

# Design Your Own 2 Week Home Fitness Program Assessment

## Exercises Research

### Core Exercises

- bicycle crunches 20-25 per set, 20 seconds rests between each set, 2-3 sets in total
- plank knee crosses hold for 30-40 seconds, 20 second rests between each set, 2-3 sets in total
- v ups 10-15 per set, 20 seconds rest between each set, 2-3 sets in total
- sit ups 15-20 per set, 20 seconds rest between each set, 2-3 sets in total
- leg raises 15-20 per set, 20 seconds rest between each set, 2-3 set in total

### Cardiovascular Exercise (Aerobics)

- jogging 25-30 minutes per day, 5 minutes per rest, 2-3 rests
- cycling 30-45 minutes per day, 5 minutes per rest, 1-2 rests
- jumping rope 150 per set, 5-6 sets in total, 1 minute rest between each set
- brisk walking/ walking around 30 min, change pace once feel tired

### Body Strengths (Upper Body Strength)

- push-ups (anaerobic) 10-15 per set, 3-4 sets in total, 20 seconds rest between each set.
- bicep curls 15-20 reps per set, 4-5 sets in total, 20 seconds rest between each set.

### Body Strengths (Lower Body Strength)

- squats (anaerobic) 12-15 per set, 4-5 sets in total, 15-20 seconds rest between each set.
- lunges 15-20 per set, 4-5 sets in total, 15-20 seconds rest between each set.

### Flexibility

- seated hamstring stretch hold for 25-30 seconds per set, 2-3 sets each leg, 20 seconds relax time,
- chest stretches 25-30 seconds per set, 2-3 sets, 20 seconds rest between each set.
- seat straddle pose 25-30 seconds per set, 3-6 times, 20 seconds break between each set.
- standing quads stretch 30 seconds per set, 3-5 sets each leg, , 20 seconds rest between each set, do this exercise alternately between the legs

## Describes the relationships between muscle groups involved in each exercise

### Core Exercises (relates to the musculoskeletal systems)

Your core is your center of gravity. A strong core allows for stronger functional movement throughout exercise and everyday life. You should constantly engage your core, whether you are doing a workout, standing in the kitchen cooking a meal, or sitting down at work. Core exercises train the muscles in your pelvis, lower back, hips, and abdomen to work in harmony. This leads to better balance and stability, whether on the playing field or in daily activities.

A strong core will help prevent injury and promote more efficient workouts overall.

-bicycle crunches: The bicycle crunch is an effective ab exercise, reaching not only the usual abs but also the deep abs and the obliques. Bicycle crunches work the rectus abdominis, obliques, leg muscles, hip flexors

-plank knee crosses: Plank knee crosses work not only the abdominals but also the obliques, the hip flexors, the transverse abdominis, rectus abdominis and quads. This exercise helps to provide stability to the hips and low back.

-v ups: V-ups allow you to build core strength. V-ups work the transverse abdominis, rectus abdominis, hip flexors, internal and external obliques.

-sit ups: In addition to looking great, doing sit-ups daily will strengthen your muscles, improve your posture, core, and upper body strength, burn calories and more. Sit-ups work the rectus abdominis, transverse abdominis, and obliques in addition to your hip flexors, chest, and neck.

**-leg raises** Besides working the lower abs and inner thighs, leg lifts also help with hip strength and flexibility due to the motion of your legs and hips during the move. Leg raises work the transverse abdominis, rectus abdominis, hip flexors, obliques.

## Cardiovascular (relates to the musculoskeletal and the cardiovascular systems)

Cardiovascular exercise is any vigorous activity that increases heart rate and respiration and raises oxygen and blood flow throughout the body while using large muscle groups of the body repetitively and rhythmically. Cardiovascular exercises improve heart and lung functions, decrease resting heart rate, lower blood pressure, and help to better control blood sugar. Your heart and lungs muscles are the main target for cardiovascular exercise. The large muscles in the rest of your body, including legs and arms, are secondary targets.

**-jogging** Regularly jogging can help you lose weight, especially if you also modify your diet. Jogging can also help you improve your heart health and immune system. Jogging works all eight major muscle groups of the body, specifically the glutes, quads, hamstrings, calves, and abdominals.

**-cycling** Cycling improves overall function in your lower body and strengthens your leg muscles without overstressing your joints. Cycling also increased cardiovascular fitness. It targets your quads, glutes, hamstrings, and calves.

