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Sitting Postures

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(All praise and thanks are due to Allah Almighty, the most merciful and most compassionate)

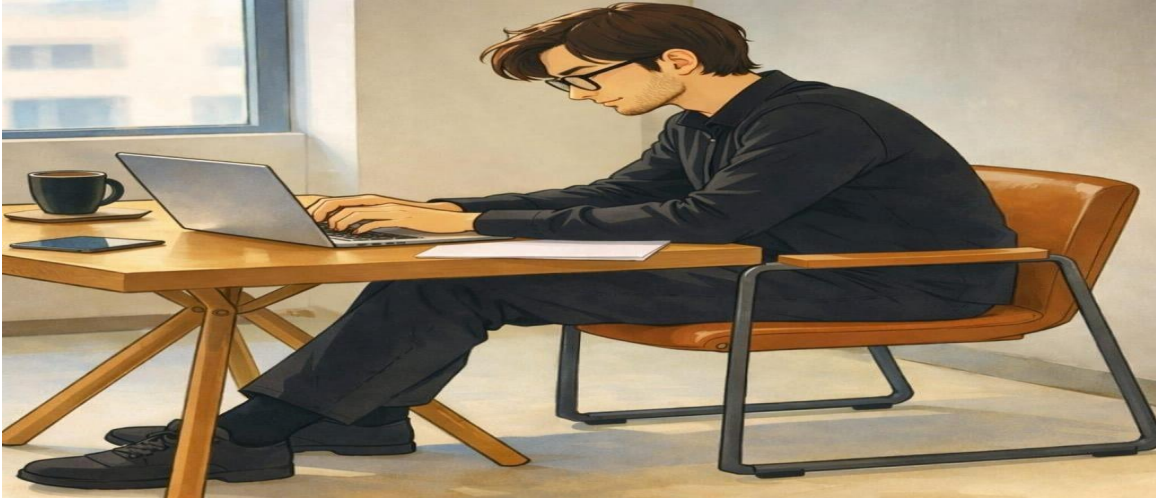
I want to thank my principal and all my teachers for giving me the chance to prepare the monograph on SITTING POSTURE. They played a significant role in guiding, supervising, and encouraging me in my studies. I also appreciate my classmates and family members for their support and motivation.

This monograph helped me understand the anatomical, physiological, kinesiology, sociological, and cultural aspects of sitting posture, which is an important daily living activity. I hope my work meets my department's expectations and contributes to my academic learning. I am grateful to everyone who helped with this project.

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INTRODUCTION



In our daily life routine, we sit a lot during eating, doing homework, as a doctor in clinics, as a student in class room and sometimes we sit for hours. Maintaining a right posture is important including the back, neck, shoulders and legs, a good posture keeps the body comfortable, balanced and supported. We may not pay attention to our sitting posture which can cause back pain, neck pain and can lead to many other problems. So, keeping a good posture while sitting is important to avoid pain. The two common ways of sitting are on the floor and on a chair. Sitting on the floor usually includes more bending at the hips and knees, while sitting on a chair keeps the body comfortable, balanced, and supported, involves less bending, keeps the back straight, and the position of the hips and knee changes how we sit, which affects the body differently. Sitting in the correct way is important for our comfort and overall health. Sitting badly for a long time can cause neck pain, muscle strain, and poor blood circulation. If a person sits correctly, the body feels more comfortable and balanced. Everyone should be aware of a good sitting posture. In this monograph, I will discuss sitting from different perspectives, such as anatomy, physiology, kinesiology, sociology, and occupational therapy. It will help to understand why a correct posture is important for our health and daily activities.

