POSTURE AND PAIN

Good Posture...just how important is it?

Good Posture is the attitude, which is assumed by the body parts, to maintain stability and balance, with minimum efforts and least strain, during supportive and non supportive position.

The following must be obtained to maintain good posture –

The ability to maintain the body upright against gravity while standing, sitting or lying down, involves training your body to stand in erect position, walk, sit and lie in positions, where the least strain is placed on supporting muscles and ligaments during movement or weight-bearing activities, via keeping the line of gravity near the centre of the base of support.

Poor Posture - How Does it Happen ? (Causes) –

There are many kinds of medical conditions that have ergonomic causes among office workers, including muscle disorders, tendon disorders, and nerve disorders, often collectively referred to as MSDs, or Musculo-skeletal Disorders. Poor posture results from a combination of several factors, which can include -

- Accidents, injuries and falls
- Excessive weight
- Visual difficulties
- Foot problems or improper shoes
- Weak muscles, muscle imbalance
- Careless sitting, standing, sleeping habits, Poor sleep support (mattress)
- Negative self image, Occupational stress

Today, posture-related problems are increasing due to -

- As we become a society that watches more television than any previous generation
- As we become a more electronic society, with more and more people working at sedentary desk jobs or sitting in front of computer terminals
- As more and more cars are crowding our roads, resulting in accidents and injuries, and as we drive in cars with poorly designed seats.
Results of Poor Posture (Symptoms) –

A lifetime of poor posture and limited mobility can start a progression of symptoms in the average adult. Poor posture extracts a high price as you age because -

- Fatigue - your muscles have to work hard just to hold you up if you have poor posture.
- Tight, achy muscles in the neck, back, arms and legs
- Joint stiffness and pain - at risk for "wear and tear" arthritis, or what is termed degenerative osteoarthritis.
- Limited range of motion - muscles and ligaments no longer function, as they should, and can be permanently shortened or stretched when a slumped over position becomes your normal position. This increases the stress on the ligaments holding the joints of the spine together.
- Increase discomfort and pain - it can often cause headaches and pain in the shoulders, arms, hands and around the eyes resulting from a forward-head position. Rounded shoulders can trigger the headaches at the base of your skull where the shoulder muscles attach.
- Create pain in the jaw - a forward-head position can lead to jaw pain.
- Decrease lung capacity - reducing the amount of oxygen in your body can decrease the space in your chest cavity, restricting efficient functioning of your lungs.
- Cause low back pain - one of the most common consequences of bad posture. The spine becomes fixed in abnormal positions resulting in backache and muscular pain.
- For people over 35, low back pain is often interpreted as a sure sign of age, although it may have been developing since childhood.
- Cause nerve interference - your spine is the basis of posture. If your posture is bad, your spine can be misaligned, causing interference in nerve function.
- Affect proper bowel function - If you have a rounded shoulder, head-forward posture, it may affect your bowels. If your spine arches and sways forward, your intestines may sag and cause constipation.
- Make you look older than you are - when you are not standing tall, and are slumped over, or hunched over, not standing straight, you can add years to your appearance. For women, the more rounded the shoulders, the more breasts may sag.

Self-Test for Posture Problems –

The Wall Test –

Stand with the back of your head touching the wall and your heels six inches from the baseboard. With your buttocks touching the wall, check the distance with your hand between your lower back and the wall, and your neck and the wall. If you can get within an inch or two at the low back and two inches at the neck, you are close to having excellent posture. If not, your posture may need professional attention to restore the normal curves of your spine.
Poor Posture - Slouching, rounded shoulders, upper back is excessively curved (greater than 40-45 degrees), it is hunchback, tilting head forward, bent knees, Shoulder blades excessively back, arching of the low back, locked knees, pot belly.

