

**Table2: Work done by different joints & muscles in performing three types of loops**

AL: Accentuated loops; FL: Forward-driving loops; SL: Sidespin loop

**A. Backswing**

Type	Joints		Type	Joints		Type	Joints		Motoral muscles
AL	Shoulder gridle	Extension	FL	Shoulder gridle	Extension	SL	Shoulder gridle	Extension	Trapezius, rhomboideus
	Shoulder	Extension & slight abduction		Shoulder	Extension & slight abduction		Shoulder	Extension	Deltoid, latissimus dorsal
	Elbow	Extension & internal rotation		Elbow	Extension & internal rotation		Elbow	Extension & internal rotation	Triceps, elbow muscle pronator teres
	Wrist	Dorsiflexion & slight radial deviation		Wrist	Slight radial deviation & dorsiflexion		Wrist	Palmar flexion & ulnar deviation	Radial flexor & extensor

Note: Backswings in all three types of loops involve basically the same major muscles but different minor muscles.

**B. Forward swing:** Notes: 1. Forward swings in AL & FL involve the same major motoral muscles although they place different loads on different muscles. 2. Different minor muscles are used for forward swings in the three types of loops.

Type	Joints		Type	Joints		Type	Joints		Motoral muscles
AL	Shoulder gridle	Upward rotation & flexion	FL	Shoulder gridle	Flexion & upward rotation	SL	Shoulder gridle	Flexion & upward rotation	Serratus, trapezius (upper part), pectoralis minor
	Shoulder	Flexion & abduction		Shoulder	Horizontal flexion & slight abduction		Shoulder	Abduction, flexion, internal rotation	AL: supraspinatus, biceps (long head) FL: supraspinatus, coracobrachialis SL: subscapularis
	Elbow	Flexion		Elbow	Flexion		Elbow	Internal flexion & rotation	AL & FL: radial flexor SL: radial & ulnar flexor & extensor
	Wrist	Radial deviation & dorsi flexion		Wrist	Slight radial deviation		Wrist	Radial deviation & slight dorsi flexion	Al & FL: radial flexor & extensor SL: radial & ulnar & extensor

