

# The Bambach Saddle Seat as a therapeutic modality for functional activity

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## **Fixing the distal end of the lower limb muscles for exercise – a more natural position on retraining for standing and walking.**

When therapists are assisting a client to regain muscular strength for standing or walking, proprioceptive facilitation is often used to stimulate lower limb muscles for postural and dynamic function.

When this is undertaken in non weight bearing exercises with the client sitting or lying, the distal end of the muscle is not fixed as occurs in normal standing or walking.

Using the Saddle Seat, the client is able to be assisted to exercise in a position closely resembling normal standing, with the muscles of the lower limbs being fixed at the distal end and the load in its natural relation to the joint for standing or walking.



Seated on Conventional Seat



Seated on The Bambach Saddle Seat

## **Balance & Symmetry**

The position of a person on the saddle seat allows the therapist to encourage function for both sides of the body more easily, as there is less likelihood of people (with injuries as C.V.A.) sitting asymmetrically or falling into one-sided neglect.

Independent sitting balance is facilitated and improved through using the Saddle Seat.

Half rising, which stimulates the lower limb proprioceptors and mobilises the joints, can be used as an intermittent weight bearing exercise, in a secure position.

All this leads to improvement in muscle tone in the lower limbs and marked gains in confidence.

## **Head Position, Hand Coordination and Upper Limb Movement**

Head position will be improved because the trunk is stable and symmetrical. The person on a Saddle Seat can use trunk, upper limbs, neck and head freely and confidently. The person can react to righting stimuli, thus increasing balance, strength and tone. Head control is important for standing and walking as well as eye/hand coordination.

## **Pelvic Stability**

In a Saddle Seat the importance of the pelvis can be emphasised to encourage and develop pelvic control. Good pelvic stability is essential for sitting, standing and walking. Controlled movement of the pelvis is necessary for good spinal position.

The Saddle Seat position releases the pelvis from the backward pull of the hamstrings which happens once the hip is taken passed 60 degrees flexion (as when sitting on a conventional chair). Thus the pelvis can be used in a greater range of small, controlled movements.



Seated on Conventional Seat



Seated on The Bambach Saddle Seat

## **Summary**

- This position builds confidence in the seated person's ability to balance and maintains body symmetry.
- Saddle Seat assists therapists to promote standing and walking from a more natural position.
- Eye focus and eye/hand coordination as well as range strength and precision of upper limb movement improve as a result of good posture.
- Pelvic awareness can be developed, promoting pelvic stability.
- Locking castors are recommended for all seats. These castors are operated by foot.
- Back rests are often used by people who are very unsteady and can be moved away as a progression.

# 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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