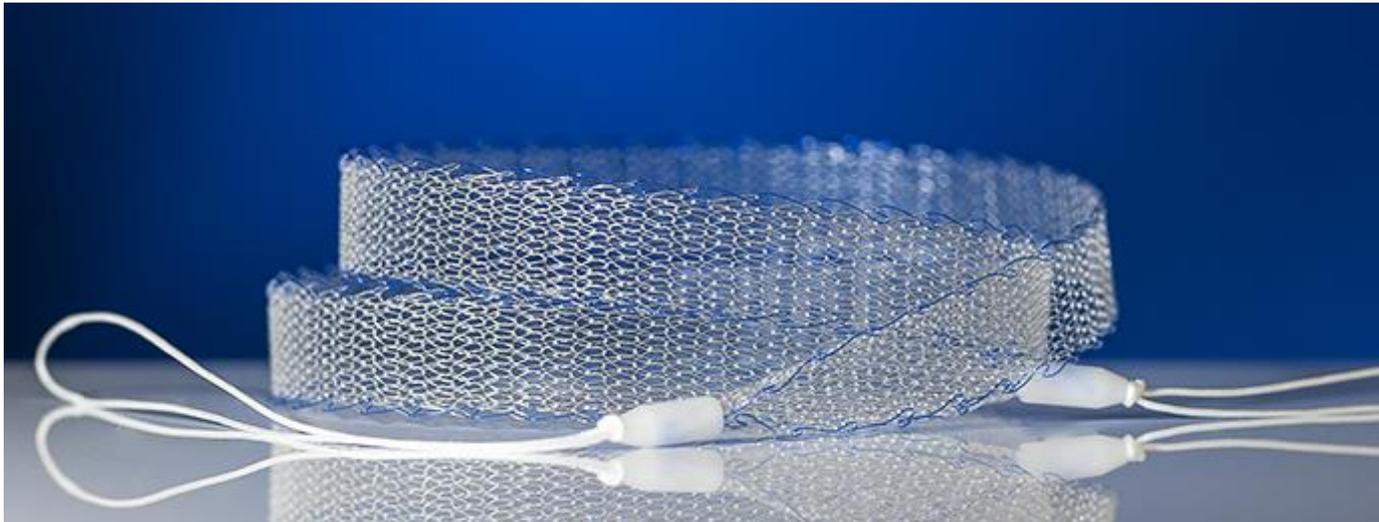




The Knotless Sling



WHAT IS IT?

- Tension Free sling indicated to treat female stress urinary incontinence
- It is placed under the urethra to limit its descent and prevent urine loss.
- It can be used both in Transobturator (TOT) and Retropubic approach (TVT)
- The first and only knotless sling and 100% microporous
- The only sling with elasticity but resistant to elongation
- Indicated for SUI grade I and II



COMPLETE SYSTEM

KIM sling + needles for each approach



IN-



TVT



OUT-IN



OUT-IN - Monarc type

SLING FEATURES

When sling is implanted, tissue will ingrowth through it and will get integrated into the patient's tissue creating fibrotic tissue called “neo ligament”. That will support the urethra to avoid urine loss at mid-long term.

The following features are important for all slings:

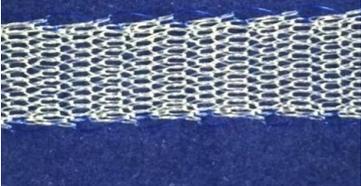
- **Resistance:** ability to withstand tensions without breaking.
- **Flexibility:** ability to adapt to the tissue.
- **No elongation:** ability to maintain/return to its length after stretching to maintain long-term urethral support.
- **Weight:** quantity of material implanted
- **Pore size:** large pore to facilitate tissue integration

We will analyze each feature

Sling features – flexibility, resistance and elongation

There are slings that have a lot of resistance (rigid) and others that are very flexible (elongate).

Neomedic has developed KIM in order to get the best, and avoid the worst of this two types of slings. KIM sling has a special knitting design to become macrorigid (limited flexibility with no elongation) and microelastic (controlled elasticity) for better adaptability with the soft tissue to minimize erosion.

	BEFORE STRETCHING	AFTER STRETCHING	ELONGATION
RIGID			NO It does not elongate but it is very rigid with the TISSUE, it has a lot of 3D profile
FLEXIBLE			YES It adapts to the tissue, but it has a lot of 3D profile (knots) and elongates losing long term urethral support
KIM (Microelastic Macrorigid)			NO It is Soft with the tissue (tissue adaptation) and does not elongate (maintains long term urethral support)

KIM, flexible but does not elongate.

