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DIY Med-Ball

Aaron Kala MacGyvers a wall-ball for about 20 bucks.

By Aaron Kala

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All images courtesy of Aaron Kala

Wall-balls are gift and a curse. As Coach Glassman outlined in his 2003 *CrossFit Journal* article [Functionality and Wallball](#), this exercise is an excellent conditioning tool for athletes with a broad spectrum of training goals.

Med-Ball ... (continued)

At the same time, I challenge you to find a seasoned Crossfitter who has not taken a med-ball to the face at least once or lost count on wall-ball reps during a WOD. It happens. However, the end result of performing this movement is a massive increase squatting ability, stamina, cardiorespiratory capacity—you name it. The bottom line is that wall-ball is a great exercise.

Upon realizing this truth a few months ago, I decided to buy a medicine ball online.

"Yeah, I'm a broke college student, but this is my fitness we're talking about, right? I can fit this cost into my budget."

That foolish thought floated around inside my head for about 30 seconds—the time it took for me to realize that one med-ball costs about as much as 10-15 meals. If you've got the money, then by all means make the purchase. If you'd rather spend under \$20 and get a sweet piece of homemade gear, then read on.

Shopping List	Cost
All-rubber indoor/outdoor basketball	\$6.99
50 lb. of sand	\$3.29
Tire-puncture repair kit	\$2.99
Duct tape	\$3.98
Plastic grocery bags	-
Tools	
Measuring cup (1 cup)	
Utility knife	
Funnel	

First things first: knife the ball. The final hole should be just large enough to allow the funnel to fit, so keep the cut rather small. I started out with two perpendicular cuts that formed an X. From there, I removed two of the four triangles that I had created in order to allow the funnel to fit snugly into the opening, but this may not have been necessary. A standard funnel should be fine, but you may want to make one by cutting the bottom half off a disposable water bottle and using the top. The large mouth allows the sand to flow into the ball very easily, so give this method a shot if you can. Once you've got the funnel in place, get ready to figure out the sand.



You don't need to get a high-end leather basketball for this project.



Word to the wise: keep your holes small for ease of patching afterward.



You can make a funnel out of a water bottle if you want to be creative.

Construction-grade sand usually comes in a 50-lb. bag that is about half of a cubic foot. The density of sand varies based on how tightly it is packed, but straight out of the bag it should be about .84 lb. per cup. Based on this, you can figure out that about 1.2 cups will get you a pound. The basketball itself will weigh about 1.4 lb. (depending on which one you buy), so you'll only need about 22.3 cups of sand to get to 20 lb. (or 5.28 liters for you metric fans—and have fun converting everything else).

As you may have guessed, 22.3 cups of sand will not completely fill a regulation-sized basketball. In order to make up for this volume deficit, try using 14-17 plastic grocery bags or packaging peanuts as filler. Vermiculite could also be mixed with the sand if you want to ensure an even distribution of mass. Make sure you add the filler evenly, otherwise the ball may end up being unbalanced (and a pain to try to catch). Try adding a few bags or a handful of peanuts after every 3-4 cups of sand (or more frequently if you're trying to make a lighter ball).

After a while, the sand will stop flowing in easily even though the ball is not yet full. Simply shake the ball and funnel a little bit and try to even out the little hill of sand that will be forming inside the ball directly beneath the funnel.

Once all the sand is added, double-check to make sure the ball is the correct weight. Next, get the tire-repair kit and apply a patch to the hole according to the instructions that come with the kit. You may need a bit of coarse sandpaper to roughen the area around the opening. I used the Slime seven-piece tube-patch kit, but a comparable product

should suffice. The patch itself should hold, but you may want to cover the area with duct tape in order to prevent a mid-WOD sandstorm should the patch come loose during heavy usage.

You now hold in your hands a borderline-lethal piece of DIY CrossFit equipment. This ball will bounce a little differently than a standard medicine ball, so make sure you give it a few practice throws before you try to PR on Karen. Once you've got a good feel for it, use it like any other med-ball, and use the money you didn't spend on it to buy that sick pair of Vibram FiveFingers you've been wanting.



Courtesy of Aaron Kala



If it can patch a tire, it can patch a basketball.

About the Author

Aaron Kala is a neuroscience major at Rhodes College in Memphis, Tenn. Originally from Atlanta, he is a member of Crossfit Paragon and can't wait to head back there this summer.