

NEUROPLASTICITY

Neuroplasticity is the ability of the brain's neural networks to change through growth and reorganization, enabling it to adapt and function in ways different from its prior state. Neuroplasticity can occur in response to learning new skills, experiencing environmental changes, recovering from injuries, or adapting to sensory or cognitive deficits.

Ten principles of neuroplasticity:

1. Use it or lose it: Skills not practiced weaken over time.
2. Use it and improve it: Training can enhance skills.
3. Specificity: Training must be specific to the desired outcome.
4. Repetition matters: More practice leads to better results.
5. Intensity matters: Higher intensity training leads to greater changes.
6. Time matters: Changes occur over time and may have optimal periods.
7. Salience matters: The training must be meaningful to the individual.
8. Age matters: Neuroplasticity occurs at any age but is more effective in younger individuals.
9. Transference: Skills learned in one context can improve related skills.
10. Interference: Negative habits can hinder positive changes.