The Mirror Test

(Front view) Stand facing a full length mirror, posture is good if -
1. Your shoulders are level
2. Your head is straight
3. The spaces between your arms and sides seem equal
4. Your hips are level, your kneecaps face straight ahead
5. Your ankles are straight

(Side View) This is much easier to do with the help of another, or by taking a photo. Posture is good if -
1. Head is erect, not slumping forward or backwards
2. Chin is parallel to the floor, not tilting up or down
3. Shoulders are in line with ears, not drooping forward or pulled back
4. Stomach is flat
5. Knees are straight
6. Lower back has a slightly forward curve (not too flat, creating a hollow back).
7. Balanced upright posture, with a straight line from the ear to the shoulder to the hip

COMMON POSTURAL DEFORMITIES

1. Spinal curvature - Kyphosis, Lordosis, Scoliosis
2. Flat foot
3. Knock knees
4. Bow legs
5. Round shoulders
1. **SPINAL CURVATURE** –
-caused by carrying excessive weight beyond capacity. Weak muscles cause the formation of spine curvature. The normal lumbar spine is characterized by a moderate anterior hyperextension curve, when viewed laterally. There are three types of spinal deformities – Kyphosis, Lordosis, Scoliosis.

![Diagram of spine](image1)

**KYPHOSIS** -
an increase or exaggeration of a backward or posterior curve or a decrease or reversal of a forward curve, depression of chest. It is also called round upper back.

**Causes** - malnutrition, illness, crowd, deficiency of pure air, insufficient exercises, rickets, carrying heavy loads on shoulders, unsuitable furniture, weak muscles and habit of doing work by leaning forward etc.

**Precautions** - From the very beginning, everyone should be taught, by their teachers or parents, appropriate posture of sitting, standing, walking and proper exercises to children so that their posture may remain balanced and also control the problem of kyphosis.

**Remedies** - The following exercises should be performed

- Sit in a chair, your buttocks should touch the back of chair. By looking upward, hold your hands each other behind the back in such a way that your shoulders may remain in stretch backwards. Remain in this position for some time:
- Always keep a pillow under your back while sleeping.
- Bend your head backward in standing position.
- Perform the dhanurasana, the yogic asana regularly.
- Lie down in front lying position, keep your hands near the shoulders. Now straighten up your arms slowly, raise the chest. Head should be backwards. Maintain this position for some time.
Hold your arms out at shoulder level and bend elbows. Snap elbows back return to starting position. Repeat this exercise at least 8 times for the best results.

**LORDOSIS**

It is the inward curvature of spine, an increased forward curve in the lumber region. It creates problem in standing and walking. The body seems to be stiff. The individual feels shame and inferiority.

Causes - imbalanced diet, improper environment improper development of muscles, obesity and diseases affecting vertebrae and spinal muscles, not performing exercises and taking excessive food.

Precautions - Balanced diet, excessive intake of food should be avoided. Obesity should be kept away especially in early age. The body should be kept straight while carrying weight.

Remedies - following exercises should be performed:

- From standing position bend forward from hip level. Repeat this exercise ten times.
- Lie down your back, raise your head and legs simultaneously for 10 times.
- Perform sit-ups regularly
- Halasana should be performed regularly
- You should lie down in supine position, i.e., on your back, then should raise your legs at 45 degree angle. Remain in this position for some time.
- Toe touching should be performed for at least 10 times.
- Sit down and extend your legs forward. Try to touch your forehead to your knees. Repeat this exercise 10 times.

**SCOLIOSIS**

Postural adaptation of the spine in lateral position is called scoliosis, presenting as ‘C’ curve or ‘S’ curve. Scoliosis means bending, twisting or rotating
Causes - main reasons are disease in the joints of bones, underdeveloped legs, infantile paralysis, rickets, carrying heavy weights on one shoulder, like heavy backpacks, unhealthy conditions, like inadequate lightning arrangement, unsuitable desks, partial deafness and wrong standing posture. It may be caused by congenital or acquired abnormalities of vertebrae, muscles or nerves. It puts extra pressure on one side, tilting the spine.

Precautions - Balanced diet should be taken, the study should be avoided in sideways bending position, avoid walking for long time with carrying weight in one hand.

Remedies - following exercises should be performed

- Bending exercise should be performed in opposite side of 'c' shaped curve.
- Hold the horizontal bar with your hands and swing your body to the left and right side.
- To swim by using breast stroke technique.
2. **FLAT FOOT**

Our feet act as the base of support for the body in standing, walking, running and jumping. Flat foot is generally found among newly born babies but it becomes a postural deformity if it still persists during later childhood. The children with flat foot deformity cannot be efficient sportspersons. Such children feel pain in feet, problem in standing and walking.

To observe whether a person has flat foot deformity or not, dip your feet in water and walk on the floor. If there is not a proper arch of footprints on the floor then you have the deformity of flat foot.

### Causes of flat foot

- The main causes of flat foot is weak muscles, which cannot bear the body weight. Hence, feet become flat or without arches. Along with this rapid increase in body weight, improper shoes, carrying heavy weight for a longer period are also the cause of flat foot.

### Precautions

- The shoes should be of proper shape and size. Don’t walk bare feet for a long duration. Avoid Obesity, Carrying heavy weight in early childhood, High heeled shoes. Don’t force babies to walk at very early stage.

### Remedies

- Walking on inner and outer side of feet.
- To perform up and down the heels.
- To perform Vajrasana, the yogic asana.
3. **KNOCK KNEES**

It is one of the major postural deformities, in which both the knees knock or touch each other in normal standing position. The gap between ankles goes on increasing. The individual faces difficulty in walking and running.

**Causes** - Generally, the lack of balanced diet especially vitamin ‘D’, calcium and phosphorus is the main cause of knock knees, rickets, Chronic illness, obesity, flat foot and carrying heavy weight in early age may be other possible causes of knock knees.

**Precautions** - Balanced diet should be taken. Babies should not be forced to walk at very early age.

**Remedies** - the following points should be taken in to consideration -
- Horse-riding is the best exercise for correction of this deformity.
- Perform padmasana and gomukhasana regularly for some time.
- Cod liver may be beneficial in reducing this deformity up to some extent.
- Keep a pillow between the knees and stand erect for some time.
- Use of walking callipers may also be beneficial.
- In severe cases, consult the doctor.

4. **BOW LEGS**

It is a postural deformity. Approximately, opposite to knock knees position. There is wide gap between the knees when standing with feet together having bow legs or genu varum.
Causes - the main cause of bow legs is the deficiency of calcium and phosphorus in bones. Long bones of legs become soft, hence they are bent outwards. The chances of bow legs also increase when the children become overweight. This deformity may be because of the deficiency of vitamin ‘D’. Improper way of walking and forcing the babies to walk at very early age may also lead to bow legs.

Precautions - Balanced diet. Don’t let the children become overweight. There should not be any deficiency of calcium, phosphorus and vitamin ‘D’ in the diet. Don’t force the babies to walk at a very early age.

Remedies - The following measures should be taken

- Vitamin ‘D’ and Balanced diet should be taken in required amount.
- Bow legs can be corrected by walking on the inner edge of the feet, Walking by bending the toes in ward.

5. ROUND SHOULDER –

In this the shoulder become round and sometimes they seem to bent forwards.

Identification – The “Pencil Test” involves holding a pencil (or pen) in each hand. As shown in the photo above, if the pencils are pointing straight forward with your arms comfortably at your sides, That indicates correct posture. If on the other hand the pencils are facing each other, or are rotated at an angle, then you have internally rotated shoulders.
Causes - heredity, Sitting, Standing and walking in bent position, wearing very tight clothes, Lack of proper exercise especially of shoulders with excessive chest pressing, poor posture habits, sitting with bad posture, especially in an office while typing. Sitting on improper furniture, forces chest muscles to tighten, which can internally rotate the shoulders forward. Postural muscles in the upper back weaken and loosen.

Remedies - the following should be performed

- Keep your tips of fingers on your shoulder and encircle your elbows in clockwise and anticlockwise direction
- Hold the horizontal bar for some time.
- Perform chakrasana and dhanurasana regularly.
- Exercises to strengthen your core, upper back and chest muscles will help correct rounded shoulders
- Chest stretches, relieve chest tightness with self myofascial release (use a massage ball) and stretching, while strengthening the upper back postural muscles.

