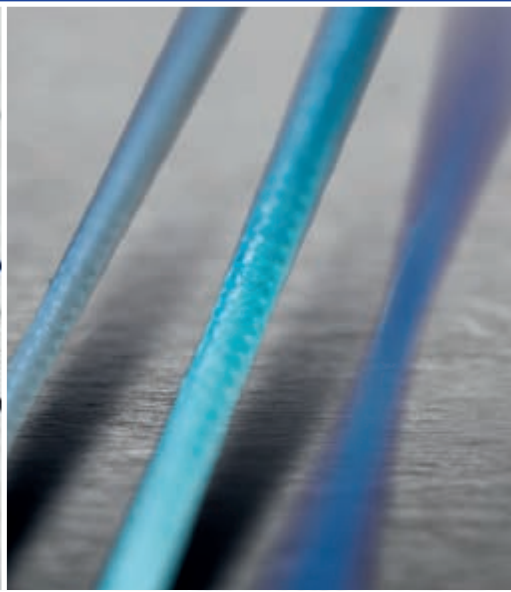




Surgical Sutures & Meshes

State of the art





When experience matters

Our surgical sutures are manufactured in line with state of the art technology. Each individual production process is subject to strict scientific quality control.

Continuous inspection of both mechanical and microbiological characteristics is given top priority. We have more than 90 years of experience in manufacturing surgical sutures.

Our team understands the specific needs of medical professionals by providing them with access to the most complete portfolio of surgical sutures.

The result is the current modern product range of absorbable and non-absorbable sutures, which consists of more than 1500 individual surgical suture products.

Production takes place in accordance with GMP guidelines, and a comprehensive quality management system in line with ISO 13485 has been implemented.

All products have been CE marked since 1999.



Surgical Meshes

Surgical Meshes have become standard for the repair of abdominal wall hernias. Surgical mesh is a sterile woven material designed for permanent implantation within the body during open or laparoscopic procedures.

A wide range of mesh implants are available, with two main functions: to stabilise and strengthen soft tissue defects, and to act as a sling to support prolapsed organs and viscera. In tissue repair applications, the mesh serves to mechanically strengthen the weakened area whilst simultaneously promoting long-term stability by acting as a scaffold for new tissue growth. It is most commonly used in pelvic organ prolapse, urinary stress incontinence and hernia repairs.

CAPROMESH meshes

Partially absorbable

The sterile, partially absorbable, composite mesh is made from two components: one absorbable and one non-absorbable.

Capromesh is composed of an absorbable segmented copolymer of glycolide and ϵ -caprolactone and non-absorbable polypropylene monofilament fibres. The monofilament structure of the mesh decreases the risk of infection and inflammation.

After absorption of the absorbable part, only the polypropylene mesh remains in the body. The structure and size of the residual mesh are optimally designed for the physiological stress to which the abdominal wall is subject.

Indication: Capromesh is indicated in the operative treatment of weakened abdominal wall and fascial defects - in particular hernias, the healing of which requires long-term bridging or strengthening of the damaged structures.

CHIRALEN meshes

Non-absorbable

The sterile and surgical meshes are made from undyed polypropylene filaments. The knitted filaments have a smooth and hydrophobic surface, which biologically are absolutely inert. High elasticity in both directions guarantees good elasticity and flexibility. This construction enables the mesh to be cut to any shape or size without unravelling.

The meshes' tensile strength and tear resistance are in line with the natural properties of the body, so the meshes can be used for various indications. The special structure, increased pore size and particularly fine monofilaments provide a macroporous, very light and flexible mesh implant.

Chiralen meshes are available in different sizes, all offering high strength and high flexibility. Chiralen meshes are available in a weight of approx. 125 g/m² or in the light version with a weight of approx. 55 g/m².

