Center for Thoracic Surgery and Intrathoracic Vascular Surgery

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HUST Wuhan

Central Hospital Delmenhorst
- Germany -

Information for Professionals

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Prof. Dr. med. Martin Teschner
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# Information for Professionals

Central Hospital Delmenhorst - Operations and Therapies - Service - Contact

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A. A journey from the past to the present

As early as in 1928 the first „Infektionshaus“, a hospital for infectious diseases, was opened on the site of the present hospital, mainly for patients suffering from tuberculosis. The site featured multiple buildings, called pavilions, with wide balconies providing excellent conditions for the treatment of the “white plague” as far as that was possible at that time.

At the end of World War II Delmenhorst’s population multiplied, so additional buildings had to be erected. The introduction of antitubercular medication led to a decrease in patient numbers, but at the same time growing cigarette consumption and an occupational exposition to asbestos, especially in the wharves and the ports in the area of Delmenhorst, caused an overproportionally increasing incidence of pulmonary malignant tumors, such as bronchial carcinoma and pleural mesothelioma. Both trends resulted in a growing need for medical therapy of pulmonary diseases in Delmenhorst.

Pic. 1 Central Hospital Delmenhorst, Lower Saxony (Germany); the oldest building opened in 1928.
B. Thoracic Surgery today

The Center of Thoracic Surgery and Intrathoracic Vascular Surgery can dispose of all modern technical and logistical methods for diagnosis and surgical therapy, including computertomography (CT), magnetic resonance imaging (MRI), minimally invasive procedures, Laser- or Argon-Beamer carbonisation, bronchography and digital bronchoscopy. Patients with highly contagious diseases are cared for in a special unit for infectious diseases.

All other than pulmonary affections are specially looked after by an interdisciplinary network of internal, pneumological, kardiological and anesthesiological therapists. Severe conditions are treated by the team of our intensive care unit.

Our modern techniques of vascular surgery are decisive for radical but lung tissue preserving resections, not only of pulmonary or mediastinal tumors but also of traumatic lesions or congenital vascular anomalies.

New developments, such as the “interventional thoracoscopy” and the surgery of intrathoracic neural lesions (e.g. idiopathic paralysis of the N.phrenicus) were introduced by our department.

Pic. 2 Center for Thoracic Surgery, newest building, opened in 2008
C. Patient care

The Center for Thoracic Surgery and Intrathoracic Vascular Surgery provides operative therapy especially for patients coming from all lands of the world.

Pic. 3 Reception area of ward C2 (thoracic surgery)

Pic. 4 Patient rooms, spacious and friendly, equipped with facilities for physically handicapped persons

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The north wing of the old building was converted to a modern outpatient clinic, conserving the architectural details.

Pic. 5 Outpatient clinic of the Center for Thoracic Surgery and Intrathoracic Vascular Surgery

D. The Team

A team of specialists is prepared to treat patients with all kinds of thoracic diseases:
**Pic. 6**  
**Prof. Dr. med. Martin Teschner,** specialist for general, thoracic and vascular surgery and medical director of the Center for Thoracic Surgery and Intrathoracic Vascular Surgery  
(e-mail: Teschner.Martin@klinikum-delmenhorst.de)

**Pic. 7**  
**Mrs. Iris Martens,** chief secretary of the Center for Thoracic Surgery and Intrathoracic Vascular Surgery  
Tel.: 0049/ 4221 – 994263; FAX 0049/ 4221- 994265.

**Pic. 8**  
**Dr. med. Matthias Esch,**  
Specialist for general surgery and assistant medical director
Pic. 9

**Dr.med. A. Müller**, psychooncologist; specialist for the psychological assistance to patients with malignant diseases

Pic. 10 und 11  The nursing team of ward C2 (thoracic surgery)
Pic. 12  Specialised and experienced in the care for patients of thoracic surgery: the nursing team of ward
E. Spectrum of medical therapies

For surgical treatment the Center for Thoracic Surgery and Intrathoracic Vascular Surgery can dispose of adequate capacities in the modern intensive care unit, the operation theatres and the department for endoscopy.

Operative procedures are performed on

Children (5 years and older) and adults (regardless of age) suffering from

- Tumors of the airways, the lung or the mediastinum, such as
  a. Bronchial carcinoma
  b. Metastasis
  c. Benign or malignant pleural tumors (e.g. mesothelioma)
  d. Benign or malignant tumors of the thymus gland

- Intrathoracic infections with empyema or abscess
- Residual effects of traumatic lesions
- Cysts or bullae (pulmonary emphysema)
- Residual symptoms of tuberculosis
- Congenital anomalies (e.g. bronchiogenic cysts, anomalies of blood vessels or lung tissue)
- Lesions and diseases of the trachea

No operations are performed on
- Patients with cardiac diseases necessitating the use of a heart-lung-machine (e.g. cardiac bypass operations or cardiac valve implantations);
- Vascular Alterations of the central Aorta (from the heart to the branch of the artery supplying the left arm).

The routine implantation of peridural catheters (for the first 3 days) allows the efficient control of postoperative pain by a continuous spinal application of analgetic medications.

F. Special Surgical Techniques

1. Operative Approaches

Thoracic approaches via the side or the back (anterolateral or dorsolateral), which had frequently been used in the first centuries of thoracic surgery, are now abandoned in favour of an approach through the anterior thoracic wall between the 4. and 5. rip. This allows large resections although the wound is only ca. 10 cm long.

For minimally invasive operations the number of approaches was reduced from 3 to only 1 remaining. This approach is set up in the front axillary line through the space between the fifth and the sixth rip. It is used for a digital camera and for the operative instruments at the same time. This procedure reduces postoperative pain significantly. If necessary the same approach can be extended to ca. 4 cm for larger resections, a procedure called “interventional thoracoscopy”, allowing a combination of minimally invasive and conventional surgical techniques.

