Child Health Nursing II — Unit 2: Orthopaedic, eye, ear, skin and communicable disorders

Assessment of Orthopaedic and Communicable Disorders

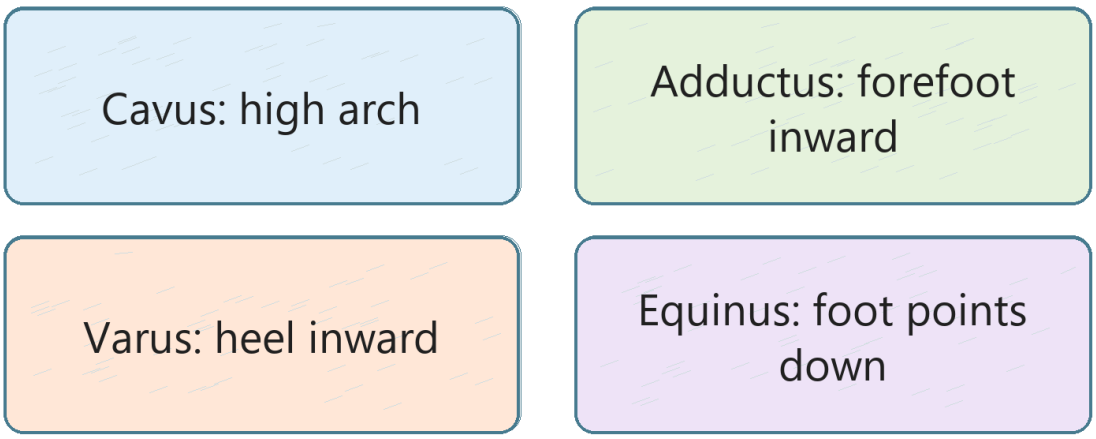
Overview

- This unit covers childhood bone and joint disorders, common eye, ear and skin problems and important communicable diseases.
- Assessment should consider pain, movement, development, growth, school participation and the child's general condition.
- For suspected infection, assess severity and transmission risk while avoiding unnecessary delay in care.
- Explain procedures in age-appropriate language and help caregivers recognize when home care is no longer safe.

Clubfoot

Definition

- **Clubfoot**, or congenital talipes equinovarus, is a structural foot deformity in which the foot is turned inward and downward.
- It differs from a flexible positional deformity and needs early specialist assessment.
- Many cases are isolated, while others occur with neuromuscular or syndromic conditions, so assess the spine and the rest of the child as well as the foot.



The four components of clubfoot

Components

1. **Cavus**
   - ➢ Cavus is an abnormally high arch of the foot.

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2. Adduction

- Adduction turns the forefoot inward.

3. Varus

- Varus turns the heel inward.

4. Equinus

- Equinus points the foot downward at the ankle and limits upward movement.

Assessment

- Examine both feet, movement, skin and associated neurological or other abnormalities.

Management

- The Ponseti approach uses gentle manipulation and serial casts, often followed by a small Achilles tendon procedure and prolonged bracing.
- Early correction and adherence to the brace plan help reduce recurrence.

