



## How to Reduce Disruptive Behavior Through Antecedent Physical Exercise

**Description.** Students who display frequent disruptive behaviors can show greater levels of control and compliance after they have engaged in at least 30 minutes of sustained physical exercise. This technique is called ‘antecedent exercise’ because the physical activity precedes—and therefore prevents—problem behaviors (Folino, Ducharme, & Greenwald, 2014). The positive effects of antecedent exercise have been found to last up to 90 minutes.

**Procedure.** The essentials of antecedent exercise are taken from Folino, Ducharme, & Greenwald, 2014.

The student engages in sustained moderate exercise for at least 30 minutes. Any mix of activities is acceptable (e.g., having students rotate among a series of exercise ‘circuits’ such as jumping jacks and sprints), so long as it achieves this steady rate of physical activity. Of course, activities are always supervised by an adult.

The goal is for the student to achieve a ‘target heart rate’ through most of the activity period, a rate equaling 50 to 70 percent of that individual’s maximum heart rate (Folino, Ducharme, & Greenwald, 2014). While not required, the school may want to use inexpensive electronic devices such as wristwatch heart monitors to track heart rate.

**Tips for Use.** Here are suggestions when designing a plan that includes antecedent exercise:

- *Clear the student for sustained exercise.* Antecedent exercise should be no more strenuous than activities that students routinely engage in during physical education. However, the school should verify that the student has no interfering physical limitations or medical conditions before starting an antecedent-exercise program.
- *Consult a physical-education teacher.* The physical-education instructor is a helpful source for exercise ideas that will engage students—and can also provide guidance on how to monitor the student’s activity level to ensure that it falls within the moderate range.
- *Schedule strategically.* While antecedent exercise can show follow-up positive effects on behavior for up to 90 minutes, the impact is greatest during the first half-hour. If possible, schedule demanding academic work such as reading instruction as soon as possible after an exercise period to reap maximum benefits.

### References

Folino, A., Ducharme, J. M., & Greenwald, N. (2014). Temporal effects of antecedent exercise on students’ disruptive behaviors: An exploratory study. *Journal of School Psychology, 52*, 447-462.