

Estonia



Oral and Dental **Care**

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Introduction

Dear Student

◆ *We are happy that you chose to do your practice in Estonia. Welcome! We hope that you will have a worthwhile learning period here and that you enjoy staying in our country.*

The purpose of this handbook is to give you a brief overall view of health and dental nursing education system, focusing more on oral care in Estonia. In the booklet you will also find some practical recommendations which may help you to prepare your visit to Estonia. You will also find description of a working day in dental centre and some descriptions of the roles of doctors, dental nurse/assistant in a real work situation – we hope that it will help you in your practical placement.

We have added to this booklet a short glossary to be sure that we all have mutual understanding of terms used in oral care and a very short bilingual dictionary (Estonian – English, English – Estonian) for everyday use in your practical placement.

You will also find some useful internet addresses in this booklet for additional information.

1. Guidelines on Oral and Dental Health Policies of WHO and EU

◆ Oral health is not to be seen just as a specific of health care and promotion of well-being – it means more than just good teeth, it is integral and essential to general health. This viewpoint has been identified in the World Health Organisation's (WHO) '**The World Oral Health Report 2003**' resulting in '**Continuous Improvement of Oral Health in the 21st Century – the approach of the WHO Global Oral Health Programme**'.

The future oriented disease-preventing and health promoting policy is based on the following common facts: oral health as an integral and essential factor of general health implies being free from chronic oro-facial pain, oral and throat cancer, oral tissue lesions and other diseases and disorders that affect oral, dental and craniofacial tissues. Oral health problems and general health problems are primarily the result of the same common risk factors that are interrelated. Although these points capture the wider meanings and target it does not take away from the relevance of major global oral problems such as caries and periodontal diseases.

Preventative work and early detection of oral diseases with proper treatment is crucial and positive is crucial and has positive as in the reduction of premature mortality, microbiological

infections and immune disorders to mention a few.

From a broad based viewpoint such as common oral health issues like caries and periodontal diseases are global problems as well as other oral diseases too, they are to be considered as major public health problems. This applies both to industrialised countries as well as developing ones. According to WHO's global estimation some five billion world-wide have experienced dental caries. Such estimation is convincing evidence that oral health is an integral part of general health and any person's well being.

What makes oral care and combating the most common problem, dental caries, challenging is that dental caries has been perceived in developed countries, e.g. Member States of the EU, as a problem that has already been overcome. The true situation however is that it affects 60-90% of school children and the vast majority of adults. In a similar manner dental caries is also the most prevalent disease in several Asian and Latin American countries as well.

While it appears to be less severe in most African countries, the report states that with changing living conditions, dental caries is expected to increase in many developing countries in Africa,

particularly as a result of the growing consumption of sugars and inadequate exposure to fluorides.

According to WHO's Global Oral Health Programme the prevalence of oral cancer is the eighth most common cancer of men worldwide. In south central Asia, cancer of the oral cavity ranks amongst the three most common types of cancer. The sharp increases of oral/pharyngeal cancers have also been reported in several countries and regions such as Denmark, Germany, Scotland, central and Eastern Europe, and to a lesser extent, Australia, New Zealand, Japan and the USA. Smoking, smokeless tobacco, chewing betel and alcohol use are all risk factors.

The major priorities and components of WHO's Global Health Programme focus on not only to addressing modifiable risks such as oral hygiene practices, sugar consumption, lack of calcium and micronutrients and tobacco use, but also to major socio-cultural factors. These include: poor living conditions, low education level as well as lack of traditions supporting oral health. Globally countries should ensure the appropriate use of fluorides for the prevention of caries, while unsafe water and poor hygiene are environmental risk factors for oral as well as general health.

Oral health systems need to be focused towards primary health care and prevention. WHO's Global

Scholl Health Initiative, which seeks to mobilise health promotion and education levels at local, regional, national and global levels, has recently been strengthened by an oral health technical document. Increasing emphasis has also been placed on targeting the elderly; by 2050, there will be 2 billion people over the age of 60, 80% of them living in the developing world. The Oral Health Care Programme will make an important contribution to early diagnosis, prevention and treatment of HIV/AIDS, which often shows up first in oral fungal, bacterial or viral infections and lesions.

Poor oral health can have a profound effect on general health and the quality of life. The experience of pain, endurance of dental abscesses, problems with eating, chewing and missing, discoloured or damaged teeth, has a major impact on people's daily lives and wellbeing.

European Strategy for Oral Health

In 2007 the European Council of European Dentists outlines recommendations at a conference in Lisbon; '**Health Strategies in Europe**'. The recommendations are parallel to the WHO's Oral Health Programme are based on the same socio-epidemiological surveys.

Oral health is an integral part of general health and well-being. Good oral health

enables individuals to communicate effectively, to eat a variety of foods, and is important to the overall quality of life, self-esteem and social confidence. A range of diseases can be classified as oral diseases, including dental caries, periodontal disease, oral pathology and cancers, dentofacial trauma and dental erosion. These diseases, although largely preventable, affect a significant proportion of the European Union population and exact a heavy burden on the individuals quality of life and costs to the health care system.

The major risk factors for oral diseases are the same as for major chronic non-communicable diseases such as obesity, heart disease, stroke, cancers, diabetes and mental illness. Rather than attempting to tackle each chronic disease in isolation, a more effective approach is needed with greater emphasis on prevention and health promotion. Directing action at the common-risk factors – e.g. diet, smoking, alcohol, stress Improvements – is an effective and efficient way of reducing the burden of these diseases.

The European Council of Dentists' recommendations in short:

Prevention and oral health promotion

- ◆ A reorientation of oral health care systems is needed to focus more on prevention.
- ◆ Preventive measures must take into account different population groups

according to their differing lifestyles, life stages and life conditions, including children and elderly people.

- ◆ Oral health promotion, based on a common-risk approach, must be an integral part of chronic disease prevention.
- ◆ The public, patients and oral health care professionals must be educated to promote a healthy lifestyle.
- ◆ Member States need to recognise their role in actively and financially supporting measures relating to oral health promotion.

Action on health inequalities

- ◆ Evidence-based population strategies need to be developed and implemented to address underlying determinants of oral health inequalities, paying particular attention to high-risk and disadvantaged individuals or groups.
- ◆ A multi-strategy approach is needed – clinical prevention and health education are not enough to reduce oral health inequalities, so further measures such as legislation, fiscal policy and community development need to be considered.
- ◆ Policies must be encouraged and promoted to ensure access to fluoride for the whole population; this should include the decrease of VAT on fluoride products.

Oral health surveillance

- ◆ Essential oral health indicators must be integrated in health surveillance and data systems.

- ◆ An EU Oral Health Surveillance Institute should be considered.
- ◆ Oral health indicators should be used as markers of health inequalities.
- ◆ Oral epidemiology needs to be regularly monitored across the EU – at national, regional and local levels.

Quality assurance

- ◆ Availability and access to high quality and affordable oral health care needs to be guaranteed.
- ◆ Quality assurance, clinical governance and patient safety initiatives should be supported.
- ◆ Access for patients to accurate oral health and service information needs to be improved.

Capacity building

- ◆ Oral health professionals need to be trained in evidence-based prevention and health promotion at undergraduate level and during continuing professional development (CPD).
- ◆ General medical training should include an oral health component.
- ◆ Better use of resources should be ensured by the evaluation, sharing and dissemination of knowledge and experiences across the European Union – at national, regional and local level.

National level recommendations should be in line with stated recommendations.

2. Oral Health Care Services in Estonia

2.1 History and Challenges for the Future

◆ The development of the health care system in Estonia during the 20th century has been influenced by dramatic political events. It has, therefore, not been gradual but marked by abrupt changes in direction and organization. The development can be looked at in three periods.

