Nurses Content
Downloaded from nursescontent.com

Musculoskeletal and Orthopaedic Disorders

Child Health Nursing

Congenital talipes equinovarus (clubfoot), developmental dysplasia of the hip, fractures, scoliosis, osteomyelitis, rickets and nursing care of children with mobility problems.

For educational purposes only.

CHAPTER 15 / CHILD HEALTH NURSING 15. Musculoskeletal and Orthopaedic Disorders

1. Assessment

Assess alignment, gait, ROM, pain, swelling, birth history, developmental movement and neurovascular status. Growth plates are vulnerable; children's fracture patterns and healing differ from adults.

Clubfoot (CTEV)

Definition and pathophysiology: Congenital talipes equinovarus: cavus, adductus, varus and equinus deformities.

Clinical features and investigations: Foot turned inward/downward, assess flexibility and associated conditions.

Management and nursing care: Early Ponseti serial manipulation/casting, tenotomy when indicated and bracing; teach brace adherence, cast skin/neurovascular checks and follow-up.

Developmental dysplasia of hip (DDH)

Definition and pathophysiology: Abnormal development/stability of hip joint; risk with breech and family history.

Clinical features and investigations: Infant instability or limited abduction, later leg length/gait changes; trained Ortolani/Barlow assessment and ultrasound or radiography by age.

Management and nursing care: Early referral; harness or surgery depending age/severity; monitor skin, fitting and limb movement; avoid tight hip extension/adduction swaddling.

Fractures

Definition and pathophysiology: Bone injury; greenstick, buckle and physeal fractures characteristic in children.

Clinical features and investigations: Pain, swelling, deformity, refusal to use limb; imaging.

Management and nursing care: Immobilize, analgesia, reduction/cast as ordered; serial distal neurovascular checks, assess compartment syndrome and non-accidental injury when indicated.

Scoliosis

Definition and pathophysiology: Lateral spinal curvature with rotation.

Clinical features and investigations: Asymmetry of shoulders/trunk, rib prominence; specialist examination and Cobb angle on imaging.

Management and nursing care: Observation, bracing or surgery depending risk; support body image, adherence and postoperative neurovascular/respiratory care.

Nurses Content
Downloaded from nursescontent.com

Osteomyelitis

Definition and pathophysiology: Bone infection commonly haematogenous.

NURSE'S CONTENT / CHILD HEALTH NURSING 26

B.SC. NURSING / CHAPTER-WISE STUDY NOTES

Clinical features and investigations: Fever, localized pain, refusal to bear weight; cultures, inflammatory markers, MRI.

Management and nursing care: Timely antibiotics and possible drainage, monitor pain and response, support rest/mobilization per plan. Hot swollen joint may be septic arthritis emergency.

Rickets

Definition and pathophysiology: Defective mineralization of growing bone due to vitamin D/calcium or other causes.

Clinical features and investigations: Bowing, widened wrists, delayed motor milestones, weakness; biochemical and radiological tests.

Management and nursing care: Treat cause with prescribed vitamin D/calcium or specialist therapy, dietary and safe sunlight advice; monitor growth and complications.

2. Nursing role

Support age-appropriate play and school, protect skin under casts/braces, explain pain relief and activity limitations, promote safe transfer/weight-bearing, coordinate physiotherapy. Severe increasing pain, altered sensation, pale/cold digits or loss of movement require immediate assessment.

3. Important Examination Questions

Long Answer Questions

1. 1. Describe CTEV and DDH management and nursing care.

Short Answer Questions

1. 1. Explain paediatric fracture patterns
2. 2. discuss rickets and scoliosis.

Very Short Answer Questions (with answers)

1. 1. What is Ponseti method used for? - Clubfoot.
2. 2. What does DDH mean? - Developmental dysplasia of the hip.

4. Quick Revision

- Early orthopaedic intervention is valuable.
- Check neurovascular signs after casts.
- Protect growth and participation.

Nurses Content
Downloaded from nursescontent.com

5. Conclusion

Early orthopaedic intervention is valuable. Check neurovascular signs after casts. Protect growth and participation.

NURSE'S CONTENT / CHILD HEALTH NURSING 27

B.SC. NURSING / CHAPTER-WISE STUDY NOTES

Practice questions

Choose one best answer. The answer key and explanations follow the questions.

1. Which condition is treated using the Ponseti method?

A. Scoliosis
B. Rickets
C. Clubfoot
D. Osteomyelitis

2. A child in a cast develops increasing pain, altered sensation and pale, cold digits. What is the appropriate interpretation?

A. An expected adjustment that needs no reassessment
B. A sign that fracture healing is complete
C. A normal response to improved limb perfusion
D. Possible neurovascular compromise requiring immediate assessment

3. Which condition involves defective mineralization of growing bone?

A. Rickets
B. Scoliosis
C. Developmental dysplasia of the hip
D. Clubfoot

Nurses Content
Downloaded from nursescontent.com

Answer key and explanations

1. C - Clubfoot

Ponseti serial manipulation and casting is used for clubfoot.

2. D - Possible neurovascular compromise requiring immediate assessment

These symptoms may indicate compromised circulation or nerve function.

3. A - Rickets

Rickets results from defective mineralization, including vitamin D or calcium related causes.

Source and attribution

Online chapter: https://nursescontent.com/learn/child-health-nursing/unit-15-musculoskeletal-and-orthopaedic-disorders/

Downloaded from Nurses Content. Branding identifies the delivery website. Original author credits, third-party licences and applicable rights remain unchanged.