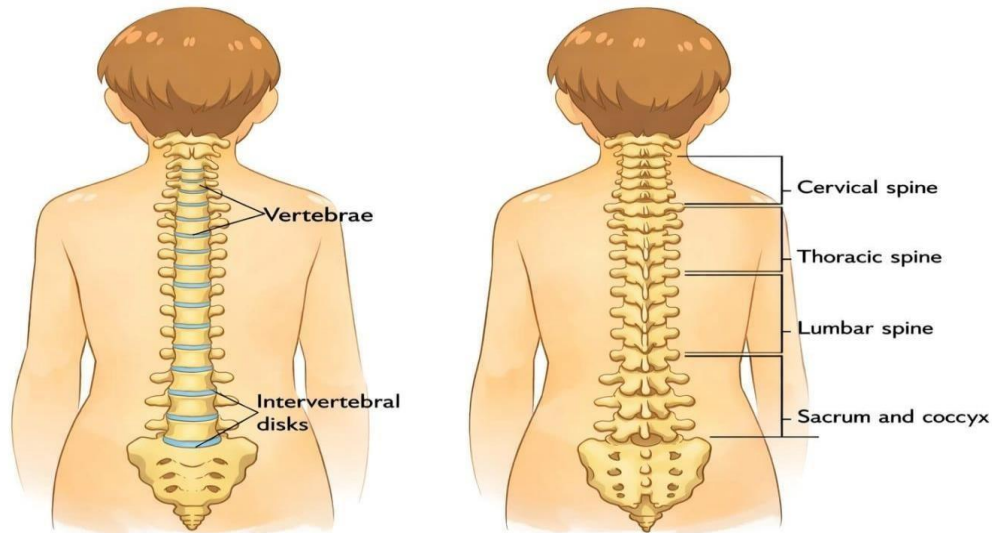
ANATOMY PERSPECTIVE

From an anatomical perspective, sitting posture is related to different body parts such as the spine, pelvis, legs, and the muscles that support them. These body parts work together to help the body stay balanced and comfortable while sitting. When these parts are balanced and in the correct position, it becomes easier to maintain good posture.

SPINAL AREA

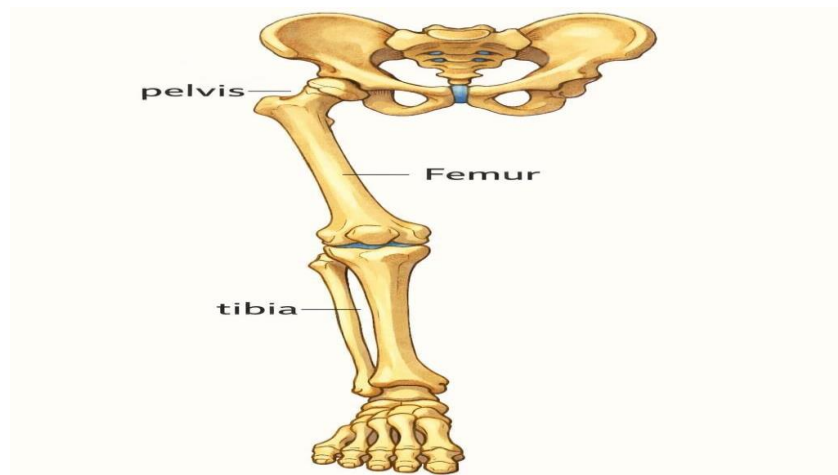
Region	Location	Primary Function While Sitting
Cervical	Neck	Keeps the head upright.
Thoracic	Mid-back	Provides structural support prevent slumping.

Lumbar	Lower back	Sustains the inward curve to protect discs.
Sacrum	Base of spine	Anchors the spine to the pelvis transfer weight to the seat.