Before 1940

Estonia has a long tradition of medical education, dating back to the establishment of Tartu University in 1632. By the beginning of the 20th century, Estonia had the necessary foundation for the development of a health care system appropriate to the needs of the population. There were three kinds of hospitals: state-owned, municipal and private. There were clinics for mothers and children, dental clinics, dispensaries for those with tuberculosis, sanatoria, institutions for the mentally ill and so on. Out-patient care, including dental care, was carried out mostly by private physicians, with dispensaries owned by sick funds and schools.

1940–1990

With the occupation of the Estonian Republic by the USSR under the

Molotov-Ribbentrop Pact, the gradual development of the health care system was interrupted. The system of centralized control was implemented, in which health care was funded from the state budget and controlled by the government through central planning. There was no private sector for any aspect of health care. All citizens had free access to health services, including dental care, which were provided by salaried government employees.

During the Soviet time all schoolchildren were in special prophylactic program that meant regular annual control and treatment. Adults' visits to the dentist mostly happened only when a tooth hurt. Toothpaste and brushes meant whatever was available - there was no big choice. Soviet-era teeth were notoriously bad; the average 35-year-old had 12 to 14 cavities, fillings or missing teeth.

From 1990 until today

By the time that independence was declared in August 1991, it was already clear that the planning and organization of health care system had to change to respond to the needs of the Estonian population. Reforms were broadly intended to decentralize the health care delivery system and to finance it through health insurance. They, therefore, aimed at completely reorganizing and changing the orientation of the health care system.

At the beginning of that period a private a private vocational school “Dentes” was opened in Tartu. For some years they prepared dentist assistants and started a curriculum of dental hygienists, but in connection with different changes in health care and education system the plan did not realise and the school finished its work.

Oral examinations would normally be undertaken every 6 to 12 months, more frequently for patients with periodontal conditions. There is no prior approval system for treatment. The Estonian Dental Association reports that they believe that most of the population visit a dentist within any 2-year period. This is what dentists ask from patients. In some private clinics dentists give a guarantee for the technicians work only if the patient visits the dentist every 6 months for two years. Access to oral healthcare may be difficult for patients who live in some urban areas, as well as all those in rural areas, as salaries there are generally too low for what is almost private care, with the low reimbursements. Indeed, there may be difficulties for patients, all over Estonia, obtaining prosthetic treatment under the scheme. The proportion of total governmental spending on healthcare which is spent on dentistry is about 4.5%.

History of the University of Tartu's Stomatology Clinic

The subject of stomatological diseases has been in the curriculum of Tartu University Medical Department since 1814.

The lectureship of oral and dental diseases was opened in 1936. The chair itself was created in 1938. The lectureship as well as the chair of oral and dental diseases (later named as stomatology) was managed by prof. Valter Hiie until his decease in 1963. The goal of the chair was to provide general knowledge about dental and maxillary diseases and their treatment to medical students: two hours of lectures and two to four hours of practicing a week during two semesters.

The department of dental science (current dentistry) was established by the decree of the director of education on August 29th 1942, with 25 student vacancies. The studying period in the new department started on October 15th, 1942. A competition was held and 25 students were accepted. But as the number of applicants was much higher, the actual number of those immatriculated was 37. On October 19, 1942, a dental science department curriculum of 32 hours a week, composed by prof. Valter Hiie, was approved by university rector's decree that included: 5 hours of anatomy, 4 hours of physics, 2 hours practical training of physics, 5 hours of anorganic chemistry, 4 hours of histology and embryology, 4 hours of practical training in histology, 2 hours of dental technical propaedeutics and 6 hours of practical training in dental technical propaedeutics in a week. Initially the planned duration of studying period was 3,5-4 years.

The first class – only 6 dentists - graduated in 1946 because the rest of entrants had dropped off due to critical political events.

After the war, during the 1944 / 1945 academic year the stomatology department of State University of Tartu (the chair of oral and dental diseases was named as the chair of stomatology) started, applying the studying curriculum of former Soviet Union Stomatology Institute with four-year studying cycle. During the 1949 / 1950 academic year a five-year studying period was adopted and this has been in force up today.

The subjects of research work in the area of oral and dental diseases (including children's dental diseases) have been: chemical components of dental hard-tissue in case of dental caries and parodontic diseases; the role of biochemical changes of spittle, malfunctions in endocrinal system and immunological processes in the pathogenesis of caries and parodontic diseases; the appearing frequency of caries, non-carious damages and toothing anomalies in different age-groups and regions of Estonia in 1971-2004; the complex research of health, oral health and anthropology of students from Estonian nationality during 1981-1983; the impact of sugar alcohols on excretion of spittle, dental plaque and caries; comparative estimation of Estonian and Danish children's dental health and health

care system; the micro-ecology of gum pocket of patients with chronic parodontic disease; factors influencing the effectiveness of treatment of parodontic diseases; infants' caries detrimentation resulting from mother's cavity micro-flora, set of teeth condition and the adjustment to regular dental care.

In the area of orthodontics, the research subjects have been: children's incorrect location of front teeth, the peculiarities of children's skull structure with toothing anomalies; effectiveness of early orthodontic treatment with standard equipment; the research of non - syndromic hard palate appearance frequency and genetics in Estonia has been launched.

Important research problems in the area of face-chinbone surgery have been and are currently: sorting out and the complex treatment of etiological factors of inherent facial and chinbone abnormalities; enhancing surgical as well as orthodontic treatment methods; clinical - morphological research about pathogenesis of parodontic diseases (including the relative importance of prostaglandin E2) and surgical treatment; estimating the regeneration and osseo - integration of alveolar bone after using bone transplants and tooth implants in the treatment of the defects in the set of teeth and parodontic disease; the epidemiology, pathogenesis and clinical aspects of odontogenical tumors; evaluative

analysis of age determination and identification methods in forensic medicine; pathogenesis of jowl bursa diseases: inflammation mediators, cytokines, pain, antagonists and treatment of serotonin: the effectiveness of arthrocentesis and arthroscopy in the treatment of jowl bursa. 4 doctor degrees have been defended in the leadership of prof. Edvitar Leibur.

History of dental technician speciality in Estonia, Tallinn Medical School and Tallinn Health College

One of the first known dental technicians in Estonia was Mr Rohlin, who had travelled to Tallinn from Odessa and had started practicing in his own house on Kinga Street.

There were approximately 25 dental technicians practicing in the Republic of Estonia (according to 1939/40 phone book). Generally they worked alone in private laboratories, sometimes also with pupils or assistants. Replicas and works were forwarded between doctor's private cabinet and technicians. A doctor could make orders to different laboratories, at the same time a technician could offer his services to different doctors.

All the materials, equipment and instruments needed were ordered and bought mainly from "Dental Ltd", aka Dentaldepot, located at 30 Harju Street. All the practicing equipment was imported and extremely expensive.

In 1944 Samuel Kaplan, having worked in Tallinn before the war and having returned from evacuation of Soviet Union's rear, started immediately organizing a workshop for dental technicians in Tallinn.

Dental technicians studied under the instructions of experienced technician. Those who wanted to acquire a diploma, had to apply for it in Riga, Vienna or other parts of Europe.

In autumn 1945, the re-opened Tallinn Medical School accepted a new course of dental technicians – 42 students, 22 of those graduated in 1947. In addition to speciality-subjects the curriculum contained also physics, mathematics, chemistry, anatomy, history of Soviet Union Communist Party, Russian language, gas protection, military training.

The first speciality teacher and practicing instructor was Mrs Lydia Nurmetu-Dobrjanskaja, who instructed how to make plate-dentures.

Parallel with stationary study of dental technician speciality, it was possible through distance study to obtain the profession for those technicians, who had previously studied and worked for an experienced dental technician, but had no diploma. Three groups of dental technicians graduated in distance study in 1947, 1961 and 1969.

In the autumn of 1979, 32 students were accepted; practical study took place in two shifts over a day because there were 16 positions for students and 2 for teachers. The following rooms were equipped: plaster polishing room, polymerizing room, brazing room and annealing room.

The quality of training satisfied the needs of labour market up to the start of the 1990's.

