

The Evidence on One Page

Why real play beats screens in the first five years

90%

of the brain's architecture
forms before age five

1M

neural connections formed
per second in infancy

3.4hrs

average daily screen time, UK
children aged 2 to 4

0 mins

recommended sedentary screen time
under age 2 (WHO)

- **Play builds the brain**

Hands-on, open-ended play drives the serve-and-return interaction that neuroscience identifies as the engine of early brain development (Harvard Center on the Developing Child).

- **Screens displace, even when content is good**

Every screen hour in the early years displaces conversation, physical play and sleep. Displacement, not content, is the core mechanism of harm (WHO 2019; UK CMO 2019).

- **Under-2s learn little from video**

The video deficit effect: children under roughly two and a half learn dramatically less from screens than from live people. Replicated across dozens of studies (Roseberry, Hirsh-Pasek & Golinkoff).

- **Electronic toys reduce talk**

Electronic toys measurably reduce the quantity and quality of parent-child conversation versus traditional toys and books (Sosa 2016, JAMA Pediatrics).

- **Simple toys produce richer play**

The TIMPANI studies find simple, open-ended toys (blocks, figures, wooden sets) generate the most complex, sustained and creative play (Trawick-Smith, Eastern Connecticut State University).

- **Fewer toys, deeper play**

Toddlers with fewer toys available play longer and more creatively with each one (Dauch et al. 2018, Infant Behavior and Development).