THE SAM SYSTEM
Seating And Mobility

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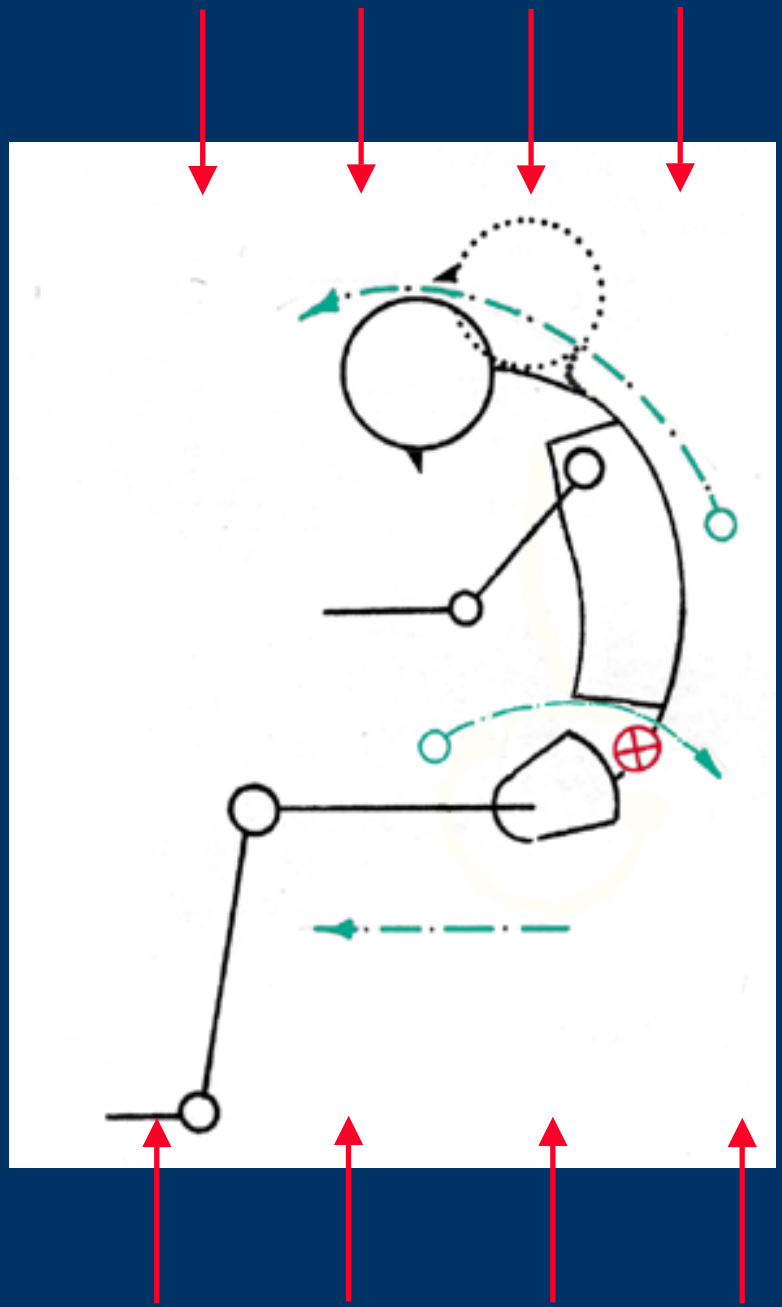
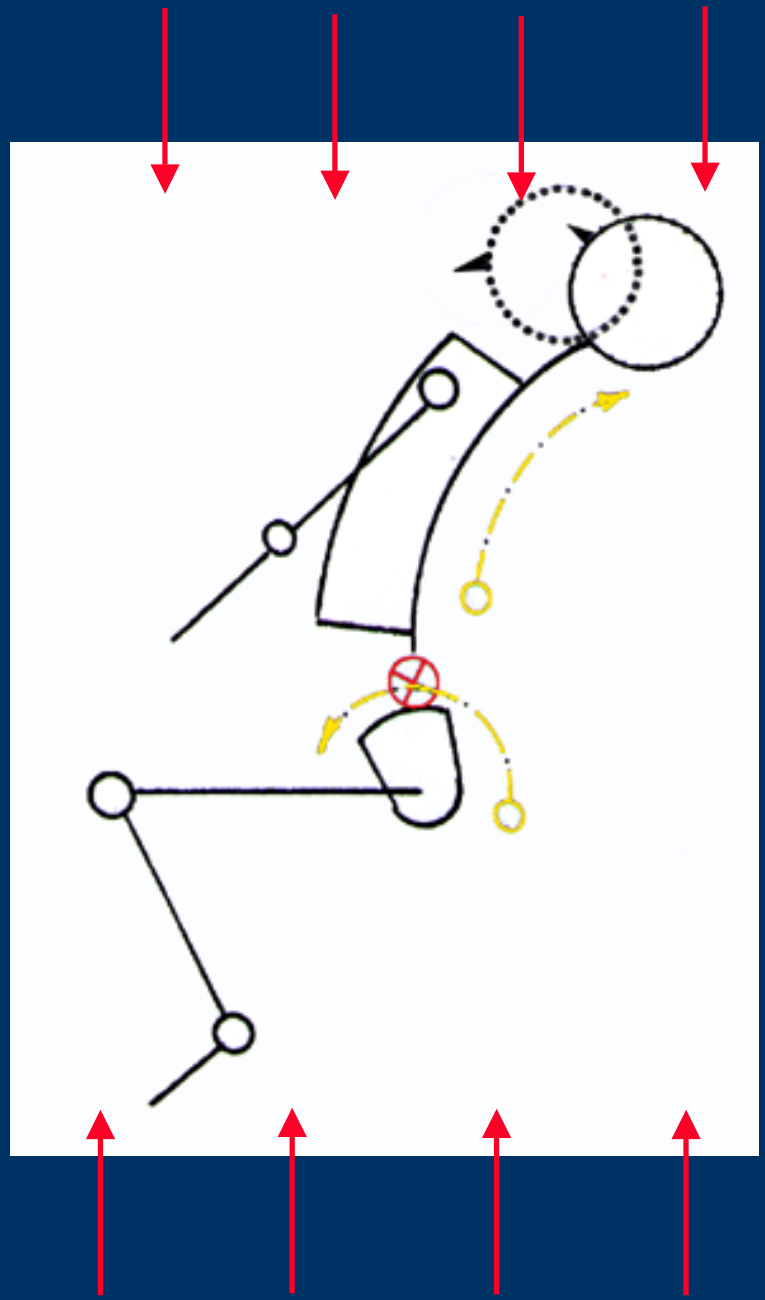
Early work published in:
Developmental Medicine and Child Neurology 1994 36 241-252

