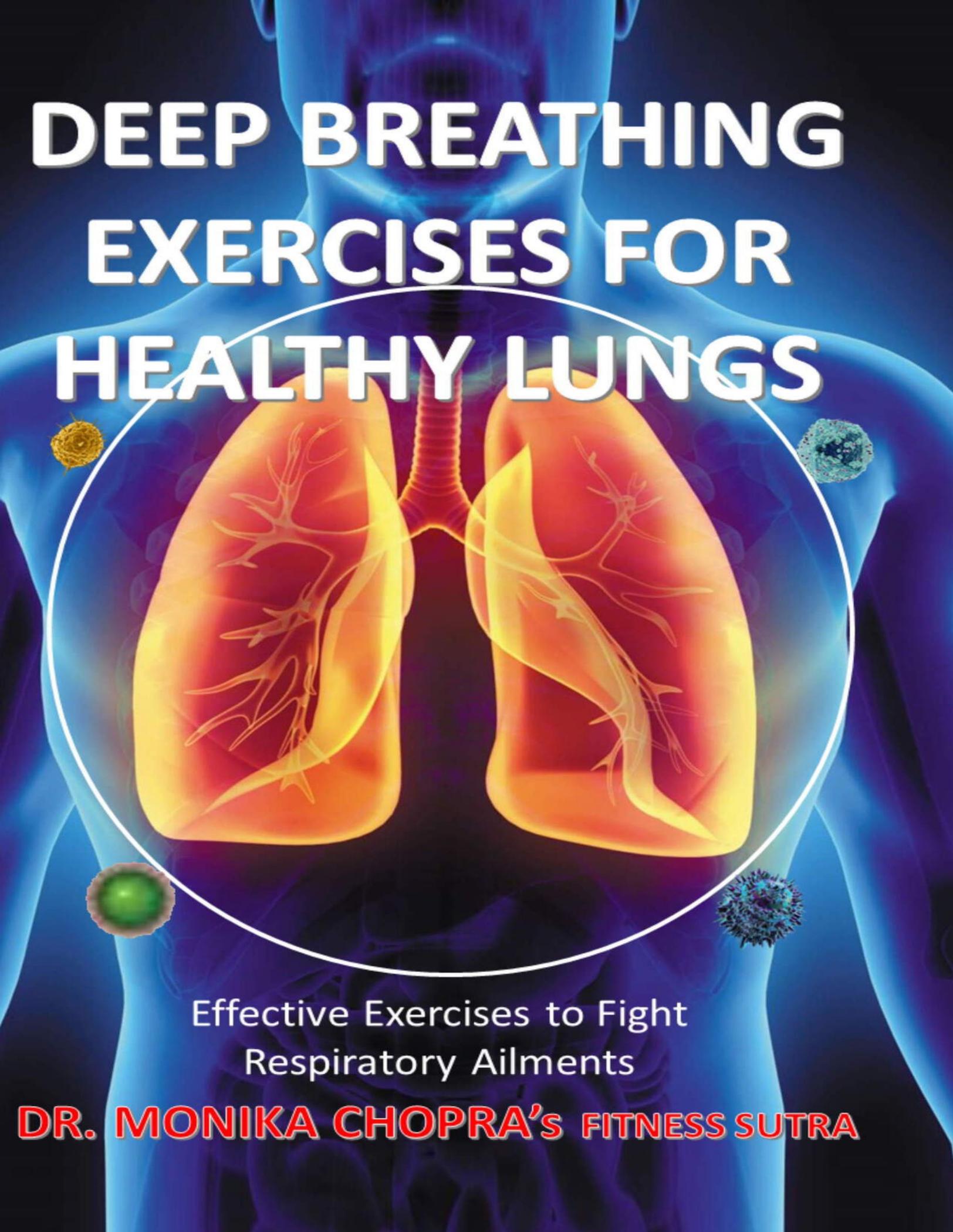


DEEP BREATHING EXERCISES FOR HEALTHY LUNGS



Effective Exercises to Fight
Respiratory Ailments

DR. MONIKA CHOPRA'S FITNESS SUTRA

FITNESS SUTRA

DEEP BREATHING EXERCISES FOR HEALTHY LUNGS

Effective Exercises to Fight Respiratory Ailments



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www.fitness-sutra.com

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Although I am a Physiotherapist (PT, for those of you in the USA) and a trained Yoga teacher, my suggestions through this book do not establish a doctor-patient relationship between us. This book is not intended to be a substitute for the medical advice of physicians. You should regularly consult a physician in matters relating to your health particularly with respect to any symptoms that may require diagnosis or medical attention. I advise you to take full responsibility of your safety and be aware of your physical limits. Before practising the exercises described in this book, be sure that your equipment is well maintained. Do not take risks beyond your level of flexibility, aptitude, strength, and comfort level.

This is a work of nonfiction. No names have been changed, no characters invented and no events fabricated. The information provided within this Book is for general informational purposes only. While I have tried to keep the information up-to-date and correct, there are no representations or warranties, expressed or implied, about the completeness, accuracy, reliability, suitability or availability with respect to the information, products, services, or related graphics contained in this book for any purpose. Any use of this information is at the reader's own responsibility. I do not assume and hereby disclaim any liability to any party for any loss, damage, or disruption caused by errors or omissions, whether such errors or omissions result from negligence, accident, or any other cause.

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“If you do nothing else than to learn to breathe well, it will dramatically improve the quality of your life.”

- *Taoist Lineage Master Bruce Frantzis*
The Chi Revolution

CHAPTER 1

Introduction

Lungs are the primary organ of the human respiratory system. They extract oxygen from the inhaled air, push it into the bloodstream, and release carbon dioxide from bloodstream into the exhaled air. Divided into two parts (right & left lung), the lungs have multiple branching airways (measuring up to 2,400 KM or 1,500 miles) and 300 to 500 million gas exchange points called alveoli.

The lungs can be affected by a number of respiratory ailments that maybe caused due to exposure to harmful substances, cancers, bacterium or viruses. Deep breathing exercises help in expanding the lung capacity, cleaning the lungs (through improved flow of air), and strengthening the muscles that activate and regulate the respiratory system.

Additionally, when viruses like novel coronavirus attack the body, the body's immune system gets activated to fight it off. Debris are created from immune response, which if not effectively and efficiently cleared, may cause congestion and fibrosis in the lung tissue. The clearing away of debris from body occurs primarily through our lymphatic system. Deep breathing exercises and movements during exercise are the two main factors responsible for effective functioning of lymphatic system. The inhalation and exhalation creates pressure differentials needed in the lungs for efficient lymphatic drainage and clearance of respiratory debris.

The deep breathing exercises also increase oxygen content in the body thus preventing shortness of breath.

The clavicle, rib and abdominal components of breathing need to be activated for effective and complete breathing. Neck, arm, spine, pelvic and leg movements aid in the deep breathing process.

What to Expect From This Book

In this short book you will understand what is Breath Awareness and what are the three primary breathing patterns, i.e. clavicular, thoracic and abdominal breathing. You will learn how to practice the above three

breathing patterns efficiently & effectively. You will also learn how you can combine body movements with breathing, making inhalation and exhalation more effective as you stretch and relax the tight and tensed muscles.

“When the breath is unsteady, all is unsteady; when the breath is still; all is still. Control the breath carefully.

Inhalation gives strength and a controlled body; retention gives steadiness of mind and longevity; exhalation purifies body and spirit.”

- Goraksasathakam

CHAPTER 2

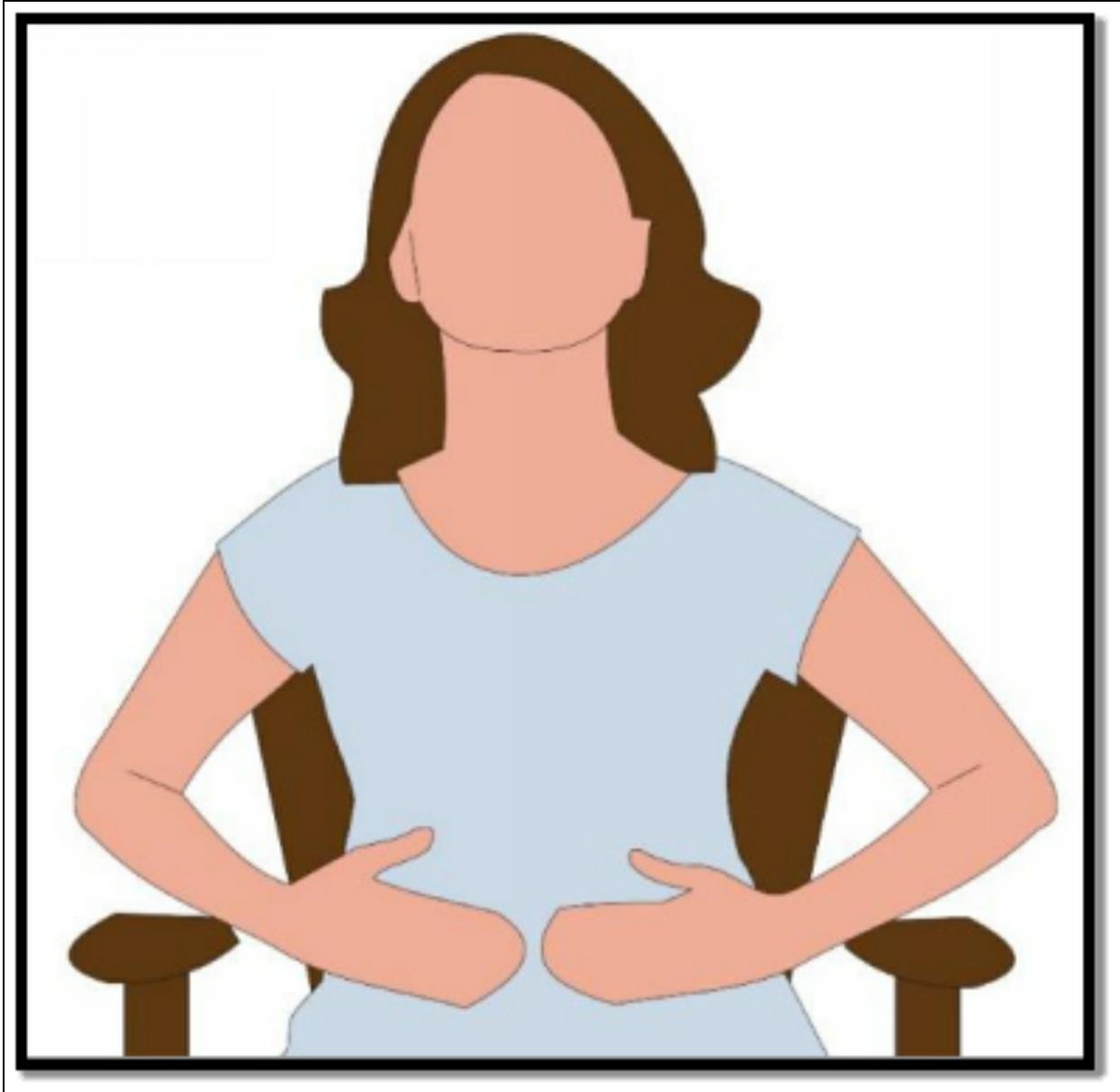
Breath Awareness

Know your Breath / Breath Awareness

Breath awareness is carefully focusing on each stage of breathing as you breathe slowly and gently. It is one of the easiest ways of improving your lung functioning and thus physical and mental health.

Steps of breath awareness:

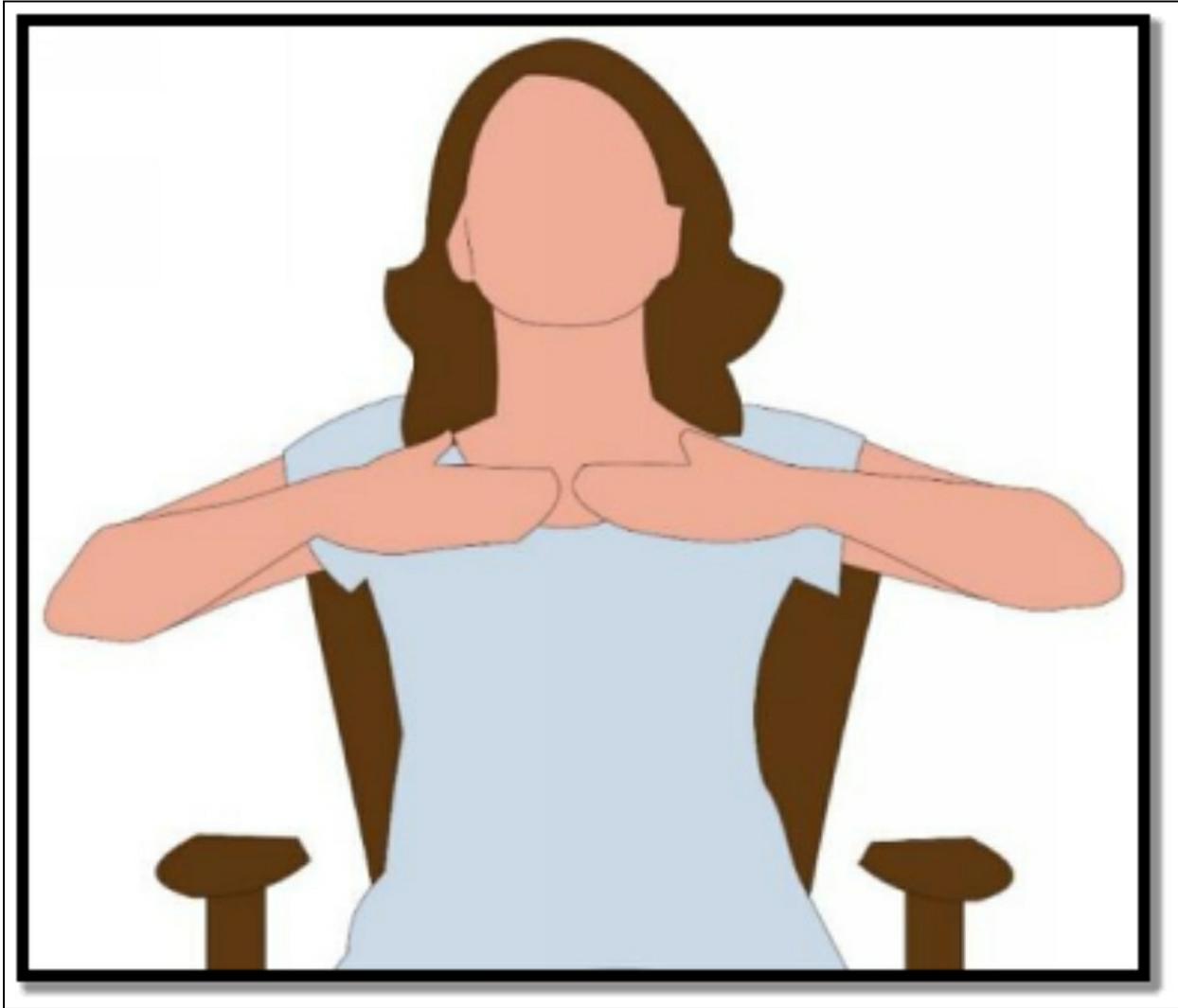
1. Observe your breath: Sit relaxed in your chair giving enough space for your abdomen to move in and out. Close your eyes and start observing your breath. Feel the cool air moving in through the nostrils as you inhale and warm air coming out as you exhale. Let the thoughts come and go. Focus only on your breath flowing through your body. Be one with yourself.
2. Practice sectional breathing:
 - a. Abdominal (Diaphragmatic) breathing –
 - i. Place your hands on your abdominal region.
 - ii. Inhale deeply & slowly. Your abdomen bulges out with inhalation. Hold your breath for few seconds.