**-jumping rope** Jumping rope can increase your cardiorespiratory fitness, build stronger bones and muscles, and improve your balance and coordination. Jumping rope works calf muscles, quads, hamstrings, glutes, abs, oblique muscles, forearms, biceps, triceps, shoulders, back muscles, and chest muscles.

**Brisk walking/ walking** Walking will maintain a healthy weight and improve cardiovascular fitness and strengthen your bones and muscles. The primary muscles used in walking include the quadriceps and hamstrings, the calf muscles, and the hip adductors. The abdominal muscles also play a significant role in forward motion.

## Body Strengths (Upper Body Strength) (Lower Body Strength) (relates to the musculoskeletal system)

Body strength relates to your ability to move and lift objects. It's measured by how much force you can exert and how much weight you can lift for a short period of time. Strength training is also known as weight training, resistance training, and muscular training. Body Strengths exercises makes you stronger and burns calories efficiently. Strength training helps improve the strength, range of motion, and mobility of your muscles, ligaments, and tendons.

**-push-ups (anaerobic)** A pushup uses your own body weight as resistance, working your upper body and core at the same time. In the standard pushup, the following muscles are targeted:

chest muscles, or pectorals

shoulders, or deltoids

back of your arms, or triceps

abdominals

the "wing" muscles directly under your armpit, called the serratus anterior

**-bicep curls** Bicep curls isolate the body movement of elbow flexion, or rather bending of the arm at the elbow. It targets the specific muscles located at the front of your arms called; biceps brachii, brachialis and brachioradialis.

**-squats (anaerobic)** The lower muscles targeted in a squat include your: gluteus maximus, minimus and medius, quadriceps, hamstrings, adductors, hip flexors, and calves.

**-lunges** Lunges strengthens the leg muscles, primarily the gluteus maximus, hamstrings, quadriceps, and gastrocnemius/soleus (calves).

## Flexibility (relates to the musculoskeletal systems)

Flexibility exercise is a form of physical exercise in which specific muscles or tendons are intentionally bent or stretched to improve the sensory elasticity of the muscles and achieve comfortable muscle tension. The result is an increased control of the muscle, flexibility, and a sense of range of motion. Some benefits are fewer injuries, less pain and improve in postures and balances. Flexibility exercises also improve productivity and efficiency of muscles, the ability of a joint to maintain the movement necessary for carrying out daily tasks or physical activity.

**-seated hamstring stretch** This exercise stretches the three major muscles of the hamstrings: biceps femoris, semimembranosus and semitendinosus.

**-chest stretches** A chest stretch (or pec stretch) is an upper-body movement that expands and contracts the muscles in the upper front of your torso, collectively called the pectoralis muscles.

**-seated straddle pose** Seated Straddle Pose stretches the hips, hamstring, calves, shoulders, and arms. This pose also stretches the adductors (inner thigh muscles) and the pectineus muscle (groin muscle) which connects the femur and the pubic bone.

**-standing quads stretch** This exercise works rectus femoris, vastus lateralis, vastus medialis, and vastus intermedius. (quadriceps)

## Discusses the appropriate selection of exercises in relation to each key area of fitness (fitness components)

This term, we focused on fitness training, and we mainly focused on those 4 types of fitness training: Cardiovascular, Body Strengths (Upper + Lower Body Strengths), Flexibility and Core exercises. Before we begin our 2-week training, we must make sure our selected exercises are appropriate and suitable for us. The first and the most important thing is that we must select the training exercises depends on your ability. A person cannot do 60 or more in one go if he has never done pushups before or has weak upper body strengths and core. Ordinary people cannot immediately split if they have not done flexibility trainings before. Selecting suitable exercises which depends on your ability are very important. Otherwise, you might pull your muscles or lead to serious injuries. Besides that, we need to only use the muscles we should be use in each exercise and gradually increase the intensity of the training after giving the muscles enough time to rest. Training with gradually increased intensity can produce significantly better motor function rehabilitation compared to stably low and high training intensity. When we choose our exercises, we also need to make sure we are the chosen exercises will fit your lifestyle and can easily become part of your routine. So, our chosen exercises should not have too many restrictions. For example, if our I choose swimming for cardiovascular and aerobics, I need to go to the swimming pool to complete my swimming training. This could create restrictions on my daily routine because swimming takes a lot of time which includes bathers changing time.