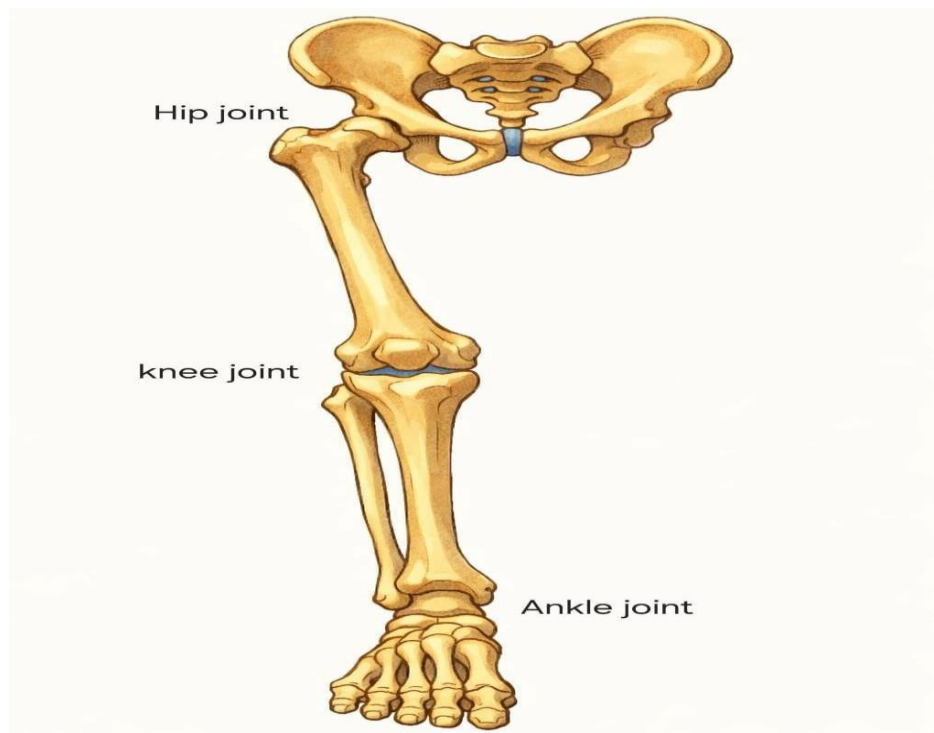
THE SKELETON SUPPORT

Bone	Role In Sitting
Pelvis	The foundation, a neutral tilt prevents lower back pain.
Femur	Distributes upper body weight through the hip joints to the seat.
Tibia	Provides a secondary base of support by stabilizing the lower legs.
Vertebrae	Individual segment that allows for micro adjustments in posture.



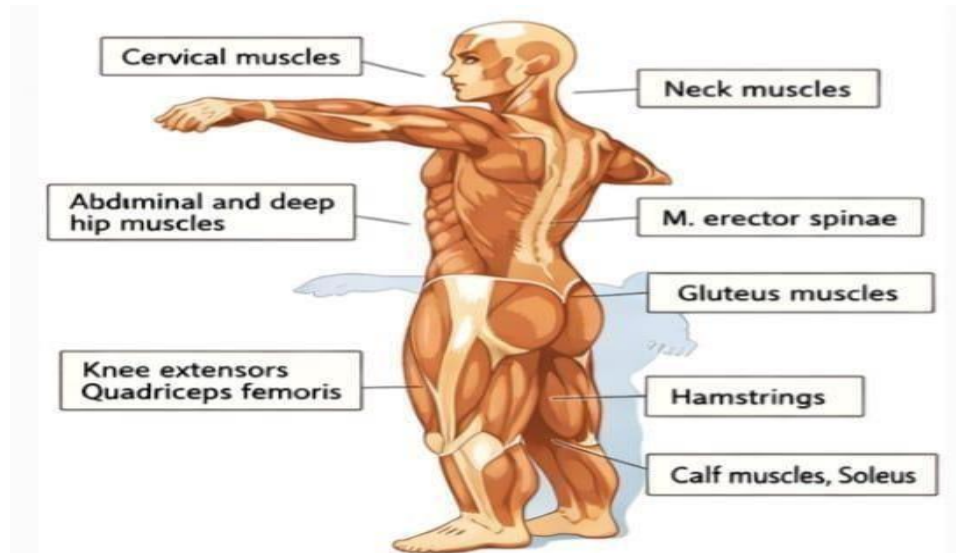
KEY JOINTS

Joints	Chair Sitting	Floor Sitting
Hip joint	Moderate flexion	Deep flexion.
Knee joint	Relaxed at 90 degrees	Highly flexed.
Ankel joint	Keeps feet flat for stability	Often extended or rotated depending on leg position.
Intervertebral joint	Stacked to maintain vertical alignments	Requires flexibility to manage different base heights.



