



Video Transcript: Experiences Build Brain Architecture

00:07 A child's experiences during the earliest years of life have a lasting impact on the architecture of the developing brain.

00:15 Genes provide the basic blueprint, but experiences shape the process that determines whether a child's brain will provide a strong or weak foundation for all future learning, behavior, and health.

00:27 During this important period of brain development, billions of brain cells called neurons send electrical signals to communicate with each other.

00:36 These connections form circuits that become the basic foundation of brain architecture.

00:41 Circuits and connections proliferate at a rapid pace and are reinforced through repeated use.

00:47 Our experiences and environment dictate which circuits and connections get more use.

00:52 Connections that are used more grow stronger and more permanent. Meanwhile, connections that are used less fade away through a normal process called pruning.

01:00 Well-used circuits create lightning-fast pathways for neural signals to travel across regions of the brain.

01:07 Simple circuits form first, providing a foundation for more complex circuits to build on later.

01:17 Through this process, neurons form strong circuits and connections for emotions, motor skills, behavioral control, logic, language, and memory during the early critical period of development.

01:29 With repeated use, these circuits become more efficient and connect to other areas of the brain more rapidly.

01:35 While they originate in specific areas of the brain, the circuits are interconnected. You can't have one type of skill without the others to support it.

01:43 Like building a house, everything is connected and what comes first forms a foundation for all that comes later.

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