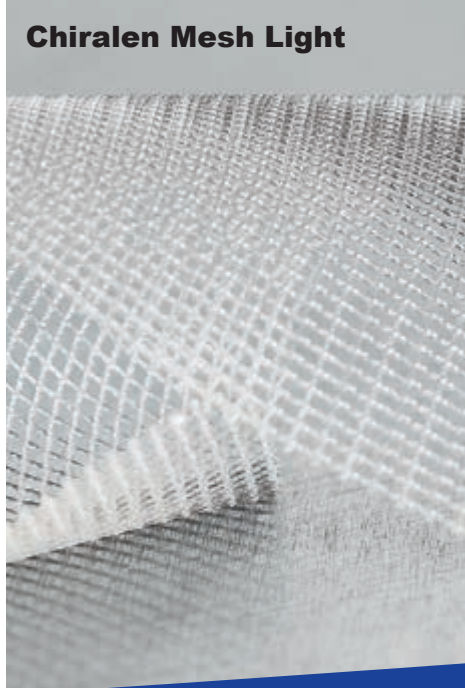
Indication: Chiralen meshes are indicated in the operative treatment of fascial defects, in particular hernias, which require long-term bridging of damaged structures.



Chiralen Mesh



Capromesh

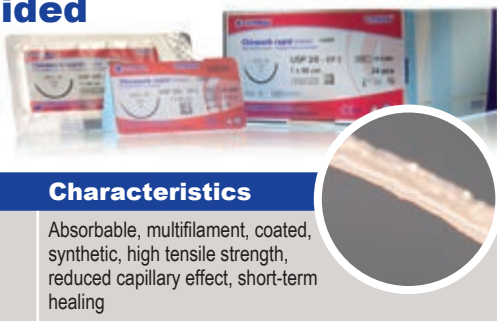


Chiralen Mesh Light

Surgical Sutures - Absorbable threads

CHIRASORB rapid braided

Intended for use in Skin closure, Paediatric surgery, Episiotomies, Circumcision, Closure of oral mucosa and Ophthalmic surgery for conjunctival sutures.



Composition	Colour	Range	Characteristics
Braided and coated suture made from 90% glycolide and 10% L-lactide	Violet and Natural	6/0 to 2 USP	Absorbable, multifilament, coated, synthetic, high tensile strength, reduced capillary effect, short-term healing

CHIRLAC rapid braided

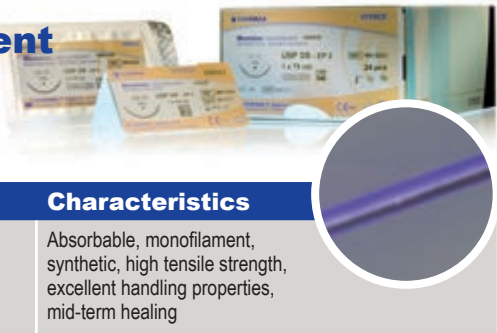
Intended for use in Gynaecology, Skin Closure, Ophthalmic, Odontology and Paediatric surgery.



Composition	Colour	Range	Characteristics
Braided and coated suture made of Polyglycolic acid (PGA)	Violet and Natural	6/0 to 4 USP	Absorbable, multifilament, coated, synthetic, high tensile strength, reduced capillary effect, short-term healing

MONOLAC monofilament

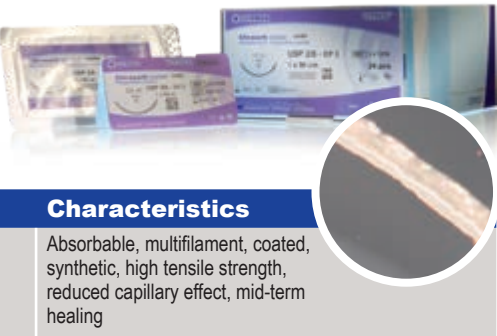
General soft tissue approximation and/or ligation in all specialties, where an absorbable material is indicated.



