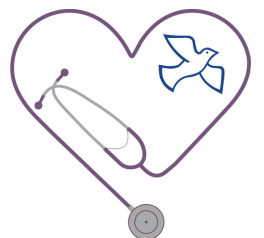


# Chronic Disease Management:

## Diabetes Type 2 & High Blood Pressure



SCHOOL OF  
OCCUPATIONAL THERAPY  
TEXAS WOMAN'S UNIVERSITY



AGAPE CLINIC

# Disclaimer

The content in this booklet is for informational purposes only. This content is not intended to be a substitute for professional medical advice or treatment. Always consult with your general practitioner if you are in any way concerned about your health or safety. In case of an emergency call 911.

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# Diabetes

## Type 2



### What is type 2 diabetes?

Type 2 diabetes is a condition in which you have too much sugar (glucose) in your blood. The sugar from your food stays in your blood rather than being used by your cells for energy. Over time, high blood sugar can harm many parts of your body, such as your eyes, heart, blood vessels, kidneys, and nerves.



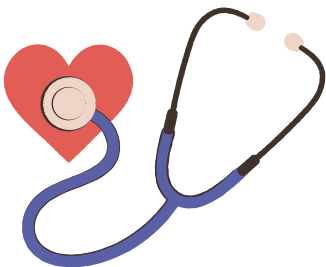
### Cause

When your blood sugar is too high for too long, it causes insulin resistance. This happens when your body becomes resistant to insulin and your body cannot use insulin in the right way.



### Symptoms

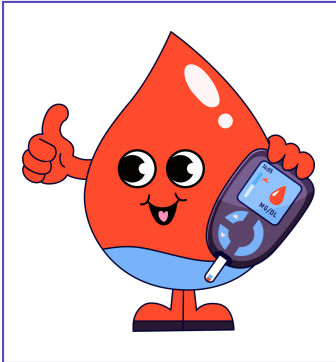
- Blurry vision
- Feeling more tired than usual
- Feeling very thirsty or very hungry
- Increased need to urinate
- Unexplained weight loss
- Tingling/numbness in your hands/feet



### Diagnosis

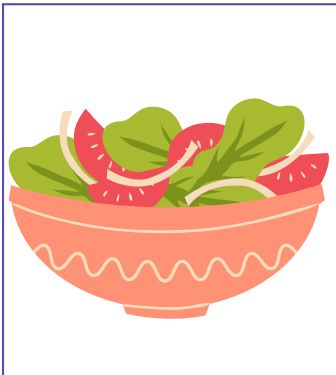
If your doctor thinks you have type 2 diabetes, he will order blood tests that measure the amount of sugar in your blood. Your doctor will also ask you questions about your medical history, do a physical exam, A1C test, and/or a fasting blood sugar test.

# Diabetes Type 2



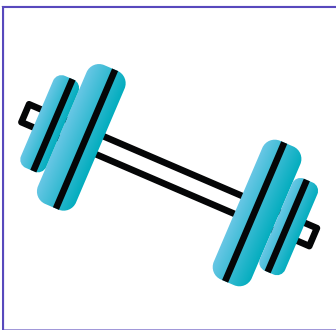
## Treatment

Treatment for type 2 diabetes will focus on keeping your blood sugar levels in your target range. Your doctor will discuss your target range and treatment options. This includes lifestyle changes such as diet, exercise, and medications.



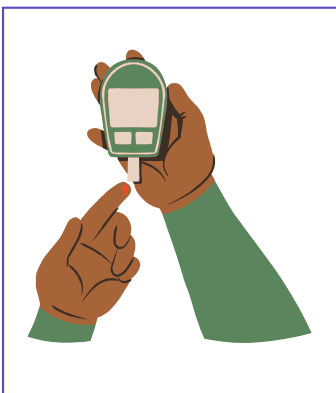
## Diet Recommendations

- Eat healthy foods and limit carbohydrates (see page 7 for more information)
- Limit alcohol to 2 drinks a day for men and 1 drink a day for women
- Do not smoke



## Exercise Recommendations

- Try to be active 30 minutes a day, at least 5 times a week
- See page 13 for exercises you can do at home