- iii. Exhale slowly and completely. Your abdomen is drawn inwards continuously and slowly with exhalation.
- iv. Before inhaling again, hold your breath.
- v. Repeat this breath cycle 9 times.

There should be no jerks in the whole process. The breathing should be slow, continuous and relaxed.

b. Thoracic (Intercostal) breathing –

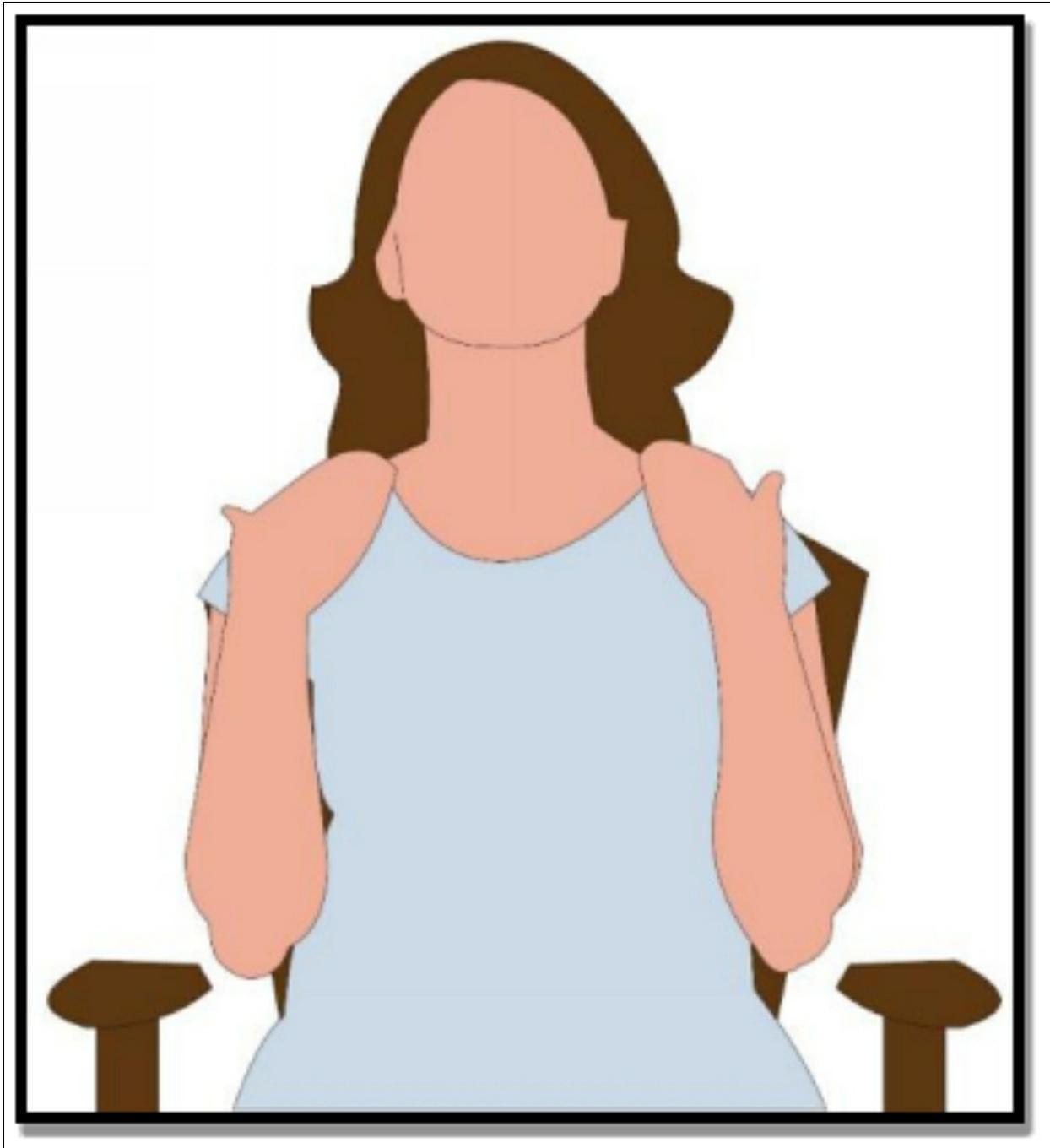


- i. Place your hands on the ribs with the tips of the middle finger touching each other.
- ii. Inhale deeply and slowly. While inhaling you should feel the chest cage expanding outwards and upwards. The middle finger tips should move apart a little with inhalation.
- iii. Exhale slowly and completely. While exhaling relax the chest wall and return to the starting position, with the chest cage

moving backwards, inwards & downwards.

- iv. Repeat this breathing cycle 9 times. There should be no jerks in the whole process. The breathing should be slow, continuous and relaxed.

c. Clavicular breathing –



- i. Place your hands on the clavicular region (collar bone).
- ii. Inhale deeply and slowly. While inhaling you should feel your collar bones rising upwards and ahead.

- iii. Exhale slowly and completely. While exhaling you should feel your collar bones and shoulders dropping down to the start position.
 - iv. Repeat this breathing cycle 9 times. There should be no jerks in the whole process. The breathing should be slow, continuous and relaxed.
- d. Complete / Full breathing - This is the combination of abdomen, thoracic & clavicular breathing.
- i. Sit in a comfortable position; Start inhaling in the sequence of abdomen, chest & clavicle. Your abdomen should bulge, chest cage should expand forward, outward & upwards and the collarbone should get raised ahead & upwards.
 - ii. Now exhale in the sequence of clavicle, chest & abdomen. The collarbone should move backward & downwards, the chest cage should move backwards, inwards & downwards and the abdomen should get drawn inwards.
 - iii. Once you have practiced enough of guided breathing with your hands on the abdomen, chest & clavicle, you can practice sectional breathing anywhere by focusing on the different sections respectively.

Important Tips for Deep Breathing

1. For breathing to be deep involve clavicular, thoracic and abdominal component in it.

2. The breathing should be slow and controlled.
3. You can add resistance to the breathing by pursing your lips while exhalation.
4. The exhalation should be twice as long as inhalation.

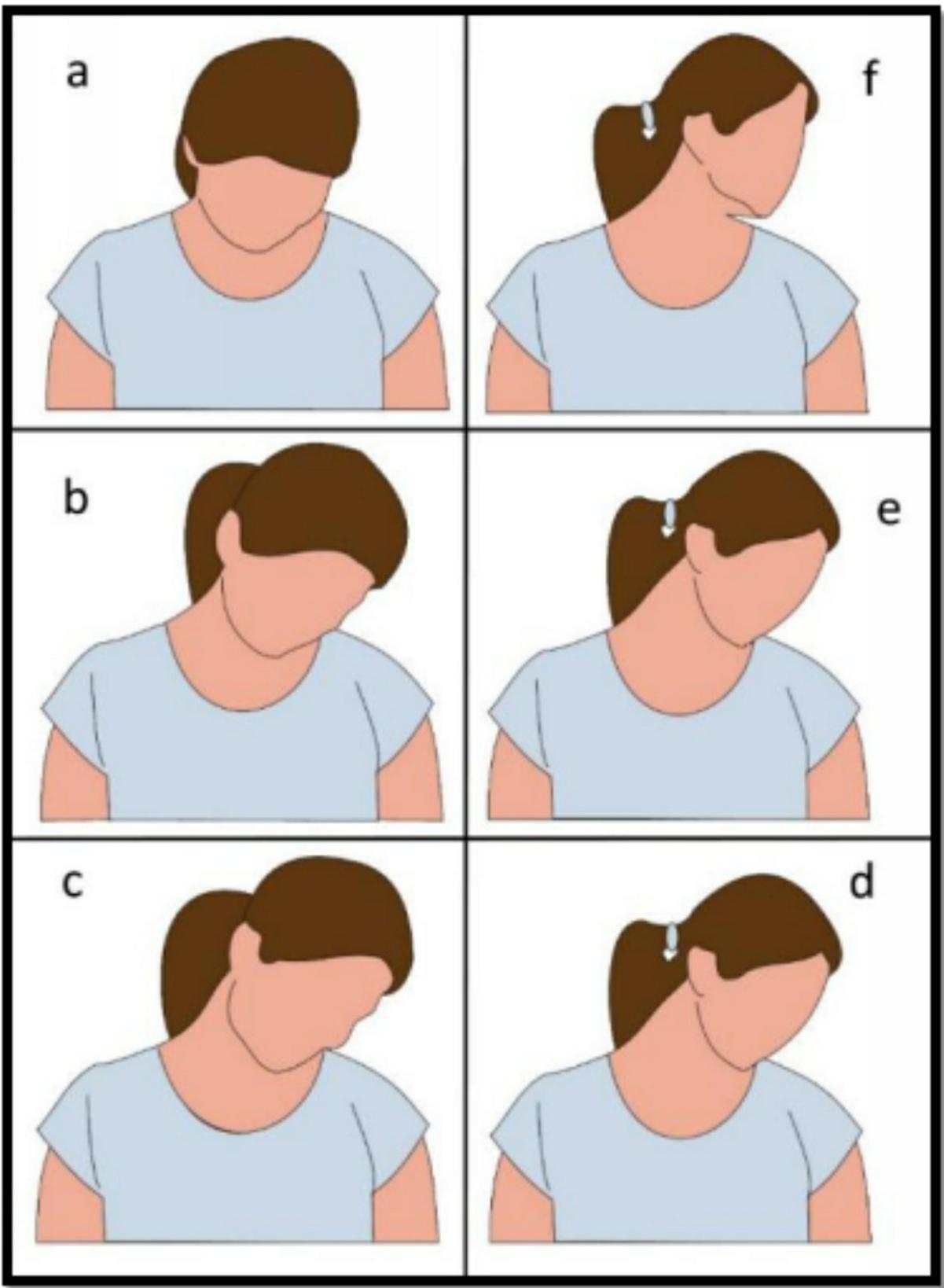
*“Deep breathing brings deep thinking and shallow breathing
brings shallow thinking.”*

– Elsie Lincoln Benedict

CHAPTER 3

Deep Breathing Exercises

Neck Rotations



Effect: Improves breathing as it releases tension in the neck muscles. Alleviates headaches.

Start Position: Sitting or standing straight with the spine erect, shoulders relaxed, chin parallel to the floor and looking straight ahead.

Steps:

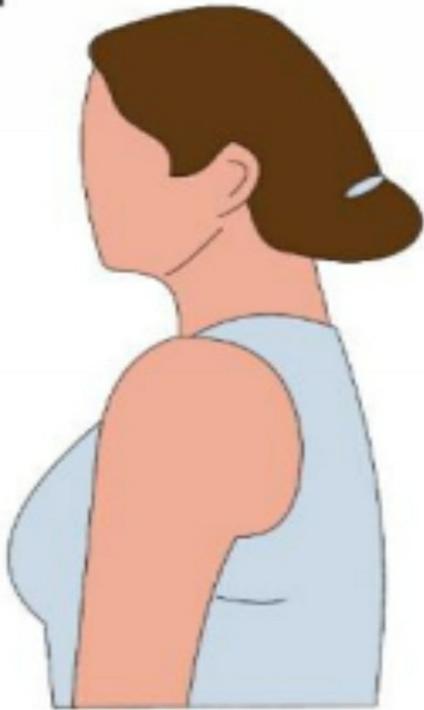
1. Take your chin down towards the front of your chest. Exhale
2. Rotate the neck & take your chin towards the left shoulder as you inhale. Look over your left shoulder.
3. Rotate the neck bringing your chin back to the chest position as you exhale.
4. Rotate the neck taking chin to the right shoulder as you inhale.
5. Rotate the neck and bring the chin back to the chest position as you exhale.
6. Raise your chin as you inhale to get in the starting position.
7. Repeat the above sequence three times.

Fine Tips:

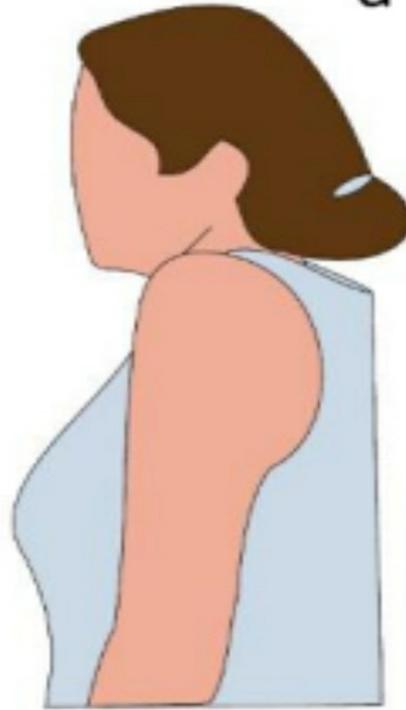
1. The neck rotation should be slow and rhythmic coordinated with deep breath.

