Somewhere between 50-80% of stroke survivors have upper limb symptoms after acute stroke and persistent difficulty in using the upper limb is a major contributor to ongoing physical disability. A commonly held view is that most recovery from stroke occurs over the first three to six months after which little improvement is possible, especially at the level of impairment.

For physical conditions that reduce the range of motion, most studies of behavioural interventions have investigated forms of constraint induced movement therapy (CIMT), repetitive task training (RTT) or robotics, each of which focuses on increasing the activity of the affected limb.

Key Movements:

* Reaching
  + Salient characteristics:
    - Reach is in a straight line, directly to the intended target
    - One large smooth movement
    - Produced by simultaneous rotation at multiple segments
    - Requires anticipatory postural adjustments
* Grasping
  + Salient characteristics:
    - Finger opening starts as the hand begins to move toward the object.
    - Finger aperture is scaled based on object size.
    - Max. Aperture is usually slightly bigger than object diameter (open fingers a little wider than absolutely necessary).
    - Fingers open and close in a relatively smooth movement
* Manipulating:
  + Salient characteristics:
    - Movement is fractionated
    - Movements and forces are appropriate for the object in the hand
    - Movement is variable person-to-person and time-to-time