

SHOULDER COMPLEX MANAGEMENT

1

CODMAN'S OR OTHER PENDULUM EXERCISES

- Codman's pendulum exercises are commonly
- prescribed after shoulder surgery and injury to provide grade I and grade II distraction and oscillation resulting in decreased pain, increased flow of nutrients into the joint space, and early joint mobilization



2

ACTIVE ASSISTED ROM EXERCISES

- These may include wand or cane exercises into functional planes incorporating combinations of forward flexion , extension, abduction, internal rotation, and external rotation. Over the- door pulley exercises are performed later in the acute phase as tolerated. Care must be taken when prescribing pulley exercises in the presence of impingement or adhesive capsulitis as the exercise can reinforce poor scapulohumeral motion.



3

SCAPULAR PINCH

- Scapular *pivoter* exercises can be performed early in the rehabilitation process. These include the *scapular pinch*, which is an isometric activity involving scapula retraction toward the midline



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SCAPULAR ELEVATION



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- Closed-chain exercises may be done early in the rehabilitation phase as they do not put shear on the joint.
- They also allow the rotator cuff muscles to be activated without being inhibited by pain or deltoid overactivity. The closed-chain
- exercises can be initiated in the lower ranges using a table and then progressed to having the hand stabilized on the wall, or on a ball on the wall



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- Closed-chain exercises for scapular control with 90° of elevation . Scapular elevation (A), scapular depression (B). Scapular and rotator cuff stability is initially developed by performing low-intensity isometric contraction, first in shortened range and then in more lengthened range and finally dynamically with an unstable surface (i.e., a ball).

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- Closed-chain exercises for the rotator cuff include clock exercises



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- Prone push-up . Push-up with a plus: a normal push-up, followed by an extra “push” to the ceiling to allow full protraction (A). This exercise was shown by Mosely et al.¹⁶⁶ to have the highest electromyographic activity for the serratus anterior. Pushups on a stability ball add more issues of stability and balance (B).

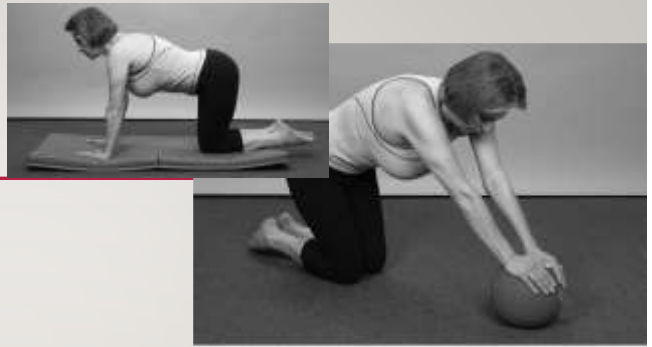
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- Scapular neuromuscular control drills in side lying . The shoulder is abducted to 90° and internally rotated, and the hand is placed on the plinth (A). Manual resistance is applied to the cardinal and diagonal scapular patterns of motion (B)

10

- Quadruped stabilization. Weight shifting can begin on a stable surface in a four-point position (A) or three-point position and progress to weight shifting on unstable surfaces such as a balance board (B) or ball (C). In the three-point position a free weight, Thera-Band, or an oscillating body blade (D) can be used while working on neuromuscular control on the weight-bearing
- shoulder. manual resistance produced by the therapist (E) can be applied to the non-weight-bearing arms as the patient focuses on controlling scapular movements

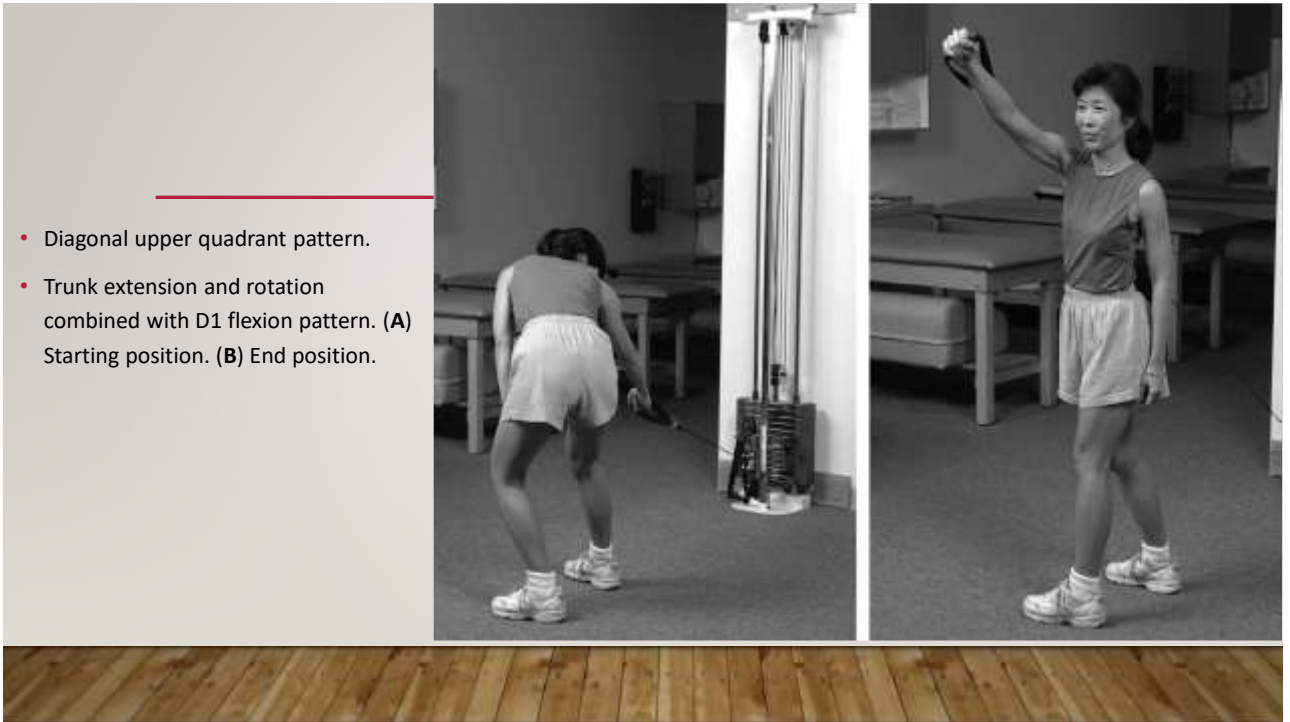


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- Shoulder flexion in the plane of the scapula ("scaption") below 80° of flexion (A), from neutral to 120° (B), and with the application of resistance (C).

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- Diagonal upper quadrant pattern. Trunk
- flexion and rotation combined with D2 arm extension
- pattern. (A) Starting position. (B) End position.



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- The lawnmower exercise. (A) Starting
- position. (B) End position.



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PLYOMETRICS

- Stretch-shortening drills (plyometrics). Catching a ball with body weight supported by the plinth (A), and in freestanding position using proprioceptive neuromuscular facilitation (PNF) drills in a diagonal extension pattern (B)
- and in a diagonal flexion pattern (C).

