

BE DENT SKILLED



ARE YOU DREAMING TO BECOME A PROFESSIONAL DENTIST? MEET OUR BRAND-NEW MULTI-TASK DENTAL SIMULATOR – **BE.DENT.PRO**

- It is more than just manual skills and cavity preparation
- It is more than just objective assessment of a separate skill
- It is a multi-task AR simulator assessing clinical competencies integrated in a realistic environment with accurate 3D visualization

New ergonomic and modern style

Head of simulator can be rotated up to 180 degrees

Convenient work opportunities for both left-handers and right-handers

Unique tracking system, which reproduces in real time position on 3D screen our manipulations

Oral cavity have three positions of opening

New articulator model makes possible to open and close the oral cavity, like a real patient

Several variants for installation Leonardo on the workplace



REALISTIC ENVIRONMENT & MULTIDISCIPLINARY AR-SIMULATOR

- Used tools are real HP and Typodont without any trackers
- No more heavy trackers attached to dental tools
- Simple and real automated calibration
- No more issue with smooth tracking system
- Integrated Learning Management System
- Radiography Module
- Anesthesiology Module

REAL TIME 3D-VISUALIZATION

- AR is enabling the trainee to visualize his handpiece positioning in real time
- Real time feedback provided in 3D rendering similar to digital scanning
- Handpiece does not need a tracker so the trainee feels like he works with a regular handpiece



HAVE A LOOK AT THE STEP-BY-STEP TRAINING

:: Step 1

Log in using your personal credentials and choose a case to start your training. More than **60** cases on **3** dental specialties are available.

Login

Password

Log in

Exit

[Use network mode](#)

Therapeutic dentistry

- Tooth decay 1.7 preparation

- Tooth decay 3.2 preparation

- Tooth decay 3.3 preparation

- Tooth decay 3.5 preparation

- Tooth decay 4.2 preparation

- Tooth decay 4.3 preparation

- Tooth decay 4.5 preparation

:: Step 2

The briefing block: every lesson begins with a briefing, which contains patient complaints, his/her medical history and related images. In the questionnaire a trainee can collect a patient's history by choosing related questions from the wide library and adding the important ones to the patient's card. What a wonderful way to develop the trainee's clinical reasoning!

Leonardo Hybrid Dental Simulator

Module: Therapeutic dentistry Lesson: Tooth decay 3.5 preparation Help

Lesson brief Lesson brief video

Caries of dentin (K02.1) of the tooth 3.5

Patient K., male, aged 42 years (height 177 cm; weight 78 kg), requested for medical help into dental office with complaints of short-term temperature-induced toothache and food getting stuck between the teeth of the left side of the mandible.

History of the present illness: two-week history of non-radiating toothache that could be relieved by elimination of the causative stimuli. The patient suffers from hyperthyroidism and stress-induced hypertension.

Examination
The patient's condition is satisfactory; the facial configuration is intact; regional lymph nodes are painless on palpation and are not enlarged; the vermillion border shows no abnormalities; mouth opening is not reduced.

Examination of the vestibule
The condition and the level of the labial frenulum attachment are unremarkable; there are no adhesions of the vestibule; there is no pallor or separation of the gingiva from the cervical regions of teeth when retracting the lower and upper lips and the cheeks. Lip closure is normal. The chin and nasolabial folds are moderately developed.


Moderate depth of the vestibule. Direct occlusion; dense location of teeth in the frontal area of the mandible; no displaced teeth. Palpation of the salivary glands results in release of a drop of saliva from the excretory ducts. The tone of the muscles of mastication and mimic muscles is normal.

Intraoral examination
The gingival mucosa shows mild hyperemia, moderate swelling; there is soft dental plaque on the teeth of the upper and lower jaws. The mucosa of the hard and soft palates is dark red, moderately moistened and shows no lesions. The tongue has normal size; the mucosa is pale pink and moderately moistened. There are no soreness, burning sensation or swelling of the tongue. The fauces is pale pink, normally moistened and is not swollen.

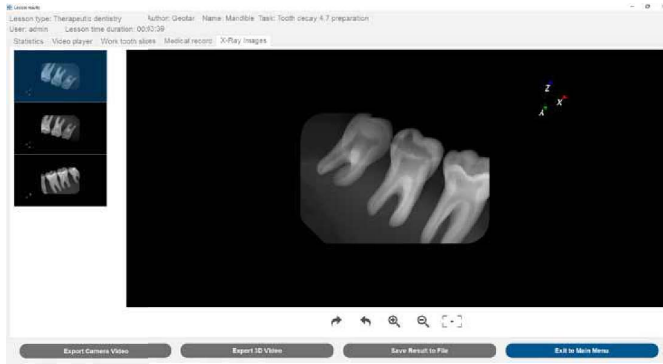
Objective assessment: The medial-contact (approximal) surface of the tooth 3.5 shows a non-deep cavity filled with residual amounts of food and pigmented softened dentin. Positive short-term reaction to the cold test (water-air).

The medial-contact surface of the tooth 3.4 shows a non-deep cavity filled with residual amounts of food and pigmented softened dentin. Positive short-term reaction to the cold test (water-air).

The electric pulp test = 7 µA.
X-ray examination demonstrates a carious lesion in the dentin, which is distant from the tooth's pulp chamber. No visible signs of periapical lesions.



