

A guide for patients and guardians

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# Home Exercise Program



**SAMSUNG  
MEDICAL CENTER**

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# 01

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## Home exercise program for foot and ankle



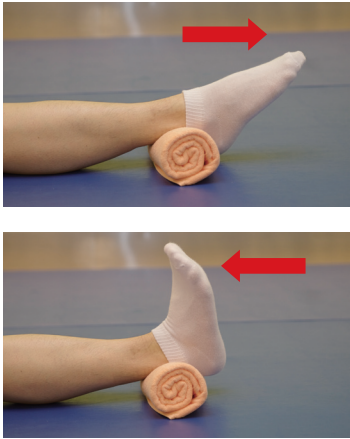
### What is foot and ankle sprain?

It is an injury to the ligaments that surround and connect the bones of the leg to the foot. Sprained ankles often result from a fall, a sudden twist or a blow that forces the ankle joint out of its normal position. Ankle sprain commonly occurs while participating in sports, wearing inappropriate shoes or walking or running on an uneven surface.

In most cases, ankle sprain is not very serious and will completely heal with proper treatment. However, inadequate or delayed treatment can cause long-term instability or chronic pain, which can ultimately lead to secondary injuries.

## 1) Muscle strengthening exercises using a towel

- ☐ Place a rolled towel under your ankle. Move your ankle up and down.



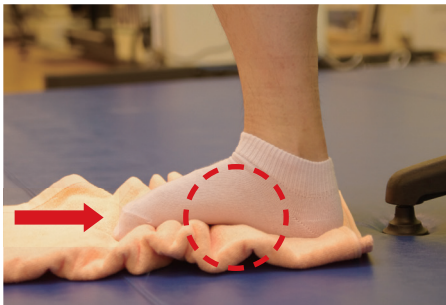
Maintain for 10 seconds X 10 times

- ☐ Place your foot on a towel on the floor. Use both ankles to push the towel outwards (There is no actual movement).



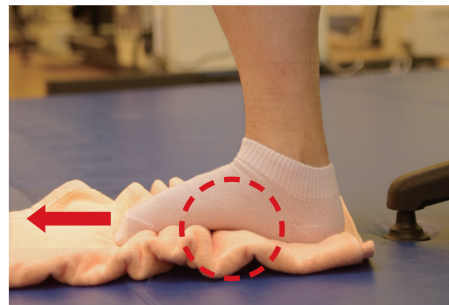
Maintain it for 10 seconds X 10 times X 3 sets

- ☐ Place a towel under your foot. Using the entire sole of your foot, pull the towel toward you.



Repeat 10 times

- ☐ Place a towel under your foot. Using the entire sole of your foot, push the towel away from you.



Repeat 10 times

- ☐ Place a towel under your foot, and push the towel outwards with the entire sole of your foot.



Repeat 10 times

- ☐ Place a towel under your foot, and push the towel inwards with the entire sole of your foot.

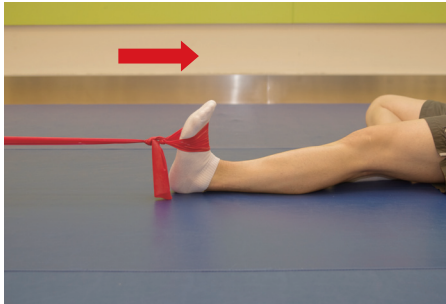


Repeat 10 times



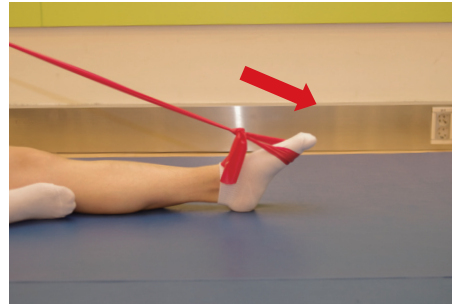
## 2) Muscle strengthening exercises using a resistance band

- ☐ Move your foot and ankle up against the resistance band. Hold for 5 seconds, and relax.



