

UNIVERSITY OF
LOUISVILLE®

KENTUCKY AUTISM
TRAINING CENTER 

Exercise As An Evidence Based Practice for
Individuals with Autism Spectrum Disorders

Presented by Michelle Antle, Ed.S.

Field Training Coordinator

Objectives

- Participants will learn the components of an effective exercise intervention plan.
- Participants will learn the importance of using exercise to intervene in an appropriate and positive way to address a wide variety of behaviors.
- Participants will learn how to teach students with ASD how to use exercise to become healthy and productive.



THE NATIONAL PROFESSIONAL DEVELOPMENT CENTER ON
AUTISM SPECTRUM DISORDERS

The NPDC has identified 27 Evidence-Based Practices

- Evidence-Based Practice Briefs
 - <http://autismpdc.fpg.unc.edu/evidence-based-practices>
- The center is currently developing a new online resource, Autism Focused Intervention Resources and Modules (AFIRM) that will host self-paced e-learning modules for each of the EBPs.

Criteria for Qualification as an Evidence-Based Practice:

- At least two high quality experimental or quasi-experimental group design articles
 - Conducted by at least two different researchers/research groupsOR
- At least five high quality single case design articles
 - Conducted by at least three different researchers/research groups
 - Having a total of 20 participants across studiesOR
- A combination of at least one high quality experimental or quasi-experimental group design article and at least three high quality single case design articles
 - Conducted by at least two different research groups



Exercise

Increase in physical exertion
as a means of reducing
problem behaviors or
increasing appropriate
behavior.



What is this effective for?

- **Self-stimulatory behaviors**
- **Hyperactivity**
- **Aggression**
- **Self-Injurious behaviors**
- **Depression**
- **Anxiety**
- **Gastro-intestinal issues**
- **Attention issues**
- **Obesity**

Skills it can improve:

- **Fine and gross motor skills**
- **Sensory Processing**
- **Coordination and Planning**
- **Slow Reaction Times**
- **Visual Tracking**

Components of Effective Exercise Plans

- Types of Exercise
 - Programmed & Structured Activities
 - Aerobic exercise
 - Strength training
 - Stretching exercises
 - Warm-up & Cool-down activities

Must occur on a regular basis.

Exercise Routine

- Exercise routine on daily basis reduced a variety of challenging behaviors to zero or near zero levels
- 20 minute exercise routine; 2 times per day (start of day; after lunch)
 - Jumping on trampoline
 - Scooter boards
 - Jogging
 - Stretching
 - Arm curls with weights
- 1 minute exercise breaks once per hour
 - Yoga poses
 - Jogging in place

Added Benefits:

- **Increased physical health**
- **Helps build in structured breaks and time for exercise during the day**
- **Teaches exercise as a coping skill**
- **Increases motor functioning**
- **Social implications**
- **Promotes self-esteem**

Important Points

to Remember:

- **Never use exercise as a punishment**
- **Make sure to include as a part of daily routines**
- **Highly repetitive is GOOD!**

**Ideas on how to teach
students with ASD to
become healthy and
productive**

Set up an exercise board that requires communication and choice making



AutismClassroomNews.com
Acknowledgements to
Christine Reeve

Exercise as a Station:



AutismClassroomNews.com
Acknowledgments to
Christine Reeve

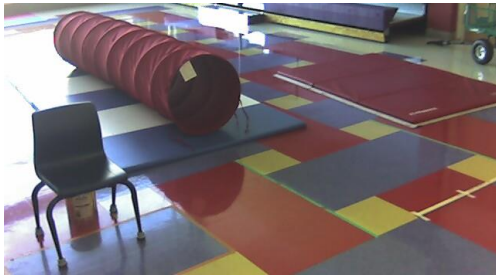
Start the day with a yoga or exercise routine

- **Cosmic Kids**
- **Brain Breaks/The Learning Station**
 - **“The Sid Shuffle”**
- **Dash’s Dance Party—PBS Kids**

Create your own obstacle course:

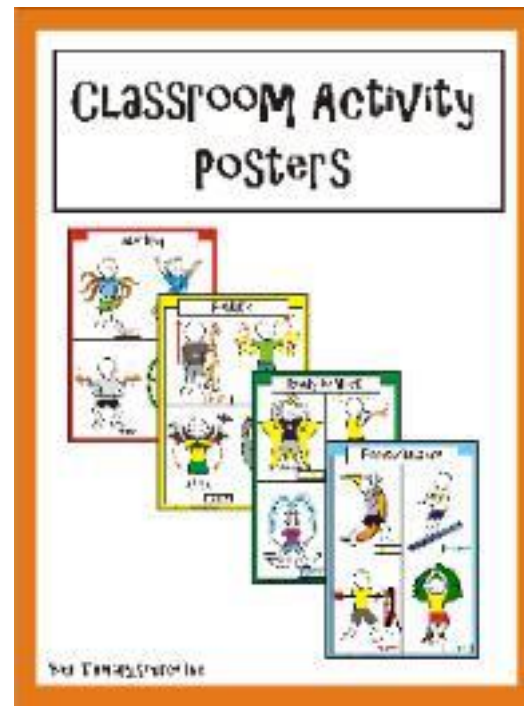
- **Crawl under chairs**
- **Log roll across pillows**
- **Walk a balance beam of duct tape**
- **Throw a ball in a basket**
- **Walk with a bean bag on your head**

A Classroom Example



Other Ideas:

- <http://www.yourtherapysource.com/cap.html>



References

- <http://www.autismclassroomnews.com>
- Cannella-Malone, Tullis, & Kazee (2011). Using antecedent exercise to decrease challenging behaviors in boys with developmental disabilities and an emotional disorder. *Journal of Positive Behavior Interventions*, 13(14), 230-239.
- Wong, Odem, Hume, Cox, Fettig, Kucharczyk, Brock, Plavnick, Fleury, & Schultz (2014). *Evidence-based Practices for Children, Youth, & Young Adults with ASD*. Autism Evidence-based Practice Review Group. Frank Porter Graham Child Development Institute, University of North Carolina at Chapel Hill.
- <http://www.yourtherapysource.com/cap.html>

Contact us.....

Michelle Antle

Michelle.Antle2@ky.gov

(270) 792-7840

Laura Ferguson

Laura.ferguson@louisville.edu

(502) 852-6403

Kim Howard

Kimberly.Howard@KEDC.org

(606) 316-6011

Center contact info:

Telephone:

(502) 852-4631

Fax: (502) 852-7148 E-

mail:

katc@louisville.eu

[https://louisville.edu/e](https://louisville.edu/education/kyautismtraining)

[ducation/kyautismtrai](https://louisville.edu/education/kyautismtraining)

[ning](https://louisville.edu/education/kyautismtraining)