## Other Recommendations

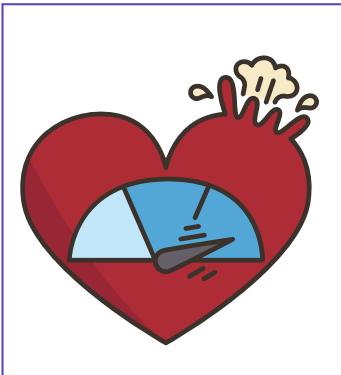
- Check your blood sugar as often as your doctor recommends (see page 8 for blood sugar values)
- Get hemoglobin A1C tests every 3 to 6 months as recommended by your doctor
- Take your diabetes medication as prescribed (see page 10 for tips on medication management)

# High Blood Pressure



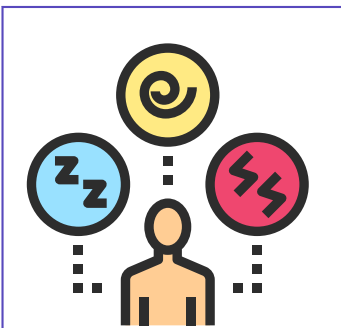
## What is high blood pressure?

Blood pressure is a measure of how hard the blood pushes against the walls of your arteries. It is normal for blood pressure to go up and down throughout the day, but if it stays up, you have high blood pressure (hypertension). High blood pressure increases the risk of stroke, heart attack, and other problems.



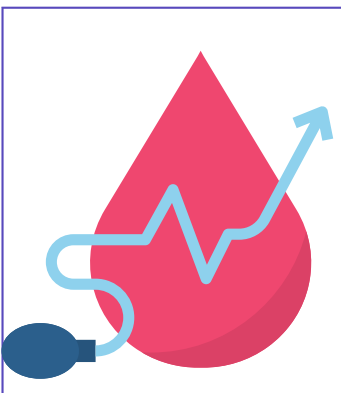
## Cause

The cause of high blood pressure can vary from person to person. Factors linked to high blood pressure include getting older, drinking too much alcohol, eating a lot of salt, being overweight, and not exercising.



## Symptoms

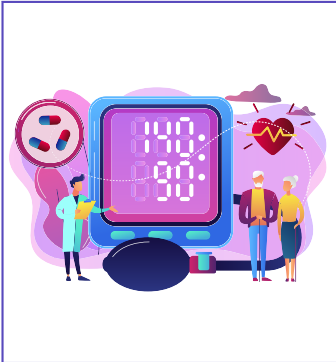
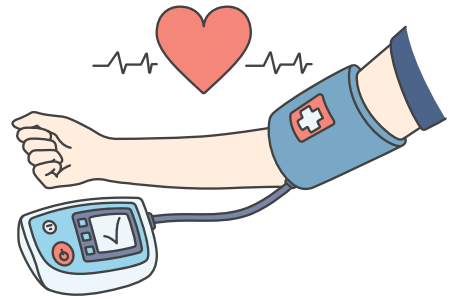
High blood pressure often does not have symptoms. Most people do not know they have high blood pressure until they go to the doctor. If your blood pressure is very high it can cause severe headaches and vision changes.



## Diagnosis

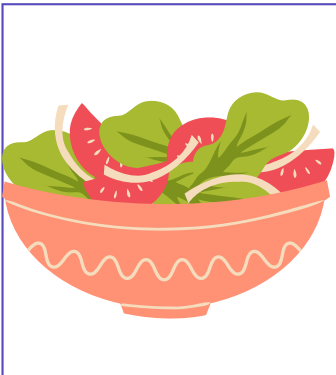
During a routine visit, your doctor will measure your blood pressure. Your doctor may ask you to test it again at home. To diagnose high blood pressure, your doctor needs to know if your blood pressure is staying high throughout the day.

# High Blood Pressure



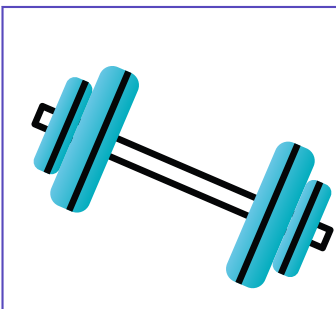
## Treatment

Treatment for high blood pressure will focus on lifestyle changes and medicines. Your doctor may ask you to lose weight, eat less salt, and be more active. If this does not help, you may need to take medications.



