

The Importance of Physical Activity in Biological Self-Regulation

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by John Hoffman

Self-regulation is the ability to adapt your energy, emotions, thinking skills, social skills, and the ability to care about others according to the needs of a situation or problem.

Biological (or physical) self-regulation is the ability to adapt your state of arousal (physical energy, calmness, alertness, excitement, etc.) according to the requirements of the situation you are dealing with.

One of the best ways to help children regulate their state of arousal is through physical activity. Most of us know that physical activity is a good way to let children “blow off steam” or “burn up excess” energy. But did you know that different kinds of physical activities—everything from exercise to playing with fidget toys—can also help children get ready to focus and concentrate, sit still, or even get ready to learn?

Teachers in innovative schools have learned that many different physical activities help children get into or stay in the alert but calmly focused state that is ideal for learning. For example, they have learned that sitting on a hard chair can actually interfere with some children’s ability to sit still and focus their attention. Teachers have also found that

- Playing with playdough, plasticine, or pieces of yarn, chewing gum, or sucking on plastic coffee stir sticks helps some children focus their attention better in class when the teacher is talking
- Childhood games like Simon Says or Red Light Green Light can help children learn to control their impulses
- Doing some yoga exercises or a few minutes of deep breathing can help children get ready to focus
- Doing a brief set of physical exercises (like ten jumping jacks) can help classroom transitions (like getting ready for lunch or recess) go more smoothly

Why would these physical activities help children focus? It’s partly because of the effect that physical activity has on the brain. When children chew gum or play with fidget toys, their brain releases certain chemicals that help them stay calm and focused.

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Yoga can stimulate brain chemicals that help children relax, and physical exercise not only helps them burn energy but it also changes their brain activity in ways that enhance learning.

This doesn't mean that children should always be chewing gum or that we should never ask them to sit still.

But it does mean that physical activities, both big and small, are tools we can use to help manage children's level of energy, alertness, excitement, and even minor anxiety. And some things we might think of as distractions—like fidget toys, chewing gum, and standing up (when we think they should be sitting down)—actually help children stay in a physical state where it is easier for them to focus their attention.

How physical activity affects biological arousal can vary from child to child. The trick is to understand our individual children and to experiment with different kinds of physical activity to discover what helps them relax, focus, settle down, or become energized in different situations.