

Canes (Walking Sticks) – Physiotherapy Notes (Exam Revision)

1. Definition

A **cane** is a handheld assistive device used to improve **balance, stability, and mobility** by increasing the base of support and reducing weight-bearing on the affected lower limb.

Exam Definition

A cane is an assistive walking device used to provide support, improve balance, and reduce stress on the lower extremities during walking.

2. Objectives of Using a Cane

- Improve balance and stability.
 - Increase the base of support.
 - Reduce pain during walking.
 - Decrease weight-bearing on an affected limb.
 - Improve walking efficiency.
 - Prevent falls.
 - Enhance independence in mobility.
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3. Indications

Canes are prescribed for patients with:

- Mild balance impairment.
- Muscle weakness (hip, knee, or ankle).
- Painful lower-limb conditions.
- Arthritis.
- Post-fracture rehabilitation.
- Stroke (mild hemiplegia).
- Parkinson's disease (selected patients).
- Elderly individuals at risk of falls.

4. Contraindications

- Severe upper-limb weakness.
 - Poor hand grip.
 - Severe cognitive impairment preventing safe use.
 - Patients requiring greater support (may need a walker or crutches instead).
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5. Types of Canes

Type	Features	Uses
Standard (Single-Point) Cane	One tip	Mild balance problems
Quad Cane	Four-point base	Better stability, hemiplegia
Tripod Cane	Three-point base	More stable than a standard cane
Offset Cane	Curved handle improves weight distribution	Arthritis, mild weakness
Folding Cane	Foldable for storage	Travel and portability
Adjustable Cane	Height adjustable	Fits different users

6. Parts of a Cane

- Handle (grip)
 - Shaft
 - Height adjustment mechanism (if adjustable)
 - Ferrule (rubber tip)
 - Base (single, tripod, or quad)
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7. Measurement of Cane Height

Method:

1. Patient stands upright wearing usual footwear.
2. Arms relaxed by the sides.

3. Cane tip placed about **15 cm (6 inches)** lateral and slightly anterior to the foot.
4. Handle should align with the **wrist crease (ulnar styloid level)**.
5. Elbow should be flexed **20–30°** when holding the cane.

Exam Tip: Correct height reduces strain on the shoulder and wrist and promotes safe gait.

8. Which Hand Should Hold the Cane?

Rule: Hold the cane in the **hand opposite (contralateral) to the affected or weaker leg**.

Example: If the **right leg** is painful or weak, hold the cane in the **left hand**.

Reason:

- Improves balance.
 - Reduces load on the affected limb.
 - Produces a more natural gait pattern.
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9. Cane Walking Pattern

Step-by-Step

1. Move the **cane forward** together with the **affected leg**.
2. Transfer weight through the cane as needed.
3. Step forward with the **unaffected (strong) leg**.

Sequence:

Cane + Affected Leg → Unaffected Leg

10. Weight Bearing with a Cane

A cane can reduce the load on the affected lower limb by providing additional support, but it does **not** eliminate weight-bearing. It is suitable for patients who need **mild assistance**.

11. Advantages

- Lightweight and portable.
 - Easy to use.
 - Improves balance.
 - Reduces joint loading.
 - Increases confidence while walking.
 - Cost-effective.
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12. Disadvantages

- Provides less support than walkers or crutches.
 - Requires adequate hand grip and upper-limb strength.
 - May be insufficient for severe balance problems.
 - Incorrect use can increase fall risk.
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13. Safety Precautions

- Check the rubber tip (ferrule) regularly for wear.
 - Adjust the cane to the correct height.
 - Use on dry, stable surfaces when possible.
 - Avoid leaning excessively on the cane.
 - Wear appropriate footwear.
 - Learn the correct walking pattern before independent use.
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14. Stairs with a Cane

Going Upstairs

"Up with the good."

1. Strong (unaffected) leg.
2. Affected leg.
3. Cane.

Going Downstairs

"Down with the bad."

1. Cane.
 2. Affected leg.
 3. Strong (unaffected) leg.
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15. Cane vs Crutch vs Walker

Feature	Cane	Crutch	Walker
Support	Mild	Moderate to high	Maximum
Weight Bearing	Mild reduction	Partial to non-weight bearing possible	Excellent support
Balance	Mild assistance	Good	Best
Energy Requirement	Low	High	Moderate
Typical Use	Mild weakness	Significant injury or surgery	Severe balance deficits

16. Clinical Applications

- Osteoarthritis.
 - Hip replacement rehabilitation.
 - Knee replacement rehabilitation.
 - Mild stroke.
 - Lower-limb fractures (as appropriate).
 - Peripheral neuropathy.
 - Mild balance disorders.
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17. Mini Clinical Cases

Case 1: Knee Osteoarthritis

Presentation: A 65-year-old patient has right knee pain and difficulty walking due to osteoarthritis.

Diagnosis: Right knee osteoarthritis.

Management: Prescribe a **single-point cane in the left hand**, along with strengthening exercises, pain management, and gait training.

Case 2: Stroke

Presentation: A 58-year-old patient with left-sided weakness demonstrates mild instability while walking.

Diagnosis: Mild left hemiplegia following stroke.

Management: Use a **quad cane in the right hand**, combined with balance training and task-specific gait rehabilitation.

Case 3: Hip Replacement

Presentation: A patient is recovering from a left total hip replacement and is progressing to independent walking.

Diagnosis: Post-operative rehabilitation after left hip arthroplasty.

Management: Use a cane in the **right hand**, gradually progress weight-bearing as advised by the surgeon, and continue strengthening and gait training.

18. High-Yield Exam Points

- A cane is used for **mild balance impairment or lower-limb weakness**.
 - Hold the cane in the **opposite hand** to the affected leg.
 - Elbow flexion should be **20–30°**.
 - Cane height should reach the **wrist crease (ulnar styloid level)**.
 - Walking sequence: **Cane + Affected Leg → Strong Leg**.
 - Stairs: "**Up with the good, down with the bad.**"
 - A **quad cane** provides more stability than a **single-point cane**.
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19. Frequently Asked University Questions

Long Answer Questions

1. Define a cane and explain its indications, types, and gait pattern.
2. Describe the measurement and proper use of a cane.
3. Compare canes, crutches, and walkers.

Short Answer Questions

1. Define a cane.
 2. List the types of canes.
 3. State the correct hand for holding a cane.
 4. Mention two indications for cane use.
 5. Explain the rule for using a cane on stairs.
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20. Quick Revision Summary

Topic	Key Point
Definition	Assistive device for balance and mobility
Held In	Opposite hand to affected leg
Elbow Position	20–30° flexion
Height	Wrist crease (ulnar styloid level)
Best For	Mild weakness or balance deficits
Walking Pattern	Cane + affected leg → strong leg
Stairs	Up with the good, down with the bad