Overall objective for design of the SAM

Stabilise body segments relative to each other and to the supporting surface in a functional configuration





The difficulty lies in providing the necessary support without compromising functional activity or restricting development.

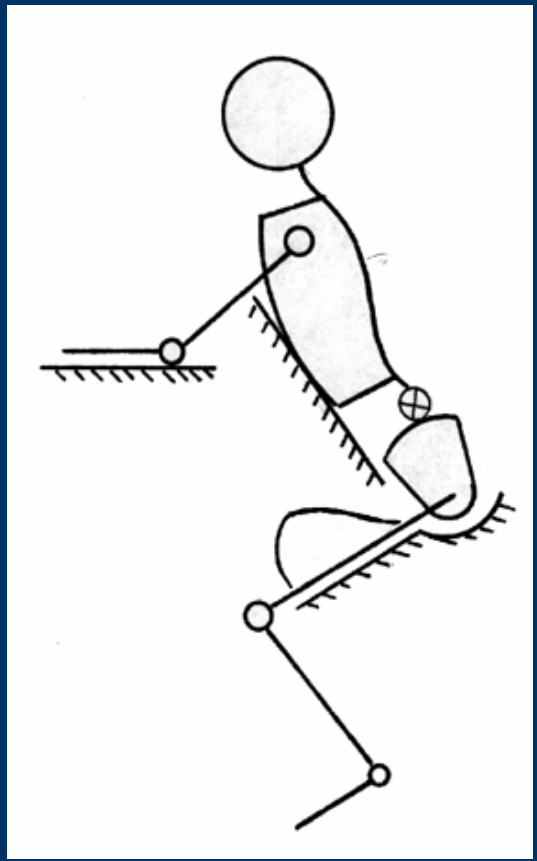
The ‘secret’ lies in using configurations of posture which are inherently stable, where gravity is used to secure a position rather than attempting to secure the position against

gravity.

