International Journal of Sports, Health and Physical Education
www.physicaleducationjournal.in
Online ISSN: 2664-7567, Print ISSN: 2664-7559
Received: 16-01-2022, Accepted: 31-01-2022, Published: 16-02-2022
Volume 4, Issue 1, 2022, Page No. 5-7

The ultimate guide to posture: A review

Harshika Gupta
Department of Physiotherapy, Career Point University, Kota, Rajasthan, India

DOI: https://doi.org/10.33545/26647559.2022.v4.i1a.30

Abstract
Postural alignment is the composite of the position of all joint and limbs of the body at any given movement. Optimal alignment is a prerequisite for optimal movement function.
Postural control is the ability to control of the body's position in space for stability and orientation.
Postural orientation is the ability to maintain normal alignment relationships between the various body segments and between the body and environment.
Methodology: The author conducted a comprehensive search of open access articles of major scientific databases including PuBMed, Scopus, Web of Science, shodhganga, Google Scholar etc. Ten significant scientific studies were found relating to the ultimate guide to posture. Five studies were selected based on inclusion criteria.
Results
- Helps reduce the risk of neck injuries and back pain.
- Minimizes fatigue and pain from aching joints.
- Prevents improper spinal alignment, which can lead to headaches and discomfort.
- Improves your self-esteem.

Conclusions: A faulty idea of correct posture can be cured by including the patient to accept a new and satisfactory pattern and then by teaching him how to assume it and make it habitual by repeated *voluntary* effort.

Keywords: voluntary, optimal, postural, alignment

Introduction
Postural alignment is the composite of the position of all joint and limbs of the body at any given movement. Optimal alignment is a prerequisite for optimal movement function.
Postural control is the ability to control of the body's position in space for stability and orientation.
Postural orientation is the ability to maintain normal alignment relationships between the various body segments and between the body and environment.

Definition
Posture is defined as the atitude assumed by body either when the body is stationary or when it is moving. It is attained as a result of coordinated action of various muscles working to maintain stability.

Causes
- Muscular imbalance weakness and tightness.
- Bone deformity – Leg Length discrepancy.
- Compensation for an injury.
- Poor eye sight-use of bifocals.

Principles
- Minimize excessive repetitive motions.
- Reduces excessive forces.
- Minimize pressure points.
- Use adequate lighting.
- Move head, spine, and extremities through their ROM frequently.

Types
A. Active

1. **Static Postural Control: (**Static balance control, Stability) is the ability to maintain stability and orientation with the COM over the BOS with the body at rest.
2. **Dynamic Postural Control: (**Dynamic balance control, controlled mobility**)** is the ability and orientation with the COM over the BOS with the body at rest.

B. In Active

- Muscles of the cervical, Thoracic, and lumbar spine are active in maintainig upright postural control and core stability.
- **Muscle action in posture:** The balanced posture of the body reduces the work done by the muscles in maintaining it in an erect postures. It has been determined (Using electrotherapy) that, in general.
- Standing is a less stable posture with a high COM and a small BOS that includes contact of the feet with the support surface.
- The intrinsic muscles of the feet are quiescent, because of the support provided by the ligament.
- Soleus is constantly active because gravity tends to pull the body forward over the feet gastrocnemius and the deep posterior tibial muscles are less frequently active.
- Tibialis anterior is quiescent (unless high heels are being warn).
- Quadriceps and the hamstrings are generally quiescent.
- Iliopsoas is constantly active.
- Gluteus maximus is quiescent.
- Gluteus medius and tensor fascia latae are active to counter act lateral postural sway.
- Erector spinae in active, counteracting gravity's pull forwards.
- The abdominal muscles remain quiescent, although the lower fibres of the internal obliques are active in order to protect the inguinal canal.

Physiotherapy Can Help In

- Awareness of postural habits.
- Inhibit poor postural habits.
- Develop conscious control to replace to old habits.
- Ensure integration in to daily activities and movements.

Materials and Methods

Study Design

Narrative Study/Literature Review

Source of data

PuBMed, Scopus, Web of Science, shodhganga, Google Scholar.

Results and Discussion

- Help to reduce risk of inuries like neck and back pain.
- Minimizes faigue and pain from aching joints.
- Prevents improper spinal alignment, which can lead to headaches and discomfort.
- Improves your self-esteem.

Future Scope

Posture or body alignment is the interdisciplinary scientific field concerned with understanding interactions between humans and the systems within which they exist. The field draws on knowledge from diverse areas, and ergonomists seek to apply this knowledge to enhance health and safety, comfort, quality and productivity.

Training in the ''best'' way of handling loads, however, does not result in sustained behavioral change and has been shown to be ineffective in reducing injuries. Manual tasks involve lifting, pushing, pulling, carrying, moving, manipulating, holding, or restraining a person, item.

Conclusion

Faulty postures such as forward head and kyphosis or lordosis, excessive hip and knee flexion, or pelvic asymmetries can result in decreased postural stability.

A faulty idea of correct posture can be cured by including the patient to accept a new and satisfactory pattern and then by teaching him how to assume it and make it habitual by repeated voluntary effort.

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