Thopaz™

Smallest digital thoracic drainage system in the world

“What I want ... is a safe and efficient thoracic drainage therapy.”

Precious life. Progressive care.
Thopaz - designed to improve and simplify patient management

Thopaz sets new standards in thoracic drainage therapy by integrating the suction source with a digital display of the therapy’s progress. It combines portability and safety with full digital monitoring of the treatment. Thopaz is quiet. Patients enjoy a more restful healing environment during their hospital stay. It is highly regarded by patients, physicians and the nursing staff alike.

What we always wanted is a cutting-edge digital thoracic drainage system.

Thopaz benefits at a glance

<table>
<thead>
<tr>
<th>Requirements for cutting-edge thoracic drainage systems</th>
<th>Features</th>
<th>Benefits</th>
</tr>
</thead>
</table>
| Promotes mobility                                        | • Complete system with integrated suction source  
• small                                              | • More rapid recovery after the operation  
• Increased patient comfort  
• Reduced workload for nursing personnel |
| Ensures digital documentation                              | • Electronic measuring and monitoring functions  
• Data transfer to PC                                    | • Important digital data for an objective evaluation of the course of therapy  
• Supplements patient records with therapy data  
• Supporting documentation in liability cases |
| Guarantees safety                                         | • Ease of handling  
• Alarm management                                       | • Cannot be assembled/connected incorrectly  
• Early intervention of problems or irregularities in the course of therapy |
| Incorporates research                                     | • Based on international, randomised, controlled, clinical studies | • Scientific evidence of the efficiency and safety of Thopaz |
With Thopaz, patients are able to leave the hospital sooner.

* Studies show that, due to the ‘fast track surgery’ general complications such as pneumonia, thrombosis or cardiac problems are decreased by up to one half.

### Mobility

**Quicker healing and higher patient comfort**

Early mobilisation of patients with continuous suction, as part of postoperative early (‘fast track’) rehabilitation, after a thoracic surgery:
- lowers overall risks*
- encourages quicker patient recovery after the operation
- enhances patient’s quality of life
- reduces workload for nursing personnel
- minimises cost of care

Thopaz is designed to support the concept of permitting more mobility to the patient in less time after the operation. The device is small and portable. With a simple handle the pump can be removed from the docking station. The patients is able to visit cafeteria independently or can attend examinations without the assistance of nursing personnel.

**Thopaz unifies all elements for an early mobilisation of patients**

- Integrated suction source
- Rechargeable battery
- Compact design
- Lightweight
- Quiet

* Mobility
Improved clinical practice
The digital data provided by Thopaz is objective and empowers the physician to offer superior therapy. It proves to be a powerful ally in improving chest drain management, unifying hospital practices and reducing hospital costs (see page 7).

With Thopaz the user is no longer reliant on estimation, as Thopaz quantifies the parenchymal flow in real time. One push of a button makes it possible to track the effectiveness of therapy over a 24-hour period. The physician can detect any changes in the air leak early and take appropriate measures quickly.
In addition, with Thopaz, a reliable baseline is generated to make the decision to discontinue the drainage easier.

Therapy documentation with ThopEasy
The software provided with the system, enables the transfer of data (pressure, flow) to a PC as well as input of patient information. The data can be stored or printed. It can be used as documentation for research purposes or added to the patient record.

Digital monitoring of the patients improves clinical practice.
Safety

More safety with less monitoring
Thopaz offers all the basic safety functions of conventional systems with a water seal. Furthermore, the system has innovative features for even more comfort and safety: Thopaz’s electronic system measures and compares pressure and flow values on a continuous basis. Any irregularities during the thoracic drainage therapy alert the user through visual and audible alarms, empowering the physicians and nursing staff to intervene promptly.

Easy to start-up and handle
Thopaz is ready to use with just a few simple steps. It is not possible to connect the tube or the canister incorrectly. The system requires no fluids for operation.

A sophisticated alarm management unit performs crucial monitoring functions.
Based on research

Evidence-based improvements in clinical practice
Medela undertakes substantial investment in basic research and clinical studies. The extensive knowledge this creates is utilised to develop progressive solutions that optimise medical treatments, improves the quality of life for patients, and reduces costs to hospitals.