**IMPROVING OUR POSTURE - WHEN STANDING**

- **hold your head high, chin firmly forward, shoulders back, chest out, and stomach tucked in to increase your balance.** Balance your weight evenly on both feet. Try not to tilt your head forward, backwards or sideways. Keep your legs straight, but knees relaxed.
- To help correct your standing posture, imagine a string attached to the top of your head pulling you upwards. The idea is to keep your body in perfect alignment, maintaining the spine's natural curvature, with your neck straight and shoulders parallel with the hips. Keep your feet about hip distance apart
- **If you stand all day in a job like a cashier or clerk, rest one foot on a stool or take breaks to get off your feet for a while.**

1. **"Donald Duck" posture** - If your bottom tends to stick out or you have a pronounced curve in your lower back, you may have hyperlordosis. This is an exaggerated inward curve of the lower back, wearing high heels, excessive weight around the stomach and pregnancy can all cause this posture.
- Exercises to correct a “Donald Duck” posture - Core and buttock strengthening exercises, hip flexor and thigh stretches, and making a conscious effort to correct your standing posture, Plank, Side-lying leg raises, Hip flexor stretches.

2. **A flat back** - means your pelvis is tucked in and your lower back is straight instead of naturally curved, causing you to stoop forward. People with a flat back often find it difficult standing for long periods, causing muscle imbalances, which encourage you to adopt such a position. A flat back also tends to make you lean your neck and head forwards, which can cause neck and upper back strain.

Exercises to correct a flat back - strengthening your core, buttocks, neck and rear shoulder muscles, and back extensions, are recommended to help correct a flat back. - Plank, Side-lying leg raises, Chest stretches, pull-ups, Back extensions, Leaning on one leg, Hunched back and 'text neck', Poking your chin, Rounded shoulders, Cradling your phone.

3. **Uneven hips** - Leaning more on one leg while standing can feel comfortable, especially if you've been standing for a while. But instead of using your buttocks and core muscles to keep you upright, you place excessive pressure on one side of your lower back and hip. Over time, you may develop muscle imbalances around the pelvis area, which can cause muscular strain in the lower back and buttocks. Other causes include carrying heavy backpacks on one shoulder, and mums carrying toddlers on one hip.
To improve this posture, try to get into the habit of standing with your weight evenly distributed on both legs. Exercises to strengthen your buttocks and core muscles will help correct uneven hips - Plank, Side-lying leg raises, Bridges.

4. **Over-Pronated Feet** – Caused due to Obesity, pregnancy, improper footwear, or repetitive pounding on a hard surface can weaken the arch leading to over-pronation and oftentimes flat feet, adds stress to the foot, tightens calf muscles, and can internally rotate the knees, often leads to Plantar Fasciitis, Heel Spurs, Metatarsalgia, Post-tib Tendonitis and/or Bunions.

Identification – As shown in the photo above, put both hands 1 inch away from each side of your foot. Straighten your ankle so that the space between each hand and your ankle is equidistant. Now naturally let your ankle and feet rest. If your foot and ankle caved inward, you have over-pronated feet.

Correction – If the arch has already fallen, orthotics are the best bet. If the arch is in the process of falling, or is weak, barefoot running/walking may help strengthen the arches, but be sure to check with your doctor.

5. **When lifting, that is lower than the level of your waist** -

- To pick up an object, keep your back straight and bend at your knees and hips. Do not bend forward at the waist with your knees straight.
- Stand close to the object, make sure you have firm footing, then where possible squat down and straddle it.
- Always move your feet forward when lifting an object.
- Stand with a wide stance close to the object you are trying to pick up and keep your feet firm on the ground. Tighten your stomach muscles and lift the object using your leg muscles.
- Straighten your knees in a steady motion. Don’t jerk the object up to your body.
- Grasp the object, and slowly lift the load by straightening your legs as you stand up upright without twisting.
6. If you are lifting an object from a table:

- Slide it to the edge of the table so that you can hold it close to your body.
- Bend your knees so that you are close to the object.
- Use your legs to lift the object and come to a standing position.
- Avoid lifting heavy objects above waist level.
- Hold packages close to your body with your arms bent.
- Keep your stomach muscles tight. Take small steps and go slowly.