10 times X 3 sets

- ☐ Move your foot and ankle down against the resistance band. Hold for 5 seconds, and relax.



10 times X 3 sets

- ☐ Move your foot and ankle inwards against the resistance band. Hold for 5 seconds, and relax.



10 times X 3 sets

- ☐ Move your foot and ankle outwards against the resistance band. Hold for 5 seconds, and relax.

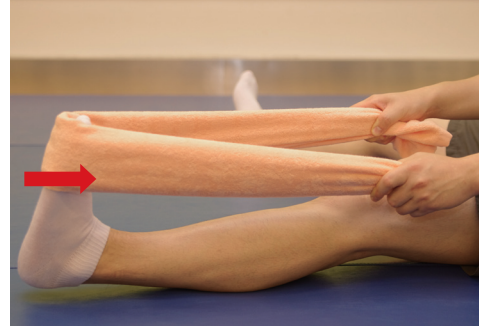


10 times X 3 sets

Note) Resistance bands come in different colors to indicate the level of resistance. Choose the right resistance for you.

### 3) Stretching exercises

- Sit with your legs extended. Loop a towel around the ball of your foot and pull it toward your body.



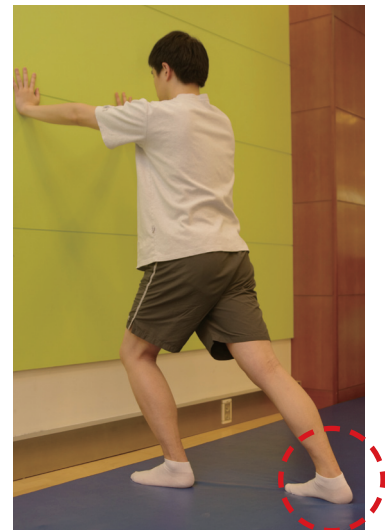
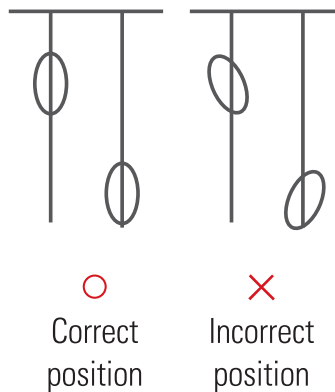
Maintain for 10 seconds X 10 times

- Stand facing a wall with your hands on the wall. Slightly bend your knees and lean into the wall until you feel a stretch in your calves.



Maintain for 10 seconds X 10 times

- Stand facing a wall with your hands on the wall. Put one foot behind the other. Keep your back leg straight and both heels down. Bend your front knee until you feel a stretch in the calf of your back leg. Reverse the order of your feet and repeat to stretch both legs.



Maintain for 10 seconds X 10 times

## 4) Balancing exercises

- Raise your body up onto your toes and hold for 5 seconds. Then slowly lower heels back.



10 times X 3 sets

- Stand and balance on your injured leg for 30 seconds.  
※ After having enough practices, repeat the exercise with your eyes closed.



Repeat 3 times

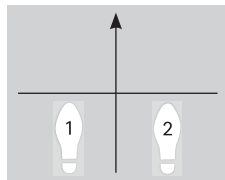
- Stand on a balance board (or couch or cushion or blanket or pillow) with your injured leg. Try to balance on it for up to 30 seconds.



