

Features

- Designed for multiple uses
- Can be used to teach rigid and flexible ureteroscopy
- Distensible bladder
- Realistic ureteric orifice and ureters that follow the normal anatomical course
- Reproduction of the lumbar lordosis enables the performance of rigid ureteroscopes to be evaluated
- Only requires saline to use with a laser
- Radiolucent so that X-Ray screening can be used simultaneously

Perc Trainer™



A unique feature of the Perc Trainer kidney model is the ability to reproduce the ultrasound and fluoroscopic features of the human kidney. Simulation of all endoscopic procedures and techniques of access are possible* including:

*model may require inversion to practice supine approach to the kidney.

- Ultrasound
- Fluoroscopy
- Percutaneous access
- Flexible ureteroscopy

The Perc trainer is designed for maximum realism and thus has a limited life span. This can be maximised through a step-wise approach to training, commencing with skinny needle puncture, followed by guidewire placement, track dilatation and finally nephroscopy and stone retrieval.

Depending on the procedure practised, re-use is limited, but the resealing material allows repeated needle puncture of the collecting system using a fine needle.

The model can be used in a dry skills lab setting or incorporated into an operating theatre. It can be used with any endoscopic instruments, stone retrieval and fragmentation devices.



ABOVE: Reference cutaway to show Perc Trainer™ internal construction.



LEFT: Scope view within collecting system detailing caliceal stones and papillary tumour.
RIGHT: Cross-section of calyx detailing caliceal stone.

For further information, imagery and specification, please visit our website:

www.mediskills.com 

unsere Website gibt es als englische und als deutsche Version
Website available in English and German

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Mediskills was founded in 1998 by two UK urologists and a radiologist in order to develop models that provide a high degree of realism for skills training in endourology, interventional urology and other minimally invasive procedures.

Surgical simulation

The long held philosophy, 'see one, do one, teach one', is now outdated in the teaching of practical surgical skills. Learning on the job can compromise patient care: the use of high fidelity mannequins increases the ability to acquire technical skills using simulators.

The Mediskills range also provides opportunities for individuals to familiarise themselves with all of the instruments used during the successful completion of endourological procedures, including flexible and rigid endoscopes as well as accessories for stone fragmentation and removal, as the models have been designed to be used with any equipment, regardless of manufacturer. The realism of the endoscopic appearances of the Mediskills models also encourage their role in team training in the operating theatre as well as their use by manufacturers for sales team training and product development in addition to the ability to use the models for demonstration purposes in any commercial setting.

The range includes models developed to teach basic endoscopic skills using the urotrainer, advanced ureteroscopy through the unique advanced scope trainer which features a transparent upper surface while maintaining endoscopic realism and the perc trainer which enables the novice to develop and practice the skills required to obtain per cutaneous access to the kidney as well as stone fragmentation and retrieval.



www.mediskills.com

Medical Models

The Mediskills team has many years of running practical skills courses, which has enabled us to develop sophisticated and realistic models. The models are manufactured individually in hand-crafted moulds using silicone based plastics. They are supplied ready for use with a complete set of instructions and comprehensive product support available from Mediskills.

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All Mediskills trainers can be used in a dry skills lab setting or incorporated into an operating theatre. This feature enables operators to use everyday instruments which can be used to treat patients after suitable cleaning and appropriate disinfection.

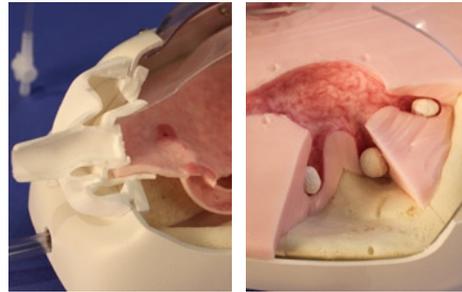
Advanced Scope Trainer™ - AST



The AST utilises a clear acrylic casing making it perfect for the demonstration properties of a flexible ureteroscope. The placement of a nephroscope through a percutaneous tract used to refill the kidney with stones is translucent providing sufficient visibility to track stone placement.

The manoeuvrability of the flexible ureteroscope can be seen clearly through the casing, enabling

both trainer and trainee to observe and learn the technique of diagnostic ureterorenoscopy, stone fragmentation and retrieval.



LEFT: Cross-section showing internal construction of bladder and ureter. RIGHT: Close-up cross-section of enlarged kidney and stones.

It incorporates features such as distensible bladder, a realistic ureteric orifice and a ureter, which follows the same anatomical course as the adult male, thus providing a realistic alternative to training in patients.

In addition the AST has one enlarged kidney and a distorted ureter allowing the trainee ureteroscopist to develop a feel for the difficulties that may be encountered during real-life procedures in patients with tortuous or abnormal ureters. The length of the ureter has been carefully designed to permit the trainee to learn and practice guide wire and ureteric stent placement as well as stent removal using either a flexible or rigid ureteroscope.



ABOVE: Reference cutaway to show AST™ internal construction.

A key feature of the Advanced Scope Trainer is that it provides the operative with the ability

to re-charge each kidney with stones via the two external ports when the existing stones are removed or destroyed.

This, with the fluoroscopic properties of the model and its carefully designed collecting system, enables the performance and manoeuvrability of flexible ureteroscopes to be assessed and demonstrated in a brilliantly clean, clear and simple manner.

Features

- **Designed for multiple uses**
- **Meets needs for basic and advanced training in rigid and flexible ureteroscopy**
- **Distensible bladder**
- **Rechargeable stones**
- **Realistic ureteric orifice for both ureters**
- **Realistic alternative to skills acquisition using cadaveric, porcine or digital simulators**
- **Only requires saline or water for use with holmium laser pneumatic lithoclast**
- **Suitable for practising flexible cystoscopy, stent insertion and removal techniques**

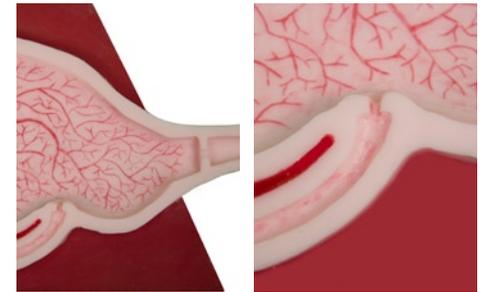
Standard Scope Trainer™ - SST



The SST is suitable for practising flexible cystoscopy, stent insertion and removal techniques as the bladder and both distal ureters feature lifelike urothelium.

The carefully designed collecting system contains both stones and a papillary tumour and like the AST, the fluoroscopic properties of the model

enables the performance and manoeuvrability of flexible ureteroscopes to be assessed and demonstrated when using simultaneous fluoroscopy.



LEFT: Cross-section of bladder detailing urethra and ureterovesical junction. RIGHT: Close-up cross-section of ureterovesical junction.

The SST can be used with any endoscopic instruments, stone retrieval and fragmentation devices. The hardness of the stones incorporated in both models ensures that the trainee has ample opportunity to use a variety of stone fragmentation devices.

Once the collecting system has been accessed, the arrangement of the calices is such that the trainee will be able to practise all of the manoeuvres required to complete full endoscopic examination of the kidney.

The presence of caliceal stones and a small caliceal tumour enables the therapeutic skills of stone fragmentation, retrieval and tumour biopsy by the trainee endourologist to be acquired in a hygienic, lifelike situation.



ABOVE: Reference cutaway to show SST™ internal construction.