

https://journals.researchparks.org/index.php/IJOT e-ISSN: 2615-8140 | p-ISSN: 2615-7071 Volume: 3 Issue: 12 | Dec 2021

Comparison of Physical Fitness Component in Heavy Weight Training Exercises of Men and Women

Dr. Yashpal Singh Bhati¹, Dr. Jagdish Narayan Saini²

¹HOD, Physical Education, Tagore International School, Mansarovar, Jaipur, Rajasthan, India ²Director, Physical Education, Government College, Jaipur, Rajasthan, India

Annotation: In the world of exercise and fitness, a 12-week strength training program for men and women dominates the landscape. You might have seen them in fitness magazines, over the years. So, are they successful? Yes, they are. But we're going to tell you an important secret: it doesn't always take 12 weeks to do a weight loss strength training program for women or men. Not that you're going to be a seasoned vet in just 4 weeks, but if you can only get the starting month under your belt, you will easily cross the proverbial hump, where so many people struggle, and eventually give up, and lay the groundwork for a lifetime of strength and muscle gains. We have designed the best strength training program for men and women, respectively. It does not matter if you are looking for strength training for weight loss or a strength training program for beginners, the given workouts can be easily modified to meet the needs of everyone from beginners to professionals with specific goals in mind. Moreover, even if you have been absent from the gym for months, the following programs will get back up and on the track in a few weeks.

Key words: men, women, fitness, physical, training, exercises, comparison, workouts, muscle.

Introduction **Strength Training Program for Men**



STRENGTH TRAINING PROGRAM PROGRAMS FOR MEN

If you are looking for a program that is modified according to the push-pull legs (PPL) routine, then this is the best strength training program for men that you can find. Plus, this program includes more volume for arms, shoulders, and the chest.

You can also use a weightlifting belt for more difficult lifting exercises like a barbell deadlift. Weightlifting belts offer extra support to the spine, protect it from the risk of injuries, and provide you with the right kind of form,[1,2] you need, to carry out an exercise effectively.

© 2021, IJOT | Research Parks Publishing (IDEAS Lab) www.researchparks.org

Page 226



e-ISSN: 2615-8140 | p-ISSN: 2615-7071 https://journals.researchparks.org/index.php/IJOT Volume: 3 Issue: 12 | Dec 2021

Day No. 1

Monday - Push		
Exercises	Sets	Reps
Barbell Bench Press (+warm up)	3 hard sets	4 - 6
Incline Barbell Bench Press	3 hard sets	4 - 6
Dumbbell Bench Press	3 hard sets	4 - 6
Triceps Push Down	3 hard sets	4 - 6

Day No. 2

Tuesday - Pull and Calves		
Exercises	Sets	Reps
Barbell Deadlift (+warm up)	3 hard sets	4 - 6
One-Arm Dumbbell Row	3 hard sets	4 - 6
Lat Pull Down (Wide-Grip)	3 hard sets	4 - 6
Leg Press Calf Raise	3 hard sets	8 - 10

Day No. 3

Wednesday - Upper Body and Core		
Exercises	Sets	Reps
Seated Dumbbell Press (+warm up)	3 hard sets	4 - 6
Dumbbell Side Lateral Raise	3 hard sets	8 - 10
Dumbbell Rear Lateral Raise (Seated)	3 hard sets	8 - 10
Cable Crunch	3 hard sets	8 - 10

Day No. 4

Thursday - Legs		
Exercises	Sets	Reps
Barbell Back Squat (+warm up)	3 hard sets	4 - 6
Leg Press	3 hard sets	4 - 6
Lying Leg Curl	3 hard sets	8 - 10
Seated Calf Raise	3 hard sets	8 - 10

Day No. 5

Friday - Upper Body and Core		
Exercises	Sets	Reps
Close-Grip Bench Press (+warm up)	3 hard sets	4 - 6
Barbell Curl	3 hard sets	4 - 6
Seated Triceps Press	3 hard sets	4 - 6
Dumbbell Hammer Curl	3 hard sets	4 - 6
Captain's Chair Leg Raise	3 hard sets	8 - 10



https://journals.researchparks.org/index.php/IJOT e-ISSN: 2615-8140 | p-ISSN: 2615-7071 Volume: 3 Issue: 12 | Dec 2021

Strength Training Program for Women



TRENGTH TRAINING PROGRAM PROGRAMS FOR WOMEN



For women, choosing a new strength training program can be a very frustrating and intimidating process because of all the wrong workout recommendations given to them over the years. With all the wrong information out there, it is difficult to discover something that actually works.[3,4]

This training program is perfect for every woman whether she is looking for a strength training program for women to lose weight or a beginner strength training program for women.

