Stay home & stay safe best home exercises during (COVID-19) pandemic

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Abstract
The novel coronavirus disease 2019 (COVID-19) seems to be having a major impact on sports and physical activity behaviors globally. The pandemic has forced many people around the world to stay at home and self-isolate for a period of time. The benefits of sports, physical activity and exercise have been demonstrated across the lifetime. We are meant to move and many of our body’s systems work better when we are consistently physically active. Exercise may be especially beneficial for older adults and people with chronic health conditions, such as diabetes, arthritis, or heart disease. Regular exercise can help to improve balance, flexibility, strength, mobility, and cardiovascular health. Plus, it can boost energy and overall well-being. In order to achieve and maintain an active & healthy lifestyle, while still staying at home, many exercises can be done at home place for all family members.

Keywords: Sports, physical education, COVID-19, home space, home exercise

Introduction
Regular exercise is essential for everyone under normal circumstances. However, here are a few reasons why exercise is especially crucial during the COVID-19 pandemic:

- Exercise boosts the immune system: Research shows that regular, moderate-intensity exercise has immune-boosting benefits that may help your body fight off infections, including COVID-19.
- Exercise may prevent weight gain: Exercise can help you burn extra calories caused by dietary changes and offset the effects of sedentary activities.
- Exercise reduces stress and anxiety: Exercise is a proven mood-booster and can help adults reduce stress levels and build emotional resilience.
- Exercise improves sleep: There is evidence that suggests regular exercise helps you fall asleep faster and improves sleep quality — and getting a good night’s sleep has also been found to boost your immune system. Exercise may be especially beneficial for older adults and people with chronic health conditions, such as diabetes, arthritis, or heart disease. Regular exercise can help to improve balance, flexibility, strength, mobility, and cardiovascular health. Plus, it can boost energy and overall well-being [1]. Fortunately, working out during a pandemic is as simple as getting set up in your living room, at any time of day. At-home workouts aren’t only just as effective as exercising outside or at a gym, but they also have unique advantages. A few to think about include [2]:
  - An at-home workout takes less time overall because you don’t need to build in travel time to the gym, studio or court
  - When your children see you exercise, you’re setting a good example of an active lifestyle
  - Working out at home may help you stick with exercise, since it’s easy to keep up a routine
  - You can watch your favorite television shows while you break a sweat

Recommended Home Exercises for Men: [3]

A1- Jumping Jacks
This exercise targets the whole body. Jumping jacks are the best cardio exercises. There are various benefits of including it in your everyday exercise program. It makes your heart stronger, builds muscles stronger, helps in weight loss, builds stronger bones and uplift your
mood instantly and helps relieve stress. It makes you stronger, flexible by improving your stability and stamina.
How to do: Stand straight with your feet together and hands on your sides. Jump along with raising your arms above your head and bring your feet apart. Reverse the movement immediately and come back to the original position. Start doing it faster.

**A2- Plank**
It’s the best exercise for rock hard abs. A simple exercise for beginners for stronger abs and to strengthen your shoulder, arms and back. It can be done in many variations.
How to do: get into pushup position with elbows bent in 90 degree keeping your body weight on your forearms. Ensure your body forms a straight line from your head to feet. Hold on to the position as long as you can.

**A3- Cross Crunches**
It’s more effective and easy exercise for abs and the oblique muscles. It strengthens the core and strengthens your abdominal muscles.
How to do: Lie flat on your back. Bend your knees with feet flat on the floor. Place both the hands loosely behind your head. Now, bring your right shoulder and elbow across your body and at the same time bring up your left knee towards your left shoulder. Try to touch your knee with elbow. Go back to the original position and repeat the same with the left elbow.

**A4- Side Plank**
It strengthens oblique and helps your build stronger abs.
How to do: Start on your side with feet together while keeping forearm below your shoulder. Now slowly raise your hip until your body form straight line from head to feet. Hold on to the position and repeat on the other side too!

**A5- Squats**
It helps you get in better shape when included in daily workout plan. Strengthens lower body muscles for men. It can be done in many variations.
How to do: Start with the hips back with back straight, chest and shoulders up. Bend your knees and squat down keeping them in line with your feet. Start with 25 squats a day and then increase.
A6- Lunges
A very good work out on the core that helps you strengthen your lower body and mobility in your hips.
How to do: Lower your hip until both knees bent in 90-degree angle. Step forward with one leg while keeping your upper body straight and relaxed. Come back to original position keeping the weight in your heels.

Fig 6: Sample of Lunges Exercise [9].

A7- Push-ups
Basically, push-ups are effective exercise for strengthening chest and arm muscles.
How to do: Get down on the ground setting your hands shoulder-width apart. Ensure your body forms a straight line. Begin to lower your body keeping elbows close to your body. Push back to starting high plank position.

Fig 7: Sample of Push-ups Exercise [10].

A8- Russian twist
It’s an effective workout for whole abdomen. It improves body balance and helps you keep in shape.
How to do: Sit with your torso leaning back at about 45-degree, knees bent, feet elevated a bit as if it should look like imaginary v shape between upper body and thighs.

