

12 DIY Exercise Equipment Projects You Can Make at Home

BY DR. LYNN PANTUOSCO-HENSCH AND PAULA LEAHY WELCH

On a rainy Friday, instead of canceling my soccer practices, I made a bold move – I invited my 6th and 4th grade teams to my house for some cross training. We have a semi-finished sports space in our home where I set up a series of fitness stations. I incorporated the basic home fitness equipment we have with soccer balls. I found a great radio station on Pandora (Pop Fitness) and cranked up the music. The boys were singing and dancing between stations. It was a great work out, but more important, the kids had a blast! I was so glad I didn't just cancel.

After the fact, it occurred to me that so much of what we had done could be recreated by families at home. The exercises and equipment can be modified to fit any home, family, and budget. With a little do-it-yourself ingenuity, why can't more workouts involve fun with the whole family?

Why do DIY Exercise?

Most people do not get enough vigorous exercise. Children, in particular, spend too much of their day being sedentary at school and tend to not get enough unstructured free play. Outside of physical education classes and organized sports practices, most kids could use more physical activity in their lives – and so could most parents! If children and parents are

invested in making their own equipment, they may be more likely to adhere to their exercise routines.

The benefits of using basic exercise equipment are many, including:

- **Neuromuscular training:** Children can improve agility, balance, and coordination by challenging their bodies with different types of exercise equipment. Exercise equipment does not have to be fancy or expensive to be functional.

- **Sports based fitness:** Children can incorporate sports skills with fitness, making at-home practice fun and productive. For example, add throwing and catching (baseball, softball or basketball style) or trapping and passing (soccer) after a series of ladders, hurdles, or jumps. Create an exercise routine to meet the demands for any given sport.

- **Injury prevention:** Children can reduce injuries by better developing muscles and supporting structures. Various jumps, hops, lunges, or squats are examples of exercises that can strengthen muscles, ligaments, and tendons around hips, knees, and ankles – reducing the risk of injury to these important joints.

- **Long Term Athletic Development (LTAD):** It's important to remember that sport success is a marathon, not a sprint. In order for chil-

dren to develop and maintain good athletic habits and skills over time – it needs to be fun! At-home exercise with creative equipment adds variety and challenge. When children help create and plan their own exercise or practice, they're more likely to have a sense of purpose. You can help your children to make a personal investment in LTAD.

- **Parkour training:** In recent years we've seen a rise in participation in parkour training (e.g., American Ninja Warriors and Titan Games). With the growing popularity of obstacle course style training, now is a great time to incorporate obstacle courses at home. Using DIY exercise equipment, families can create unique and fun challenges for every fitness and skill level.

How can families do DIY Exercise?

I've compiled some of my favorite ideas that we've either implemented at home or that I've seen done well and used effectively. Each uses basic household items or easily obtained materials. For each item you'll learn about real exercise equipment available for purchase and DIY options to make similar items at home. Once some exercise equipment is available, it can be used for obstacle courses, stations, or a systematic exercise routine. Be creative and have fun!



Jump Rope

Jump ropes are useful for warm ups and as an add-on to cardiovascular workouts, as well as foot work such as hops, jumps, and turns. There are performance jump ropes that may be worth the investment. However, any basic jump rope can be given renewed purpose in a DIY exercise routine.

Materials: dollar store jump rope

Instructions: no assembly required, just start jumping!



Plyometric Boxes

Boxes can be used for explosive plyometric exercises, step aerobics style, or for stability exercises (e.g., abduction/adduction exercises). Note: for safety purposes, use boxes while wearing sneakers or while barefoot, but not in sock or cleats.

Materials: Method 1, crates; Method 2, stairs

Instructions: Method 1, for lighter weight younger children, milk crates can be used for stepping and controlled jumping. Method 2, for older children and adults, consider using indoor or outdoor stairs for free!



Medicine Ball

The "medicine ball effect" describes the sensation of training with a weighted ball and then feeling lighter, easier movements afterward with a regular ball. A medicine ball can be effectively used for throwing and catching and for abdominal workouts. Medicine balls come in a variety of weights; 4-8 pounds is recommended for children. Here's how to make your own:

Materials: a deflated ball (basketball, soccer ball or volleyball), sand or rice, duct tape, funnel, and a cork.

Instructions: cut a hole in the deflated ball smaller than the cork; use the funnel to fill with sand or rice equivalent to desired weight of medicine ball; cork the ball; cover the cork with duct tape.



Resistance Bands

Resistance bands are a versatile, low cost item to purchase or make. They're especially useful for targeting upper body muscle groups without the need for weights or machines. Try exercises like bicep curls, chest press, overhead press, and tricep extensions.

Materials: Bungee cords in various lengths (dependent on height of participants), athletic tape, PVC tubes (optional)

Instructions: Use the bungee cords as you would actual resistance bands. Be sure to remove or cover the hooks with athletic tape. The ends of the bungee cords can also be tied into a loop to grip or add a small piece of PVC tubing as a handle.



Agility Ladder

Agility ladders are useful for nearly every sport and fitness level. There are fantastic exercise ideas at performbetter.com and on YouTube. I incorporate ladders into my soccer practices on a regular basis, combining fitness with soccer skills.