Posture Adopted

for design and development of SAM

The conventional motor cyclist



Observations from early work

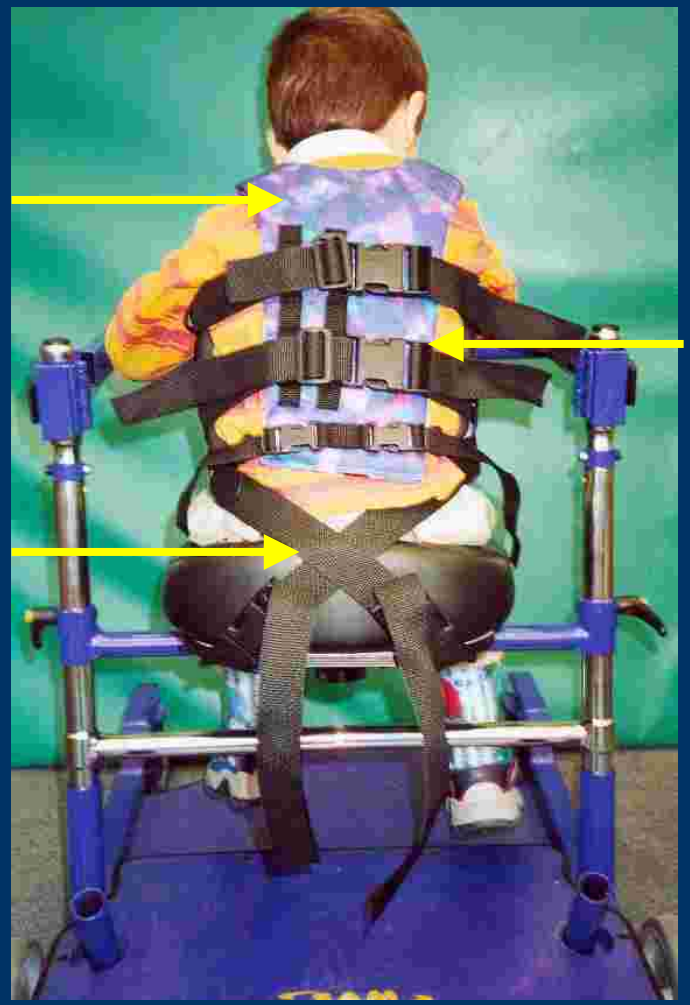
- Body symmetry could be controlled.
- Development of postural ability was not inhibited.
- Functional improvement was possible.
- Children liked the system.
- Parents felt their children looked more ‘normal’.

Basic support components

- Straddle saddle seat, extended pommel
- Full length anterior support.
- Wrap around tray,
- Platform, to support the feet.
- Powered or push.

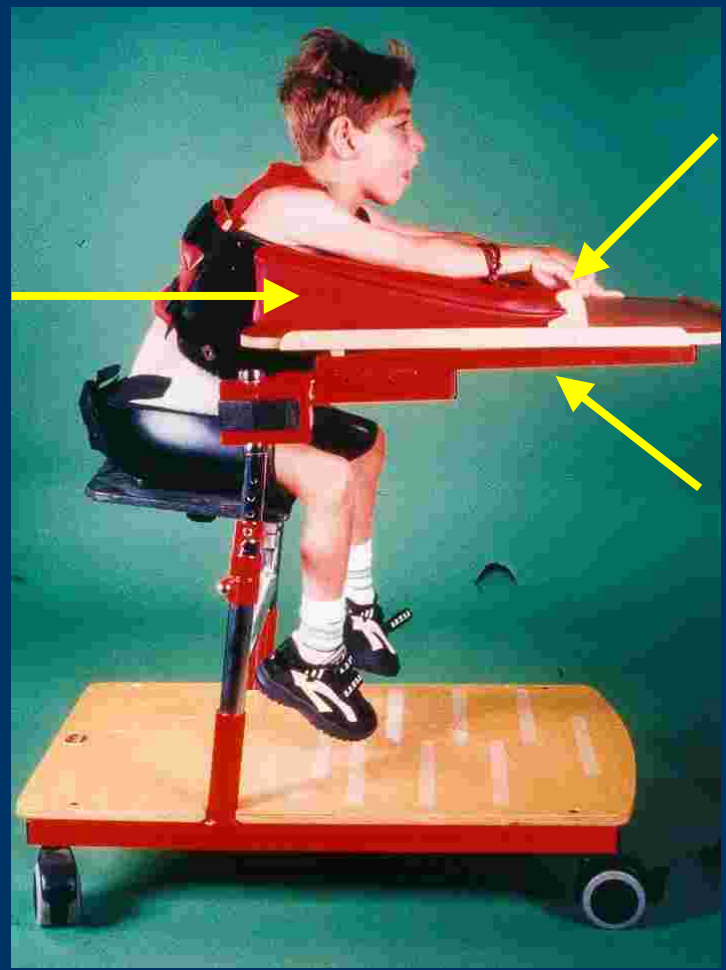
Posterior view

- Anterior support fastens into seat to secure pelvic position.
- Safety straps
- Harness (as required).