Fig 8: Sample of Russian twist Exercise [11].

A9- High knees
It helps you work on inner thighs and outer hip areas. It’s good belly fat burning exercise too!
How to do: stand straight with feet hip-width apart. Raise your right knee as high as possible while raise your left arm. Reverse the move. Continue pulling knees up quickly.

Fig 9: Sample of High knees Exercise [12].

A10- Dead Bugs
A great exercise for abdominal wall that improves your body flexibility and balance along with strengthening muscles.
How to do: lie on your back keeping your legs and arms extended towards ceiling. Extend your right arm behind your head while lowering your left leg. Come back to original position and repeat it with switching sides.

Fig 10: Sample of Dead bugs Exercise [13].

A- Recommended Home Exercises for Women: [14]
B1- Jumping Jacks
It’s a basic exercise to start with. It’s important to warm up and stretch before starting the regular exercise. Jumping jack gives flexibility and help you increase the stamina. Keep your feet together and stand tall and keeping hands straight at your sides. While jumping, raise your arms above your head and feet’s apart to the sides. Quickly reverse and come back to standing position with a jump. A one or two-minute jumping jack exercises can loosen your muscles with more flow of oxygen into the bloodstream. Burn some calories, get flexible and toned body with some jumping jacks exercise daily. Modify jumping jack steps and have fun exercising.
B2- Push-ups
It’s one of the most effective and common do-at-home exercise ever. It’s quite simple to do. Get into plank position. Keep hands under bit outside your shoulder, keep your leg stretched, lower your body until chest gets near to the floor and quickly come back to original position. It basically strengthens your upper body as it’s beneficial for chest, shoulders and triceps. It also strengthens yours thighs and abdominal muscles. In the beginning, it seems difficult to do more number of pushups. You can also start with knee pushups, inclined pushups in the beginning.

B3- Squats
Squat is most effective exercise to tone your thighs, hips and butts. There are many variations in squatting exercise. Do the basic one to start with. Keep shoulders and chest up with back straight and feet wider apart (as of the shoulder width). Take your hips back and then bend your knees and sit as if you are sitting on chair. Slowly come back to the original position and repeat. Ensure to look straight while squatting. Do it in a controlled manner. If your back or knew starts hurting, you are not doing it properly! Take a rest and then start a fresh. Do only fewer sets of 2 to 3 with only 8 or 10 reps. Squats do improve your overall health by boosting digestion and blood circulation.

B4- Single Leg Stand
Balancing on one feet enhances flexibility of leg muscles. It boosts your concentration, helps you stay focused that makes you fight anxiety and depression. To start with, do a basic exercise. Shift your entire body weight on one foot and lift the other slightly off the floor. Keep it straight forward and try not to lean your body. Stay in the position for a minute. You can also do yoga posture called vrikshasana that relaxes and calms the central nervous system.

B5- Bridge Posture
Lie flat your back with arms on your sides, palms down. Keep feet flat on the floor with knees bended. Ensure to keep feet’s apart (hip-width). Now, slowly lift your hip towards ceiling and hold on to the position for a while and then come back to original position. Bridge pose helps you get relief from lower back pain and helps you fight hypertension.
B6- Plank
Plank exercise puts your entire body on work. It’s most vital for abdominals. Get down on the floor on your elbows and toes. Elbows should be bent and directly below your shoulders. Keep the body straight while holding on to the position.

B7- Leg Raise
Leg raise exercises are one of the best for abdominal areas. You just need to lie on your back, place your hands beside you, palms down. Raise your legs off the ground keeping your knees locked. Hold on to the position as long as you comfortably can and then slowly come back to original position.

B8- Hands In and Out Breathing
This one is good for lungs. It helps in people with menstrual disorder and asthma. It’s quite easy to do. Stand straight, stretch your arms forward at the shoulder level with palms facing each other closely. Spread your arms out to the sides while inhaling till they form a straight line at the shoulder level. Come back to original position while exhaling. Repeat it for 3-5 minutes.

B9- Hip Rotation
Lie flat on the floor and keep the feet apart. Slowly push up one leg, looking straight and then pull it back. Now raise your other leg and do the same. It’s that simple. It’s great stretching exercise that strengthens your hip muscles and improves flexibility.

B10- Crunches
It’s a traditional exercise for stronger abs. Lie flat on your back, knees bent with feet flat on the floor. Keep the feet apart. Hands to be kept at the base of your head with elbows pointed out. Bring up your head and shoulder off the floor using your abs and go back to the position with control.

Conclusion
With millions across the world under lockdown or restricted by critically important social distancing measures to control the spread of the disease, while self-isolation measures are necessary, our bodies and minds still need exercise to function well, prevent weight gain and keep the spirits up during these challenging times. Home exercises for all family members can help keep our immune system become strong, improves bone health and lowers health risks like heart problem, diabetes and many more life threatening diseases.

References
3. Retrieved from: