

|Seating and positioning MNDA - Marius van Rensburg

MND as I am sure we all know is a progressive condition that affects the motor neurons in the brain and spinal cord. Neurons are responsible for telling the muscles in our body what to do. Messages sent from the brain to the muscles gradually stop communicating which leads to muscle weakness and regression. This can affect a person's ability to walk, talk, swallow and breathe and sit.

MND symptoms and speed of symptoms can vary from person to person which makes the trajectory of this condition difficult to predict. We like saying there is not one type of wheelchair or seating system that works specifically for MND, And that sometime just a simple adjustment can make the world of difference.

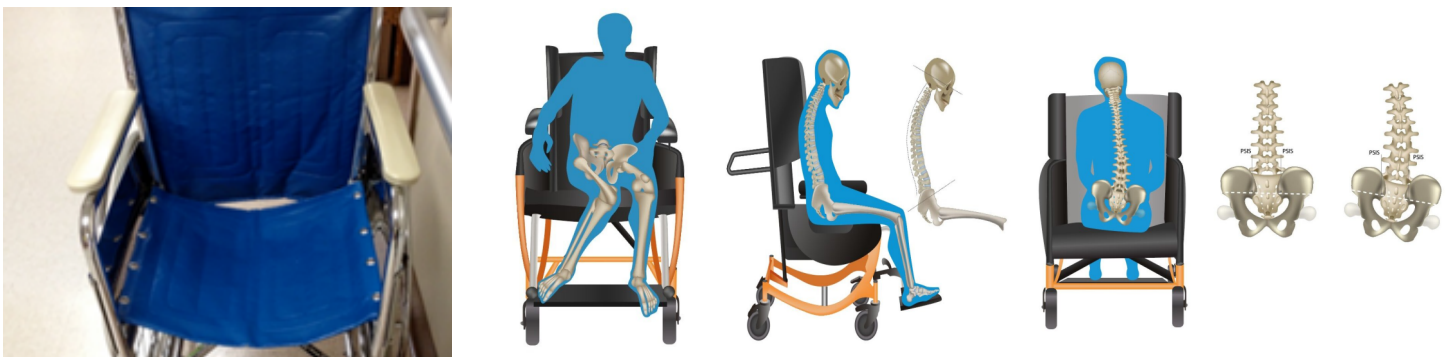
MND can affect the body in many ways, and people may experience symptoms at different stages of the disease.

Some of these ways are:

- Pain and discomfort
- Muscle cramps and spasms
- Difficulties with eating and swallowing
- Speech and communication difficulties
- Respiratory muscle weakness
- Cognitive changes relating to memory, language,

Challenges for people with MNDA when using or choosing a wheelchair:

Often People suffering with MNDA, purchase their first wheelchair from a discount pharmacy outlet as this is often all they require at that stage.



The problems with these basic wheelchair especially when the patients condition has progressed is often.

- Poor Sitting position
- Poor stability
- Improper head support
- No option for adjusting chair height and position at a later stage
- no accommodation for add-ons or changes to the wheelchair.

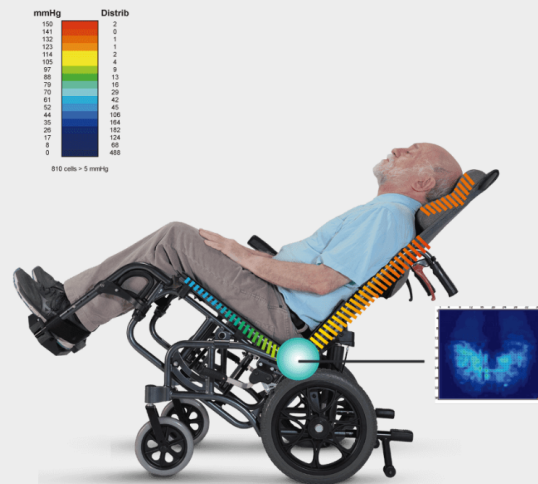
How to make a better choice when choosing a wheelchair or seating system

We often refer to the "perfect package" as we find that many aspects around seating work together to support the patient both in comfort and functionality.

Tilt-in-Space

The Tilt-in-Space system allows the attendant to change the position of the user by tilting the chair, thus shifting the pressure away from one point and redistributing it over a larger surface area.

This feature helps reduce the risks of developing pressure ulcers and avoid back pain.



A tilt in space type of wheelchair can benefit some people with MND to facilitate a safe transfer and maintain their independence. Tilt in space will also help the person maintain an optimum visual field to communicate with others and engage with their environment.



Vicair® cushions address positioning needs?

When mobility is reduced, the person may be unable to reposition themselves in bed or in a chair. This can increase discomfort and the risk of developing pressure injuries, which can be painful and debilitating.

A pressure-relieving cushion helps to redistribute pressure and increase the person's comfort when sitting. Regular repositioning is advised to maintain adequate blood flow to tissues and redistribute pressure and a tilt in space feature allows the person and their caregivers to easily change the position of the chair and redistribute weight and pressure.

A proper wheelchair cushion with stability will often also reduce the need for trunk and head control.



Lateral contours can be bent in or out for better postural control and a customized fit.

Postural changes

Muscle atrophy causes muscle weakness, and depending on which nerves are affected, muscles can become weak and stiff, and the person can experience painful muscle cramps. Shrinkage of muscles responsible for providing postural support causes the person to lose the ability to hold themselves up against gravity. This can result in secondary complications such as pressure injuries, pain and discomfort, affecting function and impacting on breathing and eating.

Due to the progressive nature of the condition, the chair needs to be flexible to meet the changing needs of the person and provide support to the body where needed.

Postural supports and lateral back cushions help support the person to sit upright and reduce the risk of secondary complications.

Typical Trunk Support





Head Support / Integrated Head support

Head control

Muscles in the neck can become weak, causing the person's head to fall forward or to the side. This can create discomfort and pain and affect the person's function and balance. An occupational therapist can recommend a suitable head support or cushion to help position the person's head in a suitable position, alleviating pain and discomfort. A chair with back angle recline will assist and/or tilt in space will also help with head and neck positioning to reduce discomfort and increase function.

A majority of people living with motor neuron disease (MND) experience weakness of the neck and as a result, experience head drop. This exacerbates problems with everyday activities (eating, talking, breathing, etc).

Neck collars are often used to support head drop; however, these are typically designed for pre-hospitalization settings to manage and brace the cervical region of the spine.

As a result, it has been recorded that people living with MND often reject these collars for a variety of reasons but most notably because they are too restricting. The current standardized outcome measures (most notably restricting cervical range of motion) used for neck collars are summarized herein along with whether they are suitable for a bespoke neck collar specifically designed for people living with MND.