Nursing Care

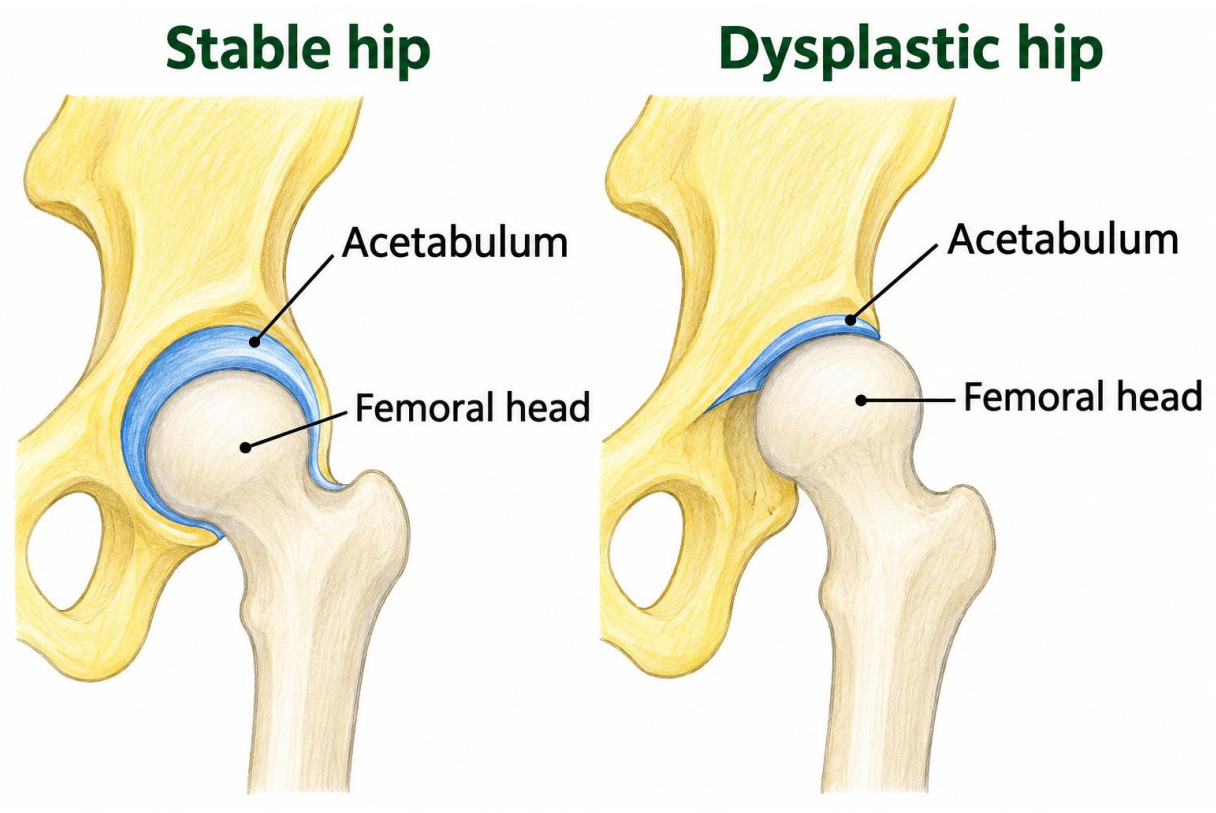
- Check toes for warmth, colour, swelling and movement after casting and teach caregivers to report impaired circulation or increasing distress.
- Keep the cast dry and prevent objects, powder or fingers being pushed under it to relieve itching.
- Explain that the brace maintains correction after the foot looks improved and should follow the prescribed schedule.
- Support clinic attendance and assess barriers that make prolonged treatment difficult for the family.

Developmental Dysplasia of the Hip

Definition

- **Developmental dysplasia of the hip**, or DDH, includes abnormal development of the acetabulum and instability, subluxation or dislocation of the femoral head.
- Breech presentation, family history and other factors can increase risk, but DDH can occur without a recognized risk factor.

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Hip dysplasia and loss of stable femoral-head coverage

Clinical Features

- Findings may include hip instability in infancy, limited abduction, unequal leg length or an abnormal gait later.
- Skin-fold asymmetry alone is not diagnostic.

Diagnosis

- Trained examination and age-appropriate ultrasound or radiography establish the diagnosis.
- Repeated forceful testing of hip stability should be avoided.

Hip-stability Tests

1. Ortolani Test

- The Ortolani test identifies a dislocated hip that can be gently reduced into the socket by a trained examiner.
- A definite reduction clunk is more significant than an isolated soft click.

2. Barlow Test

- The Barlow test assesses whether an unstable hip can be displaced from the socket during a controlled examination.
- Both tests are mainly useful in early infancy and require trained, gentle examination rather than repeated testing by caregivers.

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Management

- Early treatment may use a prescribed harness or abduction device, while later or resistant cases may need reduction, casting or surgery.
- The goal is stable positioning that allows normal joint development while protecting blood supply to the femoral head.