For my choice of **cardiovascular** training, I picked four exercises which are convenient to do, because there is a park in front of my house. These exercises are also easy to control the intensity, which for example I increased my jogging time as the training went for a week. Also, I put walking immediately after jogging because we should never end our running training so abruptly. We need to give your body the chance to cool down slowly after every run. For **strength**, **core**, and **flexibility training**, they are convenient because they could be done at home which don't require specific fields. The time or the sets for each exercise was not fixed, so I can choose how long or how many can I do depend on my ability. These exercises are also easy to control the intensity

All exercises I chose for each individual fitness components are appropriate.

Day	Exercises	Area (For more specific part of muscles/ muscle groups involved, check the information above)
Monday	<p>1. Push-ups (10-15 per set, 3-4 sets in total, 20 seconds rest between each set.)</p> <p>2. plank knee crosses (hold for 30-40 seconds, 20 second rests between each set, 2-3 sets in total)</p> <p>3. Standing Quads Stretch (30 seconds per set, 3-5 sets each leg, , 20 seconds rest between each set, do this exercise alternately between the legs)</p> <p>4. Lunges (15-20 per set, 4-5 sets in total, 15-20 seconds rest between each set.)</p> <p>5. Leg raises (15-20 per set, 20 seconds rest between each set, 2-3 set in total.)</p>	<p><b>Upper Body Strengths</b> (relates to musculoskeletal body system)</p> <p><b>Lower Body Strengths</b> (relates to musculoskeletal body system)</p> <p><b>Flexibility</b> (relates to musculoskeletal body system)</p> <p><b>Core Exercises</b> (relates to musculoskeletal body system)</p>

**Commented [AZ1]:** Upper body strengths and lower body strengths are spread out during the day,

Alternate exercises from different fitness components.

Tuesday	<p><b>1. Seated hamstring stretch</b> (hold for 25-30 seconds per set, 2-3 sets each leg, 20 seconds relax time)</p> <p><b>2. Chest stretches</b> (25-30 seconds per set, 2-3 sets, 20 seconds rest between each set.)</p> <p><b>3. Jogging</b> (20-25 minutes, 5 minutes per rest, 2-3 rests)</p> <p><b>4. Brisk walking/walking</b> (around 30 min, change pace once feel tired)</p>	<p><b>Flexibility</b> (relates to musculoskeletal body system)</p> <p><b>Cardiovascular</b> (relates to cardiovascular and musculoskeletal body system)</p>
Wednesday	<p><b>1. Cycling</b> (30-45 minutes per day, 5 minutes per rest, 1-2 rests)</p> <p><b>2. V-ups</b> (10-15 per set, 20 seconds rest between each set, 2-3 sets in total)</p> <p><b>3. Jumping rope</b> (150 per set, 5-6 sets in total, 1 minute rest between each set)</p> <p><b>4. Sit ups</b> (15-20 per set, 20 seconds rest between each set, 2-3 sets in total)</p>	<p><b>Cardiovascular</b> (relates to cardiovascular and musculoskeletal body system)</p> <p><b>Core Exercises</b> (relates to musculoskeletal body system)</p>
Thursday	<b>Rest Day</b>	<b>Rest Day</b>
Friday	<p><b>1. Push-ups</b>(10-15 per set, 3-4 sets in total, 20 seconds rest between each set.)</p> <p><b>2. Standing Quads Stretch</b> (30 seconds per set, 3-5 sets each leg, , 20 seconds rest between each set, do this exercise alternately between the legs)</p> <p><b>3. Seated Straddle pose</b> (25-30 seconds per set, 3-6 times, 20 seconds break between each set.)</p> <p><b>4. Squats</b> (12-15 per set, 4-5 sets in total, 15-20 seconds rest between each set.)</p> <p><b>5. Biceps curls</b> (15-20 reps per set, 4-5 sets in total, 20 seconds rest between each set.)</p>	<p><b>Upper Body Strength</b> (relates to musculoskeletal body system)</p> <p><b>Lower Body Strength</b> (relates to musculoskeletal body system)</p> <p><b>Flexibility</b> (relates to musculoskeletal body system)</p>
Saturday	<p><b>1. Jumping rope</b> (100-150 per set, 5-6 sets in total, 1 minute rest between each set)</p> <p><b>2. Sit ups</b> (15-20 per set, 20 seconds rest between each set, 2-3 sets in total)</p> <p><b>3. Bicycle crunches</b> (20-25 per set, 20 seconds rests between each set, 2-3 sets in total)</p> <p><b>4. Jogging</b> (25-30 minutes per day, 5 minutes per rest, 2-3 rests)</p> <p><b>5. Brisk walking/walking</b> (around 30 min, change pace once feel tired)</p>	<p><b>Cardiovascular</b> (relates to cardiovascular and musculoskeletal body system)</p> <p><b>Core Exercises</b> (relates to musculoskeletal body system)</p>
Sunday	<b>Rest Day</b>	<b>Rest Day</b>