For exercises, like Romanian deadlift and incline skull crusher, in which you feel extra stress on your wrists, you can wear wrist wraps. Wrist wraps provide extra stability and support to the forearm, wrist, and the hand. [5,6] They also help with exercises performed to increase grip strength.

Day No. 1

Buy 110. 1		
Monday - Legs and Glutes		
Exercise	Sets	Reps
Squat	3 - 4	6 - 12
Dumbbell Lunge	2 - 3	12 - 15
Dumbbell Step Up	2 - 3	12 - 15
Barbell Hip Thrust	3	6 - 12
Glute Cable Kickback	2 - 3	12 - 15
Cardio Exercise		
Do 15 minutes of HIIT exercise on a stationary bike.		

Day No. 2

Tuesday - Back and Arms		
Exercises	Sets	Reps
Pull Downs	3 - 4	6 - 12
One Arm Dumbbell Row	2 - 3	12 - 15
Seated Cable Row	2 - 3	12 - 15
Dumbbell Curl	3	12
Tricep Overhead Extension	3	12



https://journals.researchparks.org/index.php/IJOT e-ISSN: 2615-8140 | p-ISSN: 2615-7071 Volume: 3 Issue: 12 | Dec 2021

Cable Curl	3	15
Cable Press Down	3	15
Cardio Exercise		
Do 30 minutes of moderate intensity on a stair mill.		

Day No. 3

Wednesday - Legs and Glutes		
Exercises	Sets	Reps
Goblet Squat	3 - 4	6 - 12
Romanian Deadlift	2 - 3	12 - 15
Dumbbell Stiff Leg Deadlift	2 - 3	12 - 15
Smith Machine Sumo Squats (Glute Focus)	3	6 - 12
Glute Kick Back	3	15
Cardio Exercise		
Do a 30-min low intensity workout on a treadmill at an incline of 10-15%.		

Day No. 4

Thursday - Chest and Shoulders		
Exercises	Sets	Reps
Dumbbell Bench Press	3 - 4	6 - 12
Incline Dumbbell Press	2 - 3	12 - 15
Machine Chest Fly	2 - 3	12 - 15
Seated Dumbbell Press	3 - 4	6 - 12
Lateral Raise	2 - 3	12 - 15
Cardio Exercise		
Do 15 minutes of HIIT exercise on a stationary bike or a rower.		

Day No. 5

,		
Friday - Legs and Arms		
Exercises	Sets	Reps
Deadlifts	3 - 4	6 - 12
Good Mornings	2 - 3	12 - 15
Leg Extensions	2 - 3	12 - 15
Incline Dumbbell Curl	3	12
Incline Skull Crusher	3	12
Cardio Exercise		
Do 30 minutes of moderate intensity on a stair mill.		

The Weekend (Optional)

Incorporate some light activity in your weekends. Take recovery walks and do some optional abs workout.

Saturday and Sunday - Optional Abs			
Exercises	Sets	Reps	
Plank	3	20 seconds holds	
Lying Floor Leg Raise	3	10	
Crunches	3	20	
Side Crunches	2	15 on each side	

© 2021, IJOT | Research Parks Publishing (IDEAS Lab) www.researchparks.org

| Page 229



https://journals.researchparks.org/index.php/IJOT e-ISSN: 2615-8140 | p-ISSN: 2615-7071

Volume: 3 Issue: 12 | Dec 2021

To raise the overall amount of calories burned per day, we have also added some cardio exercise sessions that you can perform either in the mornings or after that day's training. However, if you are constrained by time, they are not necessary to do in order to see success in this workout routine.[7,8]

Discussion

No matter how hard and frequently you work out in the gym, if you don't eat the right kind of food at the right time, all your work will go in vain. We have compiled some nutritional tips and diet secrets for you to follow for strength training for fat loss or other goals. Moreover, if you do not eat healthily, you will not get either chiselled or strong.

Here are some tried and tested approaches that have been shown to offer great results, and you can add these to your weight loss strength training program for men and women, respectively.

Adequate hydration is important when it comes to strength training and health in general. Water makes up about 80% of human bodies, and we need water to carry out even the most simple physiological processes. Without sufficient quantities of water in our system, we put ourselves at the risk of dehydration that can impair our athletic efficiency and overall health.[9,10]

When we work out, we sweat and lose essential electrolytes. That's why it's crucial to remain hydrated during training, to replenish the fluids, minerals, and electrolytes that we lose during training.