Shoulder Rotations

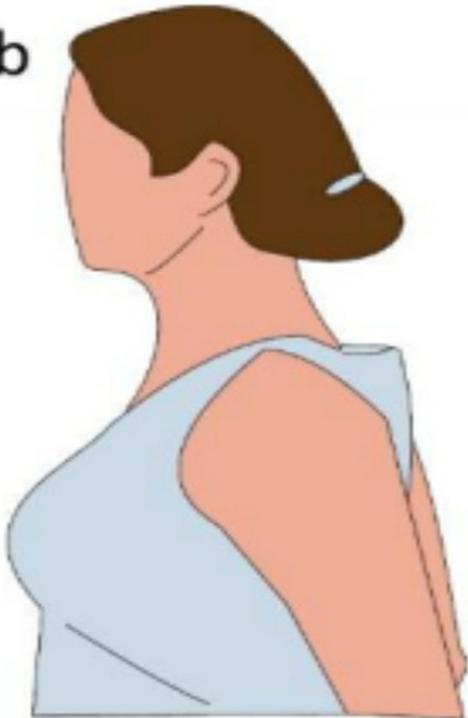
a



d



b



c



Backward Rotations

Effect: Improves breathing as it opens hunched shoulders and chest, as it releases tension in shoulder and neck muscles.

Start Position: Can be done while sitting or standing with the spine straight, chin parallel to the floor and looking straight ahead.

Steps:

1. Follow the illustration on page 16 in anticlockwise sequence i.e. a-b-c-d-a.
2. Take your shoulders forward, breathe in.
3. Start rotating the shoulders taking them up and behind. Get your shoulder blades (i.e. scapula) together as you move the shoulders behind. Breathe out.
4. Get shoulders back to start position.
5. Repeat this sequence for 10 times and relax.

Fine Tips:

1. The rotation should be slow and rhythmic coordinated with deep breathing.

Forward Rotations

Effect: Improves breathing as it releases tension in shoulder and neck muscles.

Start Position: Can be done while sitting or standing with the spine straight, chin parallel to the floor and looking straight ahead.

Steps:

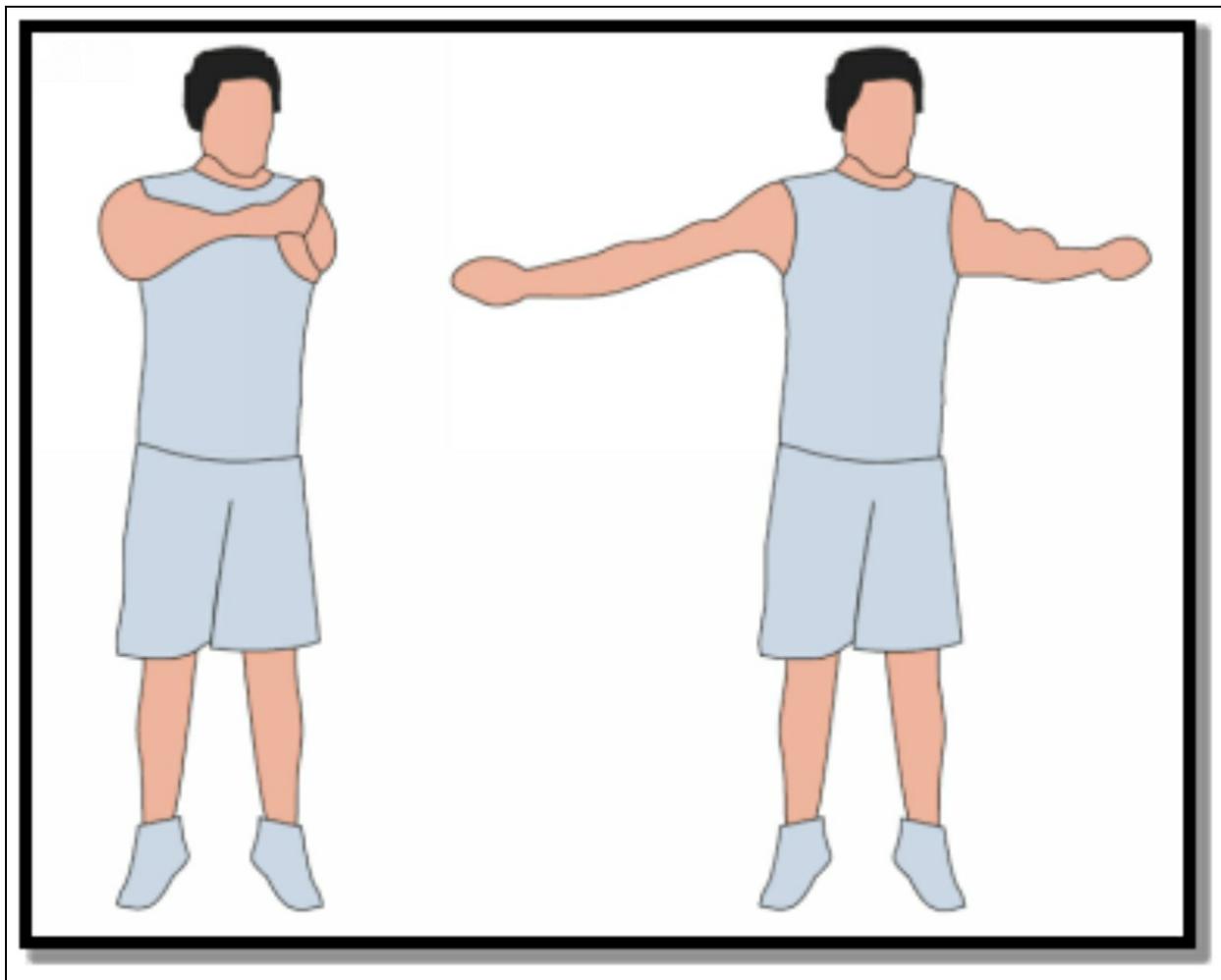
1. Follow the illustration on page 16 in clockwise sequence i.e. a-d-c-b-a.
2. Take your shoulders behind, getting your shoulder blades together. Breathe in.

3. Continue rotating the shoulders taking them up and forward as you breathe out.
4. Get shoulders back to start position.
5. Repeat this sequence for 10 times and relax.

Fine Tips:

1. The rotation should be slow and rhythmic, coordinated with deep breathing.

Chest Expansions



Effect: Improves breathing by opening up the chest.

Start Position: Stand tall with chin parallel to the floor and shoulders

facing forward.

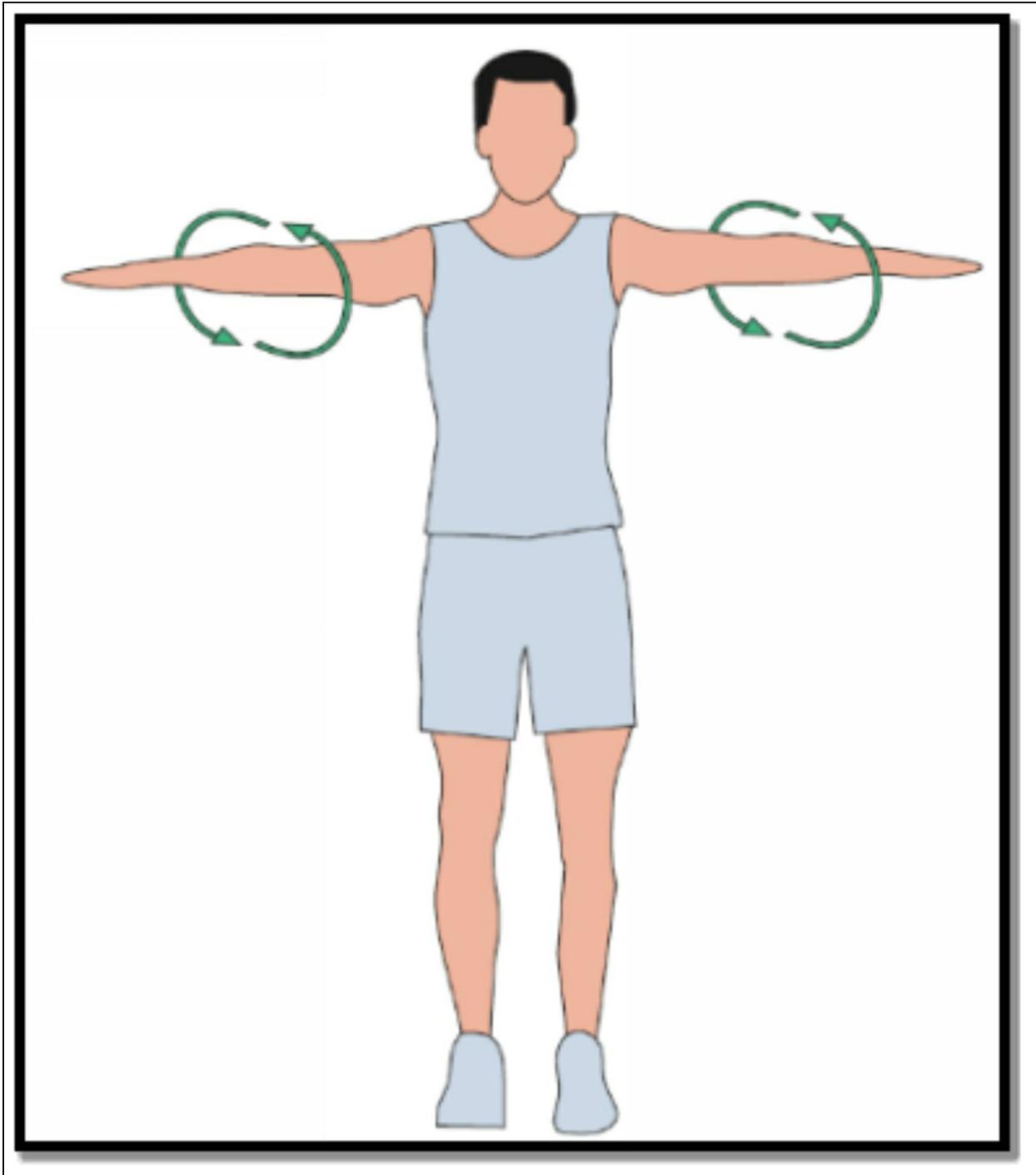
Steps:

1. Raise your arms to the shoulder level and take them back opening the chest. Inhale.
2. Reverse the movement as you exhale.
3. Repeat it 10 times.

Fine Tips:

1. Coordinate deep breathing with the movement.

Arm Rotations



Effect: Improves breathing by relaxing arms, shoulder muscles and opening chest.

Start Position: Stand tall with your feet hip width distance apart. Raise your arms to the side at shoulder level.

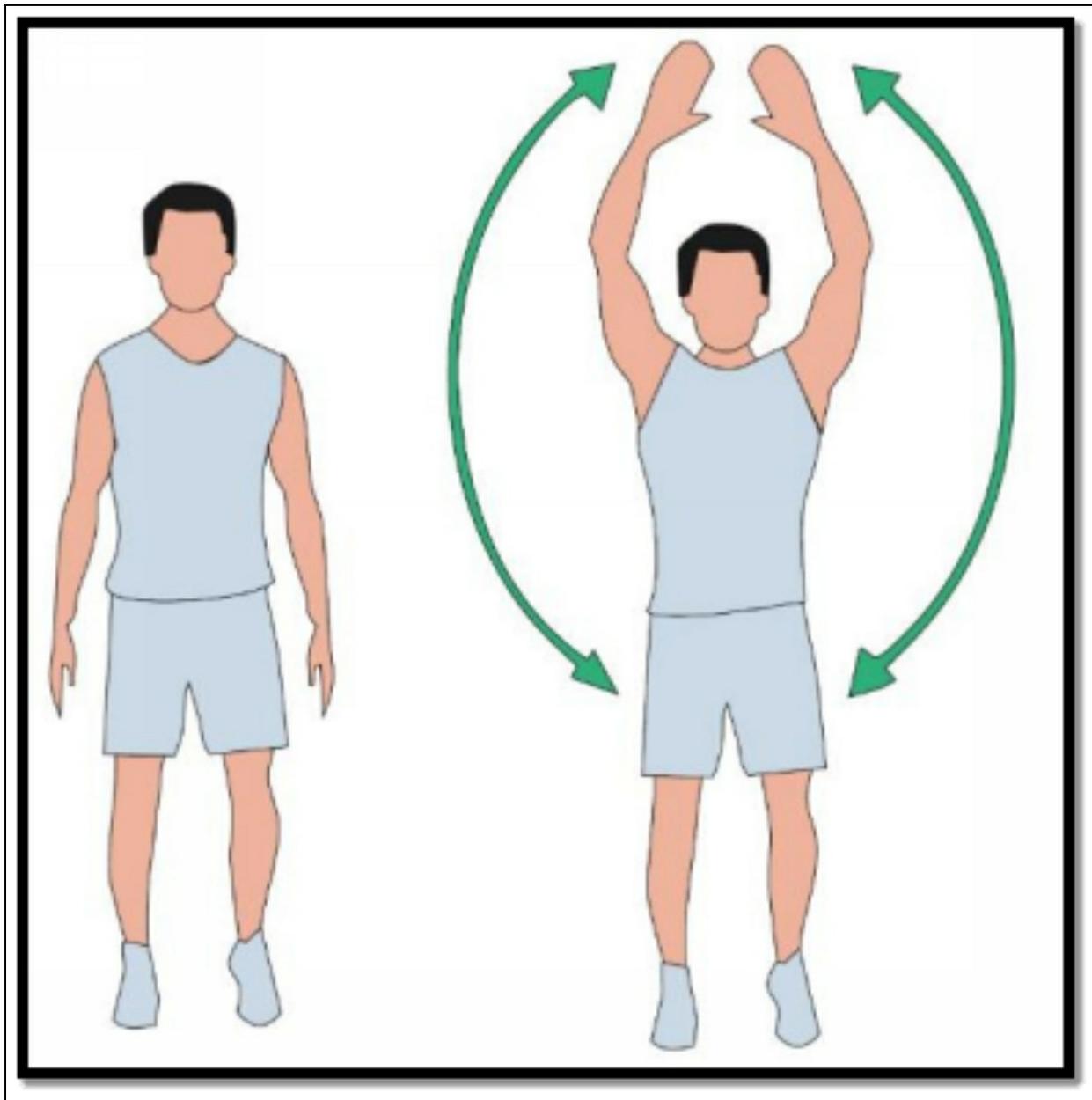
Steps:

1. Coordinate breathing as you make circles with your arms in clockwise and anti-clockwise directions. Inhale as you rotate the arm up and exhale as you rotate it down.
2. Repeat 10 times in each direction.