## Diet Recommendations

- Eat heart-healthy foods and limit sodium (see page 7 for more information)
- Limit alcohol to 2 drinks a day for men and 1 drink a day for women
- Do not smoke



## Exercise Recommendations

- Try to be active 30 minutes a day, at least 5 times a week
- See page 13 for exercises you can do at home



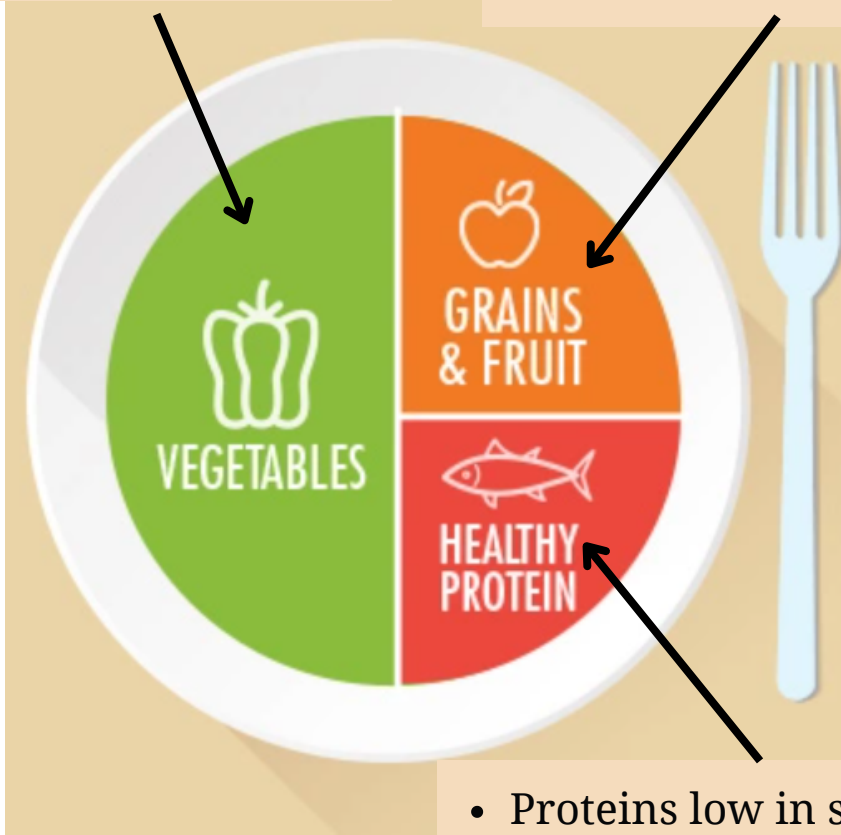
## Other Recommendations

- Get a blood pressure monitor to use at home and keep a record of your blood pressure (see page 9 for blood pressure values)
- Take your medications as prescribed and do not stop taking them even if your blood pressure returns to normal (see page 10 for tips on medication management)

# Diet Recommendations

- Non-starchy vegetables such as carrots, broccoli, and cauliflower

- Whole grains such as oatmeal, brown rice, and whole-grain pasta
- Eat fresh fruit for dessert




- Drink 3 to 4 bottles of water each day
- Avoid sugary drinks such as soda

- Proteins low in saturated fats include chicken, eggs, and seafood.
- Plant-based proteins include tofu, nuts, and beans.

Too much salt can increase your blood pressure. Avoid processed foods like those that come in cans or packages.



# Blood Sugar Values

A1C TO BLOOD GLUCOSE CONVERSION CHART		
	A1C %	Average Glucose mg/dl
Normal	<5.7	<117
Pre Diabetes	5.7-6.4	117-137
Diabetes	6.4	137
	6.5	140
Higher risk of diabetes	7.0	154
complications	7.5	169
	8.0	183
	8.5	197
	9.0	212
	10	240

## What is A1C?

The A1C is a blood test that tells you what your average blood sugar levels have been for the past 2 to 3 months. Usually, your doctor will measure your A1C at least twice a year.

## What is average glucose?

This is your estimated average blood sugar. This is the number you see with your day-to-day blood sugar checks at home. It is important to check your blood sugar regularly at home to help you make day-to-day decisions. It is recommended to check your blood sugar 2 hours after eating (your blood sugar should be less than 140).

## What is a good target for my blood sugar?

You and your doctor will decide on a target depending on your treatment goals and other factors. Typically, the goal is an A1C of less than 7%.