Repeat 5 times

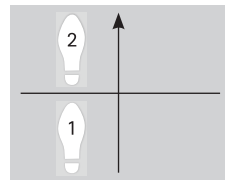
## 5) Single leg jumping exercises

1. Side to side



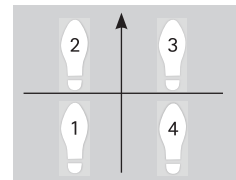
Start

2. Forward and backward



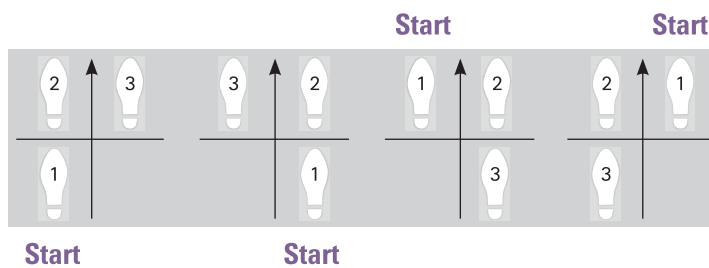
Start

3. Make a square



Start

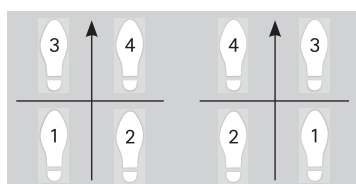
4. Make a triangle



Start

Start

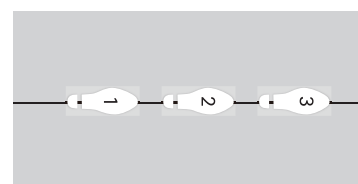
5. Make a Z shape



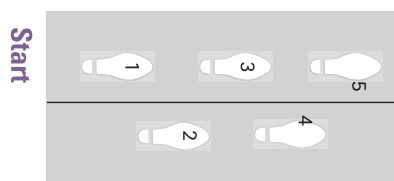
Start

Start

6. Straight line

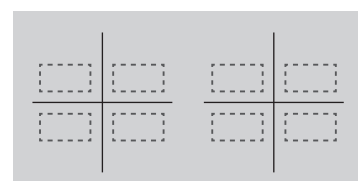


7. Zig-Zag



Start

8. Random jump



# 02

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## Home exercise program for knee joints



The knee is one of the most important joint in the body. It allows the lower leg to move relative to the thigh while supporting the body's weight. Movements at the knee joint are essential to many everyday activities, including walking, running, sitting and standing. Therefore, even a small injury can cause a lot of discomfort. Exercise in the right way will keep your knees strong and healthy.

## 1) Stretching exercises for knee joint muscles

3 times per day

### ☐ Quadriceps stretching

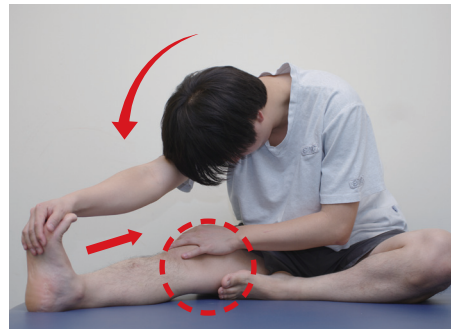
Place one hand on a wall. Hold your injured ankle with the other hand and pull it toward your buttocks as shown in the picture.



10 seconds X 10 times

### ☐ Hamstring stretching

Sit with one foot extended out in front of you, and the other leg bent inwards against the opposite leg's inner thigh. Extend your arms and reach forward by bending at the waist as far as possible.



10 seconds X 10 times

### ☐ Tensor Fasciae Latae stretching

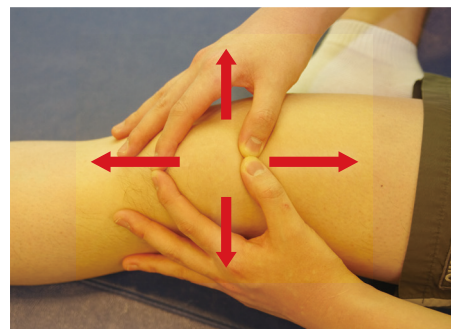
Lie on your back on the floor with your legs extended straight out. Bend one knee and cross over the other leg. Slowly twist your bent leg as shown in the picture. Try to flatten your shoulder while stretching.