If you want to burn excess fat and build muscle, then you need to invest in whey protein apart from consuming the best foods for muscle growth.[11,12]

Whey protein shakes are great for strength training because one shake contains about 30g or more of protein per serving. They are easy to prepare, taste nice, and are full of other nutrients which our muscles rely on.

Protein is essential for muscle development and repair. If you want to get toned, you need to ensure that you take enough protein every day.

Opt for about 0.6 - 1g of protein per pound of your body weight, distribute it uniformly across the day. Look for lean sources like chicken, fish, turkey, eggs, nuts, grains, grass-fed red meat, and dairy.[13,14]

You also need to consume plenty of vegetables to get the most out of strength training. Vegetables are packed with digestive-friendly dietary fibre and are rich in minerals, antioxidants, and vitamins.

Don't just depend on multi-vitamin supplements when it comes to the matter of nutrient intake. Make sure that you consume more than enough fresh vegetables every day.

Whether you are an experienced gym-goer or a newbie looking for a strength training program for beginners, fitness workouts tailored to your level of expertise will help you move towards your strength and muscle goals. Over time, you will notice that your body reacts better to some exercises better than others, allowing you to change your workout accordingly.

A proper strength training regimen and healthy eating habits are the best way to get in the best shape, no matter what your level of experience is.[15,16]

Results

When it comes to exercise, modern-day women are showing men a thing or two about being strong and fit.

And it's not only elite athletes — there are just as many female weekend warriors and hard-core gym devotees as males.



https://journals.researchparks.org/index.php/IJOT e-ISSN: 2615-8140 | p-ISSN: 2615-7071 Volume: 3 Issue: 12 | Dec 2021

There are important physical and physiological differences between the two sexes, such as hormones, the amount of muscle we naturally carry and base-level strength.

So does that mean we need to train differently.[17,18]

The short answer is no.

Ladies can hit it just as hard as men during exercise — however, there are a few tweaks they can make to get more out of their workouts.

In general, no exercise or training method is off-limits to ladies, unless they're injured or it doesn't work for them structurally. But that also applies to men. Having said that, how certain exercises are performed will be determined by the structure of your pelvis and how loose or tight your ligaments are. And often these factors are influenced by your gender.[19,20]

For instance, the pelvis shape that is most common in women tends to result in an over-arch in the lower back, says health scientist and personal trainer Claire Norgate.

This is a posture known as lumbar lordosis, where your pelvis is tilted too far forward. It's a very common condition in women — and it can cause pain through increased pressure on your spine.

Many strength-training exercises can accentuate lordosis. But you don't have to avoid them. You just need to ensure you're doing them with the correct posture (try to position your hips so they are in the same line as your rib cage).[21,22]

If an over-arched back is a problem for you, prioritise strengthening your hamstrings, do plenty of hip extension exercises and build a strong core. These exercises will help tilt your pelvis back into a more neutral position.

"Your pelvis shape, plus how much control you have over your ligaments, will determine your range of movement when exercising," Ms Norgate says.

For example, if you're very flexible (hypermobile), it means the ligaments surrounding your joints are loose, putting the joints at risk of damage.

"That means you might have to decrease how far you go into certain exercises, to protect your hips, shoulders and knees."

While lordosis and hypermobile joints are far more common in women, it's important to know that men can experience them too.[23,24]

And ladies, oestrogen acts like an anti-inflammatory, so you might not feel injuries as quickly as you should. If you do feel aches and pains from exercise, don't ignore them.

Now that women aren't afraid of the barbell, blokes could benefit from stepping into a few classes that are usually the domain of ladies, such as Pilates.

As well as strengthening the "core" (the muscles supporting your torso), Pilates improves posture and coordination, and also develops often-neglected muscle groups, including one many men never think about — the sling of muscles at the base of the pelvis, [25,26] known as the pelvic floor.

A strong pelvic floor is linked with, among other things, better orgasms and sexual function — yes, even in men.

There's evidence it can improve erectile dysfunction, which affects one in five men over 40, according to Andrology Australia.

Both men and women can also build pelvic floor strength with exercises you can do at home on your own.



https://journals.researchparks.org/index.php/IJOT e-ISSN: 2615-8140 | p-ISSN: 2615-7071 Volume: 3 Issue: 12 | Dec 2021

Many women worry that weight training will leave them resembling a female Arnold Schwarzenegger. So they either avoid it altogether, or stick with dumbbells so light they barely break a sweat. [27,28]

"That's borne out of a misunderstanding of muscle physiology, where the belief is that if you lift heavy weights you'll bulk up, and if you lift lighter weights for more repetitions you won't," explains sports scientist Tony Boutagy.

