

FINGER-TO-PALM TRANSLATION

(Exner, 1990a, 1990b, 1992, 1997)

Alternative Grasp Names

- *Precision translation* (Long, Conrad, Hall, & Furler, 1970)
- *Finger-to-palm translation to achieve stabilization* (Pont et al., 2009)

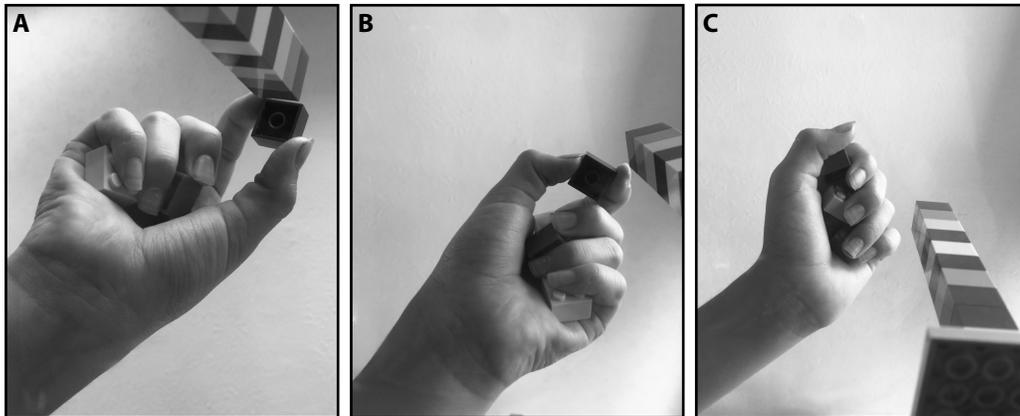


Figure 6-1. Note that this child's forearm remains in pronation throughout the movement to bring the object into the palm. Observe the ulnar fingers stabilizing additional objects while the radial fingers manipulate.

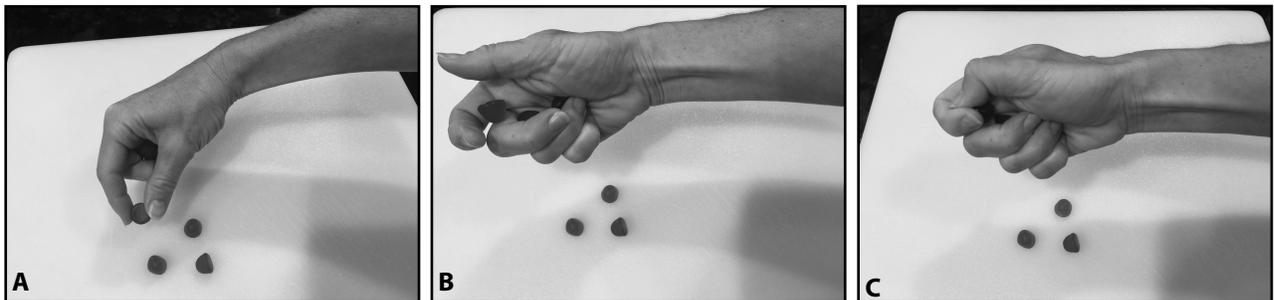


Figure 6-2. Note the use of gravity to roll the candy from the fingers and thumb into the "cup" formed by the palm and the flexed ulnar fingers.

Description

An object is moved from the tips of the thumb and finger(s) into the palm of the hand for storage (Exner, 1990a, 1992). With neurological maturity, gravity may help bring the object from the digits into the palm (Pehoski et al., 1997b; Pont et al., 2009). This may be accomplished with or without the stabilization of additional objects in the same hand.

Approximate Age of Emergence

1.5 to 2 years of age (Exner, 1990a; Humphrey et al., 1995)

3 years of age: Stabilization of small object in the palm while bringing additional objects into the palm (Exner, 1990a).

Functional Uses

A finger-to-palm translation can be used while picking up small objects (e.g., small toys, coins, candy) for transport and/or storage in the palm.

CLINICAL RELEVANCE

Because this movement requires no isolated movements of thumb or fingers, it is considered one of the simplest in-hand manipulation skills. This is in contrast to palm-to-finger translation, which requires differentiated thumb movements and sustained finger control (Exner, 1990a). Adults and older children tend to use forearm supination to allow gravity to assist with moving the object into the palm (Pehoski et al., 1997b). Because contact points with the digit(s) and hand change position on the object(s), Bullock and Dollar (2011) would classify finger-to-palm translation as having motion at contact.