Fine Tips:

1. Coordinate deep breathing with rhythmic arm movements.

Side Arm Raises



Effect: Improves breathing by opening up the chest and raising clavicle up.

Start Position: Stand tall with your feet hip width distance apart.

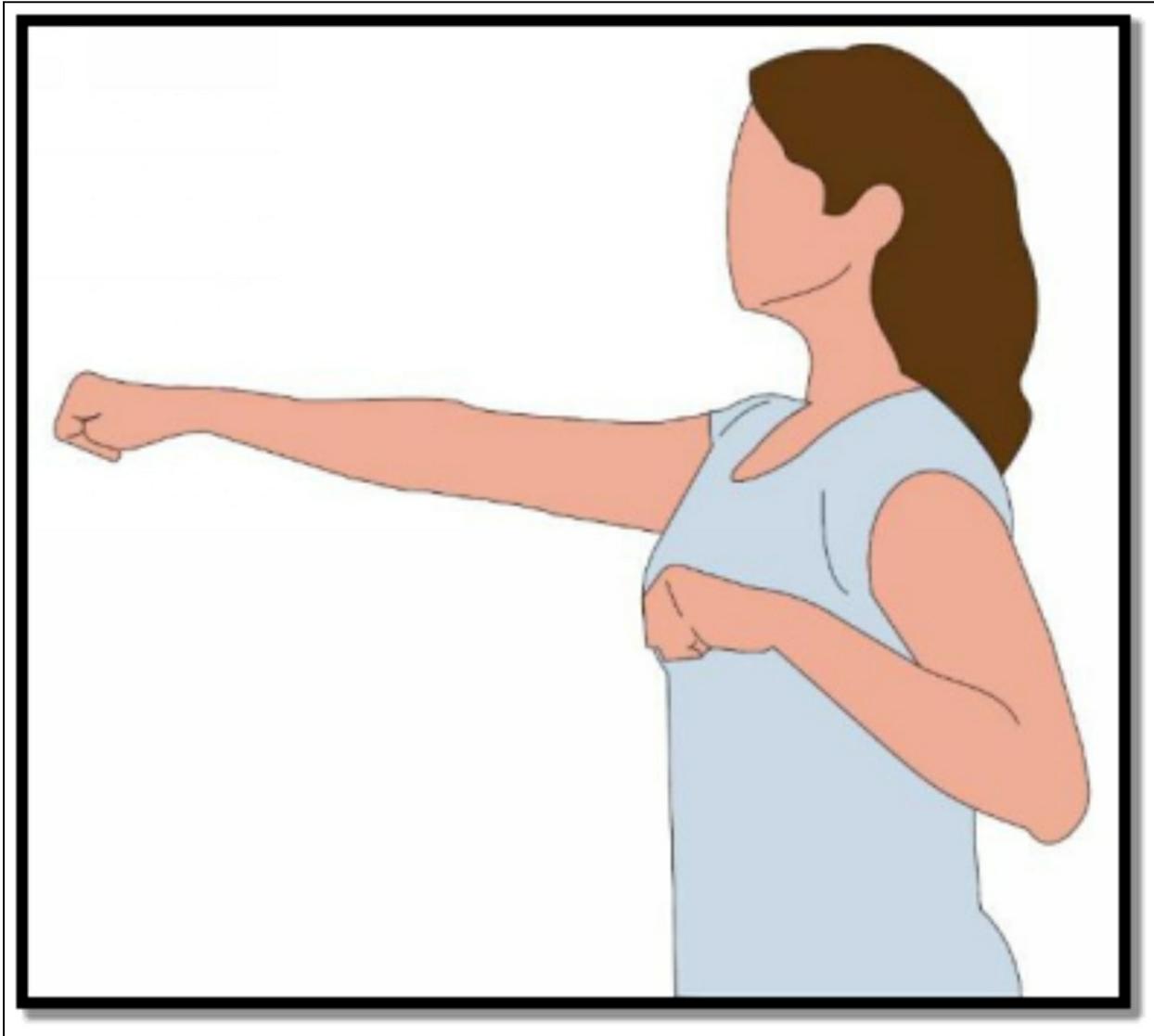
Steps:

1. Raise your both arms sideways up as you inhale.
2. Lower down the arms as you exhale.
3. Repeat it 10 times.

Fine Tips:

1. Coordinate deep breathing with the rhythmic arm movements.

Fist Punches



Effect: Improves breathing as it releases tension in the arms and shoulder region.

Start Position: Sit or stand tall with chin parallel to floor. Look ahead.

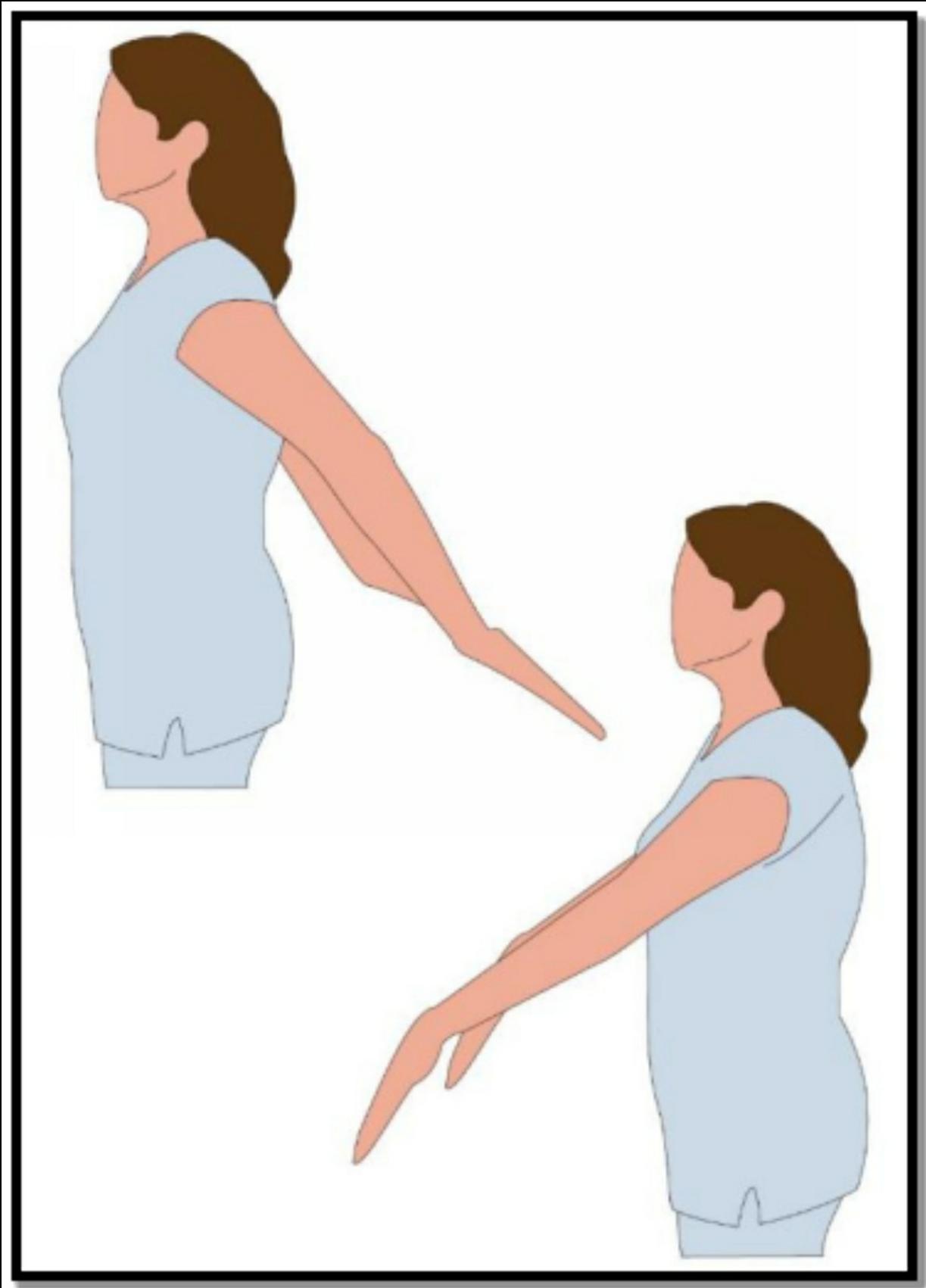
Steps:

1. Raise your arms in front to the shoulder level.
2. Punch your arms in front 60 times alternatively.
3. Breathe in as you bend the arm and breathe out as you stretch it.

Fine Tips:

1. Keep the movements rhythmic and coordinate deep breathing with it.

Flapping Arms



Effect: Improves breathing as it releases tension in arms and shoulders.

Start Position: Stand tall with arms by your side, shoulders relaxed and chin parallel to floor.

Steps:

1. Rotate the arms till the palms face behind.
2. Pulse the arms forward & backward 60 times coordinated with deep inhalation and exhalation.

Fine Tips:

1. Keep the movements rhythmic coordinated with deep breathing.

Jog on Spot



Effect: Improves cardiovascular endurance and breathing.

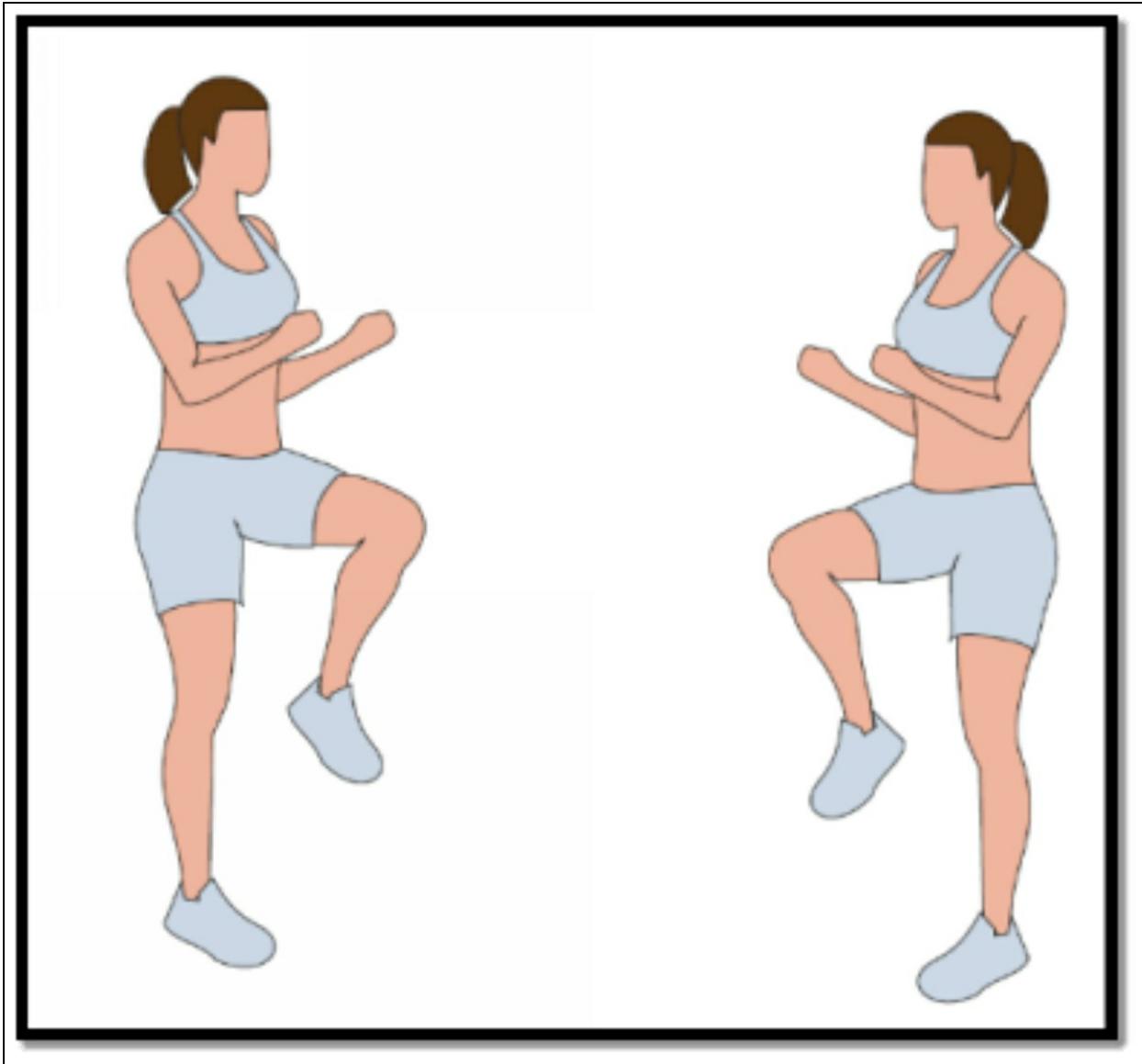
Steps:

1. Coordinate inhalation and exhalation as you jog.
2. Repeat this 20 times.

Fine Tips:

1. Try to lift your knees all the way up to make your thighs horizontal on each step to keep this exercise challenging.

Side to Side Hop



Effect: Improves cardiovascular endurance and breathing.