"That has well and truly been proven wrong.

"Females can gain muscle just as easily as men — muscle that's exhausted at any repetition range will get bigger, no matter what gender you are."[29,30]

Conclusions

And to be brutally honest, if you're not working your muscles to exhaustion, you're not getting maximum value from a strength training workout.

Women's lower testosterone levels will limit the muscle bulk they will gain.

Dr Boutagy also points out women rarely train as much as men to lay down enough muscle tissue.[31,32]

"Plus, they aren't consuming enough calories and don't eat the large amount of quality protein throughout the day to build muscle that size," he says.

"Lifting heavy weights will not make women look like masculine female body-builders who train every day and take steroids."

The "bulking-up" that actually happens to most women is when they build muscle, but don't lose the body fat surrounding it.

Everyone wants to be "toned", but what most people don't realise is that tone is actually muscle that's only covered with a modest amount of fat.[33,34]

Seeing as there aren't significant differences between the two sexes when it comes to training, does that mean women can get as strong and fast as the blokes?

Unfortunately no, according to Dr Boutagy.

"Everything that makes a good endurance athlete, such as VO2 max [the ability for your heart, muscles and lungs to use oxygen during exercise] and lactate threshold [how long you can exercise at high intensity], is more pronounced in males than females," he says.

Women can get really strong, but their smaller skeleton and muscle mass, loose joints and lower testosterone generally prevent them from being able to build man-size strength.

Ms Norgate agrees: "Even a man who's the same height as a woman will be stronger because he'll have slightly bigger bones."

Women also naturally have 30 per cent less upper-body muscle mass than men on average, she says.

"We aren't designed to do super-heavy physical tasks. Our bodies are designed to push a baby out," Ms Norgate says.

"So we sacrifice our muscle mass and strength to be flexible."

Of course, there are no absolutes — some men will be hypermobile and have low testosterone, which means they struggle to build lots of muscle.



https://journals.researchparks.org/index.php/IJOT e-ISSN: 2615-8140 | p-ISSN: 2615-7071 Volume: 3 Issue: 12 | Dec 2021

On the other hand, some women will be short and naturally have more testosterone, so they can build more muscle and strength than the average female.

Although those women are rare, that doesn't mean all women shouldn't try to become as strong as they can.

Apart from helping preserve your muscle mass and bones, it's a fantastic weight management tool and many people also find getting stronger incredibly empowering.

But then again, the same goes for guys.[35]

References

- 1. Grainger, Luke (31 December 2019). "Work Your Entire Body With This Dumbbell Workout". Men's Fitness. Kelsey Media Ltd. Retrieved 27 July 2020.
- 2. Keogh, Justin W, and Paul W Winwood. "Report for: The Epidemiology of Injuries Across the Weight-Training Sports." Altmetric Vitamin C Antagonizes the Cytotoxic Effects of Antineoplastic Drugs, Mar. 2017, summon.altmetric.com/details/8964732.
- 3. "The History of Weightlifting". USA Weightlifting. United States Olympic Committee. Archived from the original on 7 July 2013. Retrieved 3 September 2018. The genealogy of lifting traces back to the beginning of recorded history where man's fascination with physical prowess can be found among numerous ancient writings. A 5,000-year-old Chinese text tells of prospective soldiers having to pass lifting tests.
- 4. "Weightlifting | sport". Encyclopedia Britannica. Retrieved 2018-04-19.
- 5. Todd, Jan (1995). From Milo to Milo: A History of Barbells, Dumbbells, and Indian Clubs. Archived 2012-07-31 at the Wayback Machine Iron Game History (Vol.3, No.6).
- 6. "weightlifting | sport". Encyclopedia Britannica.
- 7. "NBC News article on the U.S. Centers for Disease Control and Prevention report on the prevalence of strength training". NBC News. Retrieved 2007-02-01.
- 8. Juan Dominguez del Corral (14 July 2018). Weight Training for Beginners: 10 Basic Principles to Optimize Your Training. Amazon Digital Services LLC Kdp Print Us. ISBN 978-958-48-4199-5.
- 9. In the first picture, the knees are too close and get twisted. For appropriate muscular development and safety the knee should be in line with the foot. Rippetoe M, Lon Kilgore (2005). "Knees". Starting Strength. The Aasgard Company. pp. 46–49. ISBN 978-0-9768054-0-3.
- 10. "Weight training: Do's and don'ts of proper technique Mayo Clinic". www.mayoclinic.org. Retrieved 2016-06-13.
- 11. Moore, Marjorie A.; Hutton, Robert S. (1980). "Electromyographic investigation of muscle stretching techniques". Medicine & Science in Sports & Exercise. 12 (5): 322–329. doi:10.1249/00005768-198012050-00004. PMID 7453508.
- 12. Herman, Katherine; Barton, Christian; Malliaras, Peter; Morrissey, Dylan (December 2012). "The effectiveness of neuromuscular warm-up strategies, that require no additional equipment, for preventing lower limb injuries during sports participation: a systematic review". BMC Medicine. 10 (1): 75. doi:10.1186/1741-7015-10-75. PMC 3408383. PMID 22812375.
- 13. McMillian, Danny J.; Moore, Josef H.; Hatler, Brian S.; Taylor, Dean C. (2006). "Dynamic vs. Static-Stretching Warm Up: The Effect on Power and Agility Performance". The Journal of Strength and Conditioning Research. 20 (3): 492–9. CiteSeerX 10.1.1.455.9358. doi:10.1519/18205.1. PMID 16937960. S2CID 16389590.