IMPORTANT MUSCLES

Muscle groups	Function
Erector Spinae	Keeps the spine from collapsing forward.
Gluteals	Acts as a cushion and stabilizer for the pelvis.
Core (Abs/Back)	Provides the internal corset to prevent leaning.
Hamstrings	Control the tilt of the pelvis.
Quadriceps	Support the knee angle and help distribute weight across the thighs.



PHYSIOLOGY PERSPECTIVE

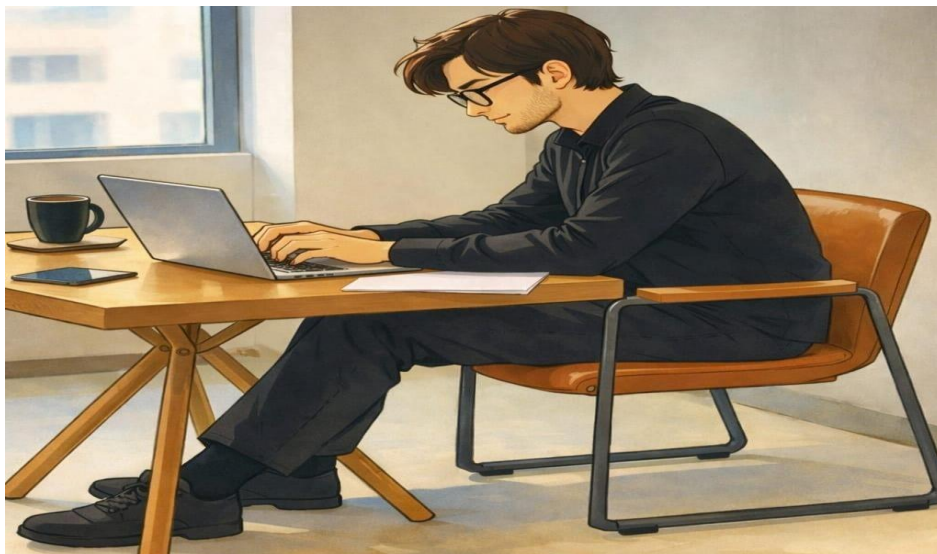
From a physiological perspective, sitting posture explains how the body works while we are sitting. Different body parts such as muscles, bones, the heart, and the lungs work together to support the body and keep it balanced. When a person sits properly, the body works more efficiently. Good sitting posture helps the blood flow properly and also lowers stress on the muscles and joints.

BODY FUNCTIONS DURING SITTING

Category	Key Components	Role In Sitting Posture
Muscle Activity	Erector Spinae	Acts as the primary stabilizer to prevent.
	Gluteals	Stabilize the pelvis and prevent the body from tipping off balance.
	Core (Abs/Back)	Functions as a stabilizing corset for the trunk and spinal alignment.
	Legs (Quads /Hamstring)	Manages weight distribution and control leg positioning.
Circulation	Blood Flows	Slows during prolonged sitting, requires movement to deliver oxygen and prevent swelling.
Sensory System	Proprioception and inner ear	Provides constant feedback to the brain to make micro adjustments for balance.

FLOOR SITTING VS TABLE SITTING

Feature	Floor Sitting	Table/Chair Sitting
Primary Support	Internal muscles must work harder.	External (the chair provides the structure).
Flexibility	High (requires deep hip and knee flexion).	Moderate (90-degree angles at hip and knees).
Muscle Engagement	High core and thigh activation to stay upright.	Lower muscles engagement prone to “switching off”.
Postural Risk	Can lead to rounded back.	Risk of slouching.



KINESIOLOGY PERSPECTIVE

From a kinesiology perspective, when we sit, the muscles and joints work together to keep the body balanced and comfortable. Learning how these parts move will help us sit in a way that

prevents pain or strain. This also shows how posture affects the body when sitting and standing. Body movement while sitting and standing up.