Composition	Colour	Range	Characteristics
Monofilament suture made of Glycolide and ε-caprolactone	Violet and Natural	6/0 to 2 USP	Absorbable, monofilament, synthetic, high tensile strength, excellent handling properties, mid-term healing

CHIRASORB braided

Intended for use in general soft tissue approximation and/or ligation in all specialties, including use in Ophthalmic surgery.



Composition	Colour	Range	Characteristics
Braided and coated suture made from 90% glycolide and 10% L-lactide	Violet and Natural	10/0 to 6 USP	Absorbable, multifilament, coated, synthetic, high tensile strength, reduced capillary effect, mid-term healing

CHIRASORB Plus braided

Antibacterial

Intended for use in general soft tissue approximation and/or ligation in all specialties.

Composition	Colour	Range	Characteristics
Antibacterial, braided and coated suture made from 90% glycolide, 10% L-lactide and chlorhexidine diacetate	Violet and Natural	5/0 to 4 USP	Absorbable, multifilament, anti-bacterial coating, synthetic, high tensile strength, reduced capillary effect, mid-term healing



CHIRLAC braided

Intended for use in general soft tissue approximation and/or ligation, surgical adaptation of Muscles and Fascia, suturing of Parenchymal organs, Peripheral nerves and ligatures of small vessels and for Intradermal suturing.

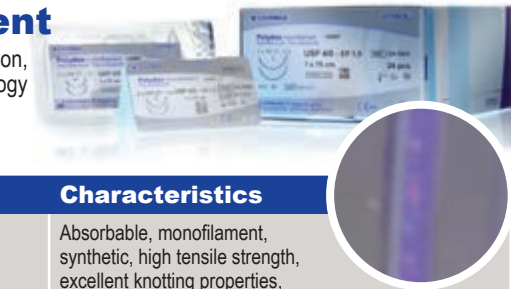
Composition	Colour	Range	Characteristics
Braided and coated suture made of Polyglycolic acid (PGA)	Violet and Natural	9/0 to 6 USP	Absorbable, multifilament, coated, synthetic, high tensile strength, reduced capillary effect, mid-term healing



POLYDOX monofilament

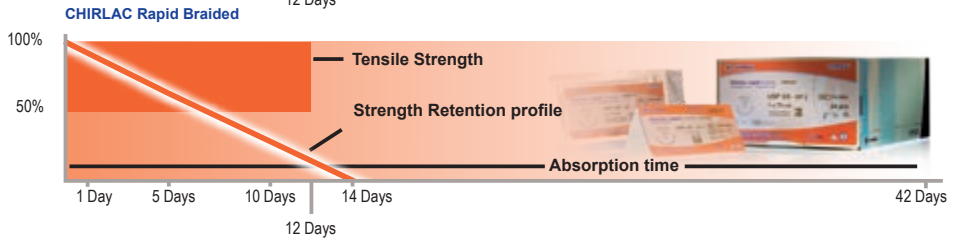
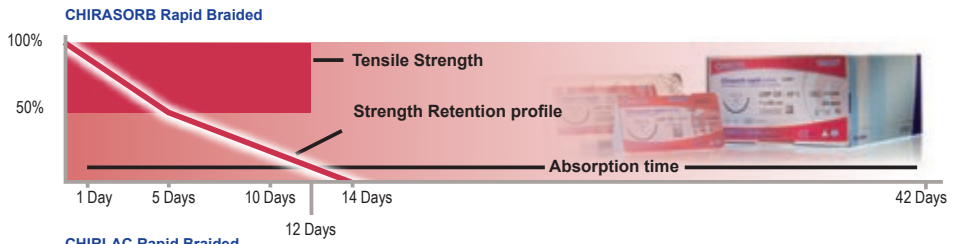
Intended for use in general soft tissue approximation, Orthopaedics, Fascia Closure, Urology, Gynaecology and Plastic surgery. Recommended for long-term healing.