# Blood Pressure Values

## Blood Pressure Categories



BLOOD PRESSURE CATEGORY	SYSTOLIC mm Hg (upper number)		DIASTOLIC mm Hg (lower number)
NORMAL	LESS THAN 120	and	LESS THAN 80
ELEVATED	120-129	and	LESS THAN 80
HIGH BLOOD PRESSURE (HYPERTENSION) STAGE 1	130-139	or	80-89
HIGH BLOOD PRESSURE (HYPERTENSION) STAGE 2	140 OR HIGHER	or	90 OR HIGHER
HYPERTENSIVE CRISIS (consult your doctor immediately)	HIGHER THAN 180	and/or	HIGHER THAN 120

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[heart.org/bplevels](http://heart.org/bplevels)

### How is blood pressure measured?

- When your blood pressure is measured, 2 numbers are recorded. The top number is called the systolic pressure. It is the pressure in your arteries each time blood is pushed out of your heart. The bottom number is the diastolic pressure. It is the resting pressure when your heart relaxes between beats.
- The harder it is for blood to flow through your arteries, the higher your blood pressure numbers will be.

### What should my target blood pressure be?

Your doctor will decide what is "high blood pressure" for you and recommend a target range. It is important to keep your blood pressure under control, especially if you have other medical conditions such as diabetes or stroke.

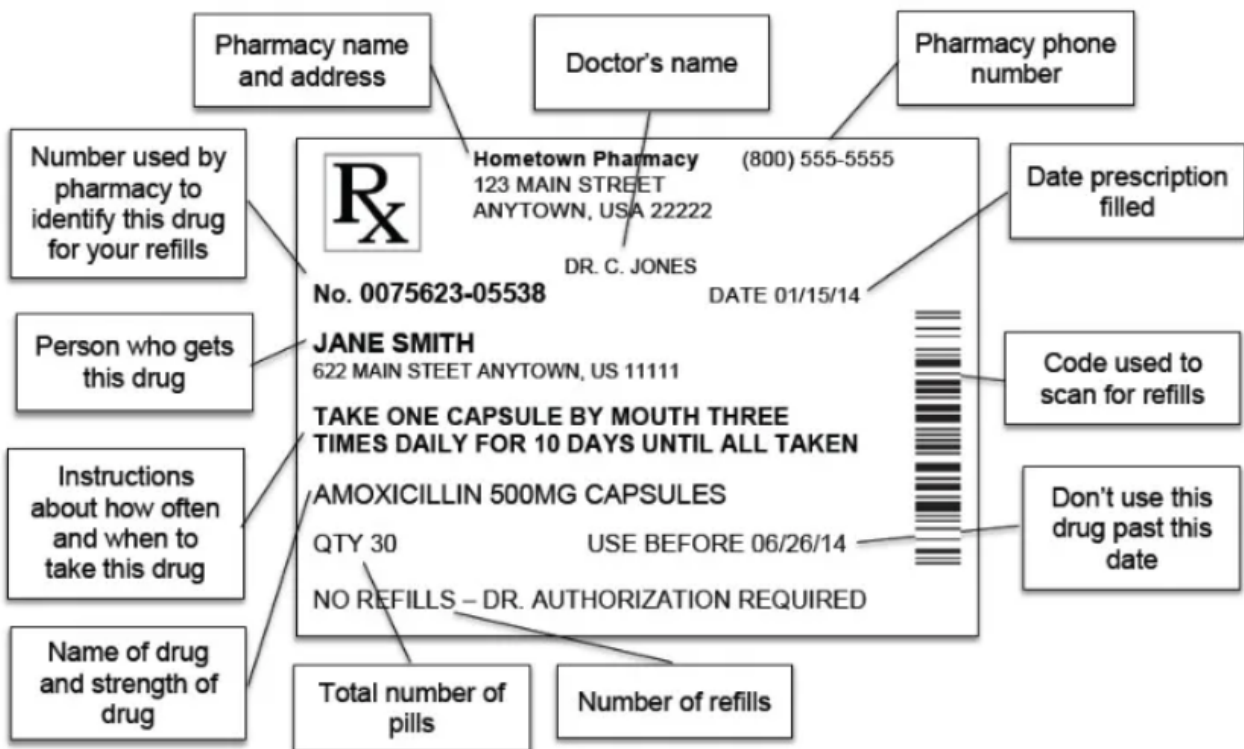
# Medication Management

Managing medications can be complicated, especially if you are taking several medications to treat different conditions. Here are some tips you can try to help you stay on track when taking multiple medications. You can read through the next few pages or you can scan the QR code to watch a short video of the information.



- **Understand your medication routine.** Confirm the exact dose and timing of each medication with your pharmacist.

