Recently, reality television shows such as The Biggest Loser have perpetuated the idea that a starvation diet plus extended periods of high intensity exercise can result in a rapid and sustainable weight loss. While it may be rapid, it has proven to be anything but sustainable, given the number of Biggest Loser “revisited” stories that demonstrate contestants putting their excessive weight back on as quickly as it came off.

There is no question that obesity is a growing problem, and every corner of the internet claims to have the magic cure, whether it’s obscure diet plans, various exercise regimens, pills, or even body wraps that claim to melt the fat away. These “easy” cures will never be as effective as hard work and dedication. Rather than chasing fruitless endeavors, barbell strength training under the supervision of a qualified coach is an extremely effective weapon that can turn the tide in the battle against obesity.

The Barbell Exercises

The principles of strength training remain the same for any trainee regardless of their physical condition: a stress is applied and the trainee recovers and adapts, allowing more stress and more adaptation moving forward. The Starting Strength Linear Progression can readily be applied to the obese trainee. However, there are special considerations that necessitate discussion, which include exercise modification where appropriate, nutritional differences, and psychological barriers to training for obese people.

Obese trainees have more than likely already been living a sedentary lifestyle, resulting in a low base of strength to begin with. On the positive side, beginning at such a low baseline allows for quick increases in strength from the very beginning. If they are not able to initially perform full barbell exercises, many available options will allow them to begin building the strength they need.

The Squat

Due to excess bodyweight, the obese trainee can often have difficulty merely performing a bodyweight squat – 200-300 extra lbs. of weight on the body can be the equivalent of a 200 lb. barbell. For a trainee at the lowest levels of strength, the plate-loaded leg press is going to be the best place to start. The trainee’s body shape and excess adipose tissue may prohibit him from reaching ideal range of
motion on the exercise, but this should improve quickly as the trainee becomes adapted to being in a training environment. As with the barbell exercises, weight needs to be increased from session to session in order for progress to occur, though since the leg press offers a different type of stimulus than the full barbell squat, the rep range should be modified from 5 reps to 3 sets across of 8-10 reps.

After a short period of time, the trainee’s new strength will permit a full bodyweight squat. At this point, the coach phases out the leg press and starts gradually introducing some bodyweight squatting, with variations as necessary.

The simplest and most forgiving is to have the trainee squat to a box. Using a height that will allow the trainee to execute multiple reps, he should use the same stance that will be used with a barbell. As he descends to the box, he leans over, reaches back with the hips, and works hard to get the knees out. While he should strive to avoid fully relaxing on the box at the bottom, it may be inevitable at the beginning. In any event, the drive off the box should be done with a forward lean, leading from the hips. From session to session, the box should gradually be lowered.

Once a box squat can be performed to correct depth, a full unsupported bodyweight squat will be possible. If not, a reasonable bridge strategy would be to squat to a resistance band stretched across the safeties of a power rack. This still provides the trainee with the security of having resistance under the hips, but removes the dead stop and enables the use more of his own strength. Just like a box, a band can also be lowered gradually, or reduced in size and tension.

Regardless of whether an obese person is on a leg press or in the process of beginning to learn the squat, his body shape has the potential to hinder the process. Obese individuals carry excess tissue in different areas, each with its own complications. Individuals with large bellies will experience difficulty in achieving an adequate range of motion on a leg press. As the knees move towards the chest, the thighs can push uncomfortably into the stomach. The same issue can occur when bending over in the movement pattern of the squat.

Carrying the majority of the weight on the hips can also be a problem. It doesn’t inhibit the leg press, but can create significant balance issues when learning the squat. Fear of falling is a significant concern for the obese population – this is why squatting to a box or bands may be necessary. The coach should emphasize that trainees should intentionally and consciously lean forward to maintain balance throughout the movement pattern. While the box is there for security at first, it should be relied on as little as possible, and focus on maintaining balance must be encouraged. Obese people are simply not accustomed to overcoming gravity in an intentional manner, and the simple act of lowering themselves under control can take a great deal of getting used to.

Body shape and excess adipose tissue aside, trainees need to learn to squat by any means necessary. A competent coach understands the modifications necessary for certain individuals, and progress can be made. After all this hard work, trainees will develop the strength that will allow them to perform a full bodyweight squat. They can then add external resistance in the form of a loaded barbell to continue increasing strength.

The Press

The overhead press may be the most accessible exercise for the obese trainee at the beginning of a strength training program. Bars are available as light as 5 pounds, allowing virtually anyone to begin pressing weight overhead.

However, if shoulder flexibility issues don’t enable a trainee to fully raise their arms overhead to a point that allows the bar to be held over the middle of the foot, a simple stretch for the shoulders
The Obese Trainee

can be performed by hanging gently from a chin-up bar, letting a portion of the trainee’s bodyweight stretch the arms up overhead. This should be carefully controlled, with the feet in constant contact with the floor to ensure just the right amount of traction.

Or a simple modification can be made to the press itself. Using the uprights of a power rack, the trainee begins in the standard start position and presses the bar up in sliding contact with the power rack uprights, with the coach encouraging him to move under the bar to the best of his ability once it clears his head.

This modification need not be used for long in the progression, and can also function as a warmup in future sessions, as it adapts the shoulders to the movement pattern and demonstrates the importance of a vertical bar path. Most importantly, it also assists with balance – it would take a lot to stop a morbidly obese trainee from falling with a barbell overhead, once the fall begins; best not to let that happen, especially at first.