10 seconds X 10 times

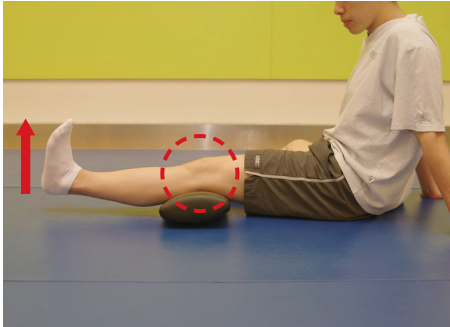
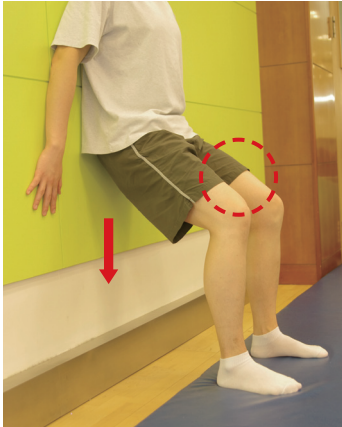

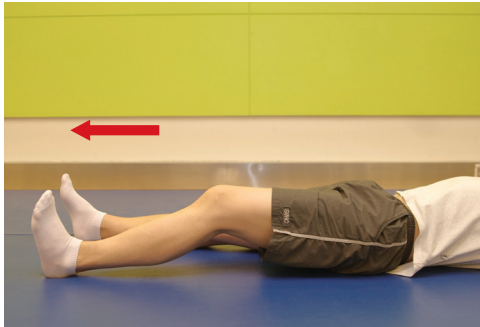
### ☐ Patellar mobilization

Place a towel under your knee. Gently move your knee cap up and down and side to side.



2-3 seconds X 10 times

2) Strengthening exercises for knee joint muscles

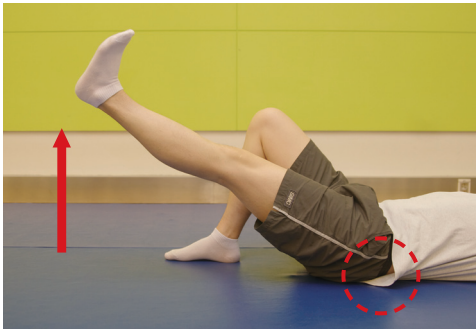
<div><input type="checkbox"/> <b>Leg straightening exercise</b></div> <div>Place a pillow under your knee. Keep the knee straight for 10 seconds.</div> <div></div> <div>10 times X 2-3 sets</div>	<div><input type="checkbox"/> <b>Wall sit exercise</b></div> <div>Stand with your back against a wall. Bend your knees to 45 degrees.</div> <div></div> <div>10 seconds X 10 times X 2-3 sets</div> <div>※ Don't allow your knees to move forward of your feet.</div>
<div><input type="checkbox"/> <b>Knee bending exercise</b></div> <div>Slowly bend and straighten your knee.</div> <div></div> <div>10 seconds X 10 times X 2-3 sets</div>	



### 3) Strengthening exercises for thigh muscles

#### ☐ Straight leg raise

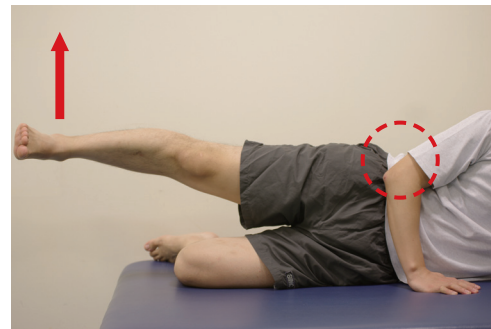
Lie on your back with the injured leg extended and the other leg bent. Keep your injured leg straight and lift it up.



10 seconds X 10 times X 2-3 sets

#### ☐ Side leg raise

Lie on your side with the upper leg extended and the other leg bent. With the knee extended, lift the upper leg up.