Here are the main parts of a prescription label:



# Medication Management

- **Write down your medication schedule and track changes.**  
Write your daily medication routine on a calendar, notebook, or chart.
- **Keep your schedule in an obvious place.**

Here is an example of a chart you can use:

**Weekly Medication Schedule** Patient Name: \_\_\_\_\_

Sunday		TIME OF DAY											
NAME	DOSE												

Monday		TIME OF DAY											
NAME	DOSE												

Tuesday		TIME OF DAY											
NAME	DOSE												

- **Make taking your medications part of your daily routine.**  
Try setting an alarm on your phone to remind you to take your medication at the same time every day.



# Medication Management

- Use a weekly or daily pill organizer to make sure you get the **right dose at the right time**. This is especially helpful if you are taking several medications multiple times a day.
  - Ask at your local pharmacy what pill organizers are available



# Exercises Disclaimer

These exercises are for informational purposes only, not to be in place of a doctor or professionals advised treatment. Always seek advice from your physician prior to starting any physical activity. If you feel pain or discomfort at any point, stop what your are doing and see your healthcare professional.

You may follow along with the instructions and pictures provided or you can scan the QR code below using the camera on your phone for a video of the exercises.

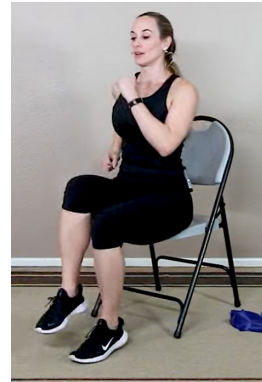
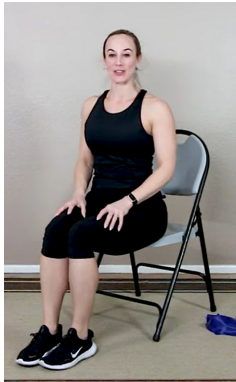


# Seated Exercises

Complete each exercise 10 times

## Warm-up:

- Sit up straight at the edge of your chair
- Slowly march in place



- Alternate bringing each foot and arm out to the side



- Alternate extending each foot and arm out in front of you



# Seated Exercises

- Bring your feet together and place your elbows on your sides
- Open your hands and feet out at the same time, then bring them back to the starting position



## Theraband Exercises:

- Place the band behind your upper back and underneath your armpits
- Pull it straight out in front of you, then bend your elbows to slowly release back in



- Pull the band straight out in front of you and then out to your sides, keeping your arms straight



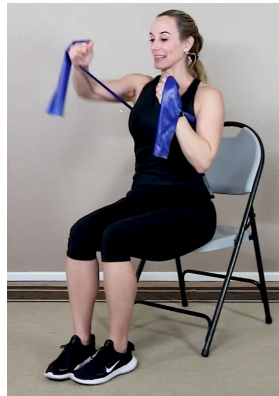


# Seated Exercises

- Pull the band straight out to your sides, then bend your elbows to slowly release back in



- Start with both hands up to your chest
- Punch one arm forward while keeping the other arm bent at your chest
- Continue this motion, alternating arms



- Start with the band in front of you with your arms straight
- Bend your elbows and bring the band towards your chest, then push it back out in front of you

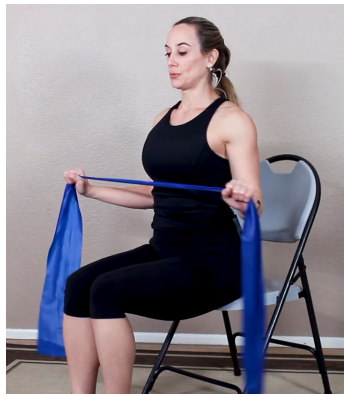


# Seated Exercises

- Straighten out your arms and bring them up towards the ceiling
- Pull the band out while bringing your arms down towards your lap, then gently release back up



- Place the band in front of you with your elbows at the side of your body
- While keeping your elbows at your side, pull the band open, then gently release it to the starting position



- Place your left hand on your hip
- Straighten out your right arm and pull the resistance band diagonally, then gently release it to the starting position



# Seated Exercises

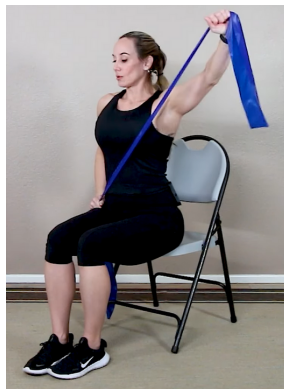
- Bend your right elbow and pull the band up to shoulder level
- Straighten out your right arm and pull the resistance band diagonally, then slowly release to the starting position



- Place your right hand on your hip
- Straighten out your left arm and pull the resistance band diagonally, then gently release it to the starting position

