

The Weights-Free Gym

There are many reasons why people shell out for gym membership. The state-of-the-art equipment. A communal sense of shared goals. The babelicious rock videos. But if you've got other plans for your pay packet and plenty of resolve, it's time to consider leaving the weights room behind. All you need is a level area – your living room, the verandah, the local park – and your own body weight and soon you'll see the sort of results that'll have your ex-gym buddies snatching sideways glances. Consider it a free gym membership – for life.

It's not just about saving money though. If there are a million excuses why you can't make the gym on any given day – a lunch break lost to deadlines, holidays, forgetting your towel – there are no such get-out cards with body weight programs. They require no gym bag and fit around whatever schedule you have, whether it's 20 minutes before you head to work in the morning or an hour on a Thai beach. They go where you go because you're your own gym equipment.

There are other benefits too. Studies have shown that bodyweight exercises can be as effective as external resistance training in improving strength. Like any other form of exercise, the secret is to train hard, train smart, and make sure you're doing the right amount of the right exercises.

Consider two groups that use bodyweight exercises as part of their training; the armed forces and gymnasts, both rely on great physiques and the perfect balance of size and strength. Basic army training lasts for 6 weeks and bodyweight exercises such as push-ups and chin-ups feature heavily. A study published in the Journal of Aviation, Science, and Environmental Medicine measured strength increases over this 6 week period and reported a 10% gain in upper body strength. A follow-up study, one year later found that after another period of training, strength increased again by a further 10%.

Bodyweight training might be good for soldiers, but how does it stack up against those who train using gym-based exercises? A comparison of two studies, testing lower body power output; the first among elite wrestlers and the second among elite gymnasts, found that both groups were equally powerful in the lower body. That goes to show that gymnasts, who train using primarily bodyweight exercises are just as powerful in the lower body as wrestlers, who know the weights room inside out. With the right kind of bodyweight training, you can develop just as much power (which is dependant on strength) as using regular weight training.

The next time you're flicking through the TV channels, don't discount gymnastics as a sport for girls, check out the size and strength of the guys competing. Then bear in mind that these guys have developed huge arms, backs, and shoulders without a single gym membership, let alone heard of 21's. It's not uncommon for young gymnasts to be able to do 20kg weighted chin-ups, and we're talking about 13 year olds! If you're still not convinced, try holding the crucifix position next time you're waiting to get on the bench press – you'll soon see how strong you need to be.

Bodyweight exercises will increase your relative strength. Relative strength takes your weight into account, unlike absolute strength which is just concerned with the amount of weight lifted. In a conventional test of strength, you keep loading the bar to see who can lift the most. This works well in theory. In most cases however, you and your gym buddies aren't matched weight for weight and it's unlikely you all share the same build, which means that absolute strength isn't a good enough comparison. If two people both squat 150kg and you compare bodyweights, the lighter guy is the strongest. With bodyweight exercises, all other things being equal, the heavier guy is stronger.

Granted, bragging rights in the gym go to the guy who can bench 200kg, but what happens when you leave the free weights behind? In the real world, strength isn't just about isolating one or two muscles with perfectly balanced equipment, it's about all of the muscles of the body working together. If it came down to it, being able to do 10 handstand push-ups carries a lot more weight than crowing 'in the gym I can bench 200' – think about it.

In the gym, to get stronger and build muscle you simply add more resistance. This progressive approach means you have to work harder to lift the additional weight and your body adapts accordingly. The natural progression within conventional bodyweight training is to add more sets and reps. But the tendency to try and do more repetitions every time you workout is what gives bodyweight exercises a bad name. Working out in sets of 50 repetitions or more will increase muscular endurance but it won't make you stronger. Doing endless sit-ups or chin-ups during each workout will only lead to boredom, staleness, and if you're unlucky, an overuse injury.

Since it is impossible to weigh an extra 2.5kg each week (without going on a counterproductive beer and pizza diet), you need to find another way to make sure you keep progressing. The solution is to make the exercises themselves more challenging – the bodyweight equivalent of adding another 20kg to the bar – and keep the reps and sets moderate. For the gymnast, the complexity of the exercises is the key to their almost superhuman strength, not to mention their sizeable muscles. Their training involves progression from a simpler form of an exercise using some or all of their bodyweight, to moves where the body is disadvantaged and has to work harder. The moves become easier to perform as the gymnast gets stronger, you will find that this is the case with the training programme below.

Arranged into categories according to their focus and ranked in terms of difficulty, the program is designed to increase your strength by 10% over the 4 week period.

You never know. If you like the results, you might never have to queue for a lat pulldown machine again.