Back Get anamnesis Start

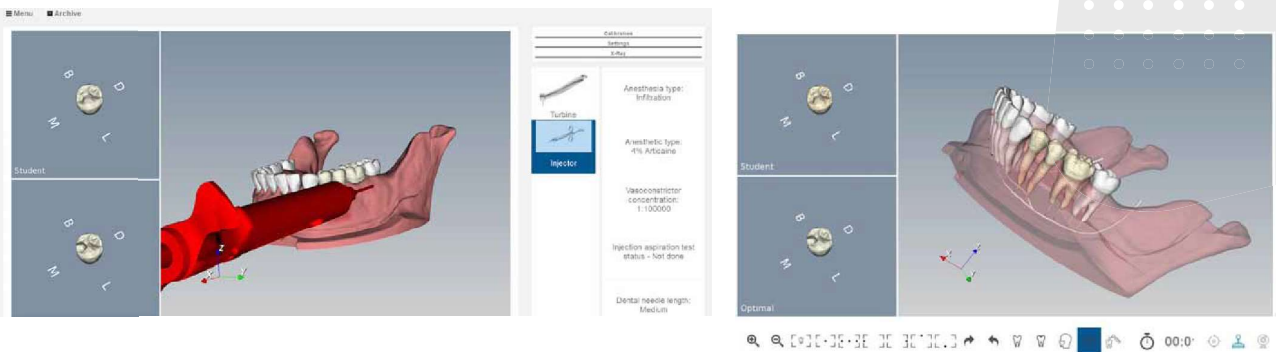
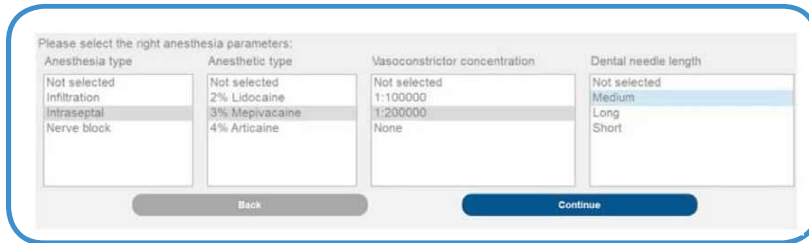
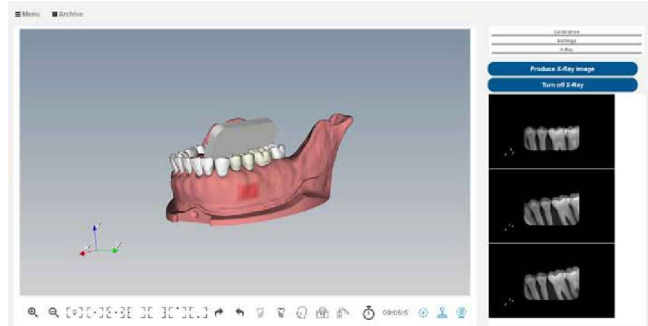


:: Step 3

The X-ray block. The simulator is equipped with a special positioner that helps to learn how to obtain a proper positioning of a tooth on an X-ray image. An unlimited number of X-Ray images can be taken without any harm to the trainee or patient. All images are saved in a library and can be used for later debriefing.

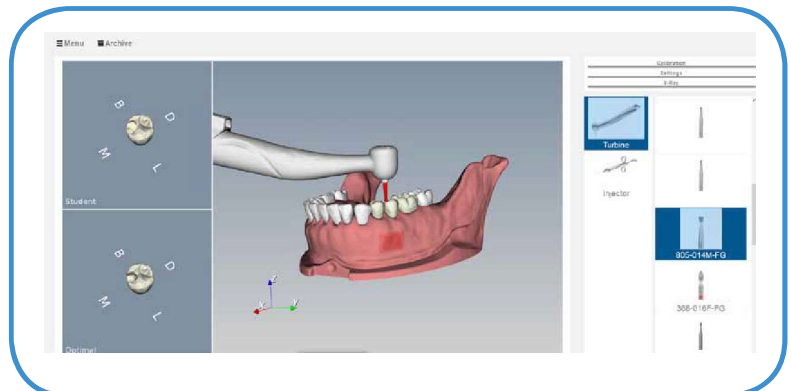
:: Step 4

The anesthesia block. The anesthesia block is created to train different anesthesia techniques (periodontal anesthesia, nerve blocks, infiltration anesthesia) by determining a local anesthetic agent, vasoconstrictor type and a needle length. A trainee can visualize the anatomical structure of the jaw (its nervous and muscular systems) to see the correct injection site.



:: Step 5

Tooth preparation. The microsensors, mounted on the dental hand piece, are tracked in full 6DOF (6 Degrees-Of-Freedom) at speeds up to 240 Hz providing impressive accuracy of the performed manipulations. The tooth preparation cases both for therapeutic and orthopedic dentistry are developed by doctors for doctors.



Step 6

The debriefing block. Real video capture from the camera synchronized with 3D-player enabling the instructor to check ergonomic and posture. Real Video capture eliminates issues of cheating during testing. Report is generated according to the trainee's selection of relevant parameters depending on what student is tested on. A teacher can also review all questions and answers from medical history data accomplished by the trainee.