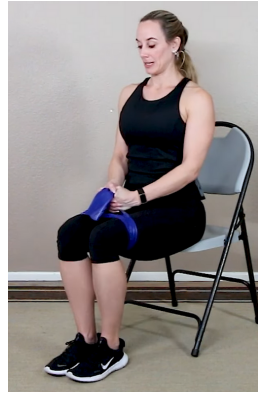
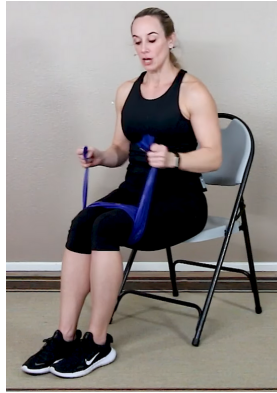


- Bend your left elbow and pull the band up to shoulder level
- Straighten out your left arm and pull the resistance band diagonally, then slowly release to the starting position



# Seated Exercises

- Wrap the band around your thighs, making sure you are holding both ends of the band together at the center of your lap
- Place your feet together and slowly spread your thighs apart, then gently bring them back together



- Spread your feet shoulder width apart and lift one foot up at a time in a marching motion

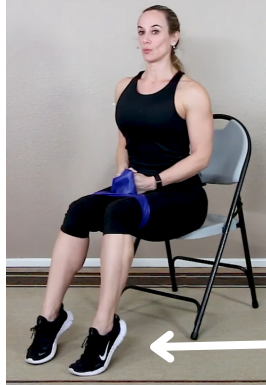


- Place your feet together and slowly alternate stepping out to the side with each foot



# Seated Exercises

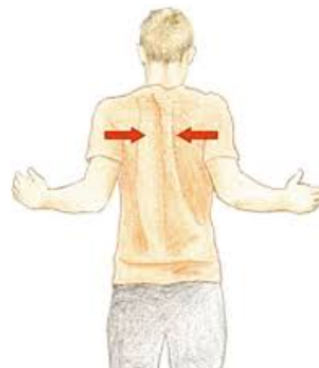
- Spread your feet shoulder width apart
- Lift your heels up while keeping the soles of your feet firm on the floor



- Place the band under both feet and hold the ends of the band with your hands
- Lean slightly forward and pull the band up towards your chest, then slowly release back down

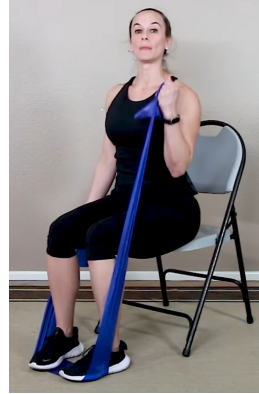


- Sit up straight and straighten your arms at your side
- Squeeze your shoulder blades together while keeping your arms straight, then slowly return to the starting position



# Seated Exercises

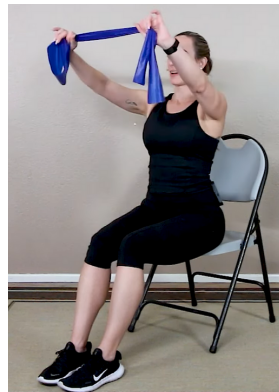
- Sit up straight and straighten your arms at your side
- Alternate pulling the band up by bending each elbow



- Sit up straight and bend your elbows slightly
- Alternate bringing each arm out to the side up to shoulder level



- Sit up straight and hold the band in your lap about shoulder width apart
- Raise your arms up towards the ceiling, then slowly bring them back down to your lap

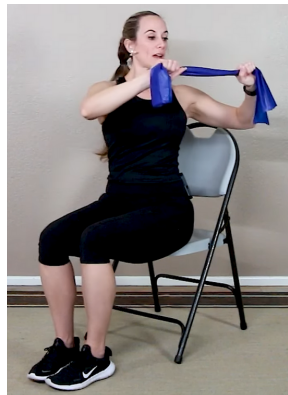


# Seated Exercises

- Sit at the edge of the chair and lean back
- Hold the band up to your chest about shoulder width apart
- Using your abdominal muscles sit up straight in the chair and push the band out, then slowly return to the starting position



- Sit up straight and hold the band in front of you about shoulder width apart with your elbows bent
- Twist your body to the right, slowly return to the center, then twist to the left



- Sit up straight and hold the band up to your chest with your elbows bent
- Slowly lean your body forward as far as you can, then slowly sit back up



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