

Exercise Therapy

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PNF-Arm Patterns

Definition of PNF: Proprioceptive neuromuscular facilitation (PNF) is an approach to therapeutic exercise that combines functionally based diagonal patterns of movement with techniques of neuromuscular facilitation to evoke motor responses and improve neuromuscular control and function.

PNF Upper Extremity Diagonal Patterns

D1 Flexion (Flexion–Adduction–External Rotation)

Starting Position on right arm

Shoulder: Extension, Abduction, Internal Rotation

Elbow: Extension

Forearm: Pronation

Wrist & Fingers: Extension

Hand positioned 8–12 inches away from the hip

Therapist Hand Placement

One hand in the patient's palm (holding fingers)

Other hand on the front (volar surface) of the forearm or at elbow region

Give Verbal Commands to patient

"Squeeze my fingers." Then "Turn your palm up." Then say "Pull your arm up and across your face."

Ending Position

Shoulder: Flexion, Adduction, External Rotation

Elbow: Slight Flexion

Forearm: Supination

Wrist & Fingers: Slight Flexion

Functional Activity for example of ending position

Bringing a spoon or glass to the mouth.

Combing hair on the opposite side.

D1 Extension (Extension–Abduction–Internal Rotation)

Starting Position

Arm across the face

Shoulder: Flexion, Adduction, External Rotation

Elbow: Slight Flexion

Forearm: Supination

Wrist & Fingers: Flexion

Therapist Hand Placement

One hand on the back (dorsal surface) of the hand

Other hand on the back of the arm above the elbow

Verbal Commands first "Open your hand." Then "Push your arm down and out."

Ending Position

Shoulder: Extension, Abduction, Internal Rotation

Elbow: Extension

Forearm: Pronation

Wrist & Fingers: Extension

Functional Activity for example of ending position

Reaching down to place an object beside the body.

Putting something into a pocket.

D2 Flexion (Flexion–Abduction–External Rotation)

Starting Position

Shoulder: Extension, Adduction, Internal Rotation

Elbow: Extension

Forearm: Pronation

Wrist & Fingers: Flexion

Forearm resting across the umbilicus

Therapist Hand Placement

One hand on the back of the patient's hand

Other hand on the back of the forearm near the elbow

Verbal Commands start with "Open your hand." Then "Turn your hand toward your face." "Lift your arm up and out." End with "Point your thumb out."

Ending Position

Shoulder: Flexion, Abduction, External Rotation

Elbow: Extension

Forearm: Supination

Wrist & Fingers: Extension

Arm 8–10 inches away from the ear

Functional Activity of activity

Drawing a sword.

Reaching overhead to pick up an object.

D2 Extension (Extension–Adduction–Internal Rotation)**Starting Position**

Shoulder: Flexion, Abduction, External Rotation

Elbow: Extension

Forearm: Supination

Wrist & Fingers: Extension

Arm positioned 8–10 inches from the ear

Therapist Hand Placement

One hand in the patient's palm

Other hand on the front (volar surface) of the forearm or distal humerus

Verbal Commands start with "Squeeze my fingers." Then "Pull down and across your chest."

Ending Position

Shoulder: Extension, Adduction, Internal Rotation

Elbow: Extension

Forearm: Pronation

Wrist & Fingers: Flexion

Forearm crosses the umbilicus

Functional Activity for pattern

Fastening a seat belt.

Bringing an object from overhead down across the body.

Easy Memory Trick

Pattern	Movement	Example
D1 Flexion	Up and Across	Feeding yourself
D1 Extension	Down and Out	Putting hand in pocket
D2 Flexion	Up and Out	Drawing a sword
D2 Extension	Down and Across	Sheathing a sword / Seat belt movement

Remember:

- D1 = Across the body
- D2 = Away from the body
- Flexion = Up
- Extension = Down

Click for Lower Extremity Diagonal Patterns

For more notes click on:

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