Materials: For Method 1, floor safe tape; for Method 2, strips of nylon fabric and duct tape

Instructions: Method 1, make a row of 12 inch square grids on a (basement or garage) floor in ladder style with 4-12 rungs. To elevate the exercise intensity, try a 6x6 grid of 12 inch squares instead of a straight ladder design to add different movement patterns! Method 2, actually make a ladder out of purchased nylon strips and duct tape to connect joints. This option is more portable and can be used on softer surfaces like grass or carpet.



Free Weights

Free weights remain one of the most economical, useful options for at home exercise. Dumbbells retail for around \$1 a pound. Safety is a common concern when using free weights with children. Supervision and proper technique are key. Also, try to provide a mirror in your exercise space so that children can observe themselves, check for correct form, and make adjustments. A basic closet door mirror can be very helpful. This DIY option can be an ideal opportunity for children to make their own equipment and begin to safely learn the basics of resistance training.

Materials: PVC tubes and caps, sandpaper, PVC glue, sand or rice

Instructions: cut PVC tubes (or have them cut at a home improvement store) to the desired length to hold the desired weight of sand or rice; cap and then glue ends; sand any remaining rough edges. Let the bicep curls begin!

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Hurdles

Hurdles are used frequently for fitness and are generally available in 12-inch, 9-inch or 6-inch sizes. The 9-inch hurdles are a suitable size for young children and the 12-inch are recommended for teens and adults. Hurdles can be used in the same way as agility ladders, but with added vertical challenges.

Materials: pool noodles, wooden dowels (for outdoor use), two or more laundry baskets (for indoor use)

Instructions: For outdoor use, cut pool noodles in half; cut dowels into one foot pieces; use the dowels as stakes on each side of the noodle; make an arc for the hurdle; make 4-6 hurdles for sequential exercises (e.g., jumps, hops, skips). For indoor use, place two laundry baskets upside down; insert a pool noodle (or half a pool noodle) between them. Taller laundry baskets allow for more hurdle height options. With both the indoor or outdoor DIY hurdles, change the height based on personal size and ability.



Dots & Discs

Balance dots and discs resemble smaller versions of the more popular bosu balls, or half of the sensory type balls used in early childhood settings. These discs or dots are used to develop neuromuscular skills like agility, balance, and coordination. Often used in therapeutic settings, these exercise tools have value at home too. Simple tasks while standing on discs or dots, like bringing a knee to meet an elbow, a hamstring curl, or balanced squat, are all ways to learn to build neuromuscular skills.

Materials: bean bags, old pillows

Instructions: simply use bean bags or old pillows as you would use the dots or discs. Standing on the bean bags or pillows creates instability, requiring the use of stabilizing muscles to elicit various movement patterns. Use with one foot on a bean bag and create a trail or a pattern (think hopscotch).

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Stretch Out Strap

Stretch out straps are an effective means of improving flexibility. After a workout, a stretch out strap can be used for static stretching for flexibility and recovery. Children can easily use a stretch out strap while they are laying around watching tv too!



Materials: Nylon belt or nylon strap material

Instructions: Make a loop at each end of a nylon strap by making a knot. Children can use a nylon belt for stretching exercises available with a simple Google or YouTube search using stretch out strap exercises as the search term. Stretch out straps are especially useful for hamstring, upper body, or lower back active recovery.

Suspension Straps

Over the past 10 years, suspension training has gained momentum as an effective full body workout. Systems are designed for home or even travel with a simple door anchor attachment, pull up bars, or more elaborate Smith machines. There are personal trainers, online classes, and handy apps designed to showcase sample suspension exercises.



Materials: Nylon latching straps, 2 carabiner hooks, PVC tubes; use on a Smith machine, pull up bar, or a sturdy tree branch

Instructions: For assembly of TRX-like suspension straps, watch the DIY video at www.fitnesstoday.net. For a few dollars worth of materials, the DIY version of the expensive suspension system is a real winner.

Foam Rollers

At the end of a workout or even the next day, using a foam roller can assist with active recovery though myofascial release. Foam rollers massage muscles and increase blood flow, promoting a healthy recovery after an intense workout. Use of foam rollers can also reduce muscle soreness and injuries.



Materials: wooden rolling pin or frozen water bottles

Instructions: For basic foam rolling benefits, use a wooden rolling pin in the same fashion as a foam roller. To take this recovery strategy one step further, use a frozen water bottle as a roller. The ice will add a therapeutic benefit, even reducing pain and/or inflammation at the same time.

Parallettes

Parallettes are most likely best for an older, more experienced child, although younger children will find them fun in a similar fashion to parallel bars in gymnastics. An at home opportunity to do various push-ups and dips can be a fun challenge for a teenager (and parents). For those especially interested in Parkour training, parallettes allow for supporting body weight in rigorous ways and developing grip strength. Try parallettes when you're ready to advance your DIY routine.



Materials: PVC tubes, 4 'elbows', 4 T's, 8 end caps, PVC glue and primer, electrical tape

Instructions: For the assembly of these parallettes, read on from the experts at: http://library.crossfit.com/free/pdf/13_03_Parallettes.pdf.

With more than a dozen DIY projects to choose from, you are ready to be inventive with at-home exercise. The possibilities are both endless and economical. Remember the bottom line is that exercise is great for children and parents - and the opportunities to be active together on a dime are even better. Good luck with your next family rainy day DIY project! ♥



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