VirtaMed ArthroS™
Virtual reality arthroscopy for knee, shoulder, hip, ankle & FAST basic skills

Highest realism
- Anatomically accurate models create the sensation of operating on real patients.
- Bleeding & complications.
- Photo-realistic graphics, virtual fluoroscopy imaging.

Customized training
- Endless variety of training cases and pathologies available for customized curriculum.
- Didactic reading material helps build the foundation, SimProctor™ can guide you through procedures.
- Track record of use in proficiency exams.

Original instruments
- Real surgical tools such as palpation hook, grasper, cutting punch, and shaver.
- Using original tools eases transfer of skills to the OR.
- Unlimited range of motion, free portal placement and selection even during procedure.

Swiss engineering
- Easy switch between knee, shoulder, hip, and FAST.
- Modules can be adjusted and positioned for different surgical skills training.
- Regular software updates.

sales@virtamed.com

Exclusive and preferred training partner of

AANA
ARTHROSCOPY ASSOCIATION
OF NORTH AMERICA
The VirtaMed orthopedic platform

**ArthroS™ FAST**
- **Training goals**
  - Basic training for general arthroscopy.
  - Understand the concepts of ACL reconstruction with different complications.
- **Training cases**
  - Basic and advanced training for knee arthroscopy.
  - Triangulate, handle camera and tools.
  - Navigate and manipulate the joint.
  - Recognize important landmarks in the knee.
  - Diagnose and treat numerous pathologies.
- **Didactic materials**
  - General concepts of arthroscopy.
  - Basic principles of knee arthroscopy.
- **Basic skills cases**
  - Guided diagnostics for knee and meniscus; triangulation; "catch the stars"; and guided meniscectomy.
- **Diagnostic cases**
  - Unknown cases; knee tour; flap and meniscus tears; bucket handle tears; parrot beak tear; arthritis; and loose bodies.
- **Surgical cases**
  - Various meniscectomy; unhappy triad; synovitis; and loose body removal.

**ArthroS™ Knee**
- **Training goals**
  - Basic and advanced training for knee arthroscopy.
  - Triangulate, handle camera and tools.
  - Navigate and manipulate the joint.
  - Recognize important landmarks in the knee.
  - Diagnose and treat numerous pathologies.
- **Training cases included:**
- **Didactic materials**
  - General concepts of arthroscopy.
  - Basic principles of knee arthroscopy.
  - Principles of ACL reconstruction, and anatomical concepts.
- **Basic skills cases**
  - Guided diagnostics for knee and meniscus; triangulation; "catch the stars"; and guided meniscectomy.
- **Diagnostic cases**
  - Unknown cases; superficial rotator cuff tear and calcification; SLAP lesion; Bankart lesion; and healthy shoulder.
- **Surgical cases**
  - Subacromial decompression; subacromial debridement; and loose body removal.

**ArthroS™ Knee ACL **
- **Training goals**
  - Basic and advanced training for knee arthroscopy.
  - Triangulate, handle camera and tools.
  - Navigate and manipulate the joint.
  - Recognize important landmarks in the knee.
  - Diagnose and treat numerous pathologies.
- **Didactic materials**
  - General concepts of arthroscopy.
  - Basic principles of knee arthroscopy.
  - Principles of ACL reconstruction, and anatomical concepts.
- **Basic skills cases**
  - Guided diagnostics for knee and meniscus; triangulation; "catch the stars"; and guided meniscectomy.
- **Diagnostic cases**
  - Unknown cases; superficial rotator cuff tear and calcification; SLAP lesion; Bankart lesion; and healthy shoulder.
- **Surgical cases**
  - Subacromial decompression; subacromial debridement; and loose body removal.