Tallinn Medical School obtained the status of pilot-school in PHARE project "Vocational Education Reform in Estonia", with the objective of modernizing the training of dental technicians in the school. The project comprised of working out a curriculum, changing material-technical base and training of teaching staff. The dental technicians department of Copenhagen Polytechnic acted in the role of foreign expert and partner. As the eventual result, 2 studying laboratories and two assisting rooms have been equipped on modern level with everything necessary for training in dental technician speciality. All together there are 24 positions for students and 4 positions for teachers.

Since 1995 the study-period for dental technicians is 3 years, following a higher vocational education curriculum.

The Quality of Care

All dental clinics have to compile own documents in accordance with the

legislation and several standards that have to be followed. One part of the quality assurance system is feedback from the patients.

In case of a complaint by a patient it is investigated by the head of the unit. If the patient is not satisfied with the answer of the head of the unit, he/she has a possibility to turn to the "Treatment Quality Commission", which is appointed by the Ministry of Social Affairs, Health Department's Supervision Department.

Patients may also write an application to the Consumer Protection Service, but they have to send their complaint to the Health Department's Supervision Department first.

2.2. Variety of Clinics

◆ About 90% of oral healthcare in Estonia is provided through **general (private) practice, clinics** under fully (liberal) private contract between patients and their dentists.

Most of the clinics have agreements with the Health Insurance Fund which gives the right to apply for refunding of cost of treatment set by the law.

There is a pricelist, suggested by the Health Insurance Fund, but every private clinic has its own price list (which is in most cases available in internet).

Dental care costs in 2008 (some data)

1 EUR = 15,6466 EEK

Consultation, status, treatment plan, hygiene- or parodontal index making	149.00 EEK
Surface anesthesia	18.00 EEK
Injection anesthesia	53.00 EEK
Prophylactic visit (consultation, exercising of teeth brushing)	149.00 EEK
Flurotherapy of all teeth	75.00 EEK
Treatment with filling	95.00 – 172.00 EEK
Fillings:	
Medication and temporary filling	96.00 EEK
Amalgam filling (depends of the number of fillings)	139.00 – 460.00 EEK
Ionomer cement	146.00 – 430.00 EEK
Light curing composite	229.00 – 598.00 EEK
Endodontia (depends of the procedure)	179.00 – 686.00 EEK
Surgery (depends of the procedure)	68.00 – 2140.00 EEK
Surgical treatment of benign maxillar neoplasm	3718.00 EEK
Osteogingvoplastics	6058.00 EEK

Complicated problems are treated in specialized units like **Clinic of Stomatology and Dental Prosthesis Centre, Tartu University**, that are also serving as training centres for specialist education.

A special **orthodontia clinic** has been opened in Tallinn and preparations for the opening of **endodontics clinic** are almost finished.

Several **dental laboratories** are in Tallinn, Tartu, Rakvere for the preparation of dentures.

2.3. Organisation of Oral Health Care for Special Groups

All children till the age of 19th are covered by insurance and get the therapeutic treatment free of charge if the treatment is made by doctor who has contract with Health Insurance Fund.

From 19 years every person can get compensation from Health Insurance Fund: 300.00 EEK in a year.

Pregnant women can get compensation from Health Insurance Fund 450.00 EEK in a year.

Mother, having a baby under a year: 450.00 EEK in a year.

Persons with the enlarged need of dental treatment (have got surgical and X-ray therapy of head or neck; labial or mouth anomaly needed surgical treatment, face traumas, preparation or transplantation of tissues, large inflammation of neck and head): 450.00 EEK in a year.

People in the prison officially must get the same dental health care as all citizen but the funds for them are coming from the Estonian Ministry of Justice.

Dental clinics in Estonia have modern equipment, including high- frequency digital x-ray machine, with low radiation level. Many clinics have laser equipment and panorama x-ray machines. Such expensive equipment plays an important role in the diagnoses and treatment of oral and dental diseases.

There is a wide range of services provided by private dental clinics and dentist in Estonia: examination/ cost estimation, X-ray photograph, panorama X-ray photograph, anaesthesia, placing of rubber dam, aesthetic filling, construction filling, gold inlay, ceramic inlay, removing of crowns and bridges, metal ceramic crown, titan ceramic crown, gold ceramic crown, temporary crown, metal plate, root-canal filling per canal, retention pin, building of post-crown, extraction, mouth hygiene and prophylaxis, bleaching, implants, telescope crown, tooth jewellery etc.

Example of services provided by a common dental clinic:

Dental care:

- ◆ Radix treatment (treatment of the dental root)
- ◆ Treatment with different filling materials

- ◆ Prevention of dental diseases
- ◆ Instruction for teeth care

Dental surgery:

- ◆ Teeth extraction
- ◆ Day surgery
- ◆ Implantation (“planting” of the artificial dental root, upon which a tooth is built)

Denture making:

- ◆ Crowns and dental bridges
- ◆ Conventional immediate complete denture (teeth built on a plastic carcass)
- ◆ Inlay denture (teeth built on a metal carcass)
- ◆ Filler (laboratory-made dental filling material)
- ◆ Bar-fixation (of dentures, instead of dentures with visible clasps)

Orthodontics:

- ◆ Plates (dental arch extension)
- ◆ Quad-Helixes (dental arch extension)
- ◆ Bracket systems

2.4. Insurance Arrangements

◆ The purpose of health insurance in Estonia is to cover the costs of health services provided to insured persons, prevent and cure diseases, finance the purchase of medical products and medical technical aids, and provide the benefit for temporary incapacity for work and other benefits. Health

insurance is applied from January, 1, 1992.

Health insurance is based on the solidarity of and limited cost – sharing by insured persons and on the principle that services are provided according to the needs of insured persons that treatment is equally available in all regions and that health insurance funds are used for their intended purposes. Different benefits are available if the doctor has a contract for financing medical treatment with health insurance fund. The health insurance fund enters into a contract for financing medical treatment with health care provider or providers. The health insurance fund is not required to enter into contract for financing medical treatment with all health care providers. It means that the person must know very well has the doctor contract and she/he can get some benefits or not.

Health care services for the citizens having health insurance are covered by the finances from Estonian Health Insurance Fund.

Health Insurance Fund uses the social tax paid for the working population also for covering cost of health services provided to persons who have no income with regard to work activities.

Internet bank clients or he owners of the Estonian ID – card can use the e-services to check the validity of their health insurance, their address, their

name of the family physician and the payment of sickness benefits through internet bank or Kodanikuportaal (<https://portaal.riik.ee/x/kodanik>). Also, the internet allows correcting data related to the place of residence. T

The client information line of the Health Insurance Fund is 16363 and calling from abroad + 372 6696630.

About 90% of oral healthcare in Estonia is provided through general (private) practice. Dental care services for adult patients (over 19) are paid by patients and reimbursed by the sick fund. Emergency care (traumas, infections) is actually paid by the sick fund, but only for those who are members of it. Patients who do not have insurance can have only first aid (what is reimbursed by the local government).

Since October 1st 2002 the Sick Funds have provided limited financial support for oral healthcare. Treatment is provided and is free for children under 19 years of age.

Other patients may receive a reimbursement for the fees they have paid, up to 300.00 EEK in a year. The health insurance provides this cover for 41 conservative and surgical items but crowns and bridges, implants, fixed orthodontic appliances and other complex or cosmetic treatments have to be paid for fully by the patient.

Pregnant women, or nursing mothers whose child is less than one year of age, can receive reimbursement of up to 450.00 EEK.

Pensioners (over the age of 63) may receive reimbursement of up to 4000.00 EEK once in a 3-year period, for one prosthodontic appliance.

The dentists, who are members of the Estonian Medical Association, and their whole praxis are covered with civil responsibility insurance.

3. Oral Health Care Teams

◆ To become a **dentist** a 5 year study course has to be passed. To become a **specialist in the field** more training during 3 or 5 years is obligatory.