Composition	Colour	Range	Characteristics
Monofiles Nahtmaterial aus Poly-p-dioxanon	Violet	7/0 to 4 USP	Absorbable, monofilament, synthetic, high tensile strength, excellent knotting properties, long-term healing

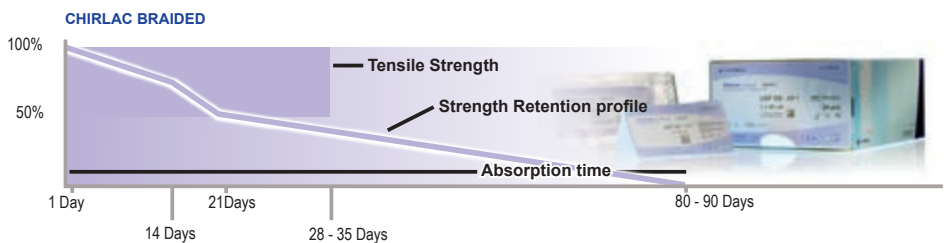
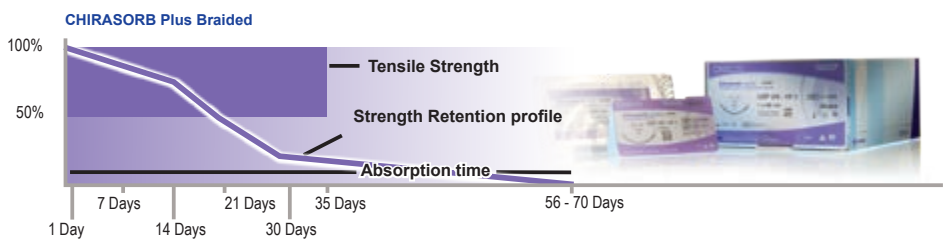
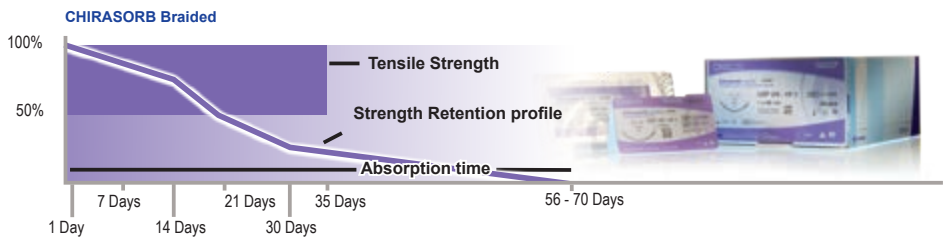
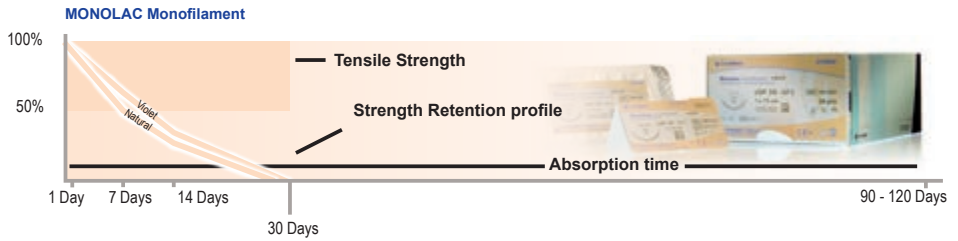