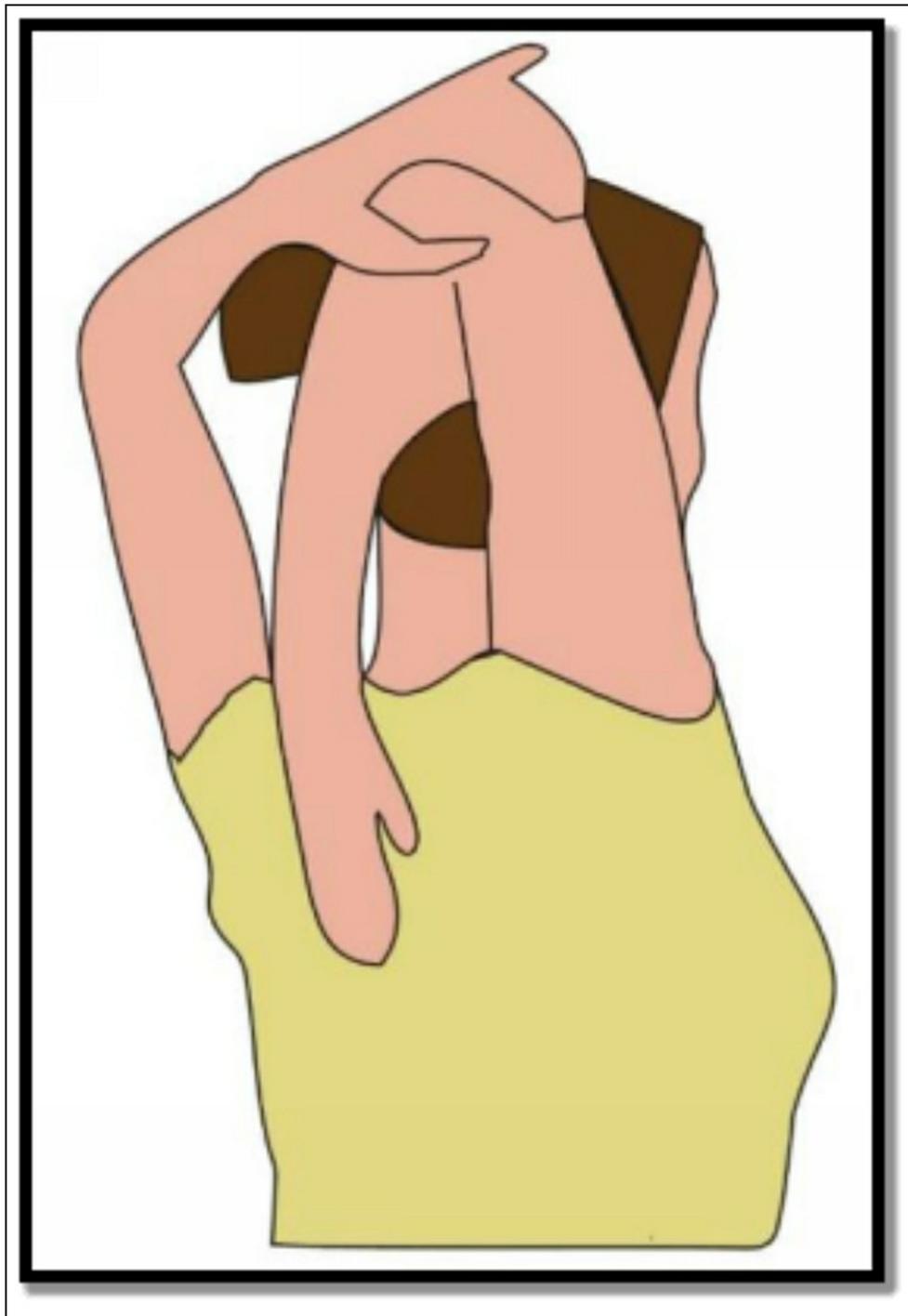
Steps:

1. Coordinate inhalation and exhalation as you hop from side to side.
2. Repeat this 20 times.

Fine Tips:

1. This exercise should be done in a rhythmic fluid motion. Pausing on each hop could cause extra jerks to the knees.

Upward Arm Stretch



Effect: Opens the shoulder joint. Releases shoulder, upper arm and upper back tension. Lengthens the intercostal muscles and thus improves breathing.

Start Position: Sitting or standing with spine straight, chest lifted outwards, chin parallel to floor and looking straight.

Steps:

1. Extend your right arm to the side with palm facing up. Breathe in.
2. Raise the arm towards the ceiling and then bend at the elbow till your fingertips reach the spine between your shoulder blades. Breathe out.
3. Walk your fingertips down the spine while breathing in.
4. Feel the stretch on the outer side of your right arm, upper back and the right side of your trunk. Breathe deeply trying to release the stretching muscles of upper back and around the spine. Relax.
5. Hold this position for 30 seconds to 1 minute.
6. Repeat the above procedure for the left side.

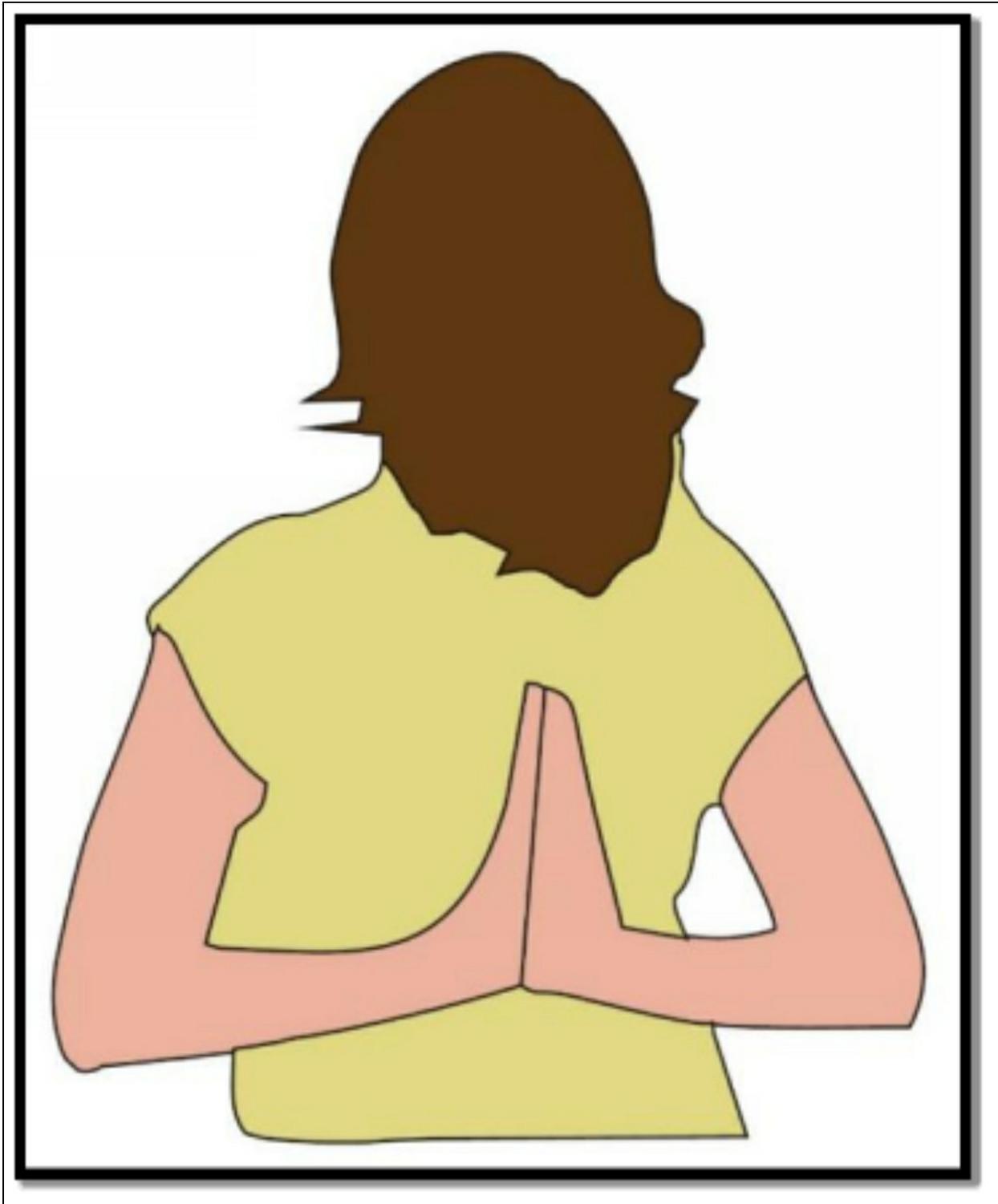
Advanced Steps:

1. If and when the basic stretch is comfortable, move to a deeper stretch.
2. Pull the elbow of the bent arm towards the opposite side with your other hand, further walking fingers down the spine.
3. Hold the stretch when it is deep enough and comfortable, preferably for 30 seconds to 1 minute
4. Breathe deeply, trying to further release the stretching muscles of the upper back and around the spine and relax.
5. Repeat for the other side.

Fine Tips:

1. The stretch should be comfortable and pleasant. Avoid over-stretching.
2. Deep breathe into the stretches.

Backward Arm Stretch



Effect: Opens up the shoulder joints and chest. Releases tension in the shoulders and neck muscles. Reduces hunching of the back making it straight. Frees up breathing.

Start Position: Sit or stand with back tall, chin parallel to floor, shoulders relaxed while looking ahead.

Steps:

1. Extend both the arms to the sides making a 'T'. The palms should be facing forward and thumb upwards.
2. Rotate your arms so that the palms face backwards and the thumb is facing downwards. Inhale deeply.
3. Bend your arms at the elbows and bring both hands behind your back till the tip of middle fingers touch each other with little fingers of both hands pressing against the back. Exhale deeply.
4. Start pushing the middle fingers up slowly. Try to bring all fingers of left hand in contact with fingers of right hand. Slide the fingers up the spine till the stretch is comfortable. Inhale deeply while stretching the muscles of the shoulders, chest, arms and fingers, relaxing them.
5. Hold this position for 30 seconds to 1 minute.

Fine Tips:

1. Coordinate breathing with movements, inhaling and exhaling deeply as the chest opens up.

Cat & Camel Stretches



Effect: Improves spine flexibility. Opens up the chest. Frees up breathing. Stretches back muscles, relaxing them.

Start Position: Sit with the spine tall, feet firmly on the ground hip-width distance apart, chin parallel to the floor while looking forward.

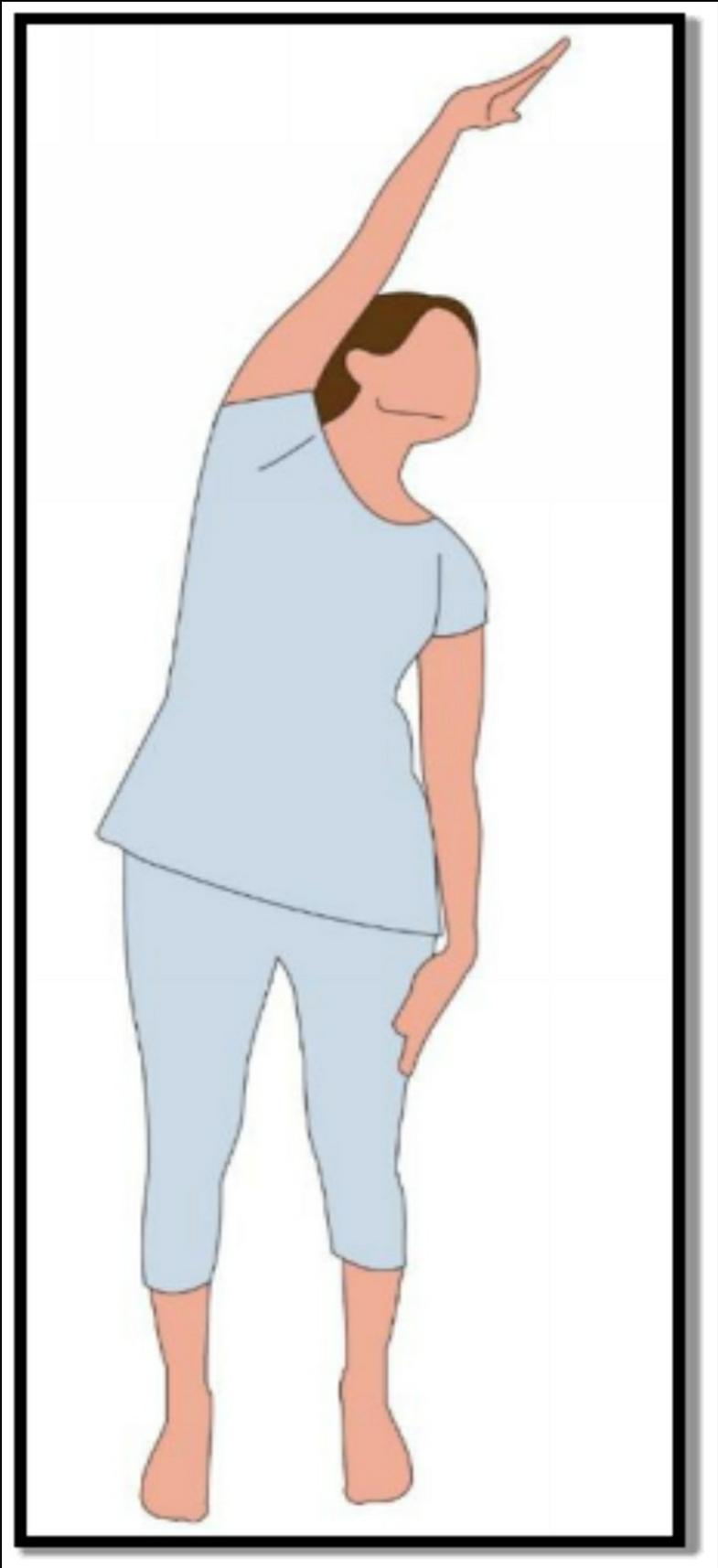
Steps:

1. Place your hands on the table, shoulder Width apart.
2. Engage your abdominal muscles by tucking navel in by 2 inches.
3. Cat position - Arch your back, stretching away from the desk, opening up your chest in front, extending your neck and taking the chin upwards. Inhale. (Fig. a)
4. Camel position - Pull your abdomen in, making a hump in the back, bending towards the desk, taking the chin towards the chest. Exhale. (Fig. b)
5. Return back to the Start position.
6. Repeat both sequences 10 times each.

Fine Tips:

1. Keep the abdomen engaged throughout the procedure.
2. Deeply exhale and inhale with the movements.

Standing Side Bends



Effect: Stretches the arms and sides of the body. Opens up intercostal spaces and improves breathing.

Start Position: Stand tall with feet hip-width distance apart and outer edges of the feet parallel to each other. Tuck in your naval and contract your thighs and gluteal muscles (hip muscles). Keep the shoulders relaxed, chest broad and chin parallel to the floor.