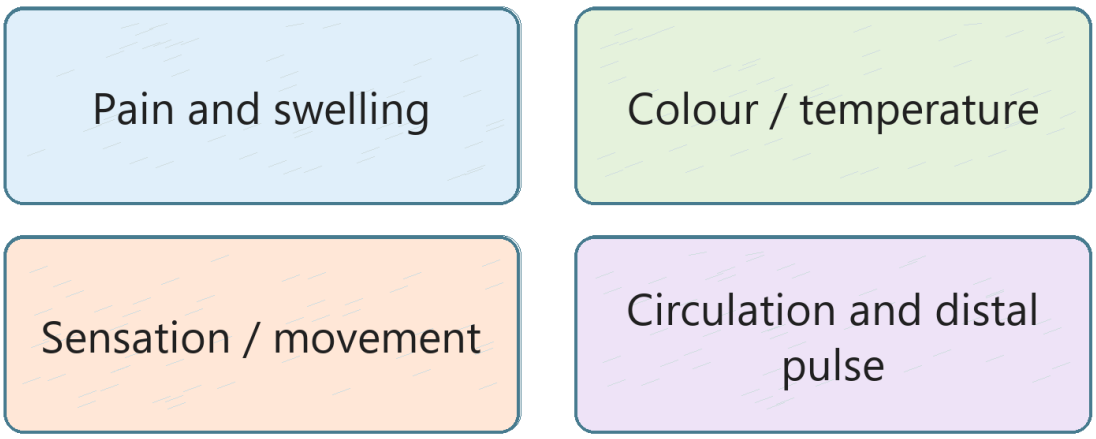
Nursing Care

- Check skin, limb movement and circulation and ensure that straps remain at the clinician-set position.
- Do not let caregivers adjust a harness independently or force the legs together.
- Teach safe handling, diapering and clothing with the device and support the hips in a developmentally appropriate position.
- Explain follow-up imaging and the need to continue treatment even when the infant appears comfortable.
- Discourage tight swaddling that holds the hips and knees straight together.

Fractures in Children

Definition

- A **fracture** is a break in a bone and may involve the growth plate as well as the shaft or end of the bone.



Increasing pain or neurovascular change requires urgent review

Neurovascular observations after a fracture

Clinical Features

- Pain, swelling, tenderness, deformity and refusal to use the limb are common features.

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- Children may be unable to describe the injury clearly, so observe movement and behaviour as well as reported pain.

Skin Involvement

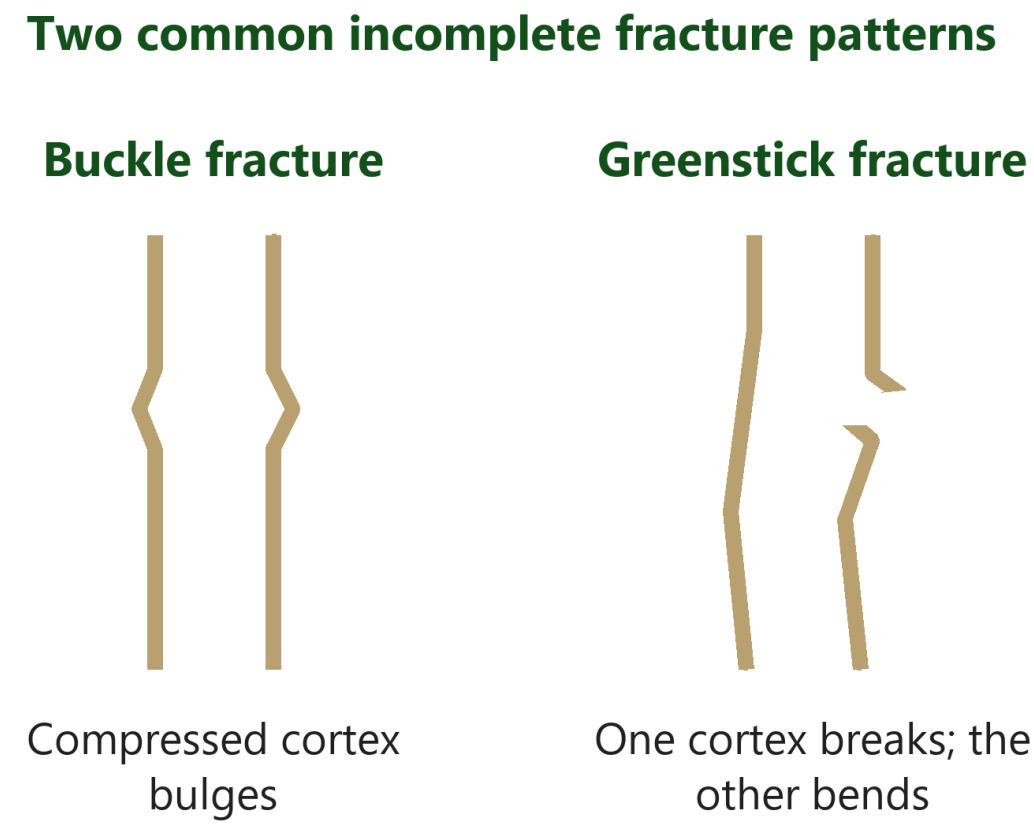
1. Closed Fracture

- A closed fracture has no wound communicating with the fracture site.

2. Open Fracture

- An open fracture communicates with an external wound and carries a substantial infection risk.
- Cover the wound with an appropriate sterile dressing and obtain urgent treatment without pushing exposed bone back inside.

Important Childhood Patterns



Buckle and greenstick fractures affect the cortex differently

1. Buckle Fracture

- A buckle fracture is compression failure that causes the cortex to bulge, commonly near the wrist.

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