10 seconds X 10 times X 2-3 sets

☐ Times = Without rest

☐ Sets = Rest for 20-30 seconds



# 03

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## Home exercise program for stretching



### Purpose of exercise

Stretching is the deliberate lengthening of muscles in order to increase muscle flexibility and joint range of motion.



### Method and Cautions

1. Stretching should not be painful.
2. Do it in a slow and relaxed way.
3. Hold the proper posture for 15 seconds and repeat 2-3 times.

## 1) Self-stretching

### ☐ Back muscle stretching exercise #1

Cross your arms over and hold onto your shoulder blades. Pull your shoulder forward to stretch your back muscles.



### ☐ Back muscle stretching exercise #2

Clasp your hands in front of you. Push your hands forward, feeling the stretch in your upper back.



### ☐ Neck muscle stretching exercise #1

Turn your head to your one shoulder, about 45 degrees of rotation. Place your hand on the back of your head and gently pull downward in the direction of your armpit.



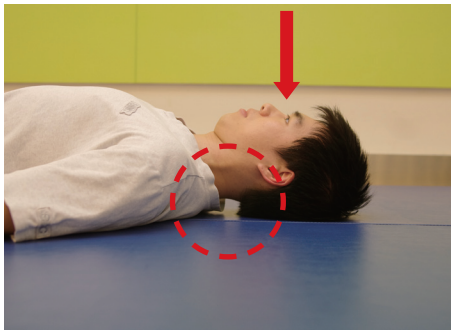
### ☐ Neck muscle stretching exercise #2

Place one hand on top of your head and pull your head towards the side as if you are trying to touch your ear to your shoulder.



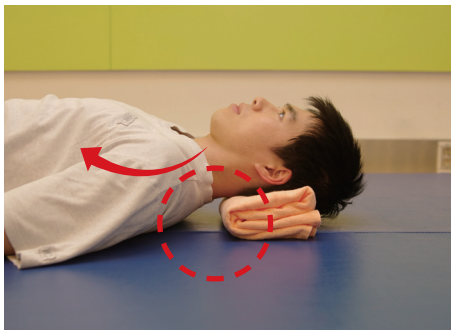
☐ **Neck stabilization exercise #1**

Tuck your chin and pull your head back. Feel a stretch in the back of your neck. Hold this position for a few seconds then relax.



☐ **Neck stabilization exercise #2**

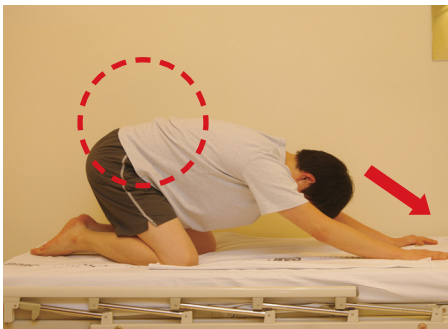
Lie on your back with a small folded towel under your head. Put pressure on the towel with the back of your head and pull your shoulders back and down. Hold this position for a few seconds then relax.



## 2) Stretching exercises for lower back muscles

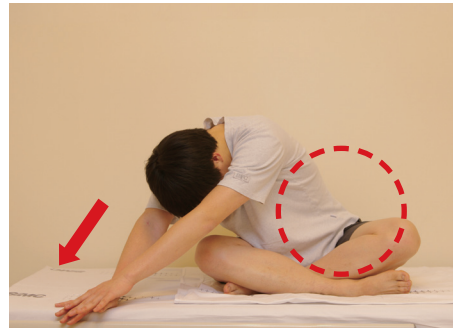
### ☐ Lower back stretching exercise #1

Kneel down on the floor and extend your arms forward to stretch your lower back muscles.



### ☐ Lower back stretching exercise #2

Sit with your legs crossed. Bend over and reach your arms and body to one side.



### ☐ Lower back stretching exercise #3

Sit on the floor and cross your one leg over the other as shown in the picture. Place your elbow on your bent knee and press against the outside.