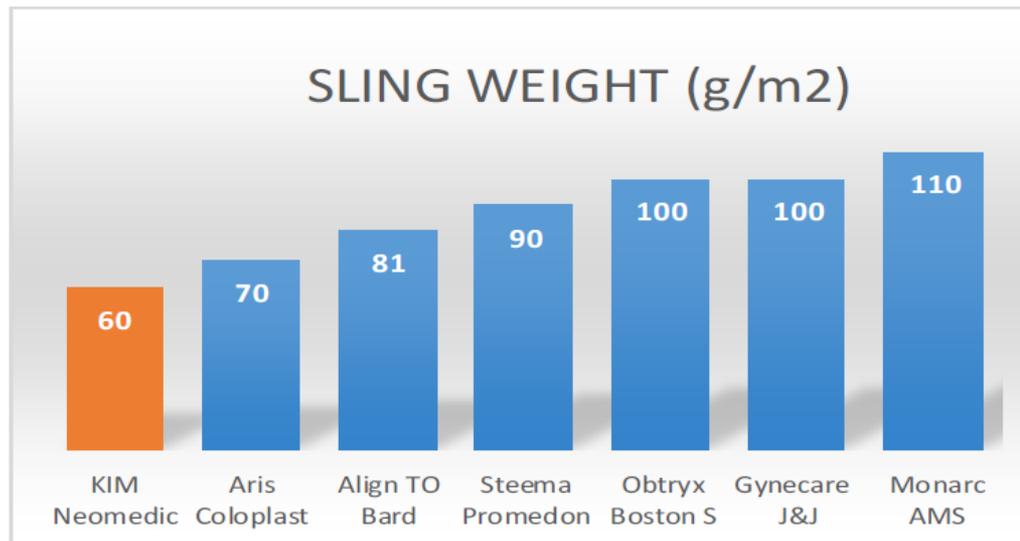
Soft with the tissue but without losing mechanical properties

Sling features - density

The weight of the sling is a key feature. The smaller the weight is, the less material will be implanting which means less foreign body reaction time.

Less foreign body reaction time means less inflammatory reaction and less infection risk.

KIM is the sling with the lowest weight in the market.



Sling features - Pore size

The pore is a key feature within the slings.

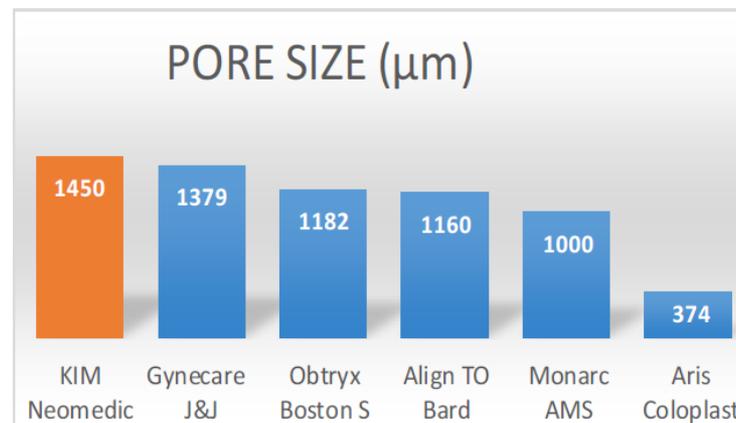
Small pore size increases infection risk and mesh retraction.

Biggest pore size, faster tissue ingrowth and less time when sling it's not fixed with fibrotic tissue.

Less risk of recurrence during short term stage.

Small pore may incorporate a bacteria (0,3microns) and avoid macrofaghes (60-70microns) enter to the pore to solve the infection all slings have knotts. **Every knot it's a micropore.** Knotless slings have no kotts, will have less risk of infection.

Small pore will create ***Bridging*** effect driving to mesh retraction, pain and recurrency.



Sling features - Bridging effect

Every thread of the mesh will be encapsulated by the connective tissue as per the foreign body reaction when implanted.

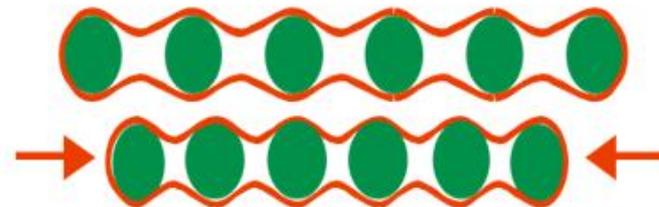
If threads of the mesh are separated enough (big pore), each thread will be individually encapsulated.

