



Figure 7. Latissimus Dorsi strengthening seated and standing with push-ups (7A to 7C).

- Assisted active internal rotation, hand behind the back, is continued as before (Figures 3A–3C).

#### Strength training exercises

Strengthening exercises are initiated only after full recovery of the active range of motion. They should never be performed on a stiff or painful shoulder. These exercises are taught to the patient and performed as part of daily self-rehabilitation, typically twice per day, in addition to weekly supervised sessions with the physiotherapist. The rehabilitation strategy is based on a simplified biomechanical model of the shoulder. Physio-

logical arm elevation results from the balance between the upward force of the deltoid and the downward stabilizing forces of the humeral head depressor muscles. The resulting force vector, aligned with the supraspinatus tendon, allows smooth and coordinated elevation.

Strengthening focuses on restoring this balance and includes the following exercises (typically five sets of ten repetitions):

**Anterior deltoid strengthening** using elastic resistance bands (Figure 6A).

**Pectoralis major strengthening**, contributes to humeral head depression. The movement should begin at approximately 45°

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