### ☐ Lower back stretching exercise #4

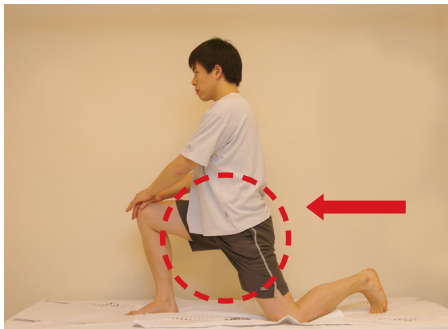
Lie on your back with your knees bent. Cross your ankle over the other leg as shown in the picture. Grasp the back of your thigh with both hands and pull the leg toward your chest.



### 3) Stretching exercises for the leg and thigh muscles

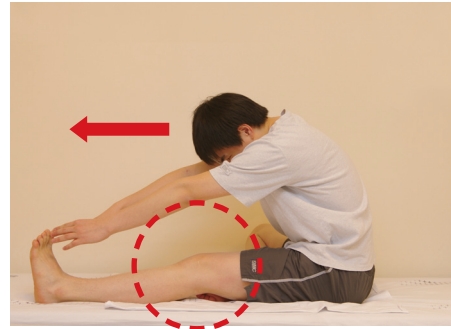
#### ☐ Stretching exercise for the hip flexor muscles

Kneel on the ground with your left leg and put your right leg bent out in front of you at a 90 degree angle. Push your hips forward to stretch your hip flexors. Switch and stretch the other leg.



#### ☐ Stretching exercise for the back thigh muscles

Sit on the floor one leg straight out, bend the other leg at the knee and position sole of the foot against your opposite thigh. Extend arms and reach forward over the straight one by bending at the waist.



#### ☐ Stretching exercise for the anterior thigh muscles

Stand up straight and hold onto a wall. Bring one foot back and grab the ankle. Pull your foot toward your buttocks.



#### ☐ Stretching exercise for the calf muscles

Stand facing a wall with your hands on the wall. Put one foot behind the other. Keep your back leg straight and both heels down. Bend your front knee until you feel a stretch in the calf of your back leg. Reverse the order of your feet and repeat to stretch both legs.



# 04

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## Home exercise program for lateral epicondylitis of the elbow



### What is lateral epicondylitis of the elbow?

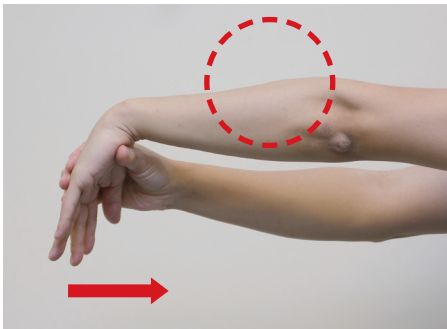
Lateral epicondylitis, also known as tennis elbow, is one of the most common diseases that cause elbow pain by damaging the extensor tendons and muscles of the forearm. Tennis elbow, as the name implies, often is caused by the force of the tennis racket hitting balls in the backhand position. However, it can happen to anyone who repeatedly uses their elbow, wrist, and hand for their job, sport, or hobby.

Symptoms can be relieved by keeping the right wrist posture when exercising or working and using an assistive device that limits the movement of the wrist. Local injections or physiotherapy may also be helpful. However, exercise is essential for a better recovery.

## 1) Joint exercise and self-massage

3 times per day

- Straighten your arm out in front of your body. Bend the injured wrist downwards with the palm facing down. Use the other hand to pull the wrist back toward your body.