If threads of the mesh are close one to each other (small pore), the connective tissue may encapsulate two or more threads together, and the connective tissue may contract the threads together creating a mesh contraction. BRIDGING EFFECT

Big Pore – No “Bridging”



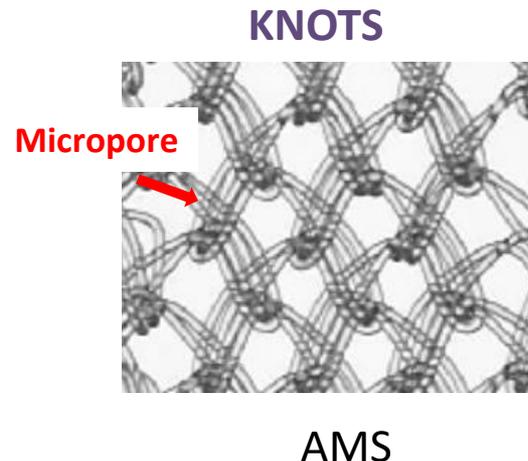
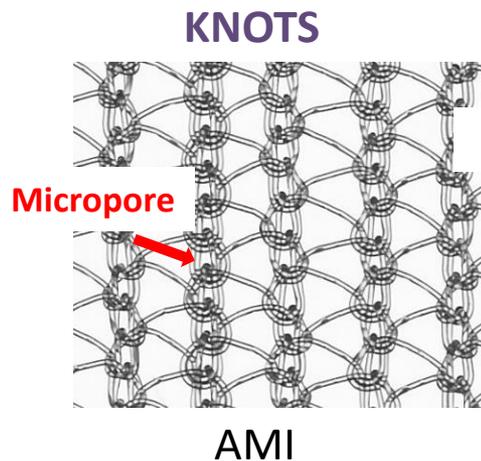
Small Pore – “Bridging”



Sling features - Are all slings macroporous?

The majority of slings contain knots in its knitting design, having “micropores” in its structure. Knots and micropores will cause bridging increasing contraction, risk of pain and recurrence.

Neomedic’s KIM sling is the only one with no knots, 100% macropore minimizing the bridging effect.



Sling features - Are all slings macroporous?

KIM, is the only 100% macroporous sling

Neomedic is the only Company that offers a sling:

- With no knots, **100% macropore**
- No Knots, no micropores, may have **LESS INFECTION RISK**
- No Knots, less 3D profile = Less friction with tissue, may have less **LESS EROSION RISK**

SLING FEATURES

	100% Macropore	Microelastic	Macrorigid
Rigid Slings	No	No	Yes
Flexible Slings	No	Yes	No
KIM Sling	Yes	Yes	Yes



KIM, the unique with

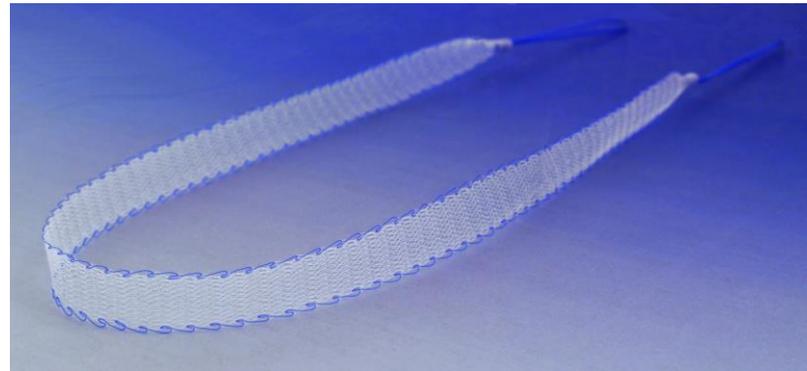
Less erosion
and infection
risk

Gentle with
the tissue.
Less Erosion

No elongation.
Long term
support

ADVANTAGES AND BENEFITS

- Less weight of the market: 60g / m²
- The only 100% macroporous sling in the market. 1450microns
- Macrorigid
- Microelastic
- Shape memory



MATERIAL NEEDED IN THE OR

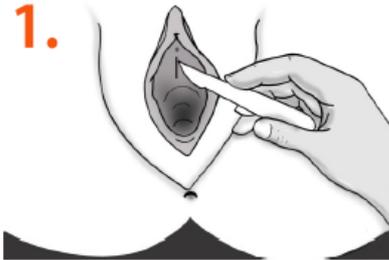
KIM01/IOD	KIM SLING + TRANSOBTURATOR IN-OUT PASSERS (APAS406) + TROCAR		
KIM01/OID	KIM SLING + TRANSOBTURATOR OUT-IN PASSERS (APAS405)		
KIM01/OID8	KIM SLING + TRANSOBTURATOR OUT-IN PASSERS (APAS410)		
KIM-01	KIM SLING		

- If we use KIM-01 (only sling), reusable needles are required.

