



## Community Voice: This Poor Man's Exercise System [web view](#)

### This Poor Man's Exercise System

Overweight and out of shape is no way to go through life. The doctors at Jackson Rehabilitation Hospital in Miami were wise to point this out to me after the accident that left me with C6 quadriplegia 28 years ago. But knowing something doesn't necessarily lead to doing something about it, especially if you are someone like me — a man who never met a pizza he didn't like and whose idea of major exercise is watching a game of volleyball at the beach. Hitting a lifetime high in weight last year, along with the aches, pains, and difficulties associated with transferring, turning, and dressing that both extra pounds and a slothful lifestyle bring, finally convinced me to make some changes.

Changing my diet and swapping my power chair for a power assist chair helped me to drop 25 pounds. Still, while lugging around less weight made everything easier, I knew that a regular program of exercise was needed too. But first, for me to commit to exercising on a regular basis, it would have to be convenient. Traveling to and from a gym (if I could even find an accessible one) would never work. The best thing would be to work-out at home. Second, the system would have to be set up in such a way that I could use it without any help. About 12 years ago, I had used a door-mounted elastic exercise band to exercise my way out of a shoulder injury. It had worked fine, but I had to ask my wife to set it up each time I wanted to use it. I stopped as soon as I could. Third, the equipment couldn't take up too much space or look too institutional. I needed something that would neither make a room look like a neighborhood gym nor a physical therapy center. And lastly, I didn't want to go broke financially just to buy or build it. With a history of quitting every exercise program I had ever tried, I hardly wanted to spend thousands of dollars on some machine. I needed a poor man's exercise system.

Fortunately I had run into such a system while doing research for an article on the Miami Project in November 2003 (<http://www.themiamiproject.org/>). The Project staff had created an entire exercise program using elastic exercise bands and found it as effective as one using much more expensive weight machines. They had mounted the exercise bands on the back of a door, so I had little doubt that my program could be located conveniently in my house. And it certainly would be inexpensive, as the Project had built theirs for less than \$150. To locate equipment, I got on the web and discovered that Thera-Band (<http://www.ncpad.org/suppliers/index.php?id=340&country=&state=Ohio&city=Akron>) had recently developed elastic bands which could clip on and off, rather than having to be tied. They were perfect for my purposes, so I ordered an assortment, along with both soft and hard grips.

Once the equipment arrived, I made an appointment with Robin Smith at Miami Physical Therapy Associates. Robin had already built his own system using a 2x4 mounted vertically onto a column, eyehooks screwed in at various heights, and Thera-Band bands that could then be tied into the eyehooks. We clipped in my bands but soon found that neither the regular handles nor the soft handles that I had ordered worked well with my C6 grip. Robin recommended a pair of wrist cuffs with D rings, and with these we were able to develop a series of eight exercises that would exercise and strengthen all of my important muscle groups. For my own system, Robin recommended placing three eyehooks; one near the floor, another at navel height, and another at 84 inches.

I reviewed the regime with Dr. Mark Nash at the Miami Project, who had been involved in the Project's exercise band study. He agreed with Robin's recommendations and also suggested squeezing my shoulder blades together while doing my rowing exercises in order to loosen my scapulas as well as starting my downward and upward diagonal exercises under tension. A friend and I then designed my personal system. Rather than using a single 2x4 mounted to the wall, we opted for an 8-foot-long 4x4 mounted vertically, with a 36-inch crossbeam mounted horizontally at 33 inches. As with Robin's system, eyehooks would be screwed into the wood to hold the Thera-Band strips - one at 2 inches to hold the bands for upward diagonal exercises, one at 31 inches for high and low rowing and internal and external rotation exercises, and one at 84 inches for downward diagonal exercises. The top of the center beam would also act as a shelf where I could store the 5-pound hand weights I would use for my bicep and deltoid exercises. Rather than using wrist cuffs with D rings, which would be difficult to take on and off when going from one exercise

to the other, I searched the Internet to find a pair of weight-lifting cuffs, each inset with curved, steel hooks. Clipping brass rings into each exercise band made hooking them to the weight-lifting cuffs an easy affair. For the diagonal exercises, in order to keep the bands under tension as suggested by Dr. Nash, we installed shoulder hooks to the left and right side of the 4x4, one pair at 28 inches and the other at 48 inches. Additional eyehooks and shoulder hooks were installed to store spare bands, cuffs, and other exercise equipment. After experimenting with different strap lengths, I found that 12-inch bands worked best for the bottom and center hooks and that 18-inch bands were needed for the top hook. Extra tension could be added by simply adding another wrap of strap around my hand or increasing the distance from the wall. And even more resistance could be added by either progressing to thicker bands or doubling up on the lighter bands.

In total, the materials for my system cost just \$166.68 plus tax and shipping! I'm pleased to say that it works great. I'm into the regular regime now – three sets of ten reps for each exercise, done three times a week, with the whole process taking about 45 minutes to complete. I am pretty sure that I'll stick with it, though there are times that I do dream of stopping for pizza and beer. But I know that even if I backtrack every once in a while, I will still have my poor man's exercise system hanging on the wall, waiting for me.

For more information or questions regarding the exercise system, contact Alan Troop at [Atroop2959@aol.com](mailto:Atroop2959@aol.com).

*This fact sheet was last updated on 07-17-2007.*

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