid this type of anti-inflammatory drug. Do not take ibuprofen or naproxen for more than 7 days without consulting your doctor. If you take blood thinners, ibuprofen and naproxen can increase the risk of bleeding.
- *Before taking any medicine, read all the instructions on the package.*

FIRST AID

FIRST AID Advice for Bleeding: Apply **direct pressure** to the entire wound with a clean cloth.

FIRST AID Advice for Severe Bleeding:

- Place 2 or 3 sterile dressings (or a clean towel or washcloth) over the wound immediately.
- Apply **direct pressure** to the wound, using your entire hand.
- If bleeding continues, apply pressure more forcefully or move the pressure to a slightly different spot.
- Act quickly because ongoing blood loss can cause shock.

For life-threatening extremity bleeding, a **tourniquet** may be used. It should be tightened until the bleeding stops.

FIRST AID Advice for Penetrating Object:

- If penetrating object still in place, don't remove it.
- *Reason:* Removal could increase bleeding.

FIRST AID Advice for Shock: Lie down with feet elevated.

FIRST AID Advice for a Sprain or Twisting Injury of Ankle:

- Apply a cold pack or an ice bag (wrapped in a moist towel) to the area for 20 minutes.
- Wrap area with an elastic bandage.

FIRST AID Advice for Suspected Ankle Fracture (Broken Bone) or Dislocation (Out of Joint):

- Do not remove the shoe.

• Immobilize the ankle and foot by wrapping them with a soft splint (e.g., a pillow, a rolled-up blanket, a towel).
• Use tape to keep this splint in place.

Transport of an Amputated Body Part:

• Briefly rinse amputated part with water (to remove any dirt).
• Place amputated part in plastic bag (to protect and keep clean).
• Place plastic bag containing part in a container of ice water (to keep cool and preserve tissue).

BACKGROUND INFORMATION

Key Points

• All serious or major wounds are triaged and referred in for immediate wound care.
• Any cut that is split open or gaping probably needs sutures (or staples or skin glue).
• Consider the need for a tetanus shot or booster for an open wound.

Types

• *Achilles tendon rupture:* There is pain in the Achilles tendon (area above heel and behind ankle). There is weakness or inability to extend the foot (e.g., can't stand on tiptoes).
• *Contusion:* A direct blow or crushing injury results in bruising of the skin, muscle, and sometimes the underlying bone.
• Cut, abrasion
• Dislocation (bone out of joint)
• Fracture (broken bone)
• Puncture wound
• *Sprain:* Overstretching or tearing of a ligament
• *Strain:* Overstretching or tearing of a muscle (e.g., pulled muscle)

What Cuts Need to Be Sutured?

• Any cut that is split open or gaping probably needs sutures (or staples or skin glue).
• Cuts longer than 1/2 inch (1 cm) usually need sutures.
• Any open wound that may need sutures should be evaluated by a doctor (or NP/PA) regardless of the time that has passed since the initial injury.

Tetanus Booster - When Does an Adult Need a Tetanus Shot?

All **serious or major wounds** are triaged and referred for immediate wound care. This includes crush injuries, amputations, avulsions, gaping cuts, larger burns, or any other wound that needs debridement or irrigation. For these wounds, if a tetanus booster is needed, it will be given with medical care on the **day of the injury**.

When is a tetanus shot needed for other wounds?

• **Clean Cuts and Scrapes - Tetanus Booster Needed Every 10 Years:** Patients with **clean minor** wounds AND who have previously had 3 or more tetanus shots (full series) need a booster every 10 years. Examples of minor wounds include a superficial abrasion, a small cut from a clean knife blade, or a glass cut sustained while washing dishes. All wounds need wound care and cleaning right away. A tetanus booster (Td or Tdap) should be given within 72 hours (3 days).

• **Dirty Wounds - Tetanus Booster Needed Every 5 Years:** Patients with **dirty** wounds need a booster every 5 years. Examples of dirty wounds include any cut contaminated with soil, feces, saliva and more serious wounds from deep punctures, crushing, and burns. All wounds need to be cleaned right away. A tetanus booster (Td or Tdap) should be given as soon as possible, preferably at the time of wound care, and definitely within 72 hours (3 days).

What if a person has had no prior tetanus shots or is not fully vaccinated?

• If a person has never gotten a tetanus shot, they should get the **first tetanus shot today or within 24 hours**. Then they will need to get the full tetanus series.
• If a person is not fully vaccinated (3 shots), they should get a **tetanus shot today or within 24 hours**.
• The full tetanus shot series is a shot now, a shot in 4 to 8 weeks, and a shot in 6 to 12 months. Three shots in total.
• If the wound is dirty, the person may also need tetanus immune globulin (TIG) at the same time they get the tetanus booster.