**ArthroS™ Shoulder**
- **Training goals**
  - Basic and advanced training for shoulder arthroscopy.
  - Triangulate, handle camera and tools.
  - Navigate and manipulate the joint.
  - Recognize ideal location for drill, guidewire, and graft.
  - Perform ACL reconstruction.
- **Training cases included:**
- **Didactic materials**
  - General concepts of arthroscopy.
  - Basic principles of shoulder arthroscopy.
  - Principles of ACL reconstruction, and anatomical concepts.
- **Basic skills cases**
  - Guided diagnostics for shoulder arthroscopy.
  - Triangulate, handle camera and tools.
  - Navigate and manipulate the joint.
  - Use beach chair and lateral positioning.
  - Diagnose and treat numerous pathologies.
- **Diagnostic cases**
  - Healthy hip; Labrum rupture; CAM deformity; and cartilage flap on acetabulum.
- **Surgical cases**
  - Loose body removal and CAM decompression.

**ArthroS™ Hip**
- **Training goals**
  - Basic and advanced training for hip arthroscopy.
  - Triangulate, handle camera and tools.
  - Palpate the bony landmarks and use fluoroscopy imaging to locate ideal access points.
  - Create your own access portals.
  - Joint traction and hip flexion; lateral and supine position.
  - Diagnose and treat numerous pathologies.
- **Training cases included:**
- **Didactic materials**
  - General concepts of arthroscopy.
  - Basic principles of knee arthroscopy.
  - Basic principles of shoulder arthroscopy.
  - Principles of ACL reconstruction, and anatomical concepts.
- **Basic skills cases**
  - Guided diagnostics central; triangulation central and peripheral; and "catch the stars".
  - Joint traction and hip flexion; lateral and supine position.
  - Diagnose and treat numerous pathologies.
- **Diagnostic cases**
  - Healthy hip; Labrum rupture; CAM deformity; and cartilage flap on acetabulum.
- **Surgical cases**
  - Loose body removal and CAM decompression.

**ArthroS™ Ankle**
- **Training goals**
  - Basic and advanced training for ankle arthroscopy.
  - Triangulate, handle camera and tools.
  - Navigate and manipulate the joint.
  - Anterior and posterior access in prone and supine positions; dorsiflexion and plantar flexion; joint distraction.
- **Training cases included:**
- **Didactic materials**
  - General concepts of arthroscopy.
  - Basic principles of knee arthroscopy.
  - Basic principles of shoulder arthroscopy.
  - Principles of ACL reconstruction, and anatomical concepts.
- **Basic skills cases**
  - Guided diagnostics for knee and meniscus; triangulation; "catch the stars"; and guided meniscectomy.
- **Diagnostic cases**
  - Healthy left ankle; osteochondritis on talus; and various impingement cases.
- **Surgical cases**
  - Loose body removal and anterior decompression.
VirtaMed ArthroS™: Evidence and testimonials

The VirtaMed ArthroS™ has been validated by several studies to make sure it is the most realistic, accurate and helpful tool on the market for arthroscopy training. For example, construct validity studies\(^1\) prove that the simulator recognizes the difference between experts and novices. Through validation studies we also know that simulator training helps,\(^2\) and that the VirtaMed ArthroS™ beats competition in realism.\(^3\)

Simulator training makes a difference, as shown by the ASSET scores of different groups after one training session and again after five training sessions on the VirtaMed ArthroS™ Knee. Although all tested learning was beneficial, training twice a week yielded the highest improvement.\(^2\)

VirtaMed ArthroS™ Shoulder beats the competition: The percentage of evaluation criteria met shows that the ArthroS™ reaches the highest number of good scores.\(^3\)

Laura Downes, CEO of the Arthroscopy Association of North America (AANA)

“We have assessed all virtual reality arthroscopy simulators on the market, and VirtaMed was clearly the best fit to partner with AANA. The combination of lifelike anatomic models, high-fidelity graphics and original tools adapted for simulation make the VirtaMed ArthroS™ the closest thing to real surgery.”

James Bogener, M.D., Residency Program Director, University of Missouri—Kansas City, USA

“After the initial investment, the VirtaMed ArthroS™ is a tremendous cost saver. Every time the resident uses the simulator instead of cadavers or low-fidelity models, it’s a 200–300 dollar savings for the residency program.”