Week 1

Testing your current strength levels will give you something to rate your performance against in week 4. Workouts during this week consist of the exercises in their simplest form, allowing you to master the basics, and get a taste of things to come.

Baseline testing

Sit-ups, Press-ups, Burpees, Dips (record the maximum number of repetitions you can do in 30 secs)

Plyometrics – 10 bounds (measure distance),

Vertical jump – stand side-on next to a wall, holding a piece of chalk in one hand.

Reach straight up and mark the wall. Without a preparatory step, jump up as high as you can and mark the wall. Measure the distance between the two chalk marks and record your score.

Basic Conditioning

Repeat this circuit style workout twice, leaving a day of rest in between. Complete 4 circuits, with each exercise lasting one minute. Try to maintain a constant pace throughout. Then complete 3 more circuits, with each exercise lasting for 30secs, focusing on all out effort and as many quality repetitions as possible.

Chin-ups

If you're desperate to keep your bodyweight training going and can't find a chin-up bar or sturdy branch for love nor money, you can use a solid door. Open the door and take hold of the top, resting the front of your body against it. Perform your wide or narrow grip chin-up as normal, just remember to wedge the door open or you run the risk of losing a few fingers!

Press-ups

Squats

Sit-ups

Dips

Alternating lunges

Rest

Week 2

The exercises are a little more challenging than those in week 1, and plyometric drills are added for conditioning. To get the most from these workouts, make sure the lifting and lowering phase of each movement is slow and controlled.

Workout 1

Upper Body

Incline Push-ups	3 x 12
Decline Push-ups	3 x 12
Wide grip Chin-up	3 x 12
Reverse Grip Chin-up	3 x 12
Handstand Prep	2 x 30 secs
Chair Dips with feet elevated	3 x 12

Lower Body & Abs

Lying Leg Raise	2 x 15
Bodyweight Squats	3 x 10
Walking Lunges	3 x 30m
Bounds	3 x 8 bounds
Squat Jumps	2 x 12

Upper Body

Side shuffle push-up	3 x 8 each side
Push-up with side twist	3 x 8
Wide grip Chin-up	4 x 8
Narrow Grip Chin-up	3 x 10
Handstand Prep	2 x 30 secs
Close Grip Push-up	3 x 12

Lower Body & Abs

Plank	2 x 40 secs
Chair raise and hold	3 x 20 secs
Overhead squat	4 x 10
Walking Lunges	2 x 30m
Bounds	2 x 8 bounds
Squat Jumps	2 x 12

Week 3

In week 3, the complexity of the exercises increases. The aim is to continually challenge your body to respond. Using fitness stations in the park will give you a slightly different stimulus to respond to, while burpees will work on conditioning.

Workout 1

Perform a set of 20 burpees between each plyometric exercise

Bounds	3 x 8 bounds
Tuck Jumps	4 x 6
Squat Jumps	4 x 6
Depth Jumps	4 x 6

'In the park' workout

Superman Push-ups	3 x 12
Monkey bar travel chin-ups	2 x length of monkey bars
Handstand prep (forearms)	2 x 30 secs
Dips	3 x 12
Leg Raise	2 x 15
Cross-legged raise	3 x 10-15 secs
Knee jumps	3 x 12

Upper

Hand transfer push-ups	3 x to failure
Push up & Up dog	2 x 10
Hand transfer chin-ups	3 x to failure
Handstand against wall	3 x 20 secs
Dips	4 x 10

Lower

Box jumps	4 x 8
Side lunge	3 x 10
One-legged squat	2 x 8 on each leg
Knee jumps	4 x 10
Side plank	2 x 30 secs each side

Week 4

The aim of the final week is to be able to perform the most complex versions of all the exercises. If you cannot manage the prescribed number of repetitions, finish the set doing the corresponding exercise from last week. Complete the same fitness tests as in week 1, and measure your improvements.

Upper body

Clap push-ups	3 x 10-12
One arm push-ups	2 x to failure each arm
Clap chin-ups	3 x 8-12
Side to side travel chin-ups	2 x to failure

Handstand press/handstand against wall 3 x 6/3 x 30 secs

Lower body

Speed skater	2 x 16
Overhead squat jumps**	3 x 8
Knee jumps	4 x 10
Hanging leg raise	3 x 10

Plyometrics, sprints, and holds

Tuck jumps	3 x 8
Depth jump to box	3 x 6
Split squat jump	3 x 6 each leg
Frog	3 x 20 secs
Tuck front lever	3 x 5-10 secs

Fitness testing

Perform the same tests as in week 1