

## Should we use free weights or machines?

The machines versus free weights debate has been the hottest yet unresolved discourses in the fitness industry. This debate has lingered for so long dividing the industry into purest who believe in free weight training and those who have embraced mechanical advancements in weight training tools. Let's be honest. We too as amateurs have been swayed between these two sides from time to time. So how do we take a stand? Which one is better than the other? Well, our honest opinion is both. When we take a moment to understand these two mediums of strength training we will realize that they both have their advantages and disadvantages. If properly understood, we can use both these strength training mediums to achieve our goals.

### What is the difference?

So, what are *free weights* and weight training machines? Free weights are basically tools that are nothing but dead weights. Simplest example of these are dumbbells, barbells and kettlebells. The dumbbell dates back to the 17th century which was by itself a derivative of an ancient Greek weightlifting tool called the halter. The barbell was a derivative of the dumbbell. The kettlebell dates back to 18th century Russia where it was used for recreational and competitive strength and athletics. Machine weights, on the other hand, are nothing but 20th-century adaption into a gym of the advances in industrial and mechanical engineering. The reason we are providing this historic context is to lend some understanding as to why people get emotional about this debate.

So what is the fundamental difference in how we train using these two mediums? Free weight training involves moving the weight through the various planes of motion using multiple joints. When you say free weight training think barbell squats, deadlift, military press etc. This form of training has more functional application with regards to human movement and since we are utilizing multiple joints, we are strengthening multiple muscle groups. Machines, on the other hand, work individual joints in most cases. Although there are machines that aid functional movement like the Smith machine they are mostly inclined towards isolation training.

So where do they find their use? When it comes to amateur strength training the usual progression we would follow is teach movement, challenge movement through resistance, solidify movement pattern and build strength. To achieve this, free weights are the best tools imaginable. The other application for free weights is in competitive weight lifting namely powerlifting where one competes to showcase strength, Olympic lifting where one competes to showcase strength coupled with a greater quotient of skill and Crossfit which is a strength and skill-based competitive sport. Machine weights, on the other hand, find their biggest application in competitive bodybuilding, where one is adjudged for the best shaped and sculpted body. To achieve this, you need isolation training which works individual joints and hence focuses on specific muscle groups while providing adequate support to stabilize yourself. Don't get us wrong. We are not declaring that you can't strength train using machines. It's just that the utility is designed and best suited for bodybuilding.

### The Pros and Cons

When it comes to free weights it is by far the best tool to teach proper form and technique for functional movement to amateurs. This is neither feasible nor advisable with a machine. Free weights follow a natural path when they are being moved by our body as opposed to a path designated by the design of a machine and hence giving you a lot more control over the movement. By virtue of not providing the setup support that a machine provides, free weights help build immense stability and as a result better spinal strength. When it comes to competitive weight lifting, the use of free weights, which in this case are barbells, makes them a no brainer when training for those events. And lastly, when it comes to cost of acquisition, operation, storage and maintenance-free weights trumps machines by miles.

Now, if the odds are so clearly in favour of free weights, do machines actually find any relevance? Well, more so than we realise. When it comes to bodybuilding, machines provide a lot more variety. Especially when you are training for hypertrophy or increased muscle growth, machines help you push more than free weights. For example, when you have finished a set of back squats your stabilizers would obviously be fatigued and you can't push anymore. You can still saddle up on a leg curl machine and work your prime movers a little more while giving your stabilizers some rest. When it comes to training without loading your lower back, machines are the way to go. For example, if you want to train your quads but are still recovering from a lower back strain, a leg press machine gets the job done while providing the required support to your lower back. Such versatility cannot be achieved through free weights.

Machines also have great utility in rehabilitation, and for the older population. When coming back from an injury, we might need to isolate our joints and work on them individually (in addition to doing other non-machine based rehabilitation drills). The older population also has a lot to gain from using machines from hypertrophy work.

### Tools in your toolbox

At the end of the day what we need to realize is that free weights and machines are nothing but tools. They are a means to an end. If we understand their utility and purpose correctly then all that is left is choosing that right tools to achieve our objectives.