

# Comparison of post operative early active and Controlled passive mobilization of flexor tendon in Zone 2

## Abstract:

**Introduction:** Despite numerous advances in our understanding of the anatomy, Biomechanics, nutrition and healing, the results Following Flexor Tendon repair Show relatively high rate of failure. The purpose of this study was to compare the result of 50 digits treated by either " Early active mobilization" or " controlled passive mobilization" regimen in Iran hand rehabilitation center.

**Materials & methods:** Patients being matched for gender, age, injuries hand, technique of sugery (all with epitenon first, cruciate four strand) in two groups. They were assessed 8 weeks post operative in respect of total active motion, flexion gap and extension lag. Outcome were defined using " Strickland" and " Buck-Gramko" criteria.

**Findings:** The results were 80% excellent and good, 20% fair and no poor in early active motion group and in second group 40% excellent and good, 44% fair and 16% poor due to Strickland criteria. In Buck-gramcko criteria 52% extension and good, 32% fair and 16% were poor. Mean of total active motion was significantly greater in early active motion group ( in E.A.M.150/2, in passive group: 116/41).

**conclusion:** Actively mobilized tendons underwent intrinsic healing without large gap formation. Active motion generated with tension and motion and offer several advantage over passive motion: improved tendon nutrition, less adhesion, higher rate of healing, increased ultimate range of motion. So early active motion is the best protocol for treating tendons in zone 2. Our result is comparable with theory.

**Key words:** Flexor Tendons in zone 2/early active motion (E.A.M)/Controlled passive motion ( C.P.M)

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