



medi skills models

DESIGNED BY CLINICIANS FOR CLINICIANS

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

Surgical simulation

The long held philosophy, ‘see one, do one, teach one’, is becoming increasingly outdated in the teaching of practical surgical skills. Learning on the job can compromise patient care. It is now possible to reduce the reliance on patients as the main supply of opportunities for acquiring skills by using surgical simulation.

Skill is achieved through repetition and Mediskills models provide the opportunity to practise simulated endoscopic procedures by offering a range of models for percutaneous access, percutaneous nephrolithotomy and ureteroscopy.

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.

The Mediskills ureteroscopy trainers are designed to meet the needs of basic and intermediate endoscopic skills training. They can be used to teach all aspects of rigid and flexible ureteroscopy, including ureteric access,



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stone fragmentation and retrieval, as well as post-procedural stent placement. All Mediskills trainers can be used in a dry skills lab setting or incorporated into an operating theatre.

Advanced Scope Trainer™ - AST



Applications

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 is almost entirely visible.

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

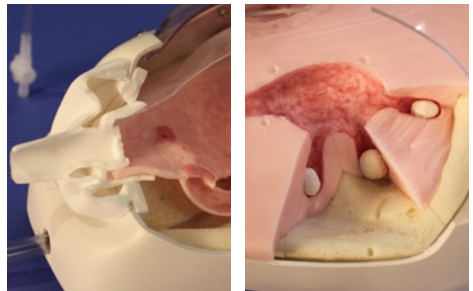


ABOVE: Reference cutaway to show AST™ internal construction.

ureteroscopist to develop a feel for the difficulties that may be encountered during real-life procedures in patients.

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.



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



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 training in patients
- Only requires saline to use with a laser
- Suitable for practising flexible cystoscopy, stent insertion and removal techniques

Standard Scope Trainer™ - SST



Applications

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

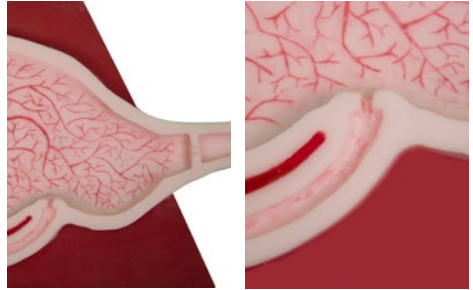
The carefully designed collecting system contains both stones and a papillary tumour and like the AST, the fluoroscopic properties of the model enables the performance and manoeuvrability of flexible ureteroscopes to be assessed and demonstrated.



ABOVE: Reference cutaway to show SST™ internal construction.

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 is accessed, the arrangement of the calices is such that the trainee will be able to practise all of the manoeuvres required to complete full renoscopy.



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

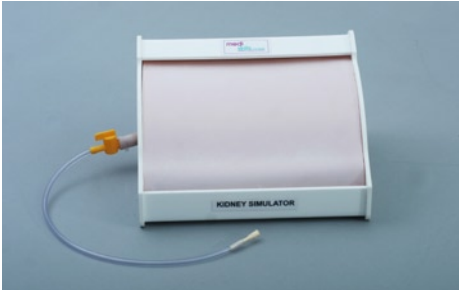
The presence of caliceal stones and a small caliceal tumour enables the therapeutic skills of stone fragmentation, retrieval and tumour biopsy by the trainee endourologist to be acquired in a hygienic, lifelike situation.



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™



Applications

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

- **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 needle puncture, followed by guidewire placement, track dilatation and finally nephroscopy and stone retrieval.

Depending on the procedure practised, re-use

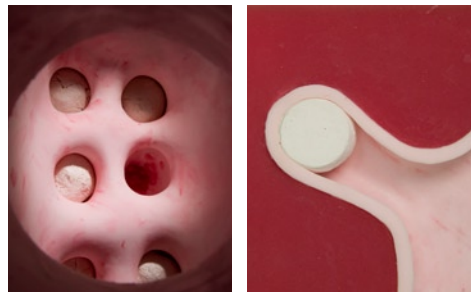


ABOVE: Reference cutaway to show Perc Trainer™ internal construction.

is limited, but the resealing material allows repeated needle puncture in the collecting system.



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.



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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