**IMPROVING OUR POSTURE - WHEN SITTING**

**While working or studying** –

- Use a chair with firm low back support. Keep desk or table top elbow high, adjust the chair or use a footrest to keep pressure off the back of the legs, and keep your knees a little higher than your hips.
- Sit up with your back straight and your shoulders back. Your buttocks should touch the back of your chair. Distribute your body weight evenly on both hips.
- When standing up from the sitting position, move to the front of the seat of your chair. Stand up by straightening your legs. Avoid bending forward at your waist.
- Get up and stretch frequently every hour, if you sit for long periods of time. Spending long periods sitting down can also contribute to a flat back.
1. **Slouching in a chair**: Slouching can add strain to muscles and put stress on the spine. This can change the anatomical characteristics of the spine, leading to constricted blood vessels and nerves, as well as problems with muscles, discs, and joints.

Exercises to correct a slumping posture: strengthening your core and buttock muscles, and back extensions, will help correct a slouching posture - Bridges, Back extensions, Plank.

2. **Hunching over your keyboard, Computer or cell phone** - is usually a sign that you have a tight chest and a weak upper back. Over time, this type of posture can contribute to developing a rounded upper back, which can cause shoulder and upper back stiffness. Head may tend to lean forward, which can lead to poor posture. Using a mobile can cause similar problems dubbed “text neck”.

Exercises to correct a hunched back - Upper back, neck and rear shoulder strengthening exercises, chest stretches and neck posture drills. Gently lengthen your neck upwards as you tuck in your chin. Seated rows in a gym or pull-ups. Take one or two minute task break every 20 minutes when you work at a computer screen. Keep the screen 15 degrees below eye level. Place reference materials on a copy stand even with and close to the terminal.

3. **Hand, Wrist, & Arm Pain** -

Poor computer use for long periods of time can lead to discomfort and even injury, particularly with the constant use of a mouse and keyboard, causing pressure on the Carpal Tunnel (wrist).
• Do not lean or put pressure on your wrists or work with your wrists tilted up or bent. Always try to work with your wrists in line with your forearm.
• Gripping the mouse too tightly, or in an uncomfortable position, can cause fatigue and pain in the hand.
• Make sure when you are not using the mouse you take your hands away from it. Choose a mouse which allows the hand to keep its natural starting position.
• Using excessive force - Clicking or typing too hard can cause pain in the fingers. Don’t use a mouse or keyboard with ‘stiff’ buttons or keys. Learn how to type better.
• Hovering over the keys - When not typing do not hover your hands over the keys as this puts unnecessary strain on your arms and shoulders. Relax when you are not keying. Ensure your desk is at the correct height and rest your hands. You may consider looking at arm/wrist supports that work around this such as the Neutraliser Keyboard System.

4. **The poking chin posture** - can be caused by sitting too low, a screen set too high, a hunched back, or a combination of all three.
   • Correcting a poking chin - involves improving your sitting habits and exercises to correct your posture.
   • Gently lengthen your neck upwards as you tuck in your chin, bring your shoulder blades down and back towards your spine, Pull in your lower tummy muscles to maintain a natural curve in your lower back, Adjust your seating.
5. **Cradling your phone**
is holding your phone handset between your ear and shoulder places strain on the muscles of the neck, upper back and shoulders. The neck and shoulders are not designed to hold this position for any length of time. Over time this posture can place strain on the muscles and other soft tissues, and lead to muscle imbalances between the left and right side of your neck.

Try to get into the habit of holding the phone with your hand, or use a hands-free device.

6. **Forward Head** – Caused due to sitting in an office chair hunched over while staring at a computer. Muscles in the back of the neck become tight, along with the upper back muscles. Have your eyes examined, as vision problem can affect the way you carry yourself and cause eyestrain.

**Identification** – Have someone take a photo of you standing sideways. As shown in the photo to your right, find the AC joint (bony protrusion on the side of your shoulder) and check if your ear lobe is on top of the AC joint. If your ear lobe extends in front of your AC joint, you have a forward head posture.