**Commented [AZ2]:** I put walking immediately after jogging because we should never end our running training so abruptly. We need to give your body the chance to cool down slowly after every run.

**Commented [AZ3]:** Alternating exercises from different fitness components.

**Commented [AZ4]:** Rest days are spread out during the week instead of having 2 rest days in a row.

**Commented [AZ5]:** I put more exercises on Friday and on Monday because I had a break the day before and my muscles would have a bit of recovery.

**Commented [AZ6]:** I put walking immediately after jogging because we should never end our running training so abruptly. We need to give your body the chance to cool down slowly after every run.

**Pictures of Exercises:**

<p><b>Bicycle Crunches</b></p>  <p>-Keep shoulders lifted off the floor without pulling on the neck. - Maintain a strong core and keep your low back on the floor. -Right elbow touching left knee, left elbow touching right knee</p>	<p><b>Plank knee Crosses</b></p>  <p>- Bring your right knee up to your left elbow and back to your plank position and repeat with the opposite leg.</p>	<p><b>V-ups</b></p> <p>Lie face-up on the floor with your legs and arms straight and lifted off the floor slightly. In one movement, lift your torso and legs as if you're trying to touch your toes. Lower your body back down.</p> 
<p><b>Sit-ups</b></p>  <p>Lie face-up on the floor. Cross your arms over your chest. Engage your core. Use your ab muscles to lift your back off the ground. With immense control, lower yourself back to the starting position.</p>	<p><b>Leg Raises</b></p>  <p>Lie on your back, legs straight and together. Keep your legs straight and lift them all the way up to the ceiling until your butt comes off the floor. Slowly lower your legs back down till they're just above the floor. Hold for a moment. Raise your legs back up.</p>	<p><b>Jogging</b></p>  <p>Maintain good posture, engage your core, and gaze forward. Avoid tilting your head down and slumping your shoulders. Broaden your chest, and keep it lifted as you draw your shoulders down and back. Keep your hands loose and use a relaxed arm swing.</p>
<p><b>Cycling</b></p> 	<p><b>Jump rope</b></p> 	<p><b>Brisk walking/ walking</b></p> 

<p>Climb stronger and descend faster. Make every ride count. Ride harder for longer and say motivated.</p>	<p>-Jump on the balls of your feet and don't jump too high. -Don't swing your arm and shoulder too much -Relax</p>	<p>- walk at a steady pace -swing your arms freely and stand as straight as you can.</p>
<p><b>Push-ups</b></p>  <p>-Strong grip on the floor, make sure neck and spine are aligned. -Don't lift your bottom, don't shrug your shoulders. -Remember to breath.</p>	<p><b>Bicep Curls</b></p>  <p>-Keep your elbows tight to your sides throughout, your chest and head up, and back straight. -only using biceps</p>	<p><b>Lunges</b></p>  <p>Keep your torso straight and core engaged as you bend your knees, lowering your body towards the floor. - Don't overextend your leg when you lunge forward, which can cause your back to arch.</p>
<p><b>Squats</b></p>  <p>-heads up, torso straight -core engaged as you squat. -sending hips back and down.</p>	<p><b>Seated Hamstring Stretch</b></p>  <p>Bend forward from your waist as far as possible Keep legs straight.</p>	<p><b>Chest Stretches</b></p>  <p>Keep shoulders down away from your ears. Pull your shoulders back and gently lift your arms up.</p>
<p><b>Seated Straddle Pose</b></p> 	<p><b>Standing Quads Stretch</b></p>  <p>-bending your leg behind you.</p>	

legs stretched out in front of  
you and keep the spine  
straight  
take one leg out at a time  
until your legs are the widest  
V possible

-Tuck your pelvis in, pull  
your shin toward your  
glutes.  
-making sure your knee is  
pointing to the ground. --  
Don't pull the knee  
backward or sideways.