



Beware of Boot Camp

A couple of years ago, I was driving through Seneca Park to go mountain biking in Cherokee. I looked out over one of the soccer fields and saw the strangest sight. Huge 4 foot tall tractor tires, sections of anchor rope about a foot thick and 10 feet long, rectangular blocks of wood a couple of feet tall, and some kettle bell weights were arranged in a circle in the grass. I thought the military recruits were doing some training in the park. A couple of hours later when I rode by on my bike I realized that it wasn't soldiers flipping those truck tires over and jumping off of wooden blocks, it was a bunch of 30-40 year old suburbanites in cotton t-shirts. I watched for a minute and wondered how many of the "less fit" people dragging around the sections of anchor rope would be in my office the next week with something torn, strained, or just plain hurting. This was my introduction to the so call Boot Camp.

Advantages

The boot camp style of exercise class has been exploding in popularity. These classes have many advantages over traditional exercise. The classes are relatively cheap, require little equipment, often held outdoors and have a very social atmosphere. The exercises themselves blend military style calisthenics with other body-weight exercises such as lunges, squats, sprints, push-ups, and every marines favorite, the squat-thrust. Many are attracted to the unconventional nature of these boot camps in a desire to break up the tedium of their gym routine or home based exercise.

Injury

Unfortunately, along with the explosion in popularity of the boot camps, there have also been a growing number of injuries associated with these classes. Even in the military, the incidence of injuries in real boot camp is high. The pentagon reported in a study of all recruits from 2004-2010 a 28% injury rate. Recruits are typically in the age range of teens to people in their early 20's. How do you think 45 year old bankers and secretaries will fare doing jumping jacks, push-ups, sit-ups, and sprints on Saturday morning? The problem is that exercise need to be personalized to the needs, goals, and abilities of the individual. Putting a group of 20-30 people with vastly differing levels of fitness through the same program will result in some of them being extremely bored, and some of them heading to the doctor. Most of these classes have the following problems:

- No screening process
- No health review
- No medical history

You simply sign a waiver and start throwing around some truck tires.



Dr. Richardson is shown simulating an exercise of balancing on a trampoline while working with resistance bands. While we may be making light of some of the more unconventional exercises you may see these days, engaging in such exercises without experience or proper instruction can lead to serious consequences.



Dr. Richardson is shown balancing on all fours, distributed between four separate balance and stability exercise balls.

In the last couple of years, I have cared for dozens of patients with boot camp related injuries. The worst was a 30 year old woman who fell off a wood block while doing jump up/jump downs. It's a great quad exercise, but requires excellent balance skills. She suffered a severe fracture of her elbow that required surgery, leaving her with loss of motion and strength in that arm. I have also seen meniscal tears, rotator cuff tears, achilles tendon ruptures, lumbar strains, wrist fractures, and stress fractures of the foot. Many of these injuries occur with exercises that require advanced motor skills to execute properly and when done poorly, result in injury.

Use Caution

I don't want to leave the impression that all boot camps are dangerous and should be stopped. On the contrary, I believe they are an exciting new format that may bring many new people into exercise and fitness. I simply believe that caution must be used before

signing up, especially for people that are in poor shape and are just beginning to exercise. Please ask the following before signing up:

1. Is there a screening process for individuals to determine their fitness baseline?
2. What is the goal of the class? Is the class heavy on cardio or strength? Is the class heavy on core strength or plyometrics? Know what you are getting into before starting a new workout.
3. What is the target age range for this class?
4. Is this class appropriate for beginner, intermediate, and/or advanced levels?
5. How many trainers will be present to provide individualized instruction?
6. Will modifications be taught for more difficult exercises?

Find a class that is safe, well supervised, and takes into account your fitness level and you should be able to improve your health with little chance of injury. You just have to be selective and do the research.

-Ty E. Richardson, M.D.-