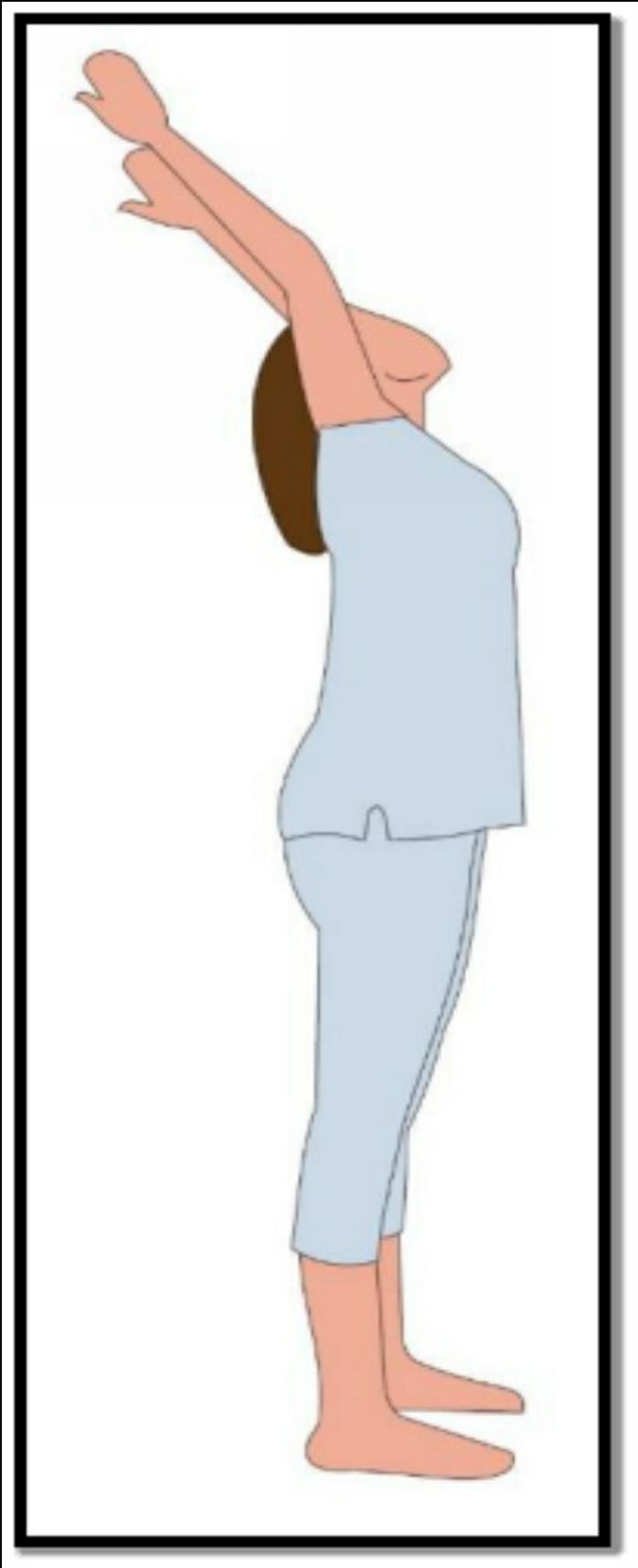
Steps:

1. Raise your right arm up with the palm facing the left side.
2. Stretch the right arm up, giving a nice stretch to the right side of the trunk. Inhale.
3. Bend towards the left side with your right fingertips trying to reach towards the ceiling diagonally. Exhale.
4. Keep deep breathing in this position for 10 seconds.
5. Come back to the start position.
6. Repeat for the left side.
7. Repeat 2 times for each side.

Fine tips:

1. Coordinate movements with breathing. Deeply inhale into the stretches.

Standing Backwards Bend



Effect: Stretches the front side of your body and frees up breathing.

Start Position: Stand tall with feet hip-Width distance apart and outer edges of the feet parallel to each other. The thighs should be contracted, gluteal muscles (hips) tight and navel tucked in. The shoulders should be relaxed, chest broad and chin parallel to the floor.

Steps:

1. Raise your arms up, with shoulders pulled down maintaining distance between arms ears. Inhale.
2. Bend at your upper back, with the finger tips reaching towards the ceiling. Exhale.
3. Feel the stretch on the front side of your body, shoulders and upper back. Keep breathing into the stretches as you pull yourself up and back.
4. Hold here for 5 counts and relax. Keep deep breathing.
5. Come back to start position as you exhale.
6. Repeat twice.

Fine tips:

1. Breathe deeply into the stretching muscles.

W Arms Retraction



Effect: Frees up breathing by opening up the shoulder joints and chest region.

Start Position: Sit or stand with spine straight, shoulders relaxed, and chin parallel to the floor while looking straight ahead.

Steps:

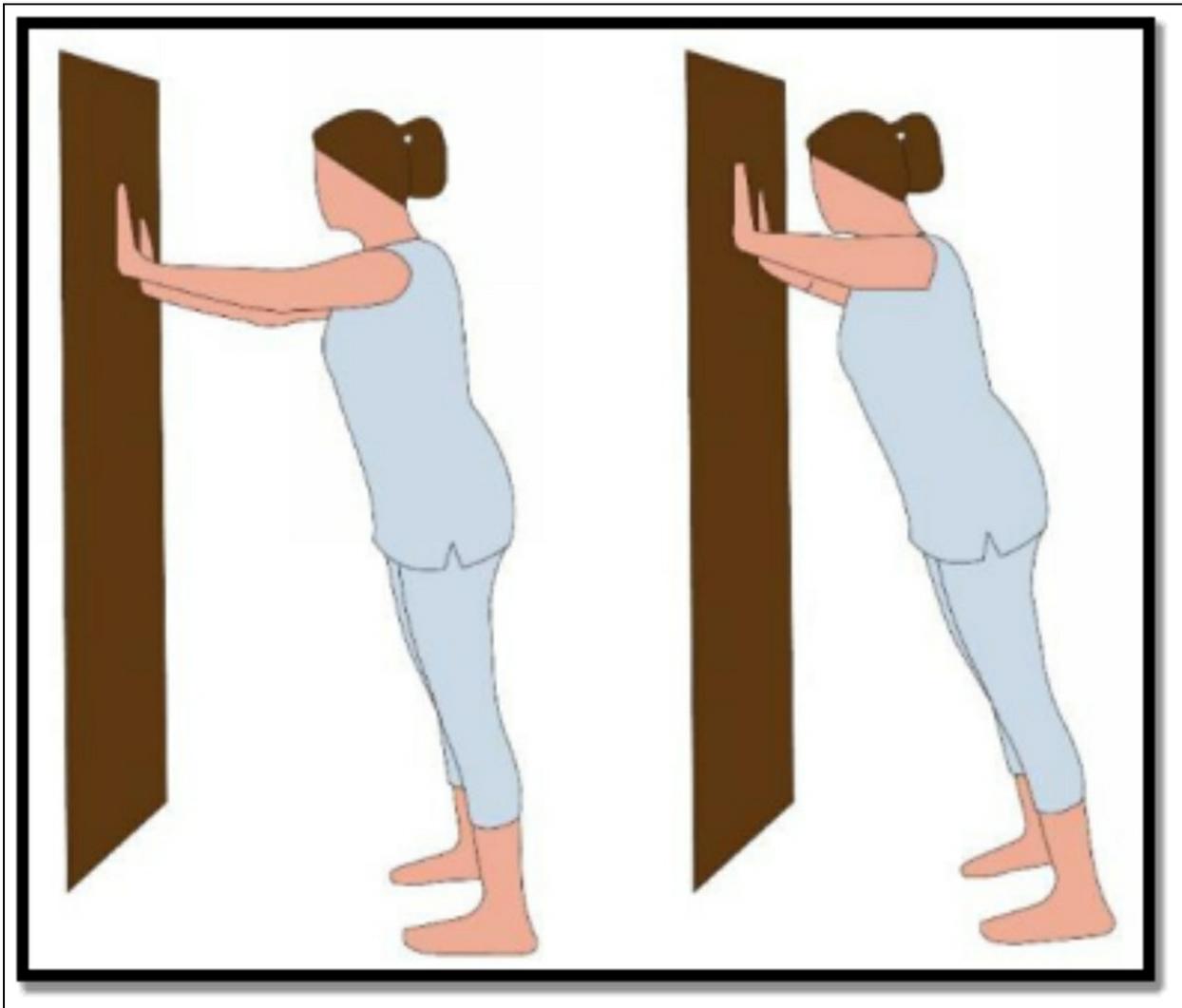
1. Extend your arms to the side at shoulder level with palms facing in front. Inhale.
2. Bend your arms at elbows making 90 degrees at the shoulder and elbow joints. Exhale.
3. Take your arms behind bringing the shoulder blades together. Keep breathing deep with the chest outwards, hold for 10 counts and relax.

4. Repeat 3 sets.

Fine Tips:

1. Keep deep breathing as you keep your neck stretched and shoulders down all the time, opening up the chest.

Wall Push-Ups



Effect: Improves breathing as it opens up the chest.

Start Position: Stand straight facing the wall, at 1-2 feet distance from the wall. Feet should be hip-width distance apart with outer edges of the feet

parallel to each Other.

Steps:

1. Stand at a distance of two feet away from the wall.
2. Lean forward until your hands are flushed against the wall with both arms parallel to the floor.
3. Bend the elbows bringing your body towards the wall. Inhale.
4. Hold here for 5 seconds, keep breathing.
5. Push back to original position. Exhale.
6. Repeat it 20 times.

Fine Tips:

1. Tuck your navel in (engage the core) as you lean towards the wall and come back.
2. Avoid shrugging of the shoulders and keep the neck tall as you lean into and retract from the wall.
3. Coordinate breathing with the movements. Deeply inhale into the chest.

CHAPTER 4

Supported Surya Namaskar (Sun Salutations)

Supported Surya Namaskar (Sun Salutation) is a series of stretching and strengthening movements which involve around 95% of your body muscles. The long hours of a sitting job puts an unusual demand on your posture, muscles and joints. Some areas like the neck, upper back and shoulders become too fatigued due to overuse. The lower limb muscles also become weak due to decreased standing activity.

Supported Surya Namaskar

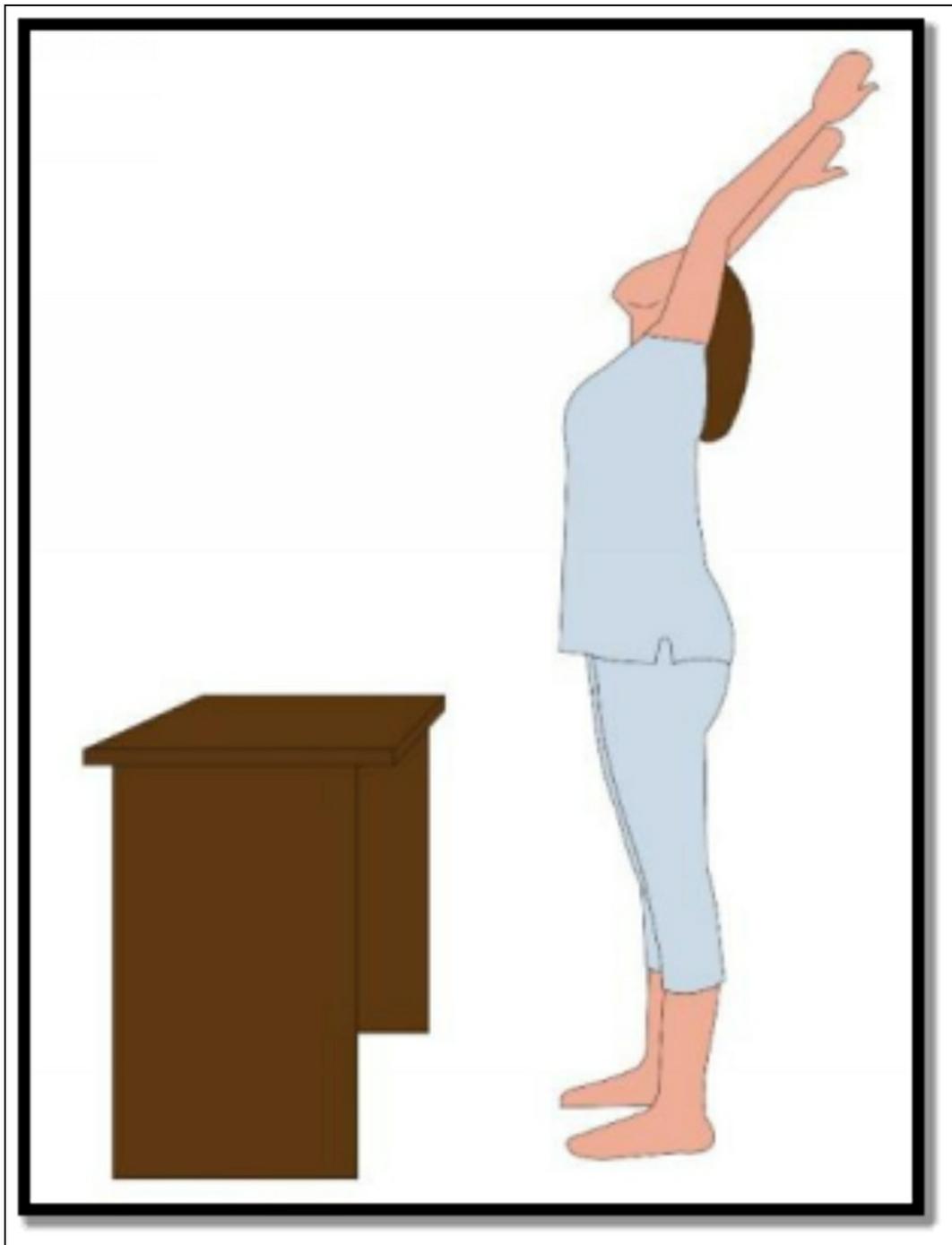
Supported Surya Namaskar is a quick and effective way of stretching cramped muscles and strengthening unused muscles. Coordinating breathing with the various poses of supported Surya Namaskar has the added effect of energizing your body with positive energies. This makes you more focused, relaxed and energetic at work.

Important: Should be done with care in case of neck, back, shoulder, upper limb and lower limb injuries.

Start Position: Stand 1-2 feet away from the desk facing it with feet hip-width distance apart and the outer edges of the feet parallel to each other. The knees should be relaxed and the thighs and hips contracted. The navel should be tucked in, shoulders and hips squared and the neck tall. The chin should be parallel to the floor and hands joined in a *Namaste*.

