# Diagnosis of Ecchymosis/Hematoma

## Characteristics

- **Ecchymosis**: localized, flat discolouration of the skin caused by a collection of clotted blood that accumulated into tissues from ruptured capillaries, appearing as bruising.[1-3]
- **Hematoma**: localized collection of blood outside the vessels, forming a swollen, often firm lump.[1,4]
- Symptoms include discolouration (ranging from red to purple, then yellow-green as they heal), tenderness, and swelling (for hematomas).[1-4]

## Causes/Etiology

- Ecchymosis and/or hematoma can result from trauma, injections, or anticoagulant use, and may occur in patients with fragile blood vessels or coagulopathies.[1-4]



1. Davis CP. Hematoma vs. ecchymosis: differences and similarities. eMedicineHealth. Updated by Cunha JP. Accessed November 27, 2024. https://www.emedicinehealth.com/hematoma_v_ecchymosis/article_em.htm; 2. Asirdizer M, Besik EZ, Kartal E. Non-traumatic ecchymoses: A literature review from a medico-legal perspective. *J Forensic Leg Med*. 2023;95:102490; 3. Mallidi RQ. Ecchymosis. MedIndia. Published August 23, 2017. Accessed November 27, 2024. https://www.medindia.net/patientinfo/ecchymosis.htm; 4. Wedro B. Hematoma. In: Balentine JR, ed. MedicineNet. Published July 5, 2024. Accessed November 27, 2024. https://www.medicinenet.com/hematoma/article.htm.

# Prevention and Management of Ecchymosis and Hematoma

## Prevention

- Prevention involves proper injection techniques (including avoiding areas with visible blood vessels), site rotation, and careful handling of patients on anticoagulants.[1–4]

## Management

- Ecchymosis/bruising typically resolves on its own, does not require any specific intervention.[1–4]
- Large hematomas may require medical attention or drainage.[1–4]
- Management of ecchymosis includes applying **cold compresses** initially to reduce swelling, then **warm compresses** to promote healing.[1–4]
  - For existing cases, cold compresses applied immediately post injection can decrease swelling, while warm compresses later can promote healing.

# Expert Insights: Diagnosis of Ecchymosis vs. Hematoma



Expert insights video. Click to view
Lynne H. Robertson, Dermatologist

Non blanchable violaceous macules

- **Possible mechanisms***
  - Cannula too long (pain at insertion)
  - Cannula dislodged
  - Patient on blood thinners?
  - Trauma

Associated with an underlying **palpable** swelling → **probable hematoma**

1. Davis CP. Hematoma vs. ecchymosis: differences and similarities. eMedicineHealth. Updated by Cunha JP. Accessed November 27, 2024. https://www.emedicinehealth.com/hematoma_v_ecchymosis/article_em.htm; 2. Asirdizer M, Besik EZ, Kartal E. Non-traumatic ecchymoses: A literature review from a medico-legal perspective. *J Forensic Leg Med*. 2023;95:102490; 3. Mallidi RQ. Ecchymosis. MedIndia. Published August 23, 2017. Accessed November 27, 2024. https://www.medindia.net/patientinfo/ecchymosis.htm; 4. Wedro B. Hematoma. In: Balentine JR, ed. MedicineNet. Published July 5, 2024. Accessed November 27, 2024. https://www.medicinenet.com/hematoma/article.htm.

*Expert Opinion, Dr. Lynne H. Robertson, October 2024.

# Bruising: Care Plan

Localized, flat discolouration of the skin from ruptured capillaries (ecchymosis)

Localized collection of blood outside the vessels, forming a swollen and/or firm lump (hematoma)

**Consider**

1. Applying cold compresses **immediately** post injection to reduce swelling
2. Applying warm compresses to promote healing

Future prevention of ecchymosis or hematoma

**Consider**

1. Avoiding areas with visible blood vessels
2. Site rotation
3. Careful handling of patients on anticoagulants

**Plan of Action:**

**Roles and Responsibilities:**