Benign tumors of the thymus gland can be removed using the minimally invasive procedure coming from the left side through the space between the 4. and 5. rip.

Pic. 14 Size and localisation of the skin cuts for the performance of a thoracic operation using classical technique (blue marks) or combined with minimally invasive methods (red marks)
2. Putrid Infections of the Pleura (Pleural Empyema)

Today the treatment consists of an operative debridement and extensive lavage using 15-50 liters of saline solution. Only in 2% a continuous lavage over 2-3 weeks is necessary after the primary operation.

3. Sleeve-Resections

Sleeve-resections are indicated for the operative removal of tumors extending to the central origin of larger bronchi (lobar or segmental) or infiltrating neighbouring blood vessels. This procedure allows a sparing resection of lung tissue and has resulted in a decrease in the number of pneumonectomies.

Today lobar bronchial sleeve-resection is a standard procedure, but segmental sleeve-resections are reserved for special indications, such as the resection of bronchiectasis in pulmonary emphysema.

Double sleeve-resections include bronchial and vascular sleeve-resections in one operation.

**Pic. 15** Example of the resection of a tumor of the windpipe. After the tumor-bearing segment has been removed, the ends are united using special sutures.
4. Suction Therapy

Drain tubes implanted during or before an operation allow the appliance of negative pressure to remove trapped or incoming air. Specially designed suction systems allow the application of up 120 mm Hg of negative pressure. In case of fistulas of the lung tissue a loss of 30% of breathing volume can be compensated using these systems. The application of fibrin glue or kollagen fleeces is not necessary anymore.

5. Extensive Lung Resections

Intrapericardial operations as well as the replacement of large veins leading to the heart (e.g. Vena cava superior) are routinely performed. Veins are ligated including their base in the cardiac atrium and replaced by GoreTex-implants, Aortic sections are replaced by Dacron-bypasses.

G. Logistics and Equipment at the Center for Thoracic Surgery and Intrathoracic Vascular Surgery

- 7 Operationtheaters (5 aseptic theaters, 2 for operations of infectious diseases);
  - 3 MIS- Facilities (minimal- invasive surgery)
  - Argon- Beamer
  - Ytrrium-Laser
  - Intraoperativ, neuronal stimulation
  - Intraoperative Sonographie
  - Special operative instruments for vascular and thoracic surgery

- Intensive Care Unit with 14 Beds
  - Analogue Bronchoscopy- Unit (Storz)
  - Digital Bronchoscopy- Unit (Olympus)
  - Evita XL/4/2 Respirators (Dräger)
  - Hämofilter (Edwards)
  - Modular Monitoring- System (Siemens SC 8000, with portable and stationary Moduls)
  - Regularly renewed technical devices (defibrillators, pumps etc.)
  - Isolation unit for contagious patients.

- Patient ward with modern 1-3 bed-rooms, TV, bath and shower, opened in 2008.

- Digitale Bronchoscopy- Units (Olympus) with digital storage- and documentation-system.
H. Requirements for a Thoracic Operation

Essential Requirements are

- a general condition and lung function of sufficient quality,
- the technical possibility to perform a resection,
- the oncological indication of an operation in case of a malignant disease (“oncologic indication” means the sense in an operative treatment according to the growth of a malignant tumor, the possibility of affected lymph nodes and metastasis),
- the consent of the patient to diagnostic and therapeutic procedures as well as the transmission of data.

I. Contacts

A. Patients from Germany or Western Europe

Our secretary can be reached from Monday to Thursday from 8 a.m. to 5 p.m. and on Fridays from 8 a.m. to 2 p.m.
Tel.: from Germany 04221/ 99 4263, from other countries: 0049/ 4221 – 99 63

FAX: from Germany 04221/ 99 4265, from other countries: 0049/ 4221 – 99 4265

e-mail: Teschner.Martin@klinikum-delmnhorst.de

B. Patients from China, Russia or Eastern Europe

Tel.: 0049/ 4221 – 99 4263

FAX: 0049/ 4221 – 99 4265

e-mail: Teschner.Martin@klinikum-delmnhorst.de

or

via the Institut for International Medical Contacts:

Frau Monika Kellner,
Director of the Institut for International Medical Contacts, Contact for Poland
e-mail: MonikaKellner@yahoo.de

Frau Olga Beim, contact for Russia
e-mail: olga.beim@web.de.
J. How to find us

How to get to us by car

Coming from Bremen take the A1 (direction of Osnabrück) until exit “Delmenhorst-Ost”, then get on the A28 (in the direction of Oldenburg) until the exit “Delmenhorst-Deichhorst”. Turn right at the autobahn-exit, the hospital is on the left hand side after ca. 500 meters.

How to get to us by train

Get of the train at “Delmenhorst-Hauptbahnhof” (Delmenhorst main station), exit the station to the bus terminal (“ZOB”). Take the bus line Nr. 201 and exit at the bus stop „Wildeshauser Straße/ Krankenhaus“ directly in front of the hospital.

How to reach us by bus coming from Bremen

At the bus terminal beside Bremen main station take the “Bahnbus” to “Delmenhorst-Hauptbahnhof”. Change there to bus line Nr. 201 and exit at the bus stop „Wildeshauser Straße/ Krankenhaus“ directly in front of the hospital.
Pic. 17 Delmenhorst in Lower Saxony/North Germany, near Bremen.

Pic. 18 Natural and comforting area surrounding the Klinikum Delmenhorst.
Pic. 19 The hospital premises with forest and meadows.