At the present moment there are 547 dental care institutions, 1430 dentists, 294 dental assistants/nurses, 16 oral hygienists, 35 orthodontics and 130 dental technicians registered in Estonia. Some dentists practise in more than one sphere of practice. There is lack of dentists in Estonia.

Specialists work mainly in big hospitals and patients access them by referral from other dentists. The system of use of dental auxiliaries is still developing in Estonia. The only type of dental auxiliary is a nurse, graduated as general nurse and then trained by dentist or has passed some courses. There are also working dental assistants without any medical education, who have been trained by dentist or passed special courses.

Dental clinics in Estonia can be divided:

- ◆ general dental clinics,
- ◆ specialised departments in a big clinic,
- ◆ specialised clinics.

Clinics can also be classified as outpatient clinics and stationary clinics. In all stages of treatment the ethical principles should be followed: put the

patient interest always to the first place, all patients are equal as persons, all the activities must be agreed with patient on the basis of informed consent, and the information connected with the patient must be treated as confidential.

3.1. General Dental Clinic

Dentist

Dentist education in Estonia is provided by the University of Tartu. The duration of study program for dentist is 5 years. The residency training of medical specialists in dentistry is available in three different programs: **restorative dentistry, orthodontics, oral and maxillary surgery**. The duration of residency is from 3 to 5 years.



Dentist Veikko Keimann with his assistant Andry Tulp in the clinic Novamed



Part of the working room in the clinic Novamed.

The postgraduate medical training is carried out in the best facilities in Estonia in Tartu University under the supervision of the best specialists of the profession. In addition to developing practical professional skills and experience while performing procedures and investigations, the residents have to participate in theoretical courses, conferences, clinical rounds and educate themselves with the help of scientific literature.

After the graduation of specialization and have shown interest in research, defence the PhD, the person can apply the post in University Clinic and start to work as a university teacher.

Dental Nurse

Applied higher education institutions offer professional applied higher education programs from the study year 2002/3: this is one stage non-academic higher education aimed at providing necessary skills and knowledge for working in a certain profession or continuing studies at master level in universities.

In the field of health care and welfare there are two institutions providing nursing education in Estonia – Tallinna Tervishoiu Kõrgkool (Tallinn Health College) and Tartu Tervishoiu Kõrgkool (Tartu School of Health Care). Nurses pass a 3.5 years nursing program. They receive a diploma of general nurse and have the possibility to be entered in the register. To work as a dental nurse a person has to learn by him/herself; can be trained in dentistry by a dentist, with institutional support; or pass a special professional additional course in Tallinn or Tartu Health College or abroad. Their duties are to assist the dentist, including cross infection control.

They are paid by their employers.

Dental hygienist

Dental hygienist's main task is to plan, implement, and evaluate dental hygiene care for the individual and the community. Dental hygienists note abnormalities, plan care, teach oral hygiene, clean teeth, apply preventive agents, complete necessary chart entries, and perform other procedures related to dental hygiene care.

Most of the 16 dental hygienists working in Estonia have had special preparation abroad or have passed special courses.

Dental assistant

Dental assistant is a person who is helping dentist in everyday work.

Dental assistant is educated by dentist or has passed special courses.

3.2. Dental Specialists

◆ Specialist training is available in 3 specialties for doctors:

- ◆ **Orthodontics**
- ◆ **Oral Maxillofacial Surgery**
- ◆ **Restorative dentistry**

Specialist training is provided by Tartu University. There is no minimum of pre-training years (working as a dentist after basic education), before entering specialist training. Training lasts for 3 years for Orthodontics, and 5 years for Oral Maxillofacial Surgery and Clinical Dentistry, and includes a University examination. The specialist education and training also leads to a degree, “Specialist in Orthodontics”, “Maxillofacial Surgeon” or “Specialist in Restorative Dentistry”.

Specialists in Restorative Dentistry undertake training in endodontics, periodontics and prosthodontics. Orthodontics are recognized by the Healthcare Board/General Dental Council and registered as a specialty, in addition to Oral Maxillo-facial surgery, which officially is a dental specialty under a law introduced in 2002. Specialists in Clinical Dentistry are recognized and need to register since 2004.

Dental technicians lab in Tallinn Health College

3.3 Dental Laboratories

◆ “Dental technician” is a registered qualification in Estonia. Professional preparation is provided by Tallinn Health College. Nominal length of studies is 3.5 years.

Dental technicians are health care professionals who manufacture dental appliances following specifications and instructions provided by dentists. The work of a dental technician may include designing, building, repairing and adjusting dental devices for clients, who have lost teeth, or require assistance in correcting the appearance and performance of their teeth. Their duties are to prepare dental prosthetic and orthodontic appliances to the prescription of a dentist and they may not work independently, except for the provision of repairs to prostheses.

Dental technicians are normally salaried and there is no reported unemployment in Estonia.



4. Status and Position of the Dental Nurse

4.1 The Law and Ethics

◆ There are several laws regulating prophylactic measures and treatment of the patient.

List of legal acts and codes regulating the sphere:

- ◆ **Public Health Act** – describes solidarity – based health insurance, used in Estonia and also how these funds are formed and used (social tax, amounts, terms).
- ◆ **Estonian Health Insurance Fund Act** – this Act provides the objective, functions, competence, legal status, bases for activities and the bodies of the Estonian Health Insurance Fund.
- ◆ **Health Insurance Act** - describes the duties of health insurance fund in organization of health insurance, competence of health insurance fund for ensuring purposeful use of health insurance funds, describes the legal status of health insurance fund.
- ◆ **Health Services Organization Act** – provides the organization of and the requirements of health services, and the procedure for the management, financing and supervision of health care (not in the Defence Forces).
- ◆ **Medical Devices Act** – the Medical Devices Act and related regulations regulate manufacturing, marketing, advertising of medical devices and give rules for market supervision, also regulate liability of market actors

for non-conformities, violence and perpetrations.

- ◆ **Procedure for Entry into a Price Agreement** – the regulation establishes the procedure for entry into agreements governing the price of medicinal products between the Ministry of Social Affairs and the manufacture of a medicinal product of the person holding the marketing authorization for a medicinal product.
- ◆ **Procedure for Drawing up and modifying the Estonian Health Insurance Funds` list of medicinal products; criteria for establishing the list and bodies assessing conformity with these criteria** – the regulation lays down: the procedure for drawing up and modifying the Estonian health Insurance Funds` list of medicinal products, the exact content of the criteria referred in Health Insurance Act and the bodies assessing the conformity with these criteria.
- ◆ **Personal Data Protection Act** - The purpose of this Act is protection of the fundamental rights and freedoms of natural persons in accordance with public interests with regard o processing of personal data. (Personal data are information relating to an identified natural person or a natural person identifiable by reference to the persons` physical, mental, physiological, economic, cultural or social characteristics, relations and associations).

- ◆ **Professions Act** - regulates the qualifications system. This Act provides the basis for the development of the requirements for professional qualifications and the conditions and procedure for the attestation and award of professional qualifications.
- ◆ **Code of Ethics** – gives ethical principles in health care.
- ◆ **List of Health Services of the Estonian Health Insurance Fund** - describes the services available in Estonia.
- ◆ **Quality assurance of Health services in Estonia** - describes Estonian health care quality improvement strategy and other evidence based information, quality, quality assurance, quality of management, quality of health services, and quality management system for health services.
- ◆ **Requirements for the Premises, Fixtures and Fittings, and Apparatuses Necessary for the Provision of Specialized Medical Services outside Hospitals** – describes the requirements.
- ◆ **Gross margins for wholesale and retail trade of medicinal products and the procedure for their implementation** – this regulation sets out the gross margins for the wholesale and retail trade of medicinal products and the procedure for their implementation.
- ◆ **List diseases in the case of which a medicinal product intended for the treatment or alleviation of the disease is, upon the existence**

of valid reference price or price agreement, subject to entry in the list of medicinal products with a 100 or 75 per cent discount rate – describes the diseases and diagnosis where the patient have a right to get discount from the medicine.