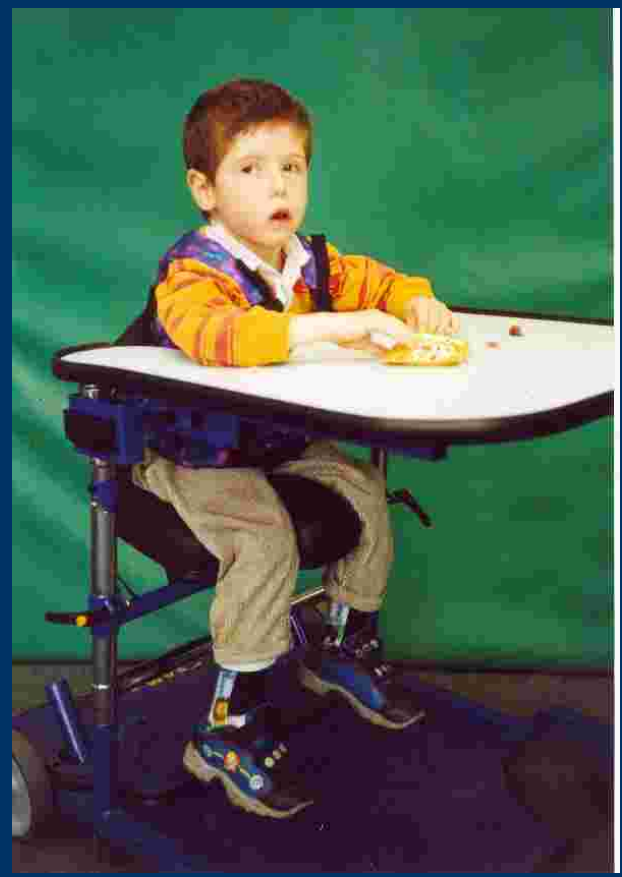
Lateral view

- Wrap around tray.
- Wedge (optional).
- Grasp bars.
- Joystick (if appropriate).



Customised support to accommodate ‘windsweeping’

John looks more ‘normal’!



‘SAMSON’ a development of the SAM

For the more able child, particularly the diplegic, giving the base stability so necessary for functional efficiency.

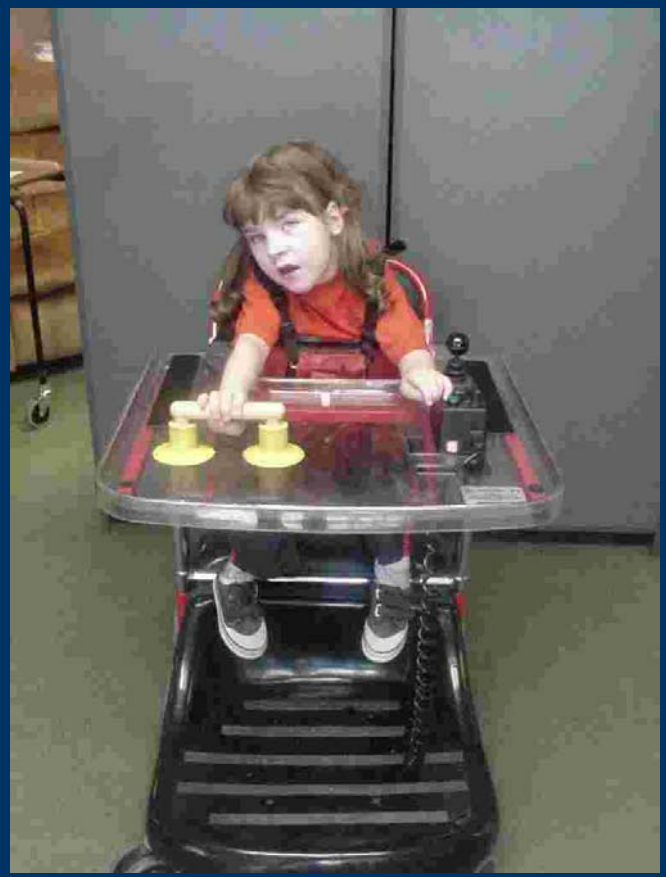
Emma 1996

sitting

lying

without tray

with tray



Emma 2001

sitting

lying

What a difference the configuration makes!

Prescription

- Sitting ability - level 4 and one or more of the following:
- Athetoid movements.
- Quadriplegia.
- Diplegia.
- Hypotonia (the floppy child).
- Dominant extensor activity.

Contra-indications

- Established kyphosis and/or scoliosis.
- Rapidly deteriorating conditions.
- Late introduction e.g teenager.

THE END!!