https://journals.researchparks.org/index.php/IJOT e-ISSN: 2615-8140 | p-ISSN: 2615-7071 Volume: 3 Issue: 12 | Dec 2021

- 14. Fleck SJ, Kraemer WJ (2014). Designing resistance training programs (Fourth ed.). Leeds: Human Kinetics. p. 12. ISBN 978-0-7360-8170-2.
- 15. "The Right Way to Breathe For More Powerful Weightlifting". Vitals. 2016
- 16. Rippetoe M, Kilgore L (2005). "Squat". Starting Strength. The Aasgard Company. pp. 46–49. ISBN 978-0-9768054-0-3.
- 17. McGill, Stuart (2007). "Breathing". Low Back Disorders (2d ed.). Human Kinetics. pp. 186-7. ISBN 9780736066921.
- 18. "Water, Water, Everywhere". WebMD.
- 19. Mark Dedomenico. "Metabolism Myth #5". MSN Health.
- 20. American College of Sports Medicine; Sawka, MN; Burke, LM; Eichner, ER; Maughan, RJ; Montain, SJ; Stachenfeld, NS (February 2007). "Exercise and Fluid Replacement". Medicine & Science in Sports & Exercise. 39 (2): 377–390. doi:10.1249/mss.0b013e31802ca597. PMID 17277604.
- 21. Nancy Cordes (2008-04-02). "Busting The 8-Glasses-A-Day Myth". CBS. Archived from the original on 2013-05-09. Retrieved 2020-04-17.
- 22. ""Drink at Least 8 Glasses of Water a Day" Really?". Dartmouth Medical School.
- 23. Johnson-Cane et al., p. 75
- 24. Johnson-Cane et al., p. 76
- 25. "Hydration and Exercise What to Drink for Proper Hydration During Exercise". Sportsmedicine.about.com. 2011-04-15. Retrieved 2014-02-22.
- 26. McCarthy M (2009-07-06). "Overuse of energy drinks worries health pros". USA Today.
- 27. Johnson-Cane et al., p. 153
- 28. "7 tips for a safe and successful strength-training program". Harvard Health Publishing. Harvard Health. Retrieved 2018-03-16.
- 29. "Find your fit: Weight training". Arkansas Business. 35 (4): S30–S31. 2018. ProQuest 1994247717.
- 30. "Is Training To Failure Necessary?". Training Science. 2012-03-27. Archived from the original on 2017-04-01. Retrieved 2017-03-31.
- 31. Ahn Hyejung (November 11, 2012), World Class Fitness Trainers, John Sitaras, Golf Digest (Korean edition)
- 32. Kingma, Idsart; Faber, Gert S.; Suwarganda, Edin K.; Bruijnen, Tom B. M.; Peters, Rob J. A.; van Dieën, Jaap H. (October 2006). "Effect of a Stiff Lifting Belt on Spine Compression During Lifting". Spine. 31 (22): E833-E839. doi:10.1097/01.brs.0000240670.50834.77. PMID 17047531. S2CID 22138551.
- 33. Biller, Henry B. (2002). Creative Fitness: Applying Health Psychology and Exercise Science to Everyday Life. Greenwood Publishing Group. ISBN 978-0-86569-326-5.
- 34. "The benefits of wearing weight lifting gloves".
- 35. Henselmans, Menno. "Compound vs. Isolation Exercises: Which Is Best? [Study Review]." MennoHenselmans.com, 16 Jan. 2019, mennohenselmans.com/compound-vs-isolation-exercise/.