



Dental Clinical Ergonomics

Study module resource

1. Balanced Operating Position



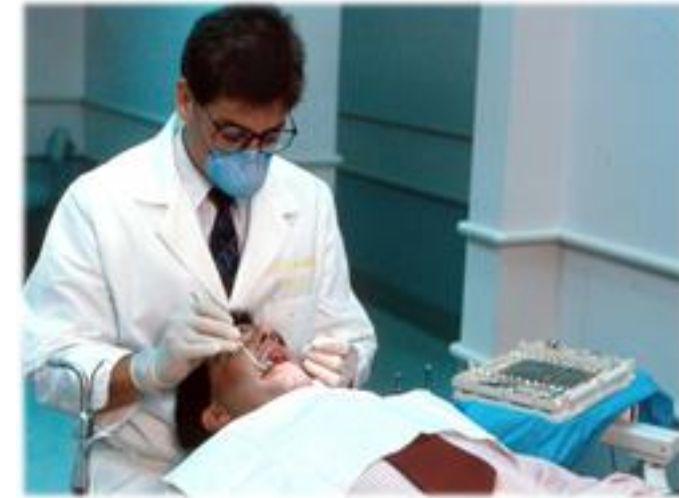
Source: UBC Faculty of Dentistry





Balanced Operating Position (BOP)

- Defined as clinical operation in which the equipment and setting are working to support *uncompromised musculoskeletal balance* of the primary clinician.
- Optimal positioning of the clinician will in turn assist the musculoskeletal balance of the chairside assistant as well.





Factors Undermining Balanced Operating Positioning

- Ergonomically compromised work *Habits*.
- Inappropriately selected or adjusted *Settings*, including:
 - All equipment and instruments
 - Ways in which they are laid out in the operatories
- *Assumptions* of the clinicians, patients, and/or others as to “the way it always has been”, or “the way it just *has* to be”.





Poor Postural Profiles

- To an external viewer, some of these profiles are more obvious than others, but all of these positions are associated in turn with greatly heightened risks of experiencing musculoskeletal pain.
- The **less-obvious** imbalances may even be associated with **greater** risks.





Back to Balanced Operating Position

- Fortunately, it is possible to perform virtually all clinical procedures in BOP.
- BOP consists of:
 - **Dynamic** positioning rather than **static** robotic positioning, although to the external viewer there is little evidence of much movement of the larger muscle groups. And so it should be.
- **Optimal clinical practice** primarily consists of fine motor movements.
- **Optimal control** is associated with balanced stabilization of large body parts and muscle groups, with freedom to move and respond to the needs for fine-motor shifts and changes during the course of any procedure.





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Postural Self-Derivation

With Special Thanks To:

- Dr. Lance Rucker, DDS
- Dr. Susanne Sunell, Ed.D, RDH