**Correction** – First, practice proper head posture by sliding your head backward while keeping your line of sight ahead. Be sure not to tilt your head upwards as you slide your head back. Second, get a massage, or use a massage ball against your upper back, which can be very helpful to help relieve tension around your neck.
7. **When sitting in the car** - Seat position, posture and time spent in the car all can affect a person's health. If you drive four or more hours a day, you're six times more likely to develop back problems. Musculoskeletal disorders also pose a concern for long-distance drivers, particularly those who drive for a living: truck drivers, taxi drivers, even police officers on patrol.

Adjust the seat forward to support the curve of your back, so your knees are higher than your hips. Put a small pillow or cushion in the small of your back. Allow your knees to bend and your feet to reach the pedals.

**IMPROVING OUR POSTURE - WHEN SLEEPING**
**Side Sleepers**
Sleep on your side with your knees bent and head supported by a pillow, to make your head level with your spine. Or, sleep on your back, avoiding thick pillows under your head. Use a small pillow under your neck instead. Don’t sleep on your stomach. When awake, sit up, by pushing yourself up with your hands. Avoid bending forward at your waist.

**Back Sleepers**
Instances of snoring and sleep apnea are much more frequent when a person is sleeping in the supine position. When we sleep on our backs, gravity forces the base of the tongue to collapse into the airway, which obstructs breathing and creates oh-so-pleasant snoring noises that keeps the neighbors up at night.
**Stomach Sleepers**

Resting on the tummy is widely regarded as the worst sleeping position. It flattens the natural curve of the spine, which can lead to lower back pain, leading to overarching. This places pressure on joints and muscles that can lead to pain, numbness, and tingling. “It forces your neck to be in a rotated, closed pack, tight position, which also compromises your breathing and circulation.

**Lifestyle Tips for Lifelong Good Posture (Corrective Measures)** - Few regular Exercises to maintain the correct posture and keep the Muscles and Joints flexible –
Upper Back Pain Rehabilitation Exercises

- Pectoralis stretch
- Thoracic extension
- Arm slide on wall
- Scapular squeeze
- Mid-trap exercise
- Thoracic stretch
- Quadruped arm/leg raise
- Rowing exercise

Low Back Pain Exercises

- Standing hamstring stretch
- Pelvic tilt
- Side plank
- Partial curl
- Quadruped arm/leg raise
- Gluteal stretch
- Extension exercise

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**POSTURAL CHART**

### LYING
- Bend knees, lie on back, take a deep breath, place your hands on your thighs and relax.
- Tighten your abdomen and buttocks. Press your lower back onto the floor. **ACTION** - Stretches and strengthens stomach and back muscles.
- Turn both knees to one side while rotating your head to the opposite side. **ACTION** - Stretches lower back, mid back, muscles and joints.
- Pull both knees to your chest. **ACTION** - Stretches lower back, buttocks and abdominal muscles.
- Slowly raise hips upward. Keep a straight line from the knees to the shoulders. Do not arch your back. **ACTION** - Stretches buttocks and stretches upper leg muscles.

### LYING
- Lie on your back with one leg bent and the feet flat on the floor. Extend the opposite leg straight out. Relax and allow your back to feel the floor.
- With knee bent, pull it to your chest, keeping the opposite leg straight, press your knee and lower back to the floor. **ACTION** - buttocks muscles, back muscles and stretches hip.
- Press your lower back against the floor, raise the straight leg until it is level with the bent knee. **ACTION** - strengthens and stretches quadriceps muscles, hamstring muscles and stretches hip joints.

### HANDS & KNEES
- While on your hands and knees, keep your knees directly under your hips, your hands under your shoulders, keep abdominal muscles firm, keep your neck relaxed and in its normal position, that is, with your ears in line with your shoulders.

### NECK FLEX
- Drop head forward, slowly. You will feel the stretch of your neck muscles.
- Slowly drop head backward and you will feel the stretch of your front neck muscles.
- Slowly turn your head from side to side. Feel the stretch of the muscles on the side of your neck. Do not strain.
- Tilt your head to one side. This is to stretch the muscles on the side of your neck.

### NECK STRENGTH
- Press forehead to palm. Resist forward motion.
- Grasp hands behind head, press your head back, resist motion.
- Turn head to one side, resist side motion with your hand.
- Tilt head to other side, resist motion with hand.