Action/Style	Primary Joint Action	Primary Muscles Engagement	Kinesiology Benefits
Lowering (Sitting)	Eccentric hip and knee flexion.	Gluteus and quads.	Preventing plopping which protects spine from impact.
Rising (Standing)	Concentric hip and knee flexion.	Quads, glutes and hamstrings.	Builds lower body functional strength.
Floor Sitting	Deep hip flexion and external rotation.	Core and thigh muscles.	Increases joint range of motion and natural core engagement.
Chair Sitting	Neutral 90-degree flexion.	Trunk extensors (to resist gravity).	Reduces immediate fatigue through external support.

MUSCLES USED DURING SITTING POSTURE

Muscles Category	Specific Group	Function In Sitting Kinesiology
Trunk Control	Flexors and extensors.	Keep the spine vertical.
Pelvic Stability	Hip flexors and extensors.	Anchors the pelvis, essential for the transition between sitting and standing.
Central Pivot	Core stabilizer.	Provides a solid foundation so the limbs can move without losing balance.
Upper Alignment	Back and neck muscle.	Manages the heavy load of the head and prevents forward head posture.

SOCIOLOGY PERSPECTIVE

From a sociology perspective, how people sit depends on their culture, traditions, and daily habits. The way we sit can be influenced by what is normal in our society. Different places and groups may have different ways of sitting.

IMPORTANCE OF FLOOR SITTING IN OUR CULTURE

In many Asian, Middle Eastern, and South Asian cultures, people sit on the floor with mats or carpets during meals, social gatherings, or religious events. Floor sitting is commonly linked with values such as humility, respect, and a sense of unity with others and nature. It also helps in maintaining balance and flexibility, linking body position with culture.

The way people sit is significantly affected by social norms. There are some ways of sitting that are suitable for a particular context. For example, sitting in a cross-legged position may be linked with relaxation or politeness in some cultures, while sitting erect in a chair is suitable in formal or business settings.



SOCIAL RULES ABOUT SITTING STYLE

The way we sit is, to a great extent, affected by social norms. Some of the ways we sit can be considered polite, formal, or casual depending on the social setting. For instance, sitting in a cross-legged position can be considered casual or relaxed in some cultures, while sitting upright in a chair may be required in formal or business settings.

IMPACT OF SITTING POSTURE ON SOCIAL INTERACTION

Our sitting posture can affect communication and social interaction. Open and upright postures are commonly linked with confidence, attentiveness, and engagement, while slouching or closed postures can suggest tiredness, disinterest, or submission. Awareness of these social cues can help in enhancing social interactions in a group setting, classroom, or office by encouraging effective communication and comfortable social interactions.

SITTING HABITS IN DAILY LIFE

Our lifestyle habits such as work, study, play, and technology use have a significant effect on the way we sit. Sitting on chairs at desks or sofas can lead to a slouching or stiff posture, while floor-sitting during meals, meditation, or social interactions can help in developing better spinal alignment and flexibility.



OCCUPATIONAL THERAPY PERSPECTIVE

HOW OCCUPATIONAL THERAPY HELPS IMPROVE POSTURE

Occupational therapy helps people improve their posture so they can move, stand, and sit comfortably without pain during daily activities. Poor posture can cause tiredness, pain, and difficulty in performing daily tasks. Occupational therapists observe how a person stands, sits, and carries out activities at home, school, or work. Occupational therapy helps people sit and move in a healthy way. It includes easy exercises to make muscles stronger. It also shows the best way to sit and work so the body does not hurt. Sometimes small changes in chairs, tables, or daily habits are suggested. This helps people sit better, feel comfortable, and do daily activities more easily.

CHAIR AND TABLE SITTING TIPS

Proper table sitting is important to maintain correct posture and prevent pain or discomfort. Sitting in a poor position for a long time can cause pain in the neck, back, and shoulders. Occupational therapists focus on how a person sits at a table during activities such as studying, writing, or working. They ensure that the chair and table are at an appropriate height so that the feet rest flat on the floor and the back is properly supported. The position of the hands, arms, and head is also considered to reduce stress on the body. By maintaining correct sitting posture and making small adjustments in seating and table setup, a person can perform activities more comfortably and efficiently.

