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# Individualised care with CuroCell® IQ

 care of sweden  
SUPPORTING LIFE



# A world without pressure ulcers

As our next step towards eliminating pressure ulcers, we introduce an automatic air mattress system with usability in focus. Our award-winning system makes it possible for us to team up with caregivers around the globe, to individualise care and improve health economy. With CuroCell® IQ, we introduce a user-friendly system that automatically adjusts to each individual user.





# With automation and usability in focus

CuroCell® IQ is developed with usability in focus. The system identifies and automatically adjusts itself to the user, thereby allowing better care for the user as well as an easier workload for the caregivers. CuroCell® IQ has an automatic control unit with a user-friendly interface aimed to make it easy to manage the system.

No manual  
settings  
required.



## Good comfort

The CuroCell® IQ control unit is pre-set to the pulsating mode, which offers a good comfort and effective pressure relief<sup>(1)(2)</sup>. Sleep, in combination with a calm and quiet environment are key factors in recovery and increased well-being<sup>(3)(4)(5)</sup>. CuroCell® IQ offers low noise- and vibration levels with the aim to achieve a good nights sleep and recovery.

The function Air Flow Control™ allows the mattress to reuse the air inside it. The feature provides a constant temperature in the mattress as well as quiet, calm and stable airflows.

## Reliable solution

CuroCell® IQ offer an automatic system, designed for safety and efficiency. The control unit is equipped with active sensors, prepared to continuously react to body position changes without the need of any manual settings or adjustments. By offering an automatic solution, the CuroCell® IQ means less handling for staff and good comfort and safety for the user.

<sup>1</sup> Dr Peter Worsley, Dr Luciana Bostan and Professor Dan Bader. Investigation of the biomechanical and physiological responses to prolonged lying postures during three mattress modes. Unpublished manuscript. University of Southampton, 2018.

<sup>2</sup> Beeckman D., Van Hecke A., Verhaeghe S., Van Damme N., Manderlier B., Zwaenepoel E. The use of a fully automated pulsating support system (CuroCell® A4 CX20) in pressure ulcer prevention and treatment: a clinical test in 10 Belgian nursing homes, International Wound Journal. Unpublished manuscript. Gent University, 2019.

<sup>3</sup> Hagerman I et al., "Influence of intensive coronary care acoustics on the quality of care and physiological state of patients", Int J Cardiol. 2005 Feb 15;98(2):267-70

<sup>4</sup> Hsu et al., "Noise pollution in hospitals: Impacts on patients", J. Clin. Out. Mgmt. 2012, vol 19, no 7, p301-309

<sup>5</sup> Johansson et al., "The sound environment in an ICU patient room - a content analysis of sound levels and patient experiences", Intensive and Critical Care Nursing Journal, Oct 2012, 28(5), p.269-279

# CuroCell® IQ is developed with the pulsating mode

Based on good clinical results and a documented good comfort, CuroCell® IQ is supplied with the pulsating mode. The control unit has the pulsating mode as a default setting, which create good conditions for an individualised care. By having the pulsating mode as a default setting that automatically adjusts to each individual user makes CuroCell® IQ our most user-friendly control unit.

## How does the pulsating mode work?

The pulsating mode combines pressure-relieving effect with the benefits of constant low pressure (reduced maximum pressure). The pulsating mode means that the pressure in the mattress alternates and that the cells are emptied on air, but not completely. This mode gives off a lower maximum pressure against the skin and less movement on the mattress, which increases stability and comfort. The pulsating mode's clinical effect has been examined in scientific studies where both tissue perfusion, and preventative- and treatment effects have been measured.

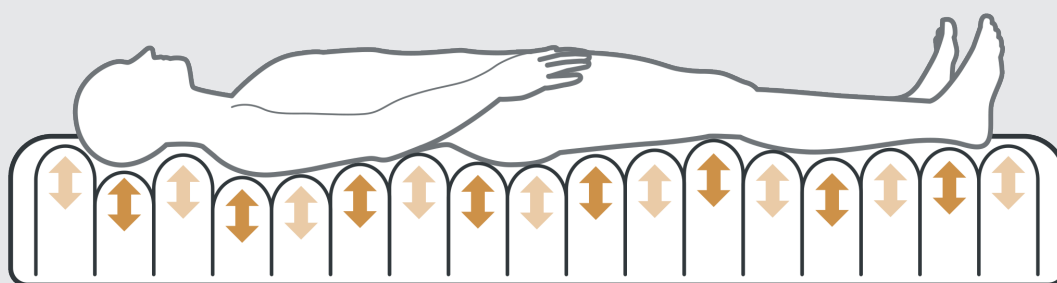
## Good results of the pulsating mode in clinical study

