The Surgery Clinic is one of the largest in the hospital: more than 200 people work in its six departments. Over 23,000 out-patient admissions and nearly 6,000 operations are performed here every year. On average, 16 operations are performed in the clinic each day.

The Surgery Clinic is the only one in Estonia that is responsible for performing organ transplantation. Renal transplantations have been performed since 1968 and liver transplantations since 1999. The clinic is also successful in developing special fields such as plastic surgery and hand surgery.

As the leading surgery clinic in Estonia, constant development is the primary field of action including implementation of new technology. On average, 3–4 new diagnostic or treatment methods are implemented per year. For example, in 2007, another new laser method for treating vascular diseases of the skin shall be introduced in children’s surgery. As for adults, a new laser method for treating foot ulcers shall also be introduced.

Surgery without scalpel

Similar to medicine in other developed countries, less traumatic endoscopic surgery is being developed successfully in the Surgery Clinic. In 1993, the first endoscopic operations performed in the clinic included removal of gallstones from the gall bladder. Today, such operations are performed on various organs in the case of 24 different diseases, and also on children.
Base for medical training

The Surgery Clinic is one of the bases for the studies, scientific and developmental activities of the Tartu University Medical Faculty and specialists in five surgical fields are trained here: general surgery, plastic surgery, children's surgery, urology and vascular surgery. In addition, the clinic has an important role in organising in-service training for doctors and surgeons.

The Surgery Clinic is also the base for the Tartu School of Health Care and its objective is to conduct pre- and post-graduate training for nursing staff.

Research and development activities

The Surgery Clinic insists upon research and development activities by doctors and nurses. During the last five years, the doctors from the six departments of the clinic have released 161 publications. The most important aspect of these is the publication of 58 scientific articles, 16 of which have been published in internationally recognised science magazines.

The results of studies conducted in the Surgery Clinic have successfully been realised in doctoral theses. In 2003, Toomas Sillakivi, Margot Peetsalu and Jaan Soplepmann successfully completed their doctoral theses regarding the treatment of peptic ulcer complications and the distance results of surgical treatment. The doctoral thesis of Dr Margus Punab in andrology regarding male fertility and its risk factors is soon to be completed. Marju Gruno and Andres Tein shall continue their doctoral theses regarding guster mucous membrane studies in various guster diseases, and Jaanus Kahu shall continue his doctoral thesis regarding methods of
improving the results of renal transplantation. The supervisor for these theses is Prof. Ants Peetsalu.

The successful research work in the clinic has led to functional cooperation with the Polyclinic, Anaesthesiology and Intensive Care Clinic as well as Tartu University Biomedicum. Cooperation with international centres, expressed in collective publications, is also especially active with clinics in Helsinki (Finland), Düsseldorf (Germany) and Toledo (Spain).

In nursing, 20 scientific articles have been published over the last five years.

In 2005, Tatjana Oolo and Karina Lõhmus completed their master’s theses.

In 2003, Ülle Kirsimägi completed her master’s thesis on a renal transplantation study in applied statistics.

Cooperation with foreign centres and their representatives

Development work is continuing due to the good contacts the Surgery Clinic has with foreign clinics. Recently, several distinguished professors have visited and performed sample operations:
- Prof. Risto Rintala, professor of children’s surgery at Helsinki Children’s Hospital;
- Ass. Prof. Seppo Taskinen;
- Prof. Hans Peter Berlien from Berlin (consulted and gave lectures on children’s surgery);
- Prof. Johannes Jeekel from Rotterdam University’s surgery clinic;
- Prof. Jan Danis from Vienna;
- Prof. Ari Leppäniemi;
- Prof. Simo Vilkki from Tampere University’s surgery clinic, helping to implement the field of hand surgery in Tartu and Estonia generally.

In the field of organ transplantation, the Helsinki University organ transplantation centre is a regular cooperation partner and, if needed, offers round-the-clock advisors: Ass. Prof. Kaija Salmela and Ass. Prof. Björn Eklund in renal transplantation, and Prof. Krister Höckerstedt in liver transplantation.

SURGERY CLINIC DEPARTMENTS

General surgery

A leading endocrinology centre, which performs nearly 50% of all endocrine operations in Estonia. During recent years the local department has successfully introduced large intestine laparoscopic surgery in treating both malignant and non-malignant diseases. The department specialises in hernia surgery. At the moment, two research trials regarding the use of ultra-light nets in the treatment of inguinal and scar hernia are underway.

The department has many years of experience in the surgical treatment of bleeding caused by gullet venous expansion and chronic pancreatitis.
Abdominal surgery

A leading endoscopic surgery centre. The department’s long surgical experience enables it to diagnose and treat nearly all surgical diseases of the digestive tract.

The department is a leading hepatobiliar centre, developing the field of exterior liver biliary duct surgery. This is the department that has successfully implemented liver transplantation.

Children’s surgery

A leading children’s surgery centre which provides surgical help in the case of scheduled and acute surgical, orthopaedic, urological and oncological pathology, innate malformation etc at young ages.

During recent years, this department has successfully implemented new operation methods for large intestine, gullet, urological and innate hand malformations in cooperation with specialists from Helsinki and Tampere University clinics.

Urology and renal transplantation

All urology-related (including uro-oncologic) patients are treated in this department. Uro-oncologic issues are decided in cooperation with oncologists. In the case of cancer, total
prostatectomy and removal of the kidney and bladder are performed, after which the bladder is replaced with a part of the small intestine.

This department is the only one in Estonia where renal transplantations are performed. Recently up to 60 transplantations have been performed each year.

Vascular surgery

The Surgery Clinic’s vascular department is the leading centre of reconstructive vascular surgery in Estonia. More than 1,100 in-patients are treated here and over 600 different reconstructive artery operations are performed, accounting for more than 40% of all artery operations performed in the country. Recently the number of reconstructive brain artery and peripheral artery operations has increased significantly.

In cooperation with specialists from the angiography department, the endovascular treatment method for arteries has been implemented.

In cooperation with Budapest Semmelweiss University’s Cardiovascular Surgery Clinic, the department is successfully developing the endarterectomy method for both ilio- and femoral arteries, which is an important alternative to shunting operations. The local department is also the leading centre in vascular surgery education in Estonia.

Out-patient surgery
The department provides consultation in the fields of general surgery, children's surgery, vascular surgery, urology and renal transplantation, and plastic surgery. The department also deals with issues of hand surgery diagnostics and treatment.