Steps:

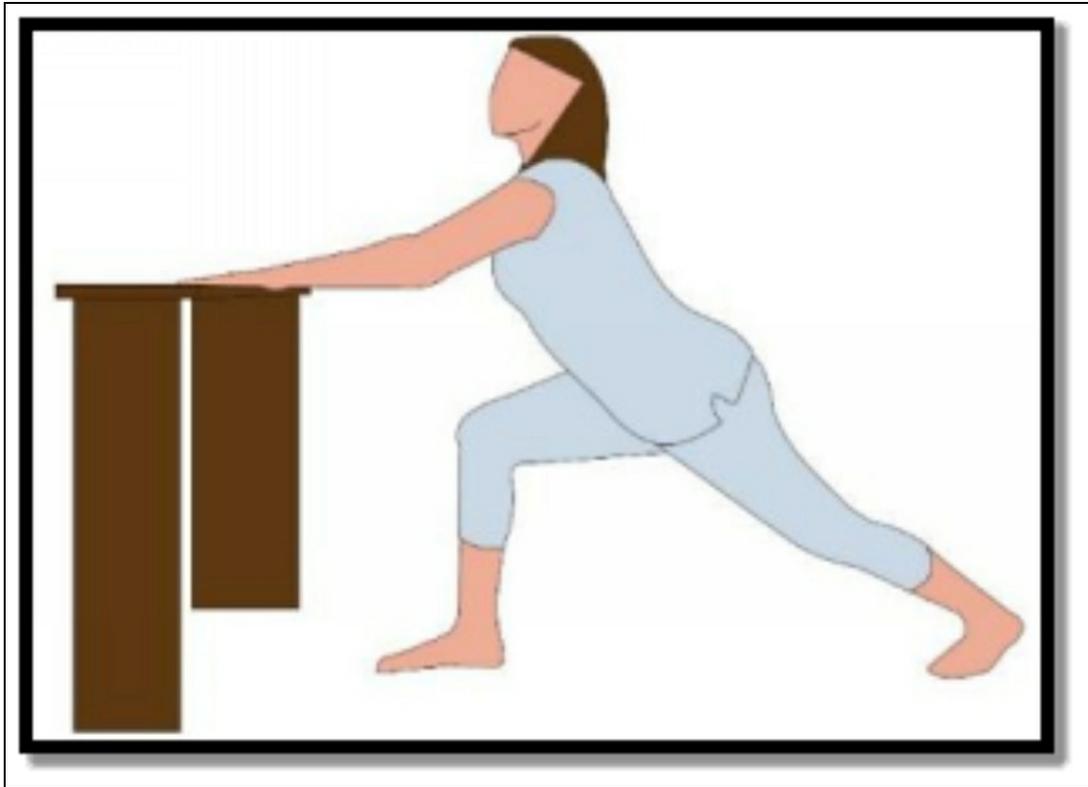
1. Raise your arms up, arching the upper back backwards. Keep your shoulders pulled down and the navel tucked in. Give a nice stretch to your trunk as your fingertips reach towards the ceiling upwards & backwards with the arms by the side of your ears. Inhale.



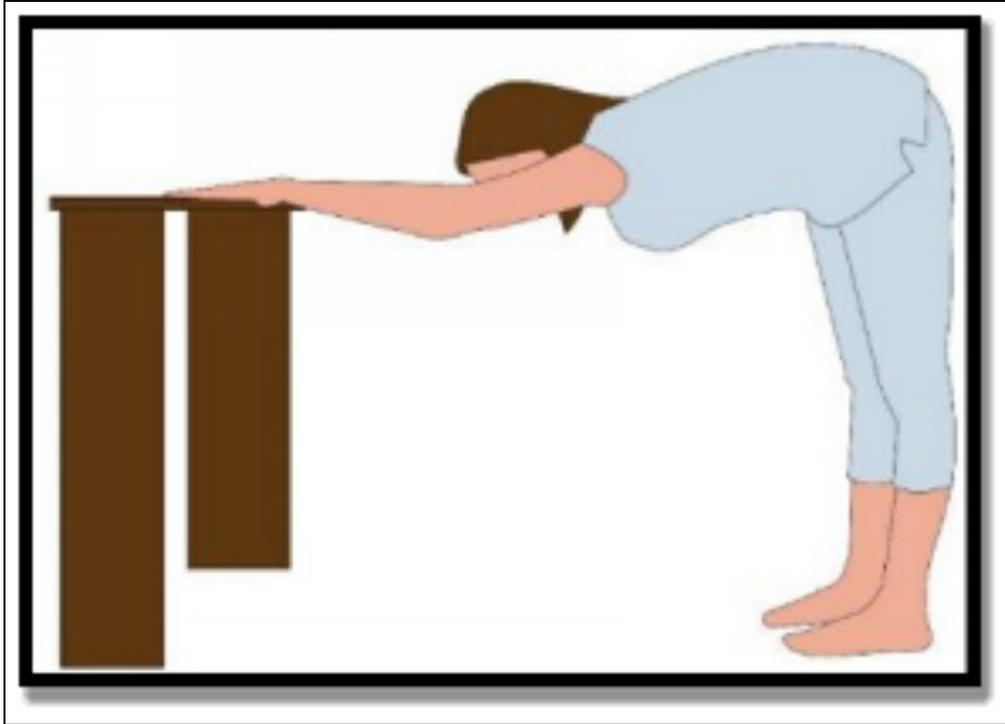
2. Bend ahead at the hip with the feet on the ground. Try to touch your head to the table. You should feel a stretch in the back, behind the thighs and in the calves. Exhale.



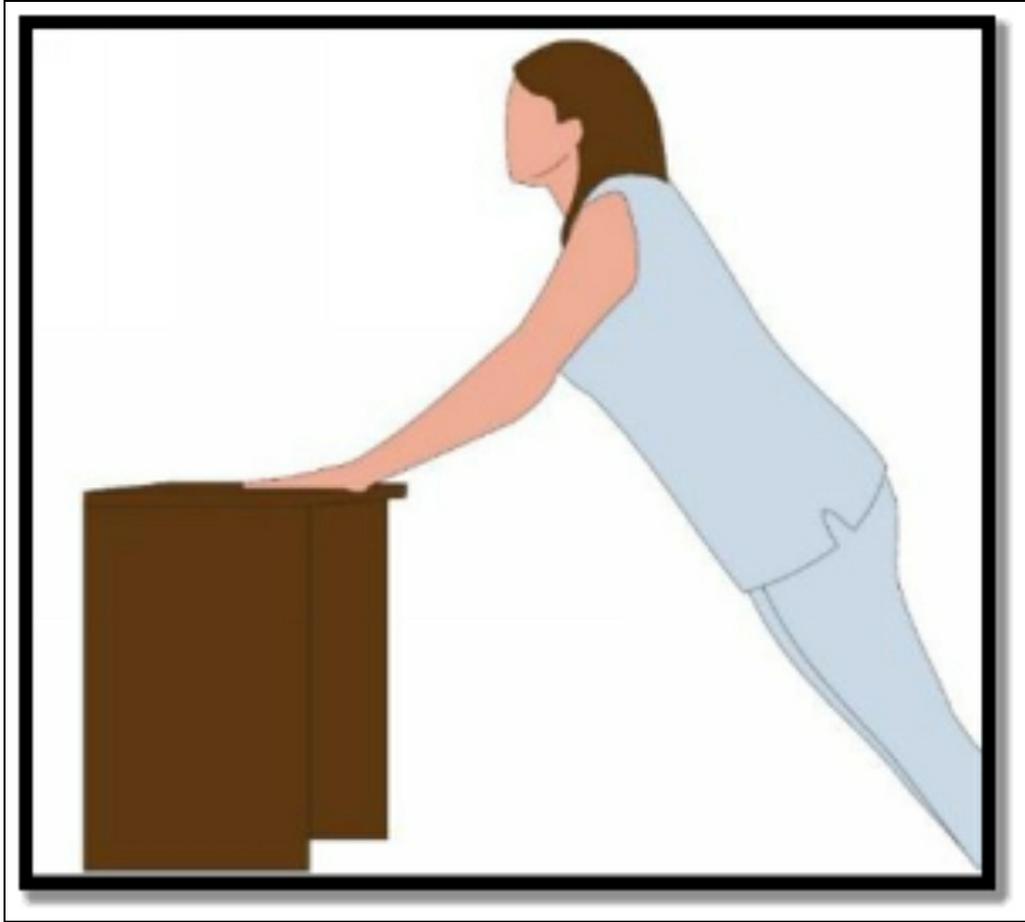
3. Grasp the table with your hands shoulder width apart and arms straight at elbows. Drag your left foot behind in a straight line. Keep the left foot on the ground making 80 degrees outwards. Feel the stretch in your left calf and the muscles behind the left thigh. The right foot stays in front, pointing ahead. The right leg should make a 90 degree angle at both the ankle and knee, with right thigh parallel to the floor. Feel the strength in the right leg. Arch your upper back and neck upwards trying to open up the chest as you inhale in this position.



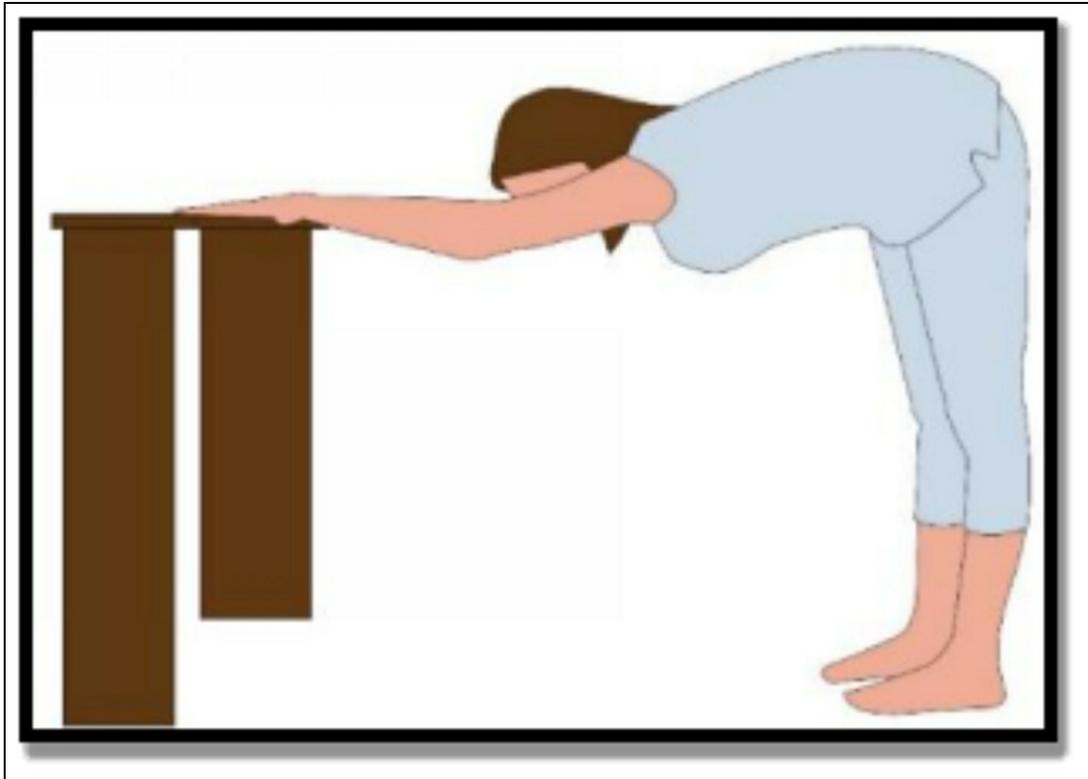
4. From the above position get your body into an “L” position with your hands grasping the desk at shoulder width. Your arms, neck and back should be parallel to the floor with your lower body making a 90 degree angle at the hip. The feet should be planted at hip-width distance with their outer edges parallel to each other. Keep the knees relaxed and thighs contracted. Feel the stretch in your back, behind the thighs and in the calf muscles. Exhale in this position.



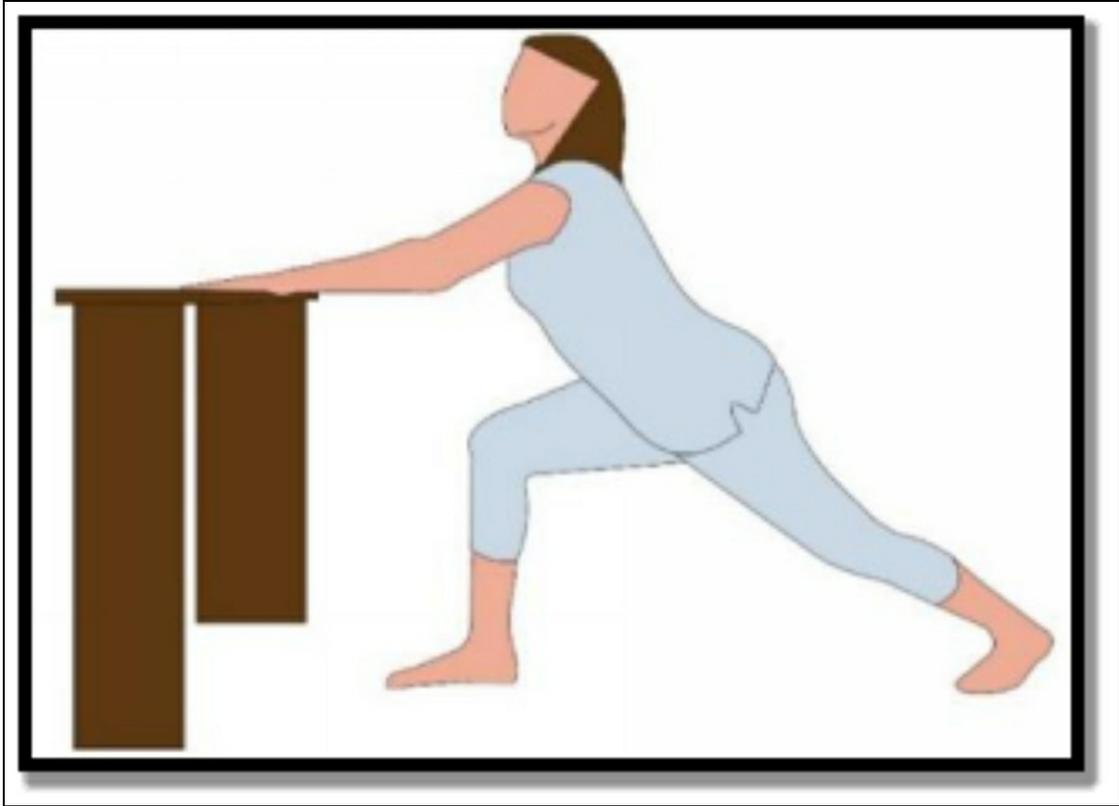
5. Get into a plank from the “L” position with your hands grasping the table shoulder width apart & the neck, back, hips and legs in one line. The feet are planted on the floor hip distance apart. Feel the strength in your arms and a stretch in your calves. Inhale.