In a study performed by the University of Southampton the pulsating mode was compared to both the alternating mode and the constant low pressure mode. The study included 12 voluntary participants, lying in various positions where tissue pressure, oxygen and carbon dioxide pressure was measured. The result of the study showed that the pulsating mode was the most effective way to assure an even blood flow in the user's tissues.<sup>(1)</sup>

<sup>1</sup> Worsley P, Dr Bostan L., Bader D. Investigation of the biomechanical and physiological responses to prolonged lying postures during three mattress modes. Report from University of Southampton, 2018.



Remove the connection if CPR is needed.  
The built-in transport function will keep the air in the mattress during transport.



The clinical effect of the pulsating mode has been investigated in scientific studies where both tissue perfusion, as well as prevention and therapeutic effect is measured.<sup>(1) (2)</sup>

## Proven for both prevention and treatment

A clinical study was performed together with Gent University that included 40 users with a high risk of developing pressure ulcers from 10 different nursing homes in Belgium. The study showed good clinical results of the pulsating mode. The participants were divided into two groups and the study evaluated comfort, prevention, and treatment effects. The follow-up period was 30 days.

Only one pressure ulcer was developed with the use of the pulsating mode, which is a relatively low cumulative pressure injury incidence. The users perceived the mattress as being both quiet and comfortable. Users with already existing pressure ulcers were included in the treatment group. The healing process was followed up daily, and after 30 days all pressure ulcers except for one had improved and four pressure ulcers had healed completely.

<sup>1</sup> Zwaenepoel, E., et al., Int Wound J, 2020 17(1).

<sup>2</sup> Worsley P, Dr Bostan L., Bader D. Investigation of the biomechanical and physiological responses to prolonged lying postures during three mattress modes. Report from University of Southampton, 2018.

# An innovative and flexible solution

## A complete solution for individualised care

CuroCell® IQ offers a solution for users, caregivers and care units, including values beyond product features. Qualitative medical devices will be needed to eliminate pressure ulcers, along with specialised services. CuroCell® IQ is designed with the purpose of contributing to a simple and effective handling to be able to offer an individualised care.

No two users are alike, and their different needs have affected the development of our pressure-relieving mattresses. To support different needs, we have developed CuroCell® IQ to be compatible with five different mattresses. This makes it possible for care units to invest in a range of mattresses, all compatible with the same control unit.



### For an improved microclimate

Air Flow Control™ is a technology that provides a constant temperature, increased user comfort and lower energy consumption.



### Pack&Go® simplifies deflation

With the Pack&Go® function, a press of a button is all that's needed to empty the mattress of air. Staff can easily pack the mattress away, and avoid having to manually squeeze the air out of used and contaminated products.





## Award-winning design

Care of Sweden's automatic products in the CuroCell® range have been internationally rewarded for its design.



The same control unit goes with all the mattresses.



## CuroCell® IQ is available in the following models:

- CuroCell® IQ OP10: 10cm mattress overlay up to 160 kg
- CuroCell® IQ CX10: 10 cm mattress overlay up to 200 kg
- CuroCell® IQ CX15: 15 cm mattress replacement up to 220 kg
- CuroCell® IQ CX16: 16 cm mattress replacement up to 200 kg
- CuroCell® IQ CX20: 20 cm mattress replacement up to 250 kg

# Together with caregivers, eliminate pressure ulcers.



This has been our goal since our start in 1999 – that together with caregivers eliminate pressure ulcers. We develop aids to the health care as a step towards our vision. Our products enable an individualised care for the users, an improved workload for the caregivers and contributes to an improved health economy. Together we make it possible.

/Magnus Högberg, founder, owner and CEO



Care of Sweden is an innovative company in the medtech sector, devoted to the cause of eliminating pressure ulcers around the world. Our product range covers mattresses, positioning pillows and seat cushions, used as an aid in the prevention as well as treatment of pressure ulcers. Our head office, R&D and production are located in Tranemo, western Sweden, and our products are used in care facilities across Sweden as well as in many other parts of the world.

