VIRTAMED TURPSIM™ – VIRTUAL REALITY TRAINING FOR TURP

TURPSim™ offers urologists a **comprehensive educational solution** for transurethral resection of the prostate (TURP).

It enables realistic training in **diagnostic and therapeutic endoscopy**, mastering instruments and **managing complications** without involving live patients.

Didactic content and movies exemplify the best techniques. Basic skill tasks offer initial hands-on experience, leading to complete TURP procedures. **Feedback reports** provide objective assessment and expert-defined scores. The **movie can be replayed** for discussion and review.

VirtaMed® Platform with Original Instruments

- An adapted, **original resectoscope** is used to provide a complete simulation experience and to facilitate familiarization with instruments. As in real life, the resectoscope features:
  - In- and outlet valves for **fluid handling**
  - Three **virtual cameras**: 0º, 12º and 30º including focus wheel
  - Working element for **electro surgery**
- Foot pedals for **electrosurgical cutting and coagulation** in simulated procedures
- Patient replacement robot with or without force feedback
- High-end PC with 2 screens and monitor stand
- Mouse and keyboard
- Height-adjustable display cart

Training Software

VirtaMed TURPSim™ training software
- 8 virtual patients for **Turp Basic Skills**
  - Visualization
  - Bleeding control
  - Resection
  - Partial TURP
- 12 virtual patients for **TURP Full Procedures**

Would you like to know about **upcoming demo opportunities and the newest VirtaMed products**?
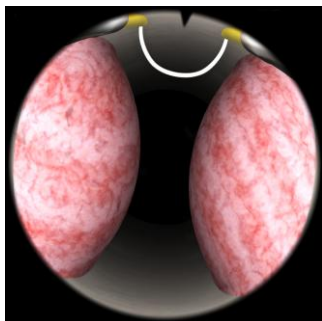Please visit us online on www.virtamed.com or scan the mobile tag on the left for more information.

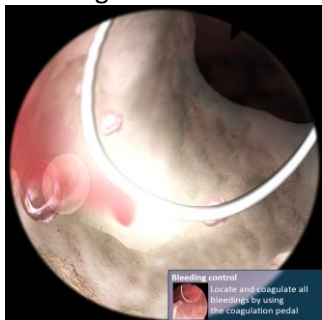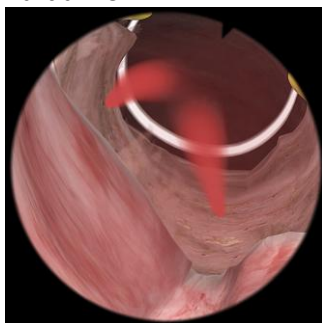# VIRTUAL PATIENTS FOR TURP BASIC SKILLS AND FULL PROCEDURAL TRAINING

Visualization

Resection

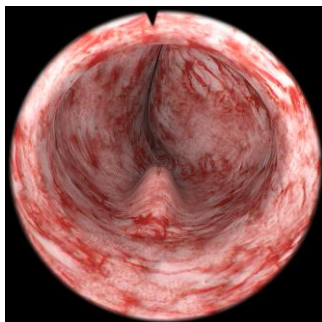**Bleeding Control**

Partial TURP

Full Procedures

TURP Basic Skills

This module contains **different basic tasks** to acquire all skills necessary to safely perform a complete TURP procedure. The module also provides a **training curriculum** relying on self practice until reaching the desired proficiency level.

Learning objectives:

- Gain experience in **identifying the anatomical landmarks**
- Develop knowledge in **cystoscopy**
- Adjust to the fulcrum effect and 30° angled scope
- Acquire depth perception and **hand-eye coordination**
- Understand the BPH pathologic prostate
- Handle the loop electrode
- Acquire **safe resection** techniques and become proficient in using a resectoscope
- **Control bleeding** and irrigation during the procedure
- Efficiently manage complications

TURP Full Procedures

The VirtaMed TURPSim™ features a set of **12 different virtual patients** in varying levels of difficulty. Cases include small to large prostates with **hypertrophies of both lateral and median lobes**, presenting challenges such as difficult access and heavy bleeding. The module provides training on all aspects of the TURP procedure. The **performance review** gives feedback on:

- **Visualized landmarks**
  (sphincter, verumontanum, ureteral orifices, bladder surface)
- **Economy**
  (procedure time, amount of fluid used, quantity of removed prostate)
- **Safety measures**
  (number of non-coagulated bleeding, resection depth, visibility)
- **Complication handling**
  (capsule perforations, heavy bleeding, verumontanum or sphincter resections)

Learning objectives:

- Establish clear **viewing conditions**
- Identify anatomical landmarks and obtain a **clear 3D mental image** of the anatomy
- Efficiently observe pathology
- Safely handle resectoscope and loop electrode
- Perform **resection** of the different lobes
- Coagulate bleeding sources
- Perform a **safety inspection** at the end of the procedure