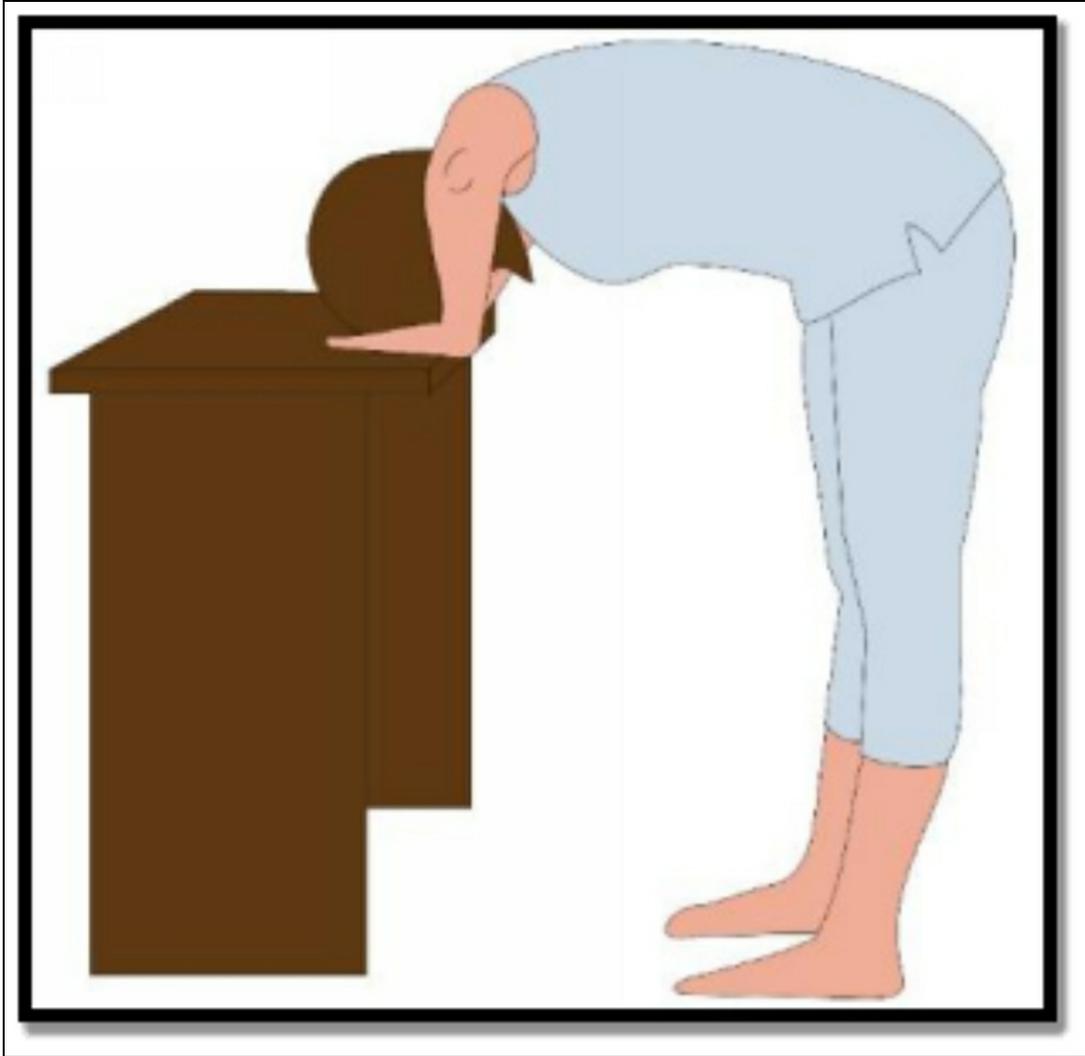
6. Come back into an “L” position (step 4). Exhale.



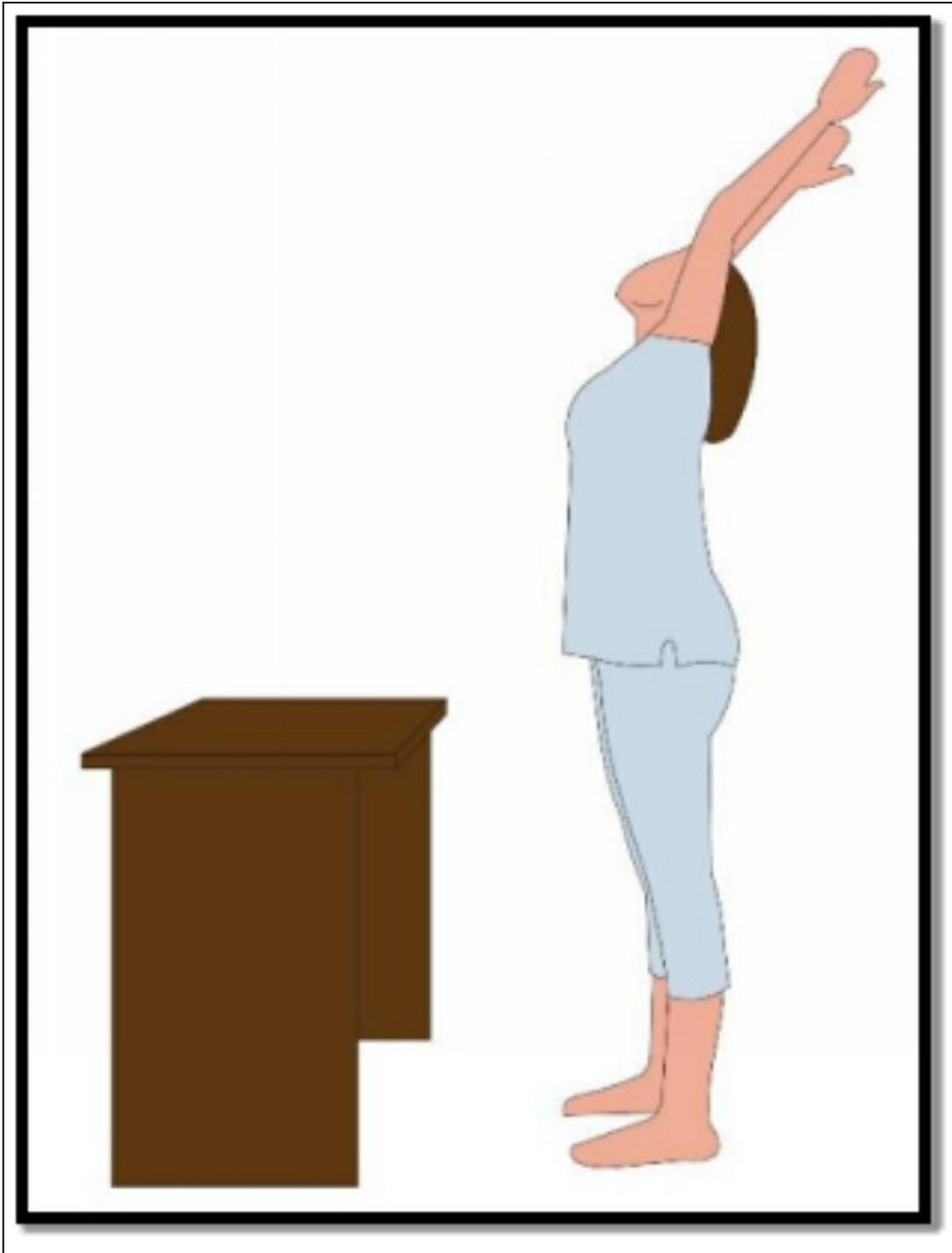
7. From the “L” position, with your hands still grasping the table, drag your left foot in the front in a straight line till the left leg makes a 90 degree angle at both ankle and knee. The left thigh should be parallel to the floor and the left foot pointing forward. Drag the right foot behind in a straight line. Keep the right foot on the ground, making an 80 degree angle. Feel a stretch in the right calf and behind the right thigh. Arch your upper back and neck upwards trying to push the chest outwards as you inhale in this position



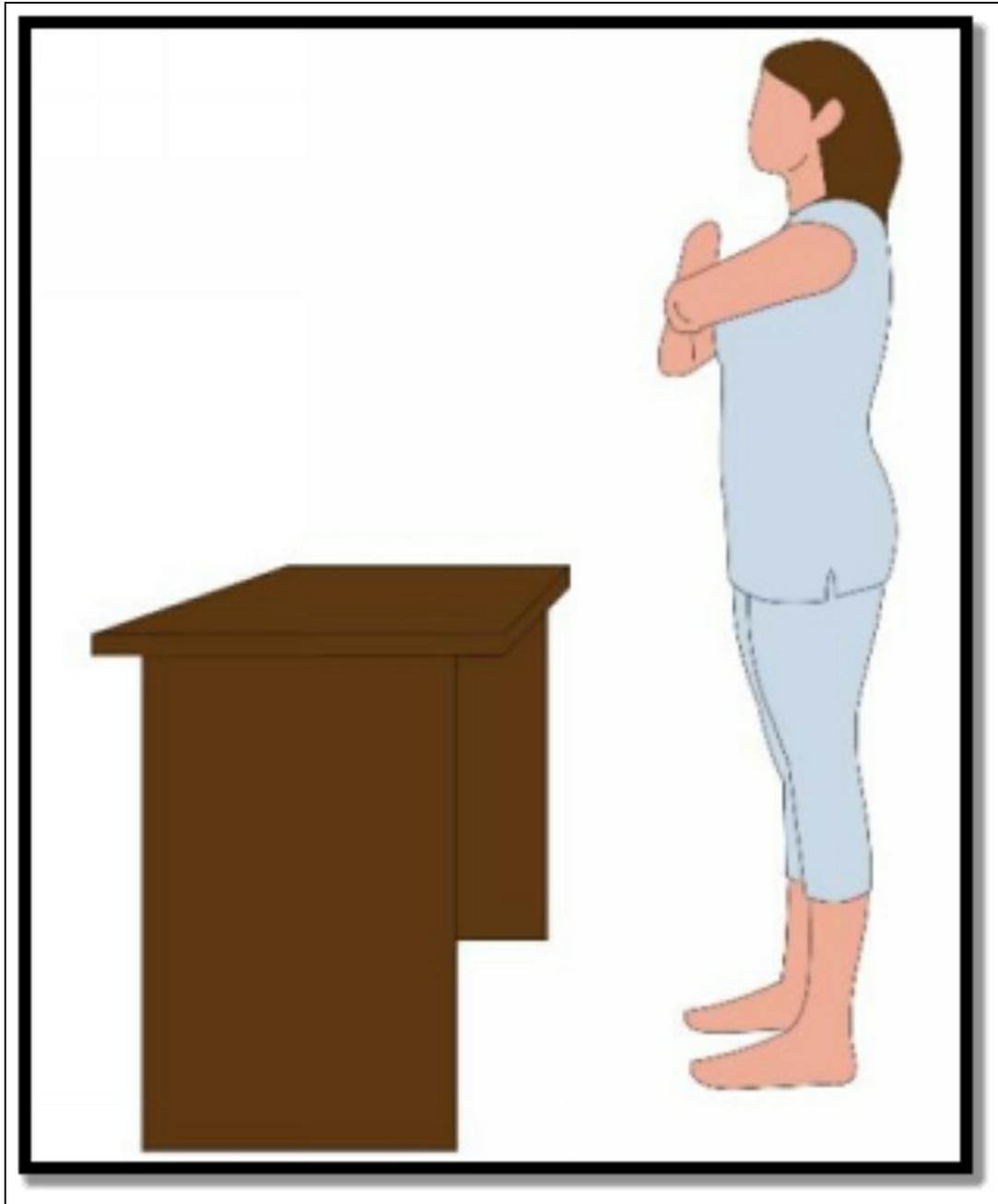
8. Bend over the table as in step 2. Exhale.



9. Straighten at the hip and stretch upwards and backwards as in step 1. Inhale.



10. Come to the Start position. Exhale



11. Repeat this sequence 12 times.

Fine Tips:

1. Always keep your core engaged in all the postures,
2. The shoulders and hips should be kept squared (facing ahead) in all postures.
3. Transition from one posture to other should be smooth and

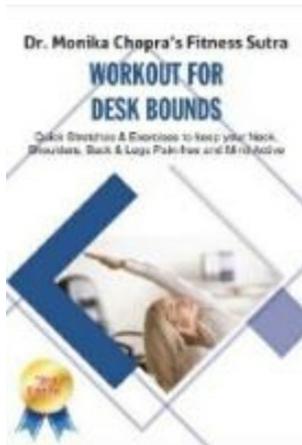
rhythmic, coordinated with breathing.

ONE LAST THING

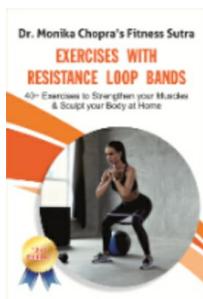
I hope you liked the book and have already started doing these exercises. Your feedback would help me improve this book. Please give me a review on

<http://www.fitness-sutra.com/go?id=151257>

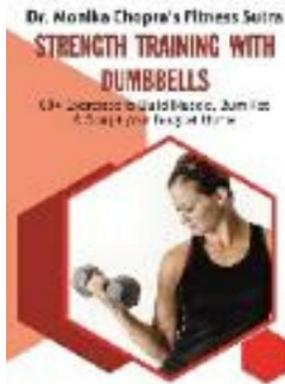
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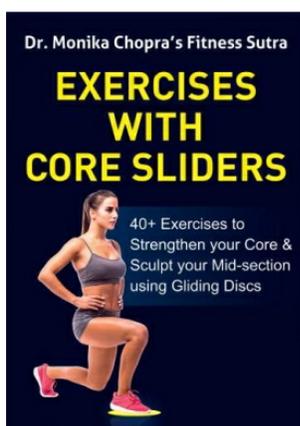
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