- ◆ **Method of the calculation, terms for the establishment and conditions and terms for the amendment of reference prices of medicinal products** – this regulation sets out the method of calculating reference prices, the terms for the establishment of referent prices, and the conditions and terms for the amendment of reference prices.

Regulation on the working place

Every clinic has their own regulations and rules, made on the basis of Estonian Regulations and Acts and approved by the head of the clinic. Every new co-worker gets the package with the information. There are also special courses connected with the safety on the workplace. In case of bigger clinics individual tutor is supporting the newcomer. In smaller clinics usually the doctor takes care of instructions to the new person.

Most common regulations on the workplace are:

- ◆ regulation of the safety on the workplace
- ◆ health certificate of the worker
- ◆ health promotion plan
- ◆ internal work regulations
- ◆ individual contract

- ◆ individual work description
- ◆ schedule of individual work hours
- ◆ regulations for a -and antiseptics
- ◆ regulations how to behave during the fire or accident
- ◆ information of first aid
- ◆ schedule of holidays

4.2. Some Facts

◆ Republic of Estonia is a country in Northern Europe. Estonia has borders to the south with Latvia and to the east with Russia, separated from Finland in the North by the Gulf of Finland and from Sweden in the West by Baltic Sea.

The modern name Estonia is thought to originate from the Roman historian Tacitus, who in his book Germania (ca. AD 98) described the people called Aestii.

Area of Estonia is 45,226 km
 The population of Estonia is about 1,342, 409 million (2007).
 Male: 46%, female: 54%.
 Urban: 69%, rural: 31%.

Holidays in Estonia

All official holidays in Estonia are established by acts of parliament.

January 1 – New Years Day

February 24 – Independence Day (this is by the law the most important holiday, commemorating the declaration of independence in 1918)

Moveable Friday – Good Friday (the Friday before Easter Sunday)

May 1 – May Day

Moveable Pentecost (50 days after Easter, and 10 days after Ascension, which is not a national holiday)

June 23 – Victory Day (German forces were defeated in the Battle of Cesis)

Map of
 Estonia





*Tallinn Health College teacher
Mare Tupits in Haapsalu, Estonia.*

during the Estonian Liberation War)

June 24 – St. Johns' Day

August 20 Restoration (Celebrates

Estonia's return to independence in
1991)

Working hours, salaries, holidays.

December 24 – Christmas Eve

December 25 – Christmas Day

Prior to World War II the nursing profession in Estonia could be characterized by powerful professional associations, international connections, prestige and control over nursing curricula and working conditions. After involuntary incorporation into the Soviet Union, nurses lost their professional standing and nurse education was assimilated into the Soviet system where nurses received their education in vocational schools after primary school and later on also after secondary school, graduating as mid-level medical workers which meant lack of autonomy, poor working conditions and inadequate salaries.

Similarly, the nursing profession in Estonia experienced in overcoming its history of limited education, low status and low pay following independence in 1991 after fifty years of Soviet rule. In 1995 was reported an ongoing shortage of nurses with long working weeks, very long shifts and small salaries. Nurses in Estonia not only had to deal with major changes in employment policy including employment insecurity, but they also had to adjust to new technological, organisational and educational demands.

Current employment situation

Currently there are about 7 nurses per 1000 people. 57% of them work in hospitals and the greatest need is in specialist areas (see table 4). The Ministry of Social Affairs has already recognized that the increasing shortage of nurses threatens the further implementation of hospital reforms, which include major increases in long-term and nursing care capacity. In 2004, it put forward a proposal to the Ministry of Education to fund training for 500 basic nurses plus 200 specialist nurses, also the extra training was needed due to the fact that 28% of nurses are 50 years or older. The proposal was based to meet the target of 8-9 nurses per 1000 people by the year 2015. However, while there is political will to increase the number of nurses being trained, according to the most optimistic prognosis and not taking into account the possible emigration we could reach a

level where there are only 7,5 nurses per 1000 people by the year 2015.

Nurses' professional associations have been working to standardize the different nursing specialities. The Ministry of Education approved their standards in 2003. These standards and terms of reference are compatible with similar requirements elsewhere in the European Union, thus enabling the free movement of nursing professionals within the EU. For example in 2005, 300 nurses took the documents for working abroad, during the last two years the number of nurses expected to go abroad is diminishing and the number of nurses wanting to work in the field is growing.

Nurses who trained during Soviet times have to undergo a retraining process and pass examinations according to the new curriculum, elaborated pursuant to EU standard, to raise their status and market value as qualified staff. The great

demand for qualified nurses means that a nurse who can do his/her work well is highly appreciated and can earn quite well in Estonia.

Dental hygienist

There are 16 dental hygienists working in Estonia.

Dental assistant

There is no official data how many persons are working on the post of assistant.

Dental technicians

The Estonian Association of Dental Technicians was created in 2001 and is an official representative of dental technicians. The members are: AS Hambastuudio – 10 persons, OÜ Rakvere Hambalabor – 0 persons, OÜ MN – Modicus – 2 persons, AS Erakliinik Dentes – 30 persons, OÜ Kai Hambalabor – 3 persons and OÜ Kohila Meedikum 1 person.

Table. *Employment situation of practising nursing and caring professionals.*

<i>Name/Description</i>	<i>2000</i>	<i>2001</i>	<i>2002</i>	<i>2003</i>	<i>2004</i>
Qualified nurses	8010	7951	8294	8412	8270
Qualified nurses for general care	5854	5613	5331	5242	5235
Qualified nurses for specialised care (branch nurses)	2156	2338	2963	3170	3035
Total number of nursing professionals	8517	8404	8716	8815	8676
Caring personnel (e.g. nursing aids, assistants)	704	719	680	841	760
Total number of nursing and caring professionals	9221	9123	9396	9656	9436

5. The Dental Nurse in the Workplace

◆ My name is Andry and I have worked already 2 years in the field as a dental assistant. I have got my preparation for this work studying under the supervision of my father, who is a dentist. I have also passed some courses prepared by Tallinn Health College for dental assistants. As dental technology is continually developing and a lot of new information is coming in, I learn almost every day something new on the workplace.

I have a possibility to apply for additional training courses, so I have participated in courses in Tallinn Health College and also abroad. All our workers must attend at least one supplementary course per year.

I like my work. I work five days in a week. My workday starts usually at 8.30 and the dentist usually starts from nine o'clock.



More checking.



Preparations for the dentist work.



Morning starts with checking and controlling the equipment.

In bigger clinics there is a special person – a **secretary** - who is taking care of registration, takes fees, does accounting, gives information about services and price list. In smaller clinics this may be a duty of a dental nurse/dental assistant or doctor. In the clinic where I am working we have a registration desk and we have also a secretary. The secretary is taking care of registration, gives information to patients, makes calls when there is a need to change time or to give some

additional information to the patient, fills in bills and registration journals about visits.

There are several methods for registration: by phone, by e-mail and in the clinic.

Now the first patient is entering into the dentist room. I help him to sit comfortably, switch on a lamp, offer glasses for the protection of eyes and help him/her to put on the apron. Usually we have a patient every 30 minutes, but for serious procedures that take more time there is planned one hour for the patient.

I always need to have some anesthetics to be always ready if they are needed. I have checked the list of patients, I know their diagnoses and I know all the steps and am always ready to help.

In case of extirpation of the teeth I will prepare forceps and all sterile materials. In these cases it takes usually one hour for the patient, or sometimes even more.

When the patient is leaving I will pick up all the instruments and put them to the disinfectant.

Disposable instruments I will through away to the special dish. There several dishes for different types of garbage.

I also disinfect all the working areas, used instruments, aspiration system,

lamp handgrip, X - Ray tubes, and chair.

After that I change my clothes and start to prepare for the new patient.

The time between previous and a new patients is about 5 – 10 minutes. This is enough to do all necessary preparations. Usually I do this 10 – 12 times in a working day.