### PRONE
- Lie on your stomach, raise one leg off the floor, while keeping the knee straight. **ACTION** - strengthens lower back, abdominal and leg muscles, stretches hamstrings and quadriceps.
- Stretch one arm straight out in front of your while maintaining your back and head position while keeping support arm straight. **ACTION** - strengthens and stretches your shoulder, upper back muscles and joints.
- Extend your straight leg behind you while holding it parallel to the floor. Maintain your normal back and neck position. **ACTION** - strengthens buttocks, abdomen and leg muscles.
- Keep your neck in a normal position, push yourself up on your forearms. Keep hips and abdomen against floor. **ACTION** - strengthens posterior back muscles, attains normal low back curve.
Physiotherapy treatment - may significantly help to minimize, if not eliminate, postural dysfunction. Most patients will experience decreased pain once their posture is corrected.

- Assessment and diagnosis of postural habits. Postural education and training
- Injuries in youth may cause growth abnormalities or postural adaptations and pain can show up later in life.
- Soft tissue massage, corrective exercises and movements improves flexibility, strength and posture
- Dry needling, Electrotherapy, Postural taping, Joint mobilization
- Activity modification advice. Advice regarding ergonomic work stations

PROVEN BENEFITS OF GOOD POSTURE

1. **Posture = Power**
   Across species, posture is often the primary representation of power. Open, expansive postures reflect high power while narrow, closed postures reflect low power. People with high power poses have increased feelings of dominance, risk-taking, and power as well as reduced anxiety. Kids, Parents and Posture - Standing up straight is important for everyone, but at no time is it more crucial to develop the habits of good posture than in childhood. Many adults with chronic back pain can trace the problem to years of bad posture habits or injuries in childhood.

2. **Say goodbye to back pain**
   Good posture is critical to reducing back and neck pain. People who suffer from back pain experience positive changes when they improve their posture.

3. **Look good and feel confident**
   Needless to say, being upright does wonders for your appearance. You look taller, slimmer and more successful when you sit and stand tall. It is imperative to making a good first impression, actually reinforced confidence, even in their thoughts whereas slumped participants were more unsure of their themselves.
4. **Lose weight**
   You can actually burn up to 350 calories a day by being upright! By carrying yourself better, you are “taking tension off the whole body and everything starts to flow better.” **Keep your weight down** - excess weight, especially around the middle, pulls on the back, weakening stomach muscles.

5. **Build a stronger core**
   By sitting upright we extend the mid back, which leads to a neutral spine that allows the pelvis to position itself in a way that the core muscles can activate better. Once core muscles are working better, the abs will appear flatter and toned. Develop a regular program of exercise - regular exercise keeps you flexible and helps tone your muscles to support proper posture.

6. **Breathe Better**
   Keeping an Upright posture helps open up the airways and ensure proper breathing. This allows more oxygen to flow through the cardiopulmonary system. The blood is then able to carry sufficient oxygen to the whole body and ensure that your nervous system, organs and other tissues function effectively.

7. **Improve your memory and brain**
   Words and memories are linked to posture and it is found that babies’ learning ability is in fact affected by their posture. Being upright improved their ability to map new experiences and remember things.
8. **Improve your mood**
Posture affects energy level and the ability to generate positive and negative thoughts. People in upright position and dynamic felt more energetic, happier and positive. By contrast, those who slouched reported feeling sad, lonely and isolated.

9. **Reduce your stress**
Stress not only causes poor posture, but also actually perpetuates it. In an upright posture when stressed can maintain self-esteem, reduce negative mood, and increase positive mood compared to a slumped posture. Therefore, sitting upright might be a simple strategy to help build resilience to stress.

10. **Be more productive**
Sitting upright makes you more alert, concentrated, and productive. The reason is that when you slouch, your body takes in as much as 30% less oxygen than you'd take in with good posture. This means that when you slouch, it is much harder to keep your energy up.

So turns out maintaining an upright posture touches almost every aspect of our lives, from our appearance, health, productivity and even our mood.