The Bench Press

Unlike the overhead press, the bench press can be more complicated due to an obese trainee’s difficulty with getting up from or down to a bench. Even if he is comfortable being placed flat on his back, excess bodyweight in this position can make an obese trainee short of breath during the process.

Once he is comfortable and secure in lying flat on a bench, it’s likely that he can bench press without any modifications. However, if range of motion concerns or insecurity with allowing the barbell to touch the chest is still present, the bench press movement can be performed from power rack safety pins placed 2-3 inches above the chest. Starting from the pins on the first rep, the pins are merely touched on subsequent reps, without a dead stop. The pins can be lowered gradually until the trainee has achieved a full range of motion.

The Deadlift

Bending at the waist can be one of the most difficult tasks for an obese trainee. Frequently, the outstretched hands cannot reach past the knees, much less all the way down to the mid-shin for the standard deadlift starting position.

As with previous exercises, the power rack safeties can once again provide the necessary modification. Performing a rack pull (i.e. the upper 60% of a deadlift) allows the trainee to begin using this critical movement pattern effectively. All rules of the deadlift apply here: with the low back in extension, the bar should be dragged up the legs with the shoulders slightly in front of the bar until the knees and hips lock out, with the chest up at the top. The bar should then be lowered back to the pins in a controlled fashion, allowing for a bit more stimulus during the eccentric portion. Even using this partial range of motion, the bent-over starting position could make the trainee uncomfortably short of breath, due to impingement between the thighs and the belly and compression of the chest cavity. Should this occur, a full reset between reps should alleviate the discomfort.

Unlike presses, increasing the weight on the deadlift should initially take priority over achieving a full range of motion. Since it is such an effective strength builder, the trainee should be encouraged to
add weight to this partial pulling exercise. As resistance increases, the range of motion can and should be gradually increased as well, and the full range of motion will happen sooner.

The Power Clean

A properly performed power clean requires the feet to leave the floor during the movement. For an obese trainee, this can be as much of a mental barrier as it is a physical one. Due to the ballistic higher-impact nature of this exercise, the power clean is not recommended for the novice obese trainee. After some bodyweight has been shed and the idea of jumping has become comfortable, the power clean can be used as an ancillary pull.

Nutrition

The obvious primary goal for an obese trainee is to lose excess bodyweight. Increasing strength contributes to this, but proper nutrition is essential to begin making this change. Under no circumstances should an obese trainee be eating a caloric surplus. A balance must be achieved that allows the trainee enough calories to continue gaining strength, but that is restrictive enough to produce weight loss – which will come at quite a brisk pace when this balance is found.

Unless a barbell coach has specific training and knowledge in the field of nutrition, the nutrition regimen for an obese trainee should be handled in consultation with an experienced professional – as long as it is understood that strength training has become and will remain a priority for the long term health of the trainee. If a nutritionist who understands the importance of strength training in conjunction with proper diet cannot be found, then common sense should prevail. Lean meats and veggies? Good. Ice cream and Twinkies? Not good.

One cannot ignore the psychological issues that caused the trainee to become morbidly obese to begin with. Obese individuals all have extremely destructive, unhealthy relationships with food. The specifics of dealing with these issues are beyond the scope of this article, but coaches need to know and understand that these habits will not change overnight. The trainee must control his own compliance.

Gastric Bypass

An individual who is considering a gastric bypass will usually be required to demonstrate dietary compliance during a waiting period lasting 3-6 months, that may necessitate the loss of a certain percentage of bodyweight on his own. During this time, a dramatic increase in strength can be accomplished by the novice trainee. The surgery enforces a further caloric restriction which will inhibit rapid strength gains. After recovery and re-adapting to training stimulus, the trainee will likely be an intermediate lifter at this point, requiring slower, more careful progression.

Above all, nutritional compliance needs to take priority after a surgery of this type. Strength gains will not be optimal, but they will be adequate to support the trainee during continuing weight loss.

Body Image and Self-consciousness

Choosing to take action to change an unhealthy body composition can be one of the most difficult decisions an obese person will ever make. There can be a huge psychological barrier here – self-doubt
runs rampant through the mind of this trainee, and even the smallest setback has the potential to be devastating.

It is critical for the coach to allow the trainee to take the lead, to a certain extent. A balance needs to be struck between challenging him and having compassion for any mental barriers he may encounter. It is imperative that the first sessions of a new trainee's program be positive and encouraging. The coach needs to be cognizant of any frustration that may be seeping in; words of encouragement and understanding are critical here. Picking up a barbell is one of the best decisions this person can make, and the last thing a coach should do is to drive him away by trying to be “too encouraging.” A patronizing attitude will not be appreciated any more than unnecessary criticism.

An obese trainee must build a tolerance for hard work, both physically and mentally. The starting weights should be very low in order to avoid discouragement. At the beginning of the coach-trainee relationship, obese trainees cannot and should not be forced into anything they don’t want to do. The coach needs to demonstrate patience and understanding initially. A level of trust between trainee and coach is crucial to success. Then, as trust increases, the trainee will be far more willing to step outside his comfort zone and have faith that his coach knows what is best for his physical and mental well-being. Once trust is established, the coach can be more forceful and insistent.

The obese population needs help. Asking for it may be extraordinarily difficult for some people, but afterward they’ll know it’s the best decision they could have made. It is the responsibility of a qualified coach to provide an environment surrounded with encouragement and positive reinforcement. A quality barbell training program like a modified version of the Starting Strength Linear Progression will provide trackable concrete progress as the weeks and months go by. Controllable directed progress serves as the best type of encouragement, by returning a great deal of productivity and potential to a previously uncontrollable life.