If there is planned orthopedics work I must know well all sorts of materials for making impressions. I have to check that all materials are restored in the conditions required for these materials. For example, some materials need to be stored only in the refrigerator. This is my task to follow that all materials are in a right place and in right conditions.

At the end of the working day I clean again all the room, pack materials for sterilization and bring to the sterilization room.

Then I clean and disinfect all instruments that stay in the room and then switch out.

After that I will check the information needed for the new day, inform the secretary of about the needed supplies and end my workday.

The information in this chapter refers to the duties undertaken by a dental nurse or assistant.

When you come on placement you supervisor/mentor will discuss with you what courses you have passed already, what kind of knowledge and practical skills do you have and what do you need to learn more; and discusses the goals of that concrete practical placement and the tasks that you can do. During the placement regular discussions between the dentist, dental nurse and student take place.

Organization of the work can be different in different clinics.

5.1. Hygiene and maintenance of the equipment

◆ The first thing I do when I come to work is that I switch on the apparatus and ventilation system. After that I will change my clothes, wash and disinfect my hands, and then start the preparation for the fluent reception. Our apparatus are working with distilled water and all the system has to be controlled before the start. I will check the level of distilled water and if it is needed, take some more water from other system and add it. For every patient I will prepare a tray with all the needed materials and apparatus. For example: if there are planned 10 patients for that day, then I will prepare 10 trays. On every tray there have to be stomatological forceps, probe, catheter,

mirror, special apron for the patient, clothes and mask for the doctor.

There is a centralised sterilisation for instruments and this is made regularly twice a day.

Then I will check the timetable to see, what kind of work is planned by the dentist to prepare the necessary instruments. For example: if the dentist will have a patient with implantation, I will prepare physiodispenser, control all the instruments and all what is needed on the place and sterile, and also insurance data. As we use a lot of sterile materials in the same time, I will also have to check if our supplies are adequate. If not, I make a corresponding registration in the registration table.

I will also take all the necessary documents for all day reception to the dentist table.

My job requires me to be always well groomed and wear a special uniform (usually it is different in different clinics).

Nurse/assistant has to check the accuracy and readiness of the clinic: is all the equipment prepared for the work, materials and table are ready for the first patient. Hygiene and maintenance of the equipment are also the tasks of nurse/assistant.

After every patient the whole chair is disinfected and dispensable supplies are thrown away. The whole working surface is also disinfected, including the floor if necessary.

For recyclable instruments there is a special re - cycling plan.

Cleaning staff

The cleaning staff in bigger clinics has usually special preparation and usually there are also working special persons for disinfection.

5.2. Documentation and administration

◆ There are different forms of patient's medical history for oral health: for treatment general and specific data and special for orthodontic patients. (see attachment).

Patient's medical history:

General part includes the following data:

- ◆ Requisites of the clinic: name, registration code, address, phone/fax numbers, e-mail address, homepage
- ◆ Patient's personal data: name, address, personal ID-code, phone numbers, e-mail address
- ◆ Patient's general health indicators: all the information about patient's general health, what is important for the oral care is described in the

patient case record. All possible allergy cases must be recorded.

The description may be made either by doctor or by nurse, the information is double checked quite often and signed by the person who filled in the document.

Case records may be either on paper or in digital form or in both.

Dental part includes following data:

- ◆ Dental history and actual clinical condition: condition of oral cavity and teeth are inspected during the first appointment and the actual condition is registered.
- ◆ Diagnosis: is made.
- ◆ Treatment plan: possible treatment plans are discussed with a patient and final decision is made using the principles of informed consent.

Orthodontic medical history

comprises the same general information and specific orthodontic information.

All information included in the patient record is confidential and must be kept in conditions that it is available only for these persons who have right for that.

Administration

There is lot of administration work and it is divided between dentists, dental nurses and the person working in reception (supplying with medicaments, equipment, etc., archiving, and accounting).

5.3. Promotion of Oral Health Care

◆ We can not say that enough is done in the promotion of oral hygiene and prevention of oral and dental diseases in Estonia. In 2007, the Governing Coalition has included into its program two aims:

- 1) to launch a prevention program at the nursery school level, expanding the prevention program to other age groups;
- 2) to commence educating oral hygiene specialists who help us to become aware of the optimum oral and dental health and help us to achieve the optimum oral and dental health for children.

So far most of the prevention and promotion work has been done by dentists, assistants, Estonian Dental Association, Estonian Society of Stomatology and international companies providing dental and oral care products (such as Colgate-Palmolive etc.). A project for the promotion of healthy teeth among children “Healthy teeth by playing” has been launched in 2007 by Tartu University Stomatology Clinic, some promotion activities were carried out in kindergartens. Fluoride content in the drinking water in different regions of Estonia has been investigated and concrete recommendations were published by the Department of Public Health, University of Tartu.

Basics of oral health care, including oral hygiene and importance of nutrition in dental health, are covered in the course of subject “Healthy person” taught at secondary schools.

Diet and nutrition

The interactions between oral health and nutrition are complex, with food and nutrition having the potential for both positive and negative effects on oral health.

Sugars (fruit sugar, milk sugar and table sugar) and cooked starches (cookies and bread, etc.), known as fermentable carbohydrates, are the foods that can impact caries. Because carbohydrates can be used by caries-promoting bacteria to produce acid and ultimately tooth decay, eating habits rather than the foods themselves are key factors in causing or preventing tooth decay.

Frequency of eating is important because the acids are released to work on the teeth for about twenty to forty minutes following each eating occasion. The greater the frequency of eating, the more opportunity for the acid to work. Similarly, those foods that tend to adhere to the teeth pose greater risks of decay than those that clear the mouth quickly.

The mouth serves as a window for the skilled dental practitioner to view overall health status. Taking care of the mouth is an important step on the road to good health. Good eating habits,

regular brushing, flossing and fluoride are all part of maintaining good health.

Vitamins and minerals are the important part of the healthy teeth.

Oral hygiene

Every dentist and dental hygienist explains to the patient how to brush the teeth, use dental floss and different cleaning fluids for the teeth and mouth, remember the prophylactic visit to the dentist and gives all kinds of other important recommendations to the patient.

Good oral hygiene means a mouth that looks and smells healthy, i.e.: Your teeth are clean and free of debris, gums are pink and do not hurt or bleed when you brush or floss, bad breath is not a problem.

Dentists, dental nurses/assistants or hygienists help to learn good oral hygiene techniques and point out areas of mouth that may require extra attention during brushing and flossing. Maintaining good oral hygiene is one of the most important things when talking about oral health. Daily preventive care, including proper brushing and flossing, will help stop problems before they develop and is much less painful, expensive, and worrisome than treating conditions that have been allowed to progress.

In between regular visits to the dentist, there are simple steps that decrease the

risk of developing tooth decay, gum disease and other dental problems.

These include:

- ◆ Brushing thoroughly twice a day and flossing daily
- ◆ Eating a balanced diet and limiting snacks between meals
- ◆ Use of right dental products according to the region
- ◆ Use of basic prophylactic measures as: dental floss, brushing, dental sticks etc.

5.4. Treatment, Assisting the Dentist

Cariology, filling the root:

There is a method of four-handed dentistry method widely used in Estonia (working in the four-handed way – dentist and nurse together).

All procedures are performed in sterile conditions; preparations for procedures are made by dental nurse or dental assistant.

Special tray is prepared for the root canal treatment should contain the endometer, injection solvent that will be used for anaesthetizing if needed, mirror, fiberscope, tweezers, different channel-needles, sterilizing pads, solvates for cleansing channels (chlorine hexidine, physiological salt solution, or sodium hypochlorite), lubrication substances.

