

Are You Sitting Well?

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Reproduced from "Dental Advisen", March 1996.

Translated from Danish

Dentists, dental technicians and dental assistants, as well as others who sit to work, often have to accept as a condition of their work a body posture that causes them to be bent over and turned, and that produces static, one-sided use of certain muscle groups.

The dentist or seated worker has to, through the day, function in this one-sided and stressful work position. This is a tiring work condition which can easily cause the body to slump, resulting in the back being subjected to even further stress.

The physiological consequences of these extremely stressful work conditions often led to fatigue, pain, muscle soreness and back pain, mostly in the waist and in the shoulder and neck areas.

To compensate for the damage caused by load on the body when one does work in a sitting position, the following advice is often given:

- Sit only for short periods
- Get up often
- Shift your position often
- Create variation in your movements

For dentists, dental technicians and dental assistants this advice is impossible to follow in real life.

Research

Research in the fields of sitting ergonomics and spinal biomechanics describes the causes of 'bad back' and other functional pain as follows.

- Pain and stress result from sitting in positions where the spine cannot maintain its natural curvature, especially in the lower back area.
- Repetitive muscle work can cause injury.
- Sitting in a position which is too low can cause injury.

Research shows that an incorrect sitting position can create serious damage to the body's movement apparatus.

Unfortunately, in the past there were no ergonomic solutions for the dilemmas created by poor sitting positions.

Research shows that pain in the lower back, spine, shoulders and the neck increases as a function of the time that the person is sitting in a position which is ergonomically unsuitable.

Saddle Seat makes it easy to sit right

Bambach Saddle Seat is a unique Australian 'discovery' which, in one fell swoop, has solved the ergonomic problems with the sitting position.

- It's ergonomic design guarantees that the pelvis is correctly balanced and stable. This is necessary for optimal spinal function and balance with a natural spinal curve.
- Having one's feet on the floor and a spread leg position produces a stable posture which guarantees free and controlled movements.
- [The head is in a better position more directly over the feet] *M. F. Gale*
- It facilitates sitting at the correct height.
- It produces a very finely tuned balance between shoulders, neck and head helps which improves:
 - Undisturbed position reflexes.
 - An optimal field of view
 - An enhanced possibility to use the hands
 - The best conditions for an optimal coordination between eye and hand, at the same time giving improved precision.
- It's correct upright posture eliminates harmful compression of the thorax and abdomen for optimal respiratory and digestive function.
- The balanced position and the 'open' leg position maximizes freedom and strength in both the upper and lower extremities.
- The 'open' position enhances the blood circulation.
- It is easy to sit down upon and to stand up from.
- It is comfortable. The sitting position feels free and natural.
- It prevents functional problems and damage which are caused by work posture that restrict the body's movement apparatus.



The Bambach Saddle Seat Design Concept

The idea for the Bambach Saddle Seat came to occupational therapist and horsewoman Mary Gale in treating patients who could not sit unsupported on an ordinary seat or wheelchair. Mary found that the same patients could balance quite independently on horseback and assume a symmetrical posture.



It occurred to Mary that if she could replicate the 'saddle position', where the spine is able to assume its natural curves, she would create an ideal seat for therapy as well as for task seating.

A review of literature showed work of Dr. A.C. Mandel, who noted that the ideal sitting posture for the human spine is achieved on horseback. Other researchers also concluded that ordinary furniture removes the natural curves from the spine and places great stress on the spinal discs.

Anecdotal reports from horse riders who suffered severe back pain on the ground, yet who gained marked relief when mounted in the saddle, were also noted. Several years of experimentation resulted in the Bambach Saddle Seat, deceptively simple in design but incorporating refinements and features that permit sitting for extended periods without loss of a healthy spinal curve. The proof is that the Bambach Saddle Seat is enabling many people who suffer disabling back pain to return to work. The seat also offers the opportunity for normal adults and children to sit to work independently in correct posture and maintaining mobility, but it is especially valuable for many who are physically impaired.



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