SPECIAL SEATING FOR PEOPLE WITH PHYSICAL PROBLEMS

Adaptive seating enables people with physical limitations to sit in a comfortable and safe manner. Some people may have difficulty sitting in the proper position due to pain, weakness, or limited body movement. When a person sits in an improper position for a long period of time, it may cause increased pain and make it difficult to perform daily tasks. Occupational therapists monitor how a person sits and determine the areas that need support. They recommend adaptive seating solutions such as supportive chairs, cushions, or back rests to enable a person to maintain a proper sitting position. Adaptive seating solutions assist in alleviating pain in the body and increasing comfort. When using adaptive seating solutions, people can sit for extended periods of time and perform daily tasks with ease.

SIMPLE WAYS TO SIT SAFELY AND INDEPENDENTLY

Methods that aid a person to sit safely and independently include sitting comfortably without the aid of another person. Safe sitting is essential to avoid pain and discomfort. Occupational therapists teach a person to sit in a comfortable position by straightening the back and planting the feet flat on the floor. The occupational therapists will also instruct the person on how to change position safely and how to change the sitting position when needed. Cushions can be used to support a person to sit comfortably. By following these methods, a person can sit independently and carry out daily tasks with increased confidence and efficiency.

CASE APPLICATION IN OCCUPATIONAL THERAPY

A 21-year-old university student complained of pain in the lower back, stiffness in the neck, and occasional pain in the shoulders. The pain used to increase after sitting for a long time in lectures

and study classes. It was observed that the student had poor sitting posture. The head was bent forward, the shoulders were rounded, the upper back was hunched, and the lower back had less curvature than normal.

The student didn't have good back support and often sat for four to six hours without moving. Their back and leg muscles were very tight, and the hip muscles were weak. They also didn't know much about how to sit properly and hardly took any breaks. Sitting in a bad position for a long time can cause pain, strain, and discomfort, and even affect blood flow. This case shows why it's important to learn how to sit correctly and take regular breaks.

CONCLUSION

IMPORTANCE OF CORRECT SITTING POSTURE

Sitting in the right position has many benefits. It is also beneficial in relieving pain, fatigue, and issues related to muscles and joints of people of all ages. When the body is in the right position, muscles and joints function properly and are not strained. Sitting in the right position also helps in the smooth flow of blood and makes breathing easy, so that a person feels refreshed and alert during long activities.

Sitting in the right position also has benefits related to the mind. It is beneficial in concentrating, paying attention, studying, working, and doing daily chores. People who sit in the right position feel more comfortable and can do their activities.

COMPARISON BETWEEN FLOOR SITTING AND TABLE SITTING

Floor sitting and table sitting both have their pros and cons. Floor sitting is very beneficial for the knees, hips, and ankles because it helps keep them flexible. Floor sitting also increases the muscle function of balancing. Floor sitting is widely practiced by many people for social gatherings, eating, and other cultural gatherings. But floor sitting for a long time can be harmful to the joints and may not be very suitable for people with weak muscles, arthritis, or joint issues. A table sitting with a proper chair and desk is more beneficial for the back and legs. It is more suitable for activities that take a long time to accomplish, such as studying, working, or eating. A proper chair and desk are very beneficial in maintaining the body in the correct posture. But sitting for a long time without exercise or in an improper chair can cause stiffness and posture issues. Both floor sitting and table sitting can be beneficial if done correctly.

ROLE OF OCCUPATIONAL THERAPY IN IMPROVING SITTING HABITS

Occupational therapy assists individuals in learning how to sit properly. Occupational therapists evaluate an individual's posture, muscles, and activities to identify why an individual has poor sitting posture. They instruct an individual on how to sit properly, how to position a chair or desk, and how to move while sitting.

Occupational therapists also instruct individuals on how to take posture breaks and move while sitting. For individuals with physical issues, occupational therapists recommend special chairs, cushions, or support to assist individuals in sitting comfortably. By doing all these and using the right support, individuals can sit safely, alleviate pain, and perform daily activities independently.

Occupational therapy assists individuals in developing lifelong habits to enhance posture, comfort, and overall quality of life.

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