

# Motor Compensation

Nathaniel Yomogida, SPT

Chloë Kerstein, SPT

## Table of contents

**1 Adaptive Compensation** **1**

**2 Behavioral Substitution** **1**

Motor compensation refers to performance of an old movement in a new manner that can be achieved through adaptive compensation or behavioral substitution<sup>1</sup>

Motor compensation can be divided into adaptive compensation and behavioral substitution

## 1 Adaptive Compensation

Adaptive compensation refers to using alternative motor patterns to accomplish a task<sup>1</sup>

### **i** Example of Adaptive Compensation

E.g. the patient with a complete T1 SCI learns to roll using both UEs and momentum<sup>1</sup>

## 2 Behavioral Substitution

Behavioral substitution refers to using alternate body segments or effectors to accomplish a task<sup>1</sup>.

### **i** Example of Behavioral Substitution

For example, a patient with a stroke learns to dress independently using the less affected upper extremity (UE)<sup>1</sup>.

1. O'Sullivan SB, Schmitz TJ, eds. *Improving Functional Outcomes in Physical Rehabilitation*. 2nd ed. F.A. Davis Company; 2016.