





## Air and foam together for good redistribution

CuroCell® IQ Cirrus combines air with a soft foam surface and provides good user comfort and pressure redistribution <sup>(1)</sup>. The heel function offers additional protection that helps to relieve the pressure on the heels. Moreover, the dual cover system helps to reduce the shearing effect when adjusting the bed.

"Our staff found the mattress quiet and easy to handle. As the air cells are less noticeable than in many other mattresses, we used it for a patient who found pressure adjustments in other mattresses unpleasant, with good results."

Nurse, Sweden

#### The design of CuroCell® IQ Cirrus

The design of CuroCell® Cirrus, providing a combination of air and foam, makes it possible to combine good pressure redistribution and comfort. The foam core surrounding the air cells provides stability and contributes to a smoother airflow, which is gentle for the user. With a liquid proof, yet vapour permeable cover(2), the mattress also contributes to reduce the risk of skin maceration. Evac cover is available as an addition, and the cover is aimed to support a fast and secure evacuation.

The inner cover is made of PU coating, an elastic fabric which help to reduce shearing and friction, and also provides good cleaning properties. The inner cover also contributes to the good comfort of the mattress. Reinforced sidewalls with the aim to offer stability and safety for the user.



#### For an improved microclimate

Air Flow Control  $^{\text{TM}}$  is a technology that provides constant temperature, increased user comfort and lower energy consumption.

<sup>&</sup>lt;sup>1</sup> Hsu et al., "Noise pollution in hospitals: Impacts on patients", J. Clin. Out. Mgmt. 2012, vol 19, no 7, p301-309.

<sup>&</sup>lt;sup>2</sup> SS-EN ISO 15496:2004, DIN 53122-1.

## Automatic and easy to use

CuroCell® IQ is developed with a focus on usability. 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.



#### **Good comfort**

The CuroCell® IQ control unit is preset to the pulsating mode, which offers a good comfort and effective pressure relief (1) (2). Sleep, in combination with a calm and quiet environment are key factors in recovery and increased well-being (3) (4) (6). 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.



No manual settings required.

- <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 let 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

"We borrowed a CuroCowith complicated and pressure ulcers, and alwe received positive fe nursing staff. For the fi while, they had turned without her expressing

Occupational Therapist, Sweden

ell Cirrus for a patient deteriorating ready the first night edback from the rst time in a long the patient in her bed gany feeling of pain."

# Pressure redistribution and comfort

CuroCell® IQ Cirrus is used as an aid in the prevention and treatment of pressure ulcers up to and including category IV, and unclassified pressure ulcer. It is a replacement system suitable for all types of healthcare environments.



"Many of our patients have problems with sleeping, due to great pain. However, we see a difference after starting to use CuroCell® Cirrus."

Nurse, Denmark

#### Award-winning design

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





- 1 Pulsating pressure on soft foam surface
- 2 Cable management
- 3 Soft, elastic, vapour permeable hygienic cover
- 4 Hygienic cover with welded seams
- 5 Heel slope, for pressure relief of heels
- 6 Control unit with low noise-and vibration levels
- 7 CPR with integrated transport function
- 8 Sound and light notification for low pressure
- 9 Sound and light notification for power failure

#### CuroCell® IQ Cirrus is developed with the pulsating mode

Based on good clinical results and a documented good comfort, CuroCell® IQ Cirrus 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.

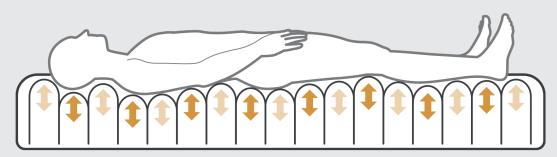
#### Good results of the pulsating mode in clinical study

In a study performed by the University of Southhampton 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.(1)

<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.



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 preventionand therapeutic effect is measured. (1) (2)

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

<sup>&</sup>lt;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.

### Together with caregivers, eliminate pressure ulcers.



Since we started in 1999, our vision has been to eliminate pressure ulcers. With the goal to develop sustainable medical aids for healthcare, we continue to take steps towards this vision. Our products enable an individualised care for the users, an improved workload for 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.