A short summary of the research demonstrates the medical, workload and financial benefits of the Thopaz system:

Benefits to the Patient
- Allows for earlier chest tube removal\(^1,2,4,5,6,8\)
- Reduces duration of hospital stay\(^1,2,3,4,5,6,8\)
- Earlier and improved mobility for patient\(^1,2,3,6,8\)
- Thopaz scores highest for patient satisfaction\(^5,7,8\)
- Thopaz is 75% quieter and reduces sleep disturbance\(^6,7\)
- Reduces the incidence of complications\(^5,7\)

Benefits to Clinicians
- Digital data empowers junior staff to manage chest tube drains\(^2,8\)
- Surgeons are no longer reliant on estimation\(^3\) with discrepancy between observers being reduced\(^6\)
- Ability to track history of air leak reduces legal risk to Physician\(^3\)
- Nursing staff prefer Thopaz due to safety and ease of handling\(^2,3,5,8\)
- Thopaz is easy to teach and easy to use\(^5\)
- Thopaz has useful alarms\(^3\)
- Nurses like the improved fluid handling and infection control\(^2,5\)

Benefits to the Hospital
- Thopaz reduces hospital stay\(^2,5,8\) with overall financial benefit for the hospital\(^2,5\)
- Thopaz reduces the cost to the hospital\(^5\)
- Digital chest drain reduces the cost to the hospital\(^4\)
- Thopaz empowers the hospital in the management of chest tubes, unifying hospital practices and simplifying ward rounds\(^2\)

References
\(^3\)Mier JM, Molins M., Fibla JJ. The benefits of digital air leak assessment after pulmonary resection: Prospective, randomized and comparative study. Presented at ESTS, 2009.
\(^7\)Kim DK. Postoperative Early Ambulation with Thopaz. Presented at ATCSA, 2009.
\(^8\)Bryant AS., Cerfolio RJ., Rudemiller K., Hatch NU,. In Preparation
The small, lightweight, complete solution

Thopaz is a complete, extremely efficient thoracic drainage system. It is comprised of a suction unit, disposable canisters, and tubings. The set-up and handling of the device is very easy. Well-designed accessories add even more comfort to the lightweight system.

1. Disposable canister (0.3 L/0.8 L)
2. Small, quiet suction pump
3. USB port for data transfer
4. Mains adapter port
5. Double lumen patient tubing

Accessoires

Docking station
Thopaz is placed in and removed from the docking station with a convenient handle. The docking station can be placed on a level surface or attached to a rail by means of the rail clamp.

Carrying strap
The carrying strap is practical, safe and discrete. Instead of carrying the pump by the handle, the carrying strap can be placed across the shoulder.
Consumables

Thopaz is a system that can be combined with a number of tailored accessories. Always focusing on the benefits for the user, the solutions demonstrate the intelligence of the smallest thoracic drainage system.

**Thopaz tubings**
The double lumen tubing allows for monitoring and regulation of the intrapleural pressure of the patient. This feature allows Thopaz to detect if the tubing is kinked or clogged and to alert the nursing personnel.

**Thopaz canisters**
For the collection of fluids Thopaz offers two disposable canisters with 0.3L and 0.8L capacity, with and without integrated solidifier.

The innovative press&shake technology allows an on demand release of solidifier and an unimpaired fluid quantification until the canister is full.

1. Simply press the membrane on the reverse
2. Gently shake to accelerate solidification

The unique press&shake* technology provides a high hygienic and cost effective disposal of canisters.

*Patent pending
How can Thopaz help you improve your clinical practice?

Thopaz involves a completely new concept in the field of thoracic drainage therapy which improves patient outcomes and the efficiency of medical practice within the hospitals. During clinical use the numerous feedbacks from the various users confirm the advantages of Thopaz in everyday life:

From the physician’s perspective…
Provides important, objective information and monitors the patient’s therapy.

From the nursing staff’s perspective…
Represents a significant reduction in workload and leads to improved safety.

From the patient perspective…
Is very quiet and handy.

A step in direction of a more standardised chest drain management
The continuous recorded treatment data provides a significant advantage in making safe decisions for chest tube removal. The experience shows that the digital system is more accurate and consistent than analogue systems, which helps unify practices and simplify ward rounds.

Streamlined hospital practice in chest tube management leads to better care for patients and cost savings for the hospital.

Course of thoracic drainage therapy recorded with Thopaz