When the dentist opens the tooth, the nurse/assistant checks if the light is continuously stable. There are always two aspirators - big and small one. The big aspirator is stiff and meant for working with particular tooth; the small aspirator is flexible and usually situated as close as possible to the pharynx so that the patient would not swallow it. When the tooth has been opened, the doctor looks for orifices of the channel. After that the treatment starts:

- ◆ In case of pulpitis, which is an acute process in most of the cases, a vital extirpation will be conducted and the nerve will be removed under anaesthetics. If the tooth is devital, a mortal extirpation will be conducted (usually it is not painful for the patient as mostly it is chronic).
- ◆ Nurse/assistant measures the length of the channel with endometer, places drying-pads into the cavity in certain order, prepares flushing devices, dries and mixes up the sealer of root-filling used for lubrication. After the canal has been hermetically closed and checked by X-ray, the nurse/assistant removes the root-treatment tray and prepares the filling tray, which contains all the devices needed for placing a filling.
- ◆ The filling is placed by dentist.

Parodontology: scalling, pocket treatment (the science of parodontology deals with pocket treatment)

- ◆ In case of parodontitis the nurse prepares treatment solvents for

flushing the cavity (generally on the basis of chlorine hexidine) first

- ◆ Specific handling instruments are used for the treatment: curet, courvet, gum's probe. The nurse/assistant prepares the kit for gum treatment
- ◆ Different ultrasound apparatus are used for drilling and cutting scale
- ◆ The nurse/assistant prepares lasers for procedures
- ◆ In case of heavy bleeding during the procedure the nurse or assistant assists with pads, explains and deals a lot with the patient
- ◆ In case of airflow cleaning the tooth areas are washed with delicate soda pearls with special apparatus
- ◆ Gingivitis, gingival erythema- with this treatment hygienist should deal. In more serious or chronic case the doctor is consulting the treatment.
- ◆ X-ray technology: intra-oral, extra-oral, digital and traditional.

X-ray technology

Nowadays digital X-ray is considered as traditional. There is also widely used high-frequency digital X-ray. The difference between those two is in doses- in case of high- frequency X-ray level of radiation is approximately half smaller, same as an airport check-in machine.

Traditional x-rays, where part of exploration is made using chemicals, are no more used in Estonia.

The assistant chooses the right censor (for child or adult) and the doctor/



X - ray equipment for panorama x – ray

dentist sets the tube – sets the central-ray, determines the doses and assistant sets it. There are different possibilities for X-ray: Panorama x-ray, Extractor – panorama pictures, posterior-anterior pictures and bursa-shots from jowls – all digital). There are special cameras that are used for photographing (dental flash) – the idea is to show to the laboratory what has been done (diagnostic shots), it is also possible to send them digitally.

Oral surgery: extractions, operation normal or complicated

During those procedures a nurse with special training, a specialist, must be present. The nurse/assistant sets the table, prepares the room, sterilized

cloths, instruments (a special set for each operation). If the preparations are ready, the patient is invited in.

Both the nurse/assistant and dentist check if she or he has eaten and drunken, is the blood-pressure normal.

The nurse/assistant prepares oral cavity and area around the mouth, covers it with special material and prepares all needed materials for anesthesia.

Nowadays the scalpel is becoming less used, cuts are being made with different lasers. The nurse/assistant guarantees the correct view in the operation set, removes the saliva, flushes. During extractions there are special forceps for each tooth; the elevators and forceps are passed by the nurse/assistant. The dentist removes the tooth, the nurse/assistant backs the patient's head so that it does not shake, and has prepared a covering for the wound (usually a sterile tampon).

From surgical procedures the most common procedure is extraction. The removing of impacted teeth in the chinbone starts in youth. In case of abscess abscessed surgery is used. Sometimes a patient needs root-top resection. In case a patients needs frenulectomy, it is made in dental clinics or sometimes by a family doctor.

Although implantology is quite new in Estonia, it is used quite widely in spite of its high cost. Plastic surgeries and

cosmetic dentistry in oral cavity are also quite common.

Prosthetics: crowns, bridges, over dentures

The task of the nurse/assistant is to recognize, mix and preserve different imitation materials.

The principal is that the teeth must be polished before the bridges and crowns are prepared. The polishing causes high temperature and therefore cooling is necessary (the water will be canalized towards the tooth after which it will be sucked away together with tooth dust). After that the impression is taken. For impression there are different materials.

Orthodontic: fixed and removable dentures - it is relatively easy for the nurse/assistant to prepare waxes, blowlamp, and help doctor during the procedure.

6. Communication

6.1. Communication with Patients

◆ Effective medical practice requires positive interaction between dental clinic's staff and patients/clients. Communication is a two-way process in which both the member of staff and the client have a responsibility to the other. Communication problems with patients/clients often lead to patient frustration and dissatisfaction. It is the responsibility of the dental clinic's staff to establish an atmosphere conducive to effective communication. In a good clinic every staff member is prepared to communicate with the patient and knows her professional duties. In case where second opinion is needed, the staff is ready to consult for the benefit of the patient.

A successful relationship is largely dependent upon effective communication skills and the dentist's/assistant's sensitivity to the patient's needs. Most important aspects of the dentist-patient relationship are the establishment of good rapport, showing respect, and acting as an ally. These aspects deal with how the dentist/nurse/assistant relates to the patient. A compassionate, professional approach can eliminate problems and reduce negative feelings. The dentist/nurse/

assistant should respect the patient as a person and understand his or her beliefs. The patient should be treated as a mature, intelligent human being and dealt with honestly. Treat the patient as you or a member of your family would want to be treated.

The dentist/nurse/assistant must clearly and honestly explain the nature of provided services and make sure the patient thoroughly understands this information. Good medical care involves treating the patient with concern and respect, keeping him/her informed, and allowing the patient to share responsibility in decision-making. The informed consent is the main principal.

For children special pictures and toys are used.

All methods - talking, body language - have to be friendly and supportive.

Patient's responsibility is to describe his or her history and symptoms honestly and accurately.

Despite of all problems and fear from the patient's side, a dentist/nurse/assistant has to stay calm, always keeping in mind that the patient is in the weaker position and needs help and support.

6.2. Communication with the Team

◆ At the beginning of each working day the dentist's team has a meeting to discuss the plans and possible problems. During the work there is no other discussion among staff than the discussions connected with concrete professional activities: for example consultation in case the dentist needs a secondary opinion.

7. A Day in the Life of a Dental Nurse

◆ The concrete character of practical dental nurse/assistant's work day depends on the working place. The main assignment of a dental nurse/assistant is to assist the dentist in the delivery of dental treatment and to function as integral members of the dental team while performing chair-side and related office and laboratory procedures.

Here is the description of one working day of Andry, who is working in the Novamed as an assistant of dentist. (you can find more Andry's information also in the chapter 6.)

My working week is 36 hours and depends on my individual schedule: usually I work two days for 6 hours and three days for 8 hours. In special cases I have also to work in Saturday.

The first thing in the morning is to change clothes for special uniform.

It takes about 30 – 40 minutes to prepare the room for procedures: I check motors, lamps, flosses, water, check the readiness of the compressor, disinfect necessary equipment and tools, and prepare trays for procedures.

During the working day I assist the dentist and do all the necessary activities according to the patient's needs.

At the end of the working day I clean the room and do all required preparations for the next day, change my clothes and go home.



Andry on the working place.

8. Vocational Education in Estonia

8.1. Studying in Estonia

◆ The Estonian education system consists of basic, secondary, vocational, higher and adult education.

After completion of the compulsory nine-year basic education, pupils may continue their studies either in gymnasiums or in vocational education institutions. Gymnasiums offer three – year secondary general education and vocational education institutions offer secondary vocational education. After completion of both types of secondary education, young people may choose between entering the labour market or continuing studies at the higher education level. Secondary education is expectancy for all who are planning to study in health care and welfare area.

The Estonian higher education system consists of professional higher education institutions and universities. Recent trends in higher education in both types of educational institutions, accordance to the Bologna Declaration, have led to the three main cycles

Table: Curriculum of the specialized course for dentist assistants
Volume: 400 hours

of education: diploma (equivalent to bachelor), master and doctor. The first cycle concentrates on acquiring necessary to pursue a job in a certain study field. Master and doctor studies are usually carried out in universities.