Surgical Sutures - Absorbable threads

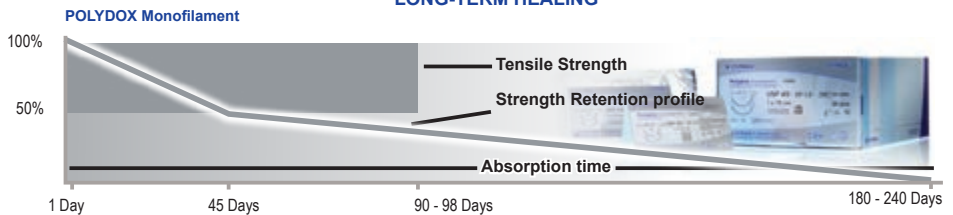
SHORT-TERM HEALING



MID-TERM HEALING

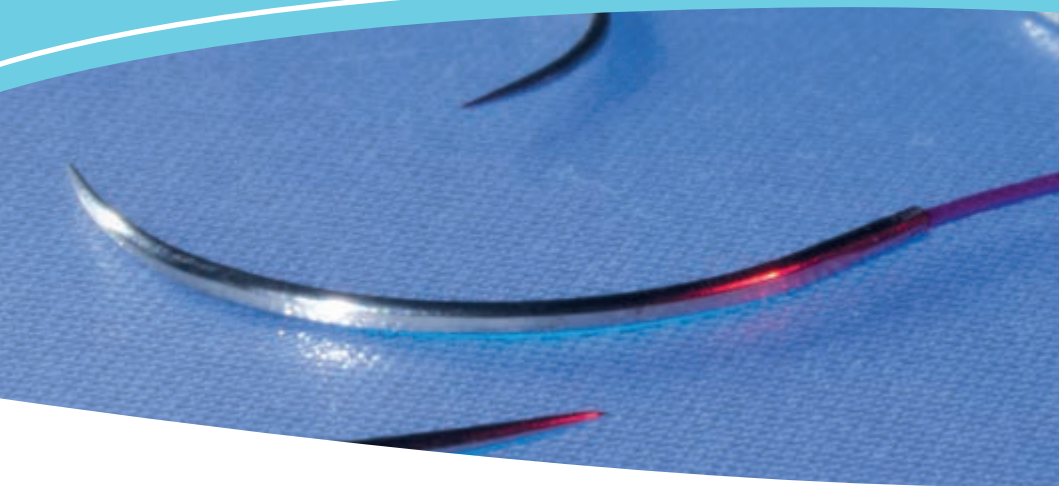


LONG-TERM HEALING





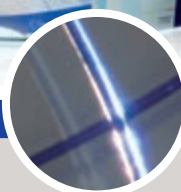
VITREX MEDICAL SUTURES	Strength Retention profile	Tensile Strength	Absorption time
CHIRASORB RAPID	SHORT-TERM HEALING 1 Day 100% 5 Days 50% 10 - 14 Days 0%	12 Days	42 Days
CHIRLAC RAPID	SHORT-TERM HEALING 1 Day 100% 5 Days 60% 10 - 14 Days 0%	12 Days	42 Days
MONOLAC	MID-TERM HEALING 1 Day 100% 7 Days 60% (violett) 50% (ungefärbt) 14 Days 30% (violett) 20% (ungefärbt) 28 Days 0%	30 Days	90 - 120 Days
CHIRASORB	MID-TERM HEALING 1 Day 100% 14 Days 75% 21 Days 50% 30 Days 25% 56 - 70 Days 0%	35 Days	56 - 70 Days
CHIRASORB PLUS	MID-TERM HEALING 1 Day 100% 14 Days 75% 21 Days 50% 56 - 70 Days 0%	35 Days	56 - 70 Days
CHIRLAC	MID-TERM HEALING 1 Day 100% 14 Days 65% - 75% 21 Days 45% - 50% 80 - 90 Days 0%	28 - 35 Days	80 - 90 Days
POLYDOX	LONG-TERM HEALING 1 Day 100% 45 Days 50% 180 - 240 Days 0%	90 - 98 Days	180 - 240 Days



Surgical Sutures - Non-absorbable threads

CHIRAFLON monofilament

Intended for use in all surgical specialities, especially Orthopaedic, Traumatology (tendons), Plastic and Ophthalmic surgery (optimal, temporary, easily, removable suture).