SURGICAL TECHNIQUE

MANDATORY TIPS TO SUCCEED

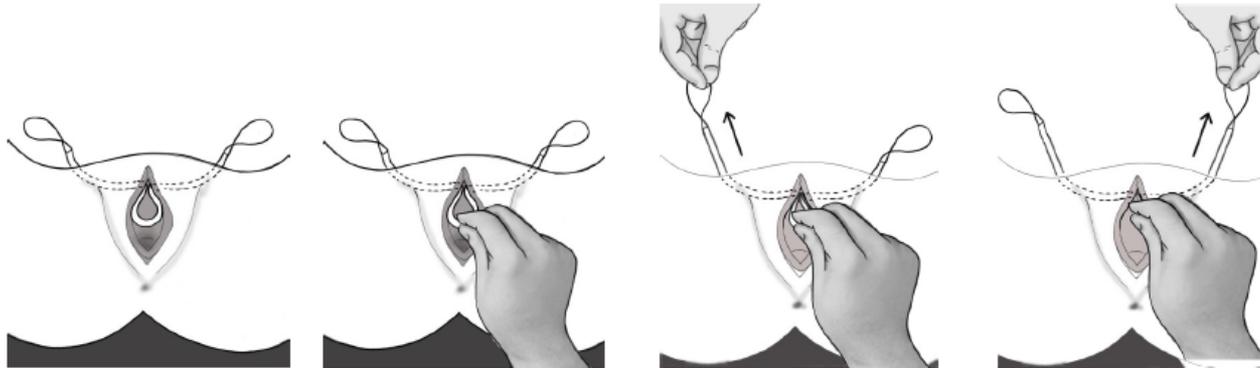
1.



Perform 2 cm longitudinal incision on the anterior vaginal wall at the medial urethra level. KIM is 1,2 cm wide, a 20% more than other slings in the market.

Perform paraurethral **wide** dissection to create enough space to leave the sling fully extended.

2.



When introducing the sling, stop the introduction when the sling is 2cm out of the skin. Maintain the center of the mesh fully extended between the thumb and index finger. Pull the tips of the sling slowly from each side simultaneously until the center of the mesh reach the urethral level.

SURGICAL TECHNIQUE

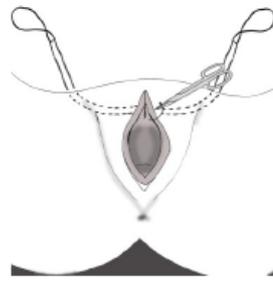
MANDATORY TIPS TO SUCCEED

3.



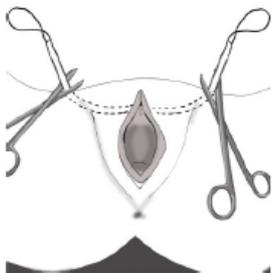
Leave the sling in full contact with the urethra. Do not leave any space between the urethra and the sling.

4.



Close the vaginal incision before cutting the excess of mesh at skin level.

5.



Cut the excess part of the sling at the skin level.

OPTIONAL



If you suspect that the patient will do efforts during post op period, it is recommended to fix the sling under the skin with a reabsorbable thread before cutting the excess part of the sling at the skin incisions.

BENEFITS FOR THE HEALTHCARE PROFESSIONAL

BENEFITS AGAINST COMPETITORS

- 100% macroporous: lower risk of infection and erosion
- Macrorigid: maintains the shape without losing mechanical properties. Do not elongate.
- Microelastic: tissue adaptability, less risk of erosion.
- Shape memory: although it is elastic it returns to its original shape.
- No need to use plastic sheath, we avoid surgeons the step of removing the sheath

BENEFITS FOR THE PATIENT

- Lower risk of infection
- Less erosion risk
- Less implanted material



KEY MESSAGES

The only sling 100% macropore

Macrorigid

Microelastic

The lightest sling in the market with biggest pore size

THANK YOU



The Contenance Company



Robina
Group Companies