International students can study either in Estonian or in English, every case is agreed individually.

8.2. General Goals of the Dental Nurse Curriculum

- ◆ There are two possibilities in Estonia to become a dental nurse/assistant:
 - ◆ persons, who have acquired the

<i>Subject</i>	<i>Number of hours</i>
anatomy and physiology	40
microbiology	40
ergonomics	20
hygiene in dental care	20
pedagogy	20
oral hygiene	20
oral infections	40
caries	40
orthodontics	20
x ray	40
surgery	20
dietology	20
project work and communication	20
special groups in oral care (children, aged persons, persons with different chronic diseases)	40
	Total 400

Table: Estonian Educational Structure

ESTONIAN EDUCATIONAL STRUCTURE																																																																													
			Doctor's study																																																																										
			University																																																																										
Age																																																																													
24																																																																													
23	Integrated curriculum for							Master's study																																																																					
22	Bachelor and Master's							Applied higher education																																																																					
21	study							Applied higher education or																																																																					
20	University							VET institution,																																																																					
19	3(4)+2(1)							university college																																																																					
18	General secondary							Vocational secondary																																																																					
17	education							education																																																																					
16	Gymnasium							Vocational education																																																																					
15	Basic education																																																																												
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6												Pre- primary education																																																																	
5												Pre- primary childcare institution																																																																	

qualification of a general nurse may work as a dental nurse after passing a special course,

- ◆ the persons with secondary education can pass a special course “Course for dentist assistants” provided by Tallinn Health College and become a dental assistant.

Some smaller courses (hygiene, prosthesis etc.) are also available.

8.3. Description of the Practical Dental Nurse Profession and Core Competences

◆ The dental nurse/assistant curriculum prepares individuals to assist the dentist in four- hand method in the delivery of dental treatment and to function as integral members of the dental team while performing chair side and related office and laboratory procedures. A dental nurse/assistant takes care of the preparation and maintenance of equipment and materials used in dental care, serves the patient supporting him/her during the procedure. A dental nurse/assistant knows and follows the requirements of professional ethics in all his/her activities. The profession of dental nurse/assistant presumes service- and communication skills, correctness and accuracy.

Dental nurses in Estonia have basic nursing education, followed by a special course in dental care. Preparation includes instruction in general studies, biomedical sciences, dental sciences, clinical sciences, and clinical practice. A combination of lecture, laboratory, and clinical experiences provide students with knowledge in infection/hazard control, radiography, dental materials, preventive dentistry, and clinical procedures.

Dental nurse is a speciality of a general nurse in Estonia, i.e. a dental nurse's professional requirements include all the general- and basic skills of a general nurse. The Professional Standard describes only additional knowledge and skills acquired during specialisation.

Dental nurse's core competences proceeding from Professional Standard:

Dental care

- ◆ Dental care terminology
- ◆ Compilation of orders for dental clinic, storage of instrument and materials
- ◆ Dental diseases, their causes and treatment
- ◆ Assistance in dental care procedures
- ◆ Methods and principles of dental treatment in special care
- ◆ Different forms and methods of clinical treatment. Counselling of patients
- ◆ Equipment, instruments and materials used in dental care

Clinical work

- ◆ Counselling in oral health care
- ◆ Methods of oral health care and health protection programs
- ◆ Use and maintenance of orthodontic and orthopedic auxiliaries
- ◆ Different methods and principles of dental treatment
- ◆ Techniques of taking replicas and making of gypsum models
- ◆ Prophylactic procedures for children
- ◆ Dental x- rays

Administrative work

- ◆ Organisation dental clinic's work
- ◆ Assessment of services provided by dental clinic
- ◆ Selection of personnel
- ◆ Assessment and planning of the need of dental care for the district
- ◆ Economic management/budgeting
- ◆ Instruction of co- workers and students
- ◆ Application of professional knowledge both in state and international professional projects.

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University of Tartu <http://www.ut.ee/>

Sitemap of Hambaarst.ee <http://www.hambaarst.ee>

Glossary

Adult education - supports the principal of life-long-learning in a variety of different subjects.

Client-centered approach – To meet client's individual needs

Course system – is a system of teaching and learning, where student passes the subjects in the order determined by the curriculum, whereas preliminary examinations and examinations have to be passed before the next term begins. Students must, before the commencement of the next academic year, gather 100 per cent of the credits in obligatory and elective subjects required for the official standard study period that they have passed

CSP – Individual Care and Service Plan

Holistic approach – Approach covering individual's physical, social and mental dimensions as a whole

Multidisciplinary team – A work group consisting of professionals with varying training background

Service provision – Refers to organising services that are available for people

Social protection – social protection encompasses all interventions from public or private bodies intended to relieve households and individuals of the burden of a defined set of risks or needs, provided that there is neither a simultaneous reciprocal nor an individual arrangement involved

Orthodontics - about the correction of occlusion

Appendix: Dictionary

ENGLISH – ESTONIAN DICTIONARY

- acrylic plate denture - akrüülplaatprotees
- aesthetics in prosthodontics – esteetika hambaproteemises
- attached bugel-denture - lukk-kinnitusega büügelprotees
- attachment systems – lukusüsteemid
- braced denture with casted framings - valatud karkassiga tugiprotees
- bridge-denture – sildprotees
- bugel-denture - büügelprotees
- combined dentures - kombineeritud proteesid
- crown modelling on artificial root - hambakroonide modelleerimine kunstjuurele
- denture - hambaprotees
- determination of teeth – hammaste määratlemine
- fixed denture - suust mitte-eemaldatavad protees
- metal-ceramic crown – metallokeramiiline kroon
- metal-plastic crown – metalloplastika kroon
- milling technique – freesimistehnika
- oral bones - suuõõne luulised osad
- oral cavity diseases – suuõõne haigused
- oral cavity hygiene – suuõõne hügieen
- orthodontic treatment – ortodontiline ravi
- parallelometer milling-cutter - paralleelomeeterfrees
- postprosthetic hygiene – postproteetiline hügieen
- principles of denture construction - proteesi konstrueerimise põhimõtted
- removable dentures - suust eemaldatavad proteesid
- retention forms between metal and plastic crowns - metalli- ja plastivahelised retentsioonivormid
- root-canal – juurekanal
- simple crowns – täisvalu protees
- teeth set – hambaread
- total-dentures attached with press-stud - trukk-kinnitusega totaalprotees

ESTONIAN – ENGLISH DICTIONARY

- akrüülplaatprotees - acrylic plate denture
bügelpotees - bugel-denture
eestetika hambaproteesimises - aesthetics in prosthodontics
fikseeritud protees - fixed denture
freesimistehnika - milling technique
hambakroonide modelleerimine kunstjuurele - crown modelling on artificial root
hambaprotees - denture
hambaread - teeth set
hambaste määratlemine - determination of teeth
juurekanal - root-canal
kombineeritud protees - combined denture
lukk-kinnitusega bügelpotees - attached bugel-dentures
lukusüsteemid - attachment systems
metalli- ja plastivahelised retentsioonivormid - retention forms
 between metal and plastic crowns
metallokeraamiline kroon - metal-ceramic crown
metalloplastika kroon - metal-plastic crown
ortodontiline ravi - orthodontic treatment
parallelomeeterfrees - parallelometer milling-cutter
postproteetiline hügieen - postprosthetic hygiene
proteesi konstrueerimise põhimõtted - principles of denture construction
sildprotees - bridge-denture
suust eemaldatav protees - removable denture
suust mitte-eemaldatav protees - fixed denture
suuõõne haigused - oral cavity diseases
suuõõne hügieen - oral cavity hygiene
suuõõne luulised osad - oral bones
trukk-kinnitusega totaalprotees - total-denture attached with press-stud
täisvalu protees - simple crown
valatud karkassiga tugiprotees - braced denture with casted framings

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