Composition	Colour	Range	Characteristics
Monofilament suture made of Polyvinylidene Fluoride (PVDF) - similar to Teflon	Blue	8/0 to 3 USP	Non-absorbable, monofilament, synthetic, no capillary effect, very smooth, excellent knotting properties, easy to handle, physiologically inert

CHIRALEN monofilament

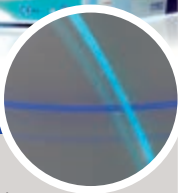
Intended for use in all surgical specialities, especially Cardiovascular, Plastic, Reconstructive, Ophthalmic, Orthopaedics and Traumatology (tendons).



Composition	Colour	Range	Characteristics
Monofilament suture made of Polypropylene	Blue and Black	10/0 to 2 USP	Non-absorbable, monofilament, synthetic, no capillary effect, smooth, non-porous surface, suitable for stitches in infected wounds

SILON monofilament

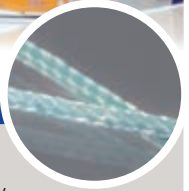
Intended for use in Plastic and General surgery and wherever suturing the skin.



Composition	Colour	Range	Characteristics
Monofilament suture made of Polyamide 6	Blue and Black	10/0 to 2 USP	Non-absorbable, monofilament, synthetic, very smooth, excellent knotting properties, easy to handle, loss of tensile strength after long-term implantation

TERVALON braided

Intended for use whenever non-absorbability and low friction passage through tissues are needed. It is especially useful in suturing Tendons, Schwann sheaths and skin in Plastic and Reconstructive surgery.



Composition	Colour	Range	Characteristics
Braided and coated suture made of Polyester	Green and White	6/0 to 6 USP	Non-absorbable, multifilament, synthetic, high tensile strength, no capillary effect, well tolerated by the tissue, low friction

SILON braided

Intended for use in Skin Closure, Subcutaneous tissue, Transversely cut muscles, Fascia, Peritoneum, Gastrointestinal Tract and Blood vessels ligation.



Composition	Colour	Range	Characteristics
Braided suture made of Polyamide	White and Black	5/0 to 5 USP	Non-absorbable, multifilament, synthetic, high tensile strength, excellent knotting properties, loss of tensile strength after long-term implantation

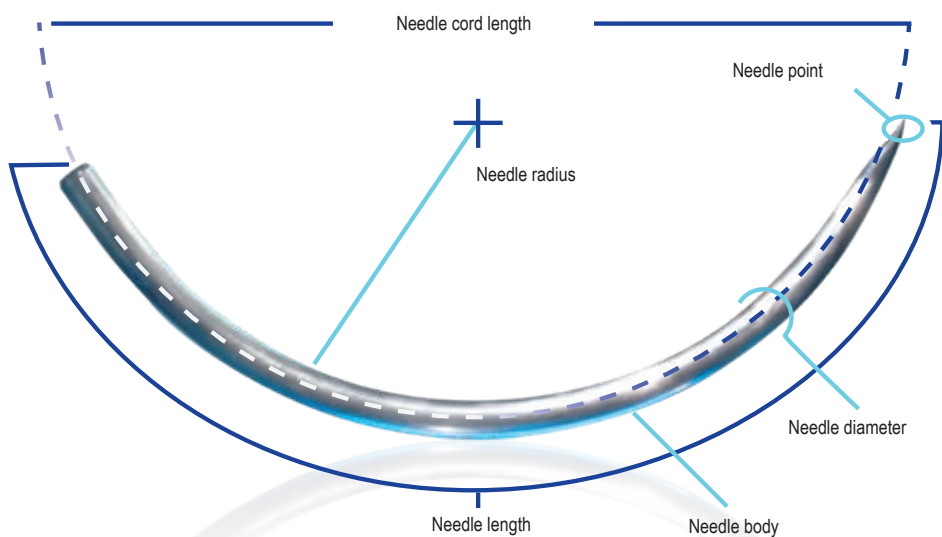
SILK braided

Intended for use in Skin closure, Subcutaneous tissue, Fascia, Peritoneum, Plastic surgery, Gynaecology and the organs of the Gastrointestinal tract.