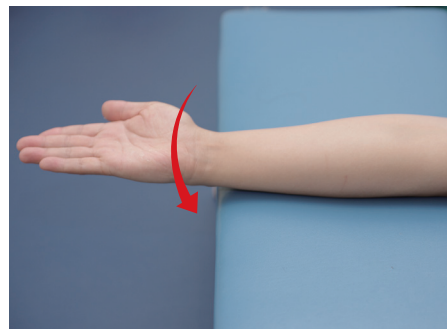
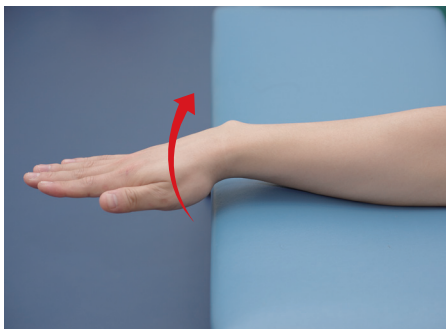


10 seconds X 4-5 times

- Bend your injured elbow at a right angle by your side so it forms an L. Gently massage the area, which is 4-5cm apart from the painful area, with your thumb.



- Bend your elbow at a right angle. Slowly rotate your palm up and down without moving your arm.



10 seconds X 4-5 times



## 2) Finger/Wrist extensor muscle strengthening exercises

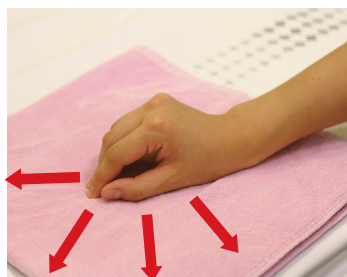
### Step 1. Low intensity exercise

- Place your injured wrist over the edge of a table. Hold a rolled towel in your hand and squeeze it.



10 times X 2-3 sets

- Place a towel on the floor and bring your fingers together as shown in the picture. Spread your fingers while gently pushing the floor with your fingertips.



10 times X 2-3 sets

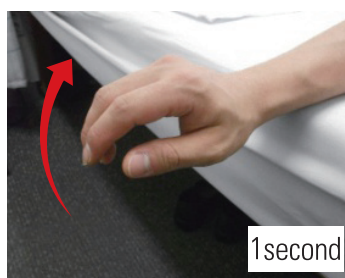
- Place your injured wrist over the edge of a table with palm facing down. Apply gentle pressure on the back of your hand. Try to bend your wrist upwards against the pressure (There is no actual movement).



10 times X 2-3 sets

- Times = Without rest
- Rest for 20-30 seconds

- Place your injured wrist over the edge of a table with palm facing down. Slowly move your wrist up and down.

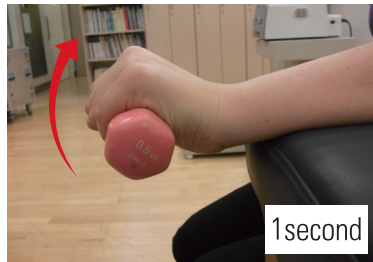


10 times X 2-3 sets



## Step 2. High intensity exercise

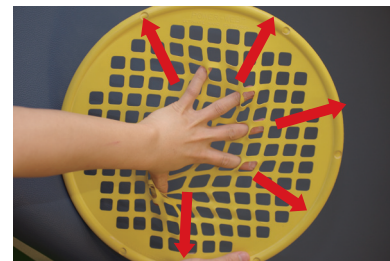
- Place your injured wrist over the edge of a table. Hold a 0.5kg dumbbell in your hand with palm facing down. Slowly bend your wrist up and down.



10 times X 2-3 sets

Note) You may use a 500-mL water bottle instead of a dumbbell.

- Put your fingers in the holes of a badminton racket. Spread your fingers out as far as possible.



- Sit and secure the end of the resistance band under your feet, creating a loop. Grasp the middle loop of the band with palm down. Bend your wrist upward, hold at the top and slowly return.



10 times X 2-3 sets

- ※ Resistance bands come in different colors to indicate the level of resistance. Choose the right resistance for you.

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# MEMO



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## Home Exercise Program

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## SAMSUNG MEDICAL CENTER

81, Irwon-ro, Gangnam-gu, Seoul, South Korea (Postal code 06366)

**Main telephone number** +82-2-3410-0200 (for reservation and information)

**Homepage** [www.samsunghospital.com/english](http://www.samsunghospital.com/english)

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