Expert Reviewer

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REFERENCES

1. Amaechi O, Huffman MM, Featherstone K. Pharmacologic Therapy for Acute Pain. Am Fam Physician. 2021 Jul 1;104(1):63-72.
2. Bachmann LM, et.al. Accuracy of Ottawa ankle rules to exclude fractures of the ankle and mid-foot: a systematic review. BMJ. 2003;326: 417-423.
3. Bergman R, Shuman VL. Acute Ankle Sprain. 2025 Aug 2. In: StatPearls [Internet]. Treasure Island (FL): StatPearls Publishing; 2025 Jan.
4. Bleakley C, McDonough S, MacAuley D. The use of ice in the treatment of acute soft-tissue injury. Am J Sports Med. 2004;32(1):251-261.
5. Boyce SH, Quigley MA, Campbell S. Management of ankle sprains: a randomised controlled trial of the treatment of inversion injuries using an elastic support bandage or an Aircast ankle brace. Br J Sports Med. 2005;39(2):91-6.
6. Clanton TO, Porter DA. Primary care of foot and ankle injuries in the athlete. Clin Sports Med. 1997;16(3):435-66.
7. Collins NC. Is ice right? Does cryotherapy improve outcome for acute soft tissue injury? Emerg Med J. 2008;25(2):65-8.
8. Cosic F, Kimmel L, Edwards E. Patient comprehension of common orthopedic terminology. Health Lit Res Pract. 2019 Aug 8;3(3):e187-e193.
9. Dake AD, Stack L. Penetrating trauma to the extremities: systematic assessment and targeted management of weapons-related injuries. Emerg Med Reports. 1997;18(7).
10. Dalton JD Jr, Schweinle JE. Randomized controlled noninferiority trial to compare extended release acetaminophen and ibuprofen for the treatment of ankle sprains. Ann Emerg Med. 2006;48(5):615-23.

11. Deu RS, Coslick AM, Dreher G. Tendinopathies of the Foot and Ankle. Am Fam Physician. 2022 May 1;105(5):479-486.

12. Hermena S, Slane VH. Ankle Fracture. 2025 Feb 15. In: StatPearls [Internet]. Treasure Island (FL): StatPearls Publishing; 2025 Jan.

13. Hewett Brumberg EK, Douma MJ, et,al; American Heart Association and American Red Cross. 2024 American Heart Association and American Red Cross Guidelines for First Aid. Circulation. 2024 Nov 14. Epub ahead of print.

14. Hocutt JE Jr. Cryotherapy in ankle sprains. Am J Sports Med. 1982;10(5):316-9.

15. Kellett J. Acute soft tissue injuries--a review of the literature. Med Sci Sports Exerc. 1986;18(5):489-500.

16. Kerkhoffs GM, Struijs PA, Marti RK, Assendelft WJ, Blankevoort L, van Dijk CN. Different functional treatment strategies for acute lateral ankle ligament injuries in adults. Cochrane Database Syst Rev. 2002;(3):CD002938.

17. Kretsinger K, et.al. Centers for Disease Control and Prevention; Advisory Committee on Immunization Practices; et.al. Preventing tetanus, diphtheria, and pertussis among adults: use of tetanus toxoid, reduced diphtheria toxoid and acellular pertussis vaccine recommendations of the ACIP. MMWR Recomm Rep. 2006 Dec 15;55(RR-17):1-37.

18. Lavery LA, Armstrong DG, Wunderlich RP, Mohler MJ, Wendel CS, Lipsky BA. Risk factors for foot infections in individuals with diabetes. Diabetes Care. 2006;29(6):1288-93.

19. Markert RJ. A pooled analysis of the Ottawa ankle rules used on adults in the ED. Am J Emerg Med. 1998t;16(6):564-7.

20. McMaster WC, Liddle S, Waugh TR. Laboratory evaluation of various cold therapy modalities. Am J Sports Med. 1978; 6: 291-294.

21. Moran GJ, Talan DA, Abrahamian FM. Antimicrobial Prophylaxis for Wounds and Procedures in the Emergency Department. Infect Dis Clin North Am. 2008; 22(1); 117-143.

22. O'Neal W, Strauch B. Urgent Care Recognition and Management of Maisonneuve Fractures. J Urgent Care Med. 2024; 18 (11): 21-28.

23. Pellegrino JL, Charlton NP, Carlson JN, et.al. 2020 American Heart Association and American Red Cross Focused Update for First Aid. Circulation. 2020 Oct 27;142(17):e287-e303.

24. Sampson FC, Goodacre SW, O'Cathain A. The Reality of Pain Scoring in the Emergency Department: Findings From a Multiple Case Study Design. Ann Emerg Med. 2019 Oct;74(4):538-548. Ann Emerg Med. 2019 Oct;74(4):512-520.

25. Singer AJ, Dagum AB. Current management of acute cutaneous wounds. N Engl J Med. 2008 Sep 4;359(10):1037-46.

26. Singletary EM, Zideman DA, Bendall JC, et.al. First Aid Science Collaborators. 2020 International Consensus on First Aid Science With Treatment Recommendations. Resuscitation. 2020 Nov;156:A240-A282.

27. Singletary EM, Zideman DA, De Buck ED, et.al.; First Aid Chapter Collaborators. Part 9: First Aid: 2015 International Consensus on First Aid Science With Treatment Recommendations. Circulation. 2015 Oct 20;132(16 Suppl 1):S269-311.

28. Stiell IG, Wells GA, Laupacis A, Brison R et.al. Implementation of the Ottawa ankle rules. JAMA. 1994;271(11):827-32.

29. Wedmore IS, Charette J. Emergency department evaluation and treatment of ankle and foot injuries. Emerg Med Clin North Am. 2000;18(1):85-113.

30. Wiffen PJ, Xia J. Systematic review of topical diclofenac for the treatment of acute and chronic musculoskeletal pain. Curr Med Res Opin. 2020 Apr;36(4):637-650.

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