Composition	Colour	Range	Characteristics
Braided and coated suture made of Silk	Black	9/0 to 5 USP	Non-absorbable, multifilament, synthetic, no capillary effect, loss of tensile strength after long-term implantation

Veterinary Sutures - Needle geometry



Taper point
(round body)



Trapezoid spatulated



Tapercut



Reverse trapezoid spatulated



Blunt point



Conventional cutting
(inside cutting edge)



Reverse cutting
(outside cutting edge)





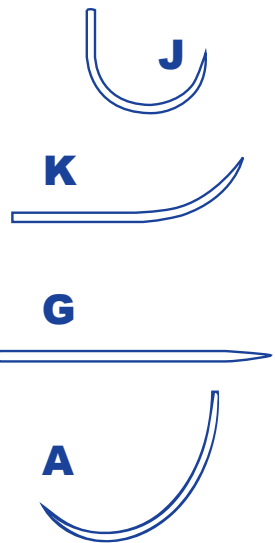
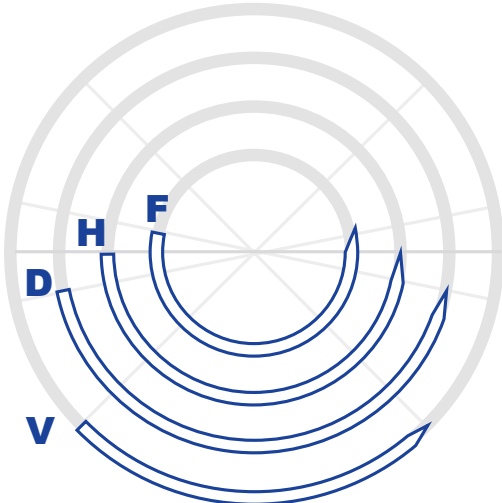
Needle Curvature	Needle Body	Needle Point	Speciality
V - 1/4	R - Round body	T - Tapercut	S - Slim, rectangular body
H - 1/2	S - Reverse cutting	N - Blunt	A - Take-off needle
D - 3/8	SC - Conventional cutting	M - Micropoint	X - Extra strong needle
F - 5/8	LZ - Spatula		Black - Black needle
J - Hook	RF - Round, flattened body		

A - Asymmetric

K - Ski

G - Straight

Needle curvature



F 5/8 Circle	Anal region, Nasal cavity, Urogenital tract, Pelvic region or other confined spaces.
H 1/2 Circle	Gastrointestinal tract, Respiratory tract, Urogenital tract, Cardiovascular, Fascia, Muscle, Nasal cavity, Oral cavity, Eye, Pelvis, Skin, Tendons, Subcutaneous fat.
D 3/8 Circle	Cardiovascular, Aponeurosis, Nerves, Dura-mater, Fascia, Periostium, Pleura, Urogenital tract, Miocardium, Skin, Eye, Muscles.
V 1/4 Circle	Ophthalmology
J Hook	Urology, laparoscopy
G Straight	Nasal cavity, Gastrointestinal tract, Oral cavity, Skin, Tendons, Larynx, Vessels.
K Ski	Laparoscopy, Skin. Allows easy removal of fragments and easy needle holder manipulation.
A Asymmetric	Plastic, Aesthetics, Robotics, Endoscopy.



The CTI group consists of: CHIRANA T. Injecta in Slovakia, CHIRANA T. Injecta in Czech Republic and Vitrex Medical in Denmark.

The intention of CTI group is to serve as an "umbrella organization", where the individual companies collaborate to be "Committed to Innovation" and reach the joint goal:
- to develop